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Fact Sheet

United States Navy

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NAVAL WEAPONS STATION SEAL BEACH SEAL BEACH, CALIFORNIA

INFORMATION ON SITE 9-NORTH (SANDBLAST GRIT DISPOSAL AREA) UNITED STATES DEPARTMENT OF NAVY DECEMBER 1995

The Navy's Installation Restoration (IR) program works to identify, assess, characterize, and cleanup or control contamination from past hazardous waste disposal operations and hazardous material spills. The Navy wants to inform the Seal Beach Community of past and present IR work in an effort to assure the community of the Navy's commitment to the environment.

In this fact sheet, the U.S. Department of Navy (Navy) addresses issues raised regarding Site 9-North (Sandblast Disposal Area) at Naval Weapons Station (NWS) Seal Beach (Station). An article regarding Site 9-North appeared in the Press Telegram on March 24, 1995 (a copy of the newspaper article is attached to this fact sheet). The newspaper article stated the following regarding Site 9-North:

"mercury was the primary concern of the state Environmental Protection Agency in the 1983 cleanup operations proposed for I-R Site 9-North"

The Navy is issuing this fact sheet in response to this newspaper article to clarify information regarding Site 9-North only. The issue of elevated mercury levels at Site 9-North is a result of a typographical error published in a 1983 investigative report that resulted in an incorrect conclusion that sandblast grit at the site is hazardous. This fact sheet presents a discussion of the inaccurate portions of this previous investigative report prepared for Site 9-North and clarifies the existing site conditions.

Questions regarding this fact sheet can be directed to Beth Crinigan/Installation Restoration Program Point of Contact for NWS Seal Beach, phone number 310/626-7608.

SITE DESCRIPTION

Site 9-North is located in the southwest portion of NWS Seal Beach, as shown in Figure 1. From the mid-1950s through the mid-1960s, two different areas were used to dispose of approximately 5,000 cubic yards of sandblast grit generated on-Station. One area (Site 9-North) is located approximately 400 feet north of Building 230. The second area (Site 9-South) is located about 200 feet southwest of Building 230 and is currently being addressed under the Installation Restoration Program (IRP) being performed at the Station; Site 9-South is not further discussed in this fact sheet.

PREVIOUS ENVIRONMENTAL INVESTIGATION

Site 9-North was first investigated in 1981 as part of an environmental assessment for a military housing construction project performed by BCL Associates, Inc. (BCL Associates, 1982). The primary objectives of this study were to identify and quantify the chemical contaminants present in the soil at Site 9-North, and evaluate the potential for chemicals at the site to affect human health (i.e., future residents on the property) and the environment (i.e., groundwater and surface water). As part of the investigation, soil samples were collected from 15 shallow soil borings. The samples were analyzed for the 13 priority pollutant metals (3 of the samples were also analyzed for all of the 129 priority pollutants and other organic compounds).

To evaluate the sampling results, the laboratory data for the soil samples were compared to the California Assessment Manual (CAM) for hazardous waste (criteria for hazardous waste evaluation have been incorporated into the California Code of Regulations, Title 22). This manual provides numerical criteria for comparison to sample analytical data. These numerical criteria include those referred to as total threshold limit concentrations (TTLCs) and soluble threshold limit concentrations (STLCs). If the levels of hazardous constituents in a material exceed one or more of the TTLCs, the material may be classified as a hazardous waste. If none of the TTLC values are exceeded, an additional laboratory analysis, known as the California Waste Extraction Test (WET), may be performed to determine the material's potential to leach hazardous constituents into underlying soil and groundwater. If the results of the California WET exceed the STLC values, then the material may be classified as hazardous waste.

According to the report prepared by BCL Associates, which contained an unknown typographical error, mercury exceeded its TTLC regulatory limit for hazardous waste in one of the soil samples collected at Site 9-North. In the BCL Associates' report, the TTLC value is listed as 2.0 milligrams per kilogram (mg/kg) versus the correct value of 20 mg/kg. Based upon the incorrect value, the report concluded that a mercury sample taken at Site 9-North, which showed 2.36 mg/kg, was toxic. The report also stated that the California Waste Extraction Test did not exceed the STLC limit.

ADDITIONAL EVALUATION OF INVESTIGATION RESULTS

In March 1983, the California Department of Health Services (DHS), currently known as California Environmental Protection Agency, sent a letter to the Navy regarding the mercury levels found during sampling performed at Site 9-North. In this letter, the DHS affirmed that the mercury levels observed in the results of the California Waste Extraction Test did not exceed the STLC limit. In addition, the letter states that levels of other chemicals in the samples were not observed at levels that would cause the sandblast grit to be classified as hazardous waste.

Additional information is available to support the conclusion that the sandblast grit at Site 9-North does not pose a threat to human health. U.S. Environmental Protection Agency Region IX (EPA) publishes a database health-based criteria that can be used for general risk screening purposes. These criteria are known as Preliminary Remediation Goals (PRGs) and are published on a semi-annual basis. For mercury, EPA has established a PRG value for inhalation/ingestion of soil in a residential area of 23 mg/kg (EPA, 1995). In other words, in a residential

area, mercury levels in soils below 23 mg/kg would not be expected to pose a threat to the health of residents of the area. As stated previously, the highest mercury level observed in the soil samples collected at Site 9-North was 2.36 mg/kg. This concentration identified at Site 9-North is about ten times less than the EPA's PRG value for exposure to mercury in soil. All other metals detected in the soil were below the stationwide background levels. Therefore, the sandblast grit at Site 9-North is not considered to pose a threat to human health.

Contrary to the statement made in the *Press-Telegram* newspaper article regarding Site 9-North, mercury levels at Site 9-North have been determined not to be a concern. Based on the sampling results from the 1983 investigation of Site 9-North performed by BCL Associates, the sandblast grit at Site 9-North does not contain levels of mercury or other hazardous constituents that would pose a threat to human health and the environment. The mercury concentrations observed in the soil samples were less than the TTLC value for mercury and the results of the California WET for mercury was below the STLC value for mercury; therefore, the sandblast grit is not considered hazardous waste. In addition, the levels of mercury observed in the soil samples are significantly below the EPA's PRG value for exposure to mercury in a residential area.

REFERENCES

BCL Associates, Inc. February 1982. *Final Report Abrasive Blast Sand Dump Site (Assessment of Soils and Groundwater at the Proposed Naval Housing Site Seal Beach Naval Weapons Station)*.

Naval Energy and Environmental Support Activity (NEESA). February 1985. *Initial Assessment Study of Naval Weapons Station, Seal Beach, California*.

U.S. Environmental Protection Agency (EPA). February 1, 1995. *Region IX Preliminary Remediation Goals (PRGs)*.

LIST OF ACRONYMS

Cal-EPA	California Environmental Protection Agency
CAM	California Assessment Manual
DHS	Department of Health Services
DTSC	Department of Toxic Substances Control
IRP	Installation Restoration Program
mg/kg	milligrams per kilogram
NEESA	Naval Energy and Environmental Support Activity
NWS	Naval Weapons Station
PRG	Preliminary Remediation Goal
STLC	soluble threshold limit concentration
TTLC	total threshold limit concentration
U.S. EPA	United States Environmental Protection Agency