Draft Sampling And Analysis Plan AOI 14 Phase II Investigation

NASA Ames Research Center Moffett Field, California

Introduction

The National Aeronautics and Space Administration (NASA) Ames Research Center (Ames) has completed investigations to determine the polychlorinated presence of biphenyl compounds (PCBs) in soils on its property. These investigations, as detailed in the March 2005 fact sheet titled "Phase II PCBs in Surface Soils," were initiated primarily to identify potential surficial sources of PCBs to the stormwater system on the west side of Ames, and thence, to Navy Site 25. Site 25 refers to the stormwater retention pond and the diked marsh areas that were formerly used by the Navy and NASA to capture stormwater runoff during the years that Moffett Field was occupied by the Navy. Stormwater runoff from the western portion of NASA Ames continues to drain to Site 25. During the investigation to identify PCBs in site soils, an area located adjacent to Site 25 on the northern portion of NASA called the Former Soil Fill Area (FSFA) was identified as containing PCBs in soils above current site clean-up levels.

As a subsequent investigative effort, Ames plans to conduct a soil investigation to determine the presence of PCBs, total Dichlorodiphenyltrichloroethane (DDT), lead and zinc within Area of Investigation 14 (AOI 14), which includes the FSFA and two nearby fill areas. These fill areas are bounded to the north and east by Site 25, and to the west by Midpeninsula Regional Open Space District property. The Navy has proposed to excavate contaminated soil and sediment in the adjacent Site 25 stormwater retention pond. Figure 1 shows the AOI 14 site location, and Figure 2 presents a more detailed view of the AOI 14 area.

Previous Investigations

Since 1992, several soil investigations that were conducted adjacent to and within the boundary of AOI 14 detected PCBs, total DDT, lead, and zinc at select locations. However, only PCBs were found at concentrations exceeding the levels established in the Navy's Site 25 documents. NASA has adopted the Site 25 cleanup levels as site-specific ecological soil remediation levels.

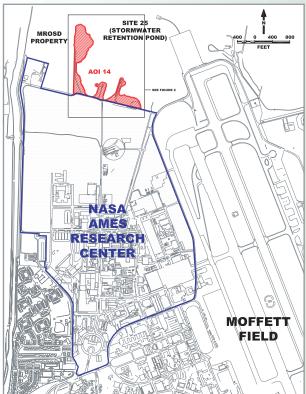


Figure 1: AOI 14 Site Location

In 2005, an initial Sampling and Analysis Plan (SAP) was developed to further delineate the extent of soil contamination within the FSFA. Under this initial SAP, titled "Sampling and Analysis Plan, Former Soil Fill Area, NASA Ames Research Center, Moffett Field, California (ISSi, 2005)," surface and near-surface soil samples were collected at 20 locations across the FSFA during August and September 2005. Analytical results of soil samples collected during this investigation indicated a widespread horizontal and vertical distribution of PCBs within the uppermost two-foot segment of the FSFA. The PCB Aroclor 1260 was detected in 27 of the 40 soil samples collected during this investigation. In these soil samples, Aroclor 1260 concentrations ranged from a minimum of 0.022 milligrams per kilogram (mg/kg) to a maximum of 88 mg/kg. Ten soil samples contained concentrations of Aroclor 1260 in excess of NASA's site-specific ecological soil remediation level of 0.210 mg/kg. Lead and zinc were detected in the majority of soil samples collected, however, not at levels exceeding NASA's site-specific ecological soil remediation levels. Total DDT was not detected during this investigation



Proposed Investigation

A supplemental SAP has been developed to further characterize the extent of PCB, total DDT, lead, and zinc contamination within AOI 14. Under this SAP, soil materials within the entirety of AOI 14's boundaries will be screened for the presence of PCBs, total DDT, lead, and zinc. Surface, near-surface and subsurface soil samples will be collected from 40 proposed locations within AOI 14. sample locations are These soil presented in Figure 2. At each proposed location, soil samples will be collected at the surface and at two-foot intervals through the thickness of each fill area, which range in thickness from two to 16 feet. Additionally, samples also will be collected from the underlying native wetland soils. Data gathered through this soil investigation will be used to guide potential future activities within AOI 14. Following the completion of this soil sampling effort, a report of findings will be prepared.

Contact Information and Comments

Sandra Olliges

Deputy Director, Safety, Environmental, and Mission Assurance NASA Ames Research Center MS 218-6 Moffett Field, CA 94035-1000 (650) 604-3355 solliges@mail.arc.nasa.gov

Donald Chuck

Environmental Remediation Specialist NASA Ames Research Center MS 218-1 Moffett Field, CA 94035-1000 (650) 604-0237 dchuck@mail.arc.nasa.gov

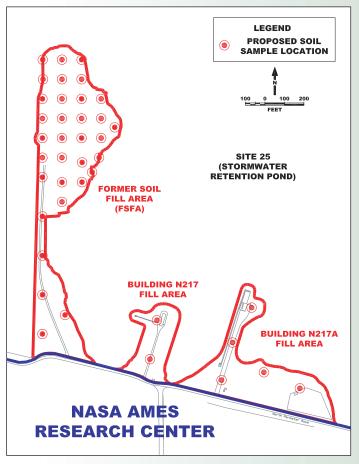


Figure 2: AOI 14 Site Location - Detailed View

Public Review Schedule

The Sampling and Analysis Plan titled "Draft Sampling and Analysis Plan, Area of Investigation 14, Former Soil Fill Area, Building N217 Fill Area, and Building N217A Fill Area, NASA Ames Research Center, Moffett Field, California," is available for review and comment until April 21, 2006, at:

Mountain View Public Library

Friday-Saturday: 10 am - 6 pm

Sunday: 1 pm - 5 pm

Reference Section 585 Franklin Street Mountain View, California 94041-1998 Hours of Operation: Monday-Thursday: 10 am - 9 pm

Sunnyvale Public Library Reference Section

Sunday: Noon - 8 pm

665 West Olive Avenue Sunnyvale, California 94086-7655 Hours of Operation: Monday-Thursday: 10 am - 9 pm Friday-Saturday: 10 am - 6 pm