



Onizuka Village Treatability Study

Joint Base Pearl Harbor-Hickam

Fact Sheet No. 02

June 2014

INTRODUCTION

This fact sheet provides information about an environmental treatability study managed by the U.S. Navy for remediation of petroleum-affected soil vapor found at the Onizuka Village housing area.

SITE LOCATION AND BACKGROUND

Onizuka Village is located on the Hickam Field portion of Joint Base Pearl Harbor-Hickam (*Figure 1*). The property is located south of the Hickam Base Exchange and Commissary buildings and north of the flight line.

The area where Onizuka Village housing currently exists was used as an airfield in the 1940s and 1950s. The first Onizuka Village housing was built in 1992 over part of the former flight line runway and aircraft parking area. During redevelopment and construction of the current housing area in November 2009, petroleum-affected soil was observed in excavations, between 9 and 11 feet below ground surface. The exact source of the petroleum remains unknown, however there were underground fuel pipelines for the airfield located in the area. After consultation with the Hawaii Department of Health (HDOH), it was determined that there was no immediate danger to construction workers and future residents. A regular planned/phased approach to investigating the petroleum impacted soil was decided to be followed.

WHAT WE KNOW SO FAR

Limited soil vapor sampling conducted in 2011 found fuel-related chemicals including several **Volatile Organic Compounds (VOCs)** above HDOH **Environmental Action Levels (EALs)** for soil vapor.

A supplemental remedial investigation conducted in 2013 evaluated subsurface soil, groundwater, and soil vapor outside of homes. During the investigation, seven locations were identified with elevated concentrations of petroleum in soil vapor, above EALs, at depths of 4 to 6 feet below ground surface (see locations on *Figure 2*). In immediate response, indoor air samples were taken in 8 homes nearest these 7 locations. The results showed that the air quality was normal. To continue the investigation, soil vapor samples were collected beneath the concrete garage floors at 28 homes, which were part of the buildings nearest these 7 locations. There were no detections of



Figure 1: Location of Onizuka Village on Hickam Field.

petroleum vapors inside homes or immediately beneath building foundations in the 28 homes.

The investigation results were used to conduct a health risk assessment, which concluded that there are no health risks to current residents from petroleum in soil vapor, soil, or groundwater. However, potentially unacceptable risks could exist for future residents if homes are constructed directly over any of the seven locations. Semi-annual monitoring of soil vapor (every 6 months), is still ongoing at the identified locations and beneath 28 homes to verify that there are no risks to current residents and to confirm there are no increases in concentrations beneath the homes.

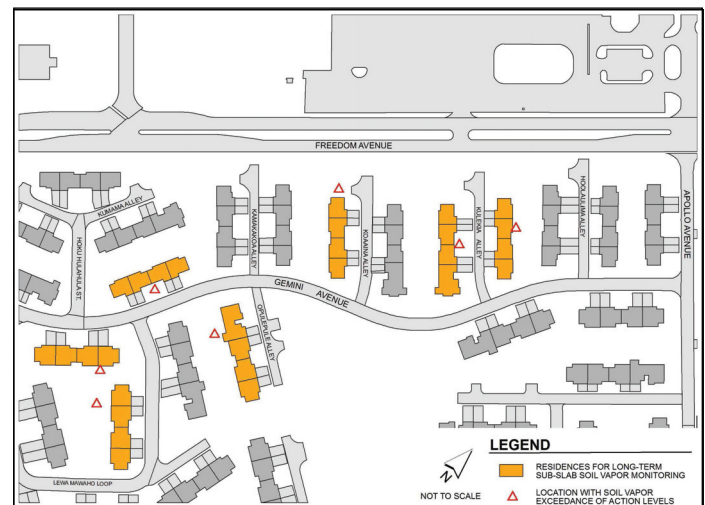


Figure 2: Soil Vapor Exceedance Locations within Onizuka Village.

WHAT'S NEXT?

In order to clean up the elevated concentrations of petroleum in soil vapor at the seven locations in Onizuka Village, as part of a treatability study, the Navy will be installing a Soil Vapor Extraction (SVE) system to extract and treat soil vapor to reduce the potential for future impacts to nearby residences.

Figure 3 illustrates that the SVE system will consist of three underground horizontal wells installed to intercept and extract soil vapors from the seven locations with elevated petroleum vapors.

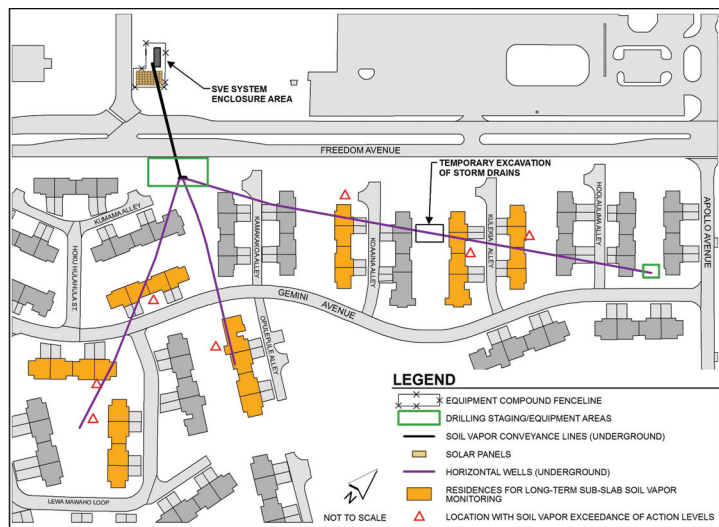


Figure 3: Areas of SVE related Drilling and Construction Activities.

QUESTIONS & ANSWERS

How long will it take to install the Treatability Study system?

The SVE related drilling and construction activities are scheduled to begin during the week of June 2, 2014 and continue to September 2014. Drilling work for the wells inside Onizuka Village is expected to be completed by mid-July with construction across Freedom Avenue continuing into September. The SVE system start-up and testing will occur in September 2014.

How long will it take to clean up the contamination?

Remediation timeframe is uncertain but is expected to be less than 30 years.

What can residents expect to see and hear while field work is going on?

Drilling of horizontal wells will occur within Onizuka Village but the SVE system will be located across Freedom Avenue (see Figure 3). Inside Onizuka Village residents will see construction vehicles and equipment (drill rigs, support vehicles, water trucks), construction workers,

temporary fencing marking the active working areas, and plywood that is being used to protect the landscaping from the vehicles. Construction related noise can be expected from diesel-powered equipment (drill rigs, generators) which is comparable to a street-cleaning machine driving by. Residents will not be able to hear the system running once it is in operation.

Will drilling beneath the homes affect the integrity of the structures?

No, a small-diameter borehole (4 to 6 inches) will be drilled at 6 to 7 feet below the ground and building foundations so structural integrity will not be affected. The horizontal drill will make a low-frequency grinding noise as it progresses directly beneath the surface. It is possible to feel some vibration underneath your feet. However, the vibrations associated with the drilling are not expected to be large enough to, for example, shake dishes off shelves or rattle artwork on walls. Based on the anticipated geology, the drilling is expected to progress fairly quickly, limiting possible noise and vibrations to approximately 20 minutes at any particular location.

Is it safe to be at home when the drilling work is going on?

Yes, it will be completely safe for residents to be in their homes during the drilling and construction activities.

COMMUNITY INVOLVEMENT

The Navy encourages the public to gain a comprehensive understanding of the site and the activities that have been and will be conducted there. Community members and regulatory agencies have provided input through periodic **Restoration Advisory Board (RAB)** meetings and by reviewing written reports and documents. The Navy provides information to the community through RAB meetings and the information repository for the site.

For More Information/Comments

Contact:

Ms. Denise Emsley, Public Affairs Office,
Naval Facilities Engineering Command, Hawaii

Address:

COMMANDING OFFICER
NAVFAC HAWAII
ATTN: D. EMSLEY CODE 09PA
400 MARSHALL ROAD BLDG A4
JBPHH, HI 96860-3139

Phone: 808-471-7300

Fax: 808-474-5479

E-mail: denise.emsley@navy.mil

For More Information: All site-related documents are available for review at the Navy information repository established at the Pearl City Public Library and University of Hawaii Hamilton Library.