Public Health and Safety

The Navy's top priority is its commitment to public health and safety. The Navy has taken several actions since the falsification of data was reported. The ongoing evaluation of TtEC radiological data samples is one way that the Navy is ensuring public safety.

The Navy will take action on the recommendation to re-evaluate sample areas that have been flagged as inconsistent or questionable.

Independent Verification and Oversight

The U.S. EPA is conducting independent review of the HPNS radiological findings to validate the Navy's results. In addition, Oak Ridge Associated Universities (ORAU) and Argonne National Lab are working with Oregon State University's (OSU) Radioecology Research Group and provide independent third party review of data.

Protecting the Public

Throughout the environmental cleanup process, the Navy follows an established set of procedures to protect the public. If a threat to the public exists, immediate action is taken.

The Navy and regulatory agencies have sufficient data for HPNS to determine that there is no immediate threat to public safety, allowing the Navy the time to conduct this comprehensive data review.

The Navy's priority is community safety during all investigation and cleanup activities at HPNS. Comprehensive safety procedures, including dust control, air monitoring, and management of soil samples, ensure the safety of cleanup workers, shipyard tenants, and nearby residents.

The Navy's goal for this process is to verify that the parcels are safe for planned reuse before transferring the property to the City of San Francisco.

For more information, visit the HPNS web pages at www.bracpmo.navy.mil/hpnsrc.

How to Get More Information on HPNS Radiological Data Review

The Navy will continue to update the community on radiological data review results and achievements in upcoming program updates, fact sheets, website updates, and community meetings.

Previously published reports and documentation may be found on the U.S. EPA's website at www.epa.gov, on DTSC's website at www.envirostor.dtsc.ca.gov, and on the HPNS Radiological Cleanup Program pages of the Navy's website at www.bracpmo.navy.mil/hpnsrc.

Contact HPNS Program Management

Derek Robinson, BRAC Environmental Coordinator
Dept. of the Navy, BRAC Program Management Office West
33000 Nixie Way, Bldg. 50, 2nd Deck, San Diego CA 92147
(619) 524-6026
derek.j.robinson1@navy.mil

To be added to the HPNS mailing list or for additional information, email info@sfhpns.com or call (415) 295-4742.

Review HPNS Reports

City of San Francisco Main Library
100 Larkin Street, 5th Floor, Gov't Information Center
San Francisco, CA 94102
(415) 557-4400

The Shipyard Site Trailer
690 Hudson Avenue, San Francisco, CA 94124

Contact the HPNS Community Liaison for Program Information and Resources

James Bryant
1333 Evans Avenue
San Francisco, CA 94124
(415) 970-9051
community@sfhpns.com

Visit Mr. Bryant during open office hours on the first Tuesday of each month from 2:00-4:00 p.m., or by appointment.

Contact the Radiological Health and Safety Community Technical Advisor with Questions

Dr. Kathryn Higley
Oregon State University
School of Nuclear Science and Engineering
(541) 737-7063
kathryn.higley@oregonstate.edu

Call or email Dr. Higley with your questions. Look for announcements for local opportunities to visit with her.

FACT SHEET
Hunters Point Naval Shipyard
Radiological Data Review Update #3

January 2018

This is the third in a series of fact sheets and other ongoing communications about the radiological data review being conducted at Hunters Point Naval Shipyard (HPNS). Previous fact sheets and information on the topic may be found on the Navy's website at www.bracpmo.navy.mil/hpnsrc or by using the resources listed on page 4 of this fact sheet.

What is Radiation?

Radiation is energy given off by atoms as rays, waves, or particles. It can be in the form of light, sound, or heat. Humans are exposed to some radiation from manmade sources (such as medical X-rays and smoke detectors), as well as from natural sources (such as rocks and the sun).

Why is There Radiation at HPNS?

From 1939 through 1974, the Navy used HPNS for ship repair and maintenance, including the decontamination of ships involved in atomic testing. These activities, along with luminescent deck markers, dials, gauges, and signs which were in common use during this timeframe, resulted in low levels of radioactive contamination at HPNS.

Additionally, from 1948 to 1969, HPNS was home to the Naval Radiological Defense Laboratory (NRDL). NRDL studied the potential hazards of radiation and developed ways to prevent or minimize its harmful effects.

The Navy standards for health and safety during radiological cleanup are more stringent than those from the Nuclear Regulatory Commission and the United States Environmental Protection Agency (U.S. EPA), both for members of the public and contaminated sites.

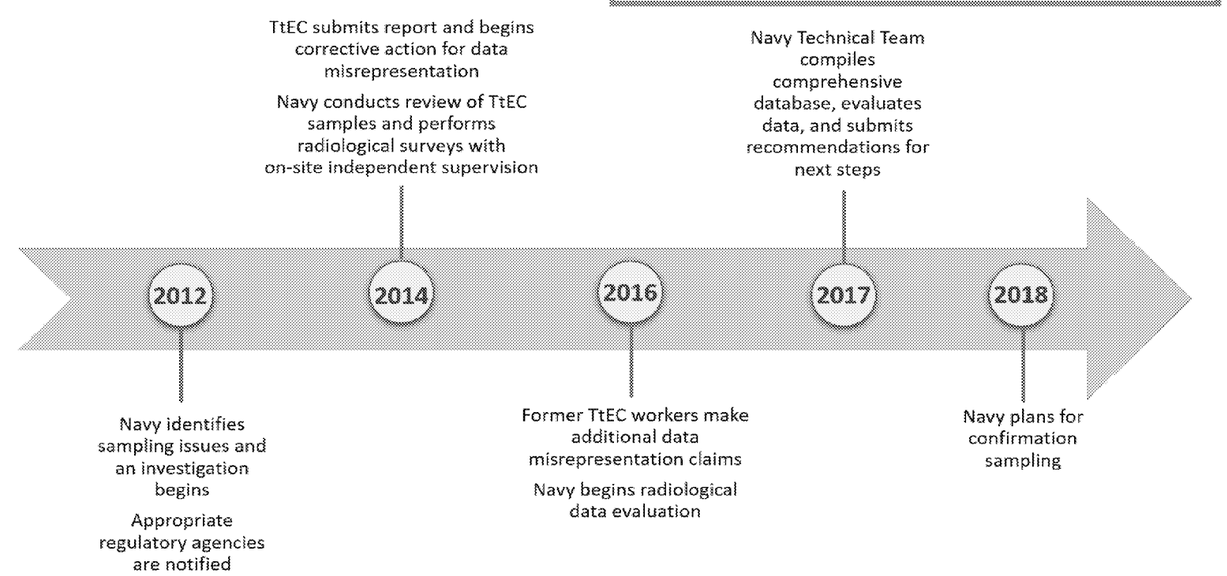
Why is the Navy Reviewing Radiological Data at HPNS?

As described in the Navy's September 2017 Radiological Data Review Update #2 Fact Sheet, a thorough data evaluation is underway for radiological samples collected by Tetra Tech EC (TtEC) as a result of the Navy's identification of sampling issues by TtEC in 2012.

The timeline below shows the actions and activities leading up to the discovery of the falsified data, and the Navy's actions since the falsification was reported. The Navy's goal for this process is to confirm that the parcels are safe for planned reuse before transferring the property to the City of San Francisco.

Fact Check:

The Navy's data evaluation includes samples of approximately 22,000 truckloads of soil and 28 miles of sanitary sewer and storm drain lines.



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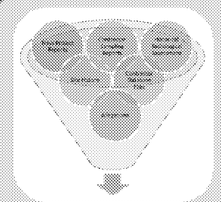
Radiological Data Review: Process

A thorough and comprehensive data review is underway on the TtEC radiological data samples, as described below:

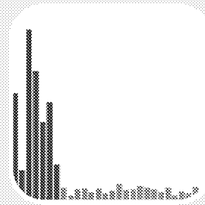


Gather Data (complete)

- Collected background and TtEC radiological sample data, including:
  - Navy project reports
  - Sampling results
  - Reference data
  - Database files
- Conducted quality control review
  - Cross-referenced and removed duplicate data
- Categorized data for future analysis

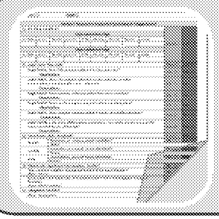
Compile Database (complete)

- Input Radiological soil samples
  - Approximately 300,000 cubic yards of soil
  - More than 30 former building sites
  - Approximately 28 miles of trench lines
- Input Radiological Scans
  - More than 20 buildings on approximately 23 acres of land
- Performed quality control to ensure accuracy of database information



Analyze Data (complete)

- Conducted standardized analysis on samples to identify data inconsistencies
  - **statistical tests** to compare data sets
  - **logic tests** to confirm if results "make sense"
- Conducted quality control review
  - Identified errors in TtEC's database program



Evaluate Findings (complete)

- Flagged unusual or suspect data
  - Statistical inconsistencies
  - Logic test inconsistencies
- Cross-referenced additional data
  - Sites with possible history of radiological contamination
  - Sites referenced in allegations
- Reviewed by third-party experts

Determine Next Steps (in process)

- Document data evaluation results (*complete*)
  - Confirmation Sampling recommended
- Develop an approach for collecting new data to confirm site safety for future use (*in process*)
- Develop and implement sampling plans (*upcoming*)
  - Develop work plans
  - Conduct fieldwork
- Continue public outreach (*ongoing*)
  - Communicate progress to Regulatory Agencies and the community
  - Provide community resources

Para más información sobre el programa de limpieza de la Marina en Hunters Point Naval Shipyard, favor de dejar un mensaje en (833) 202-5888.

有关海军在猎人角海军造船厂的清理活动方案的更多信息
请拨打 (833) 350-6222 并留言.

Radiological Data Review: Results

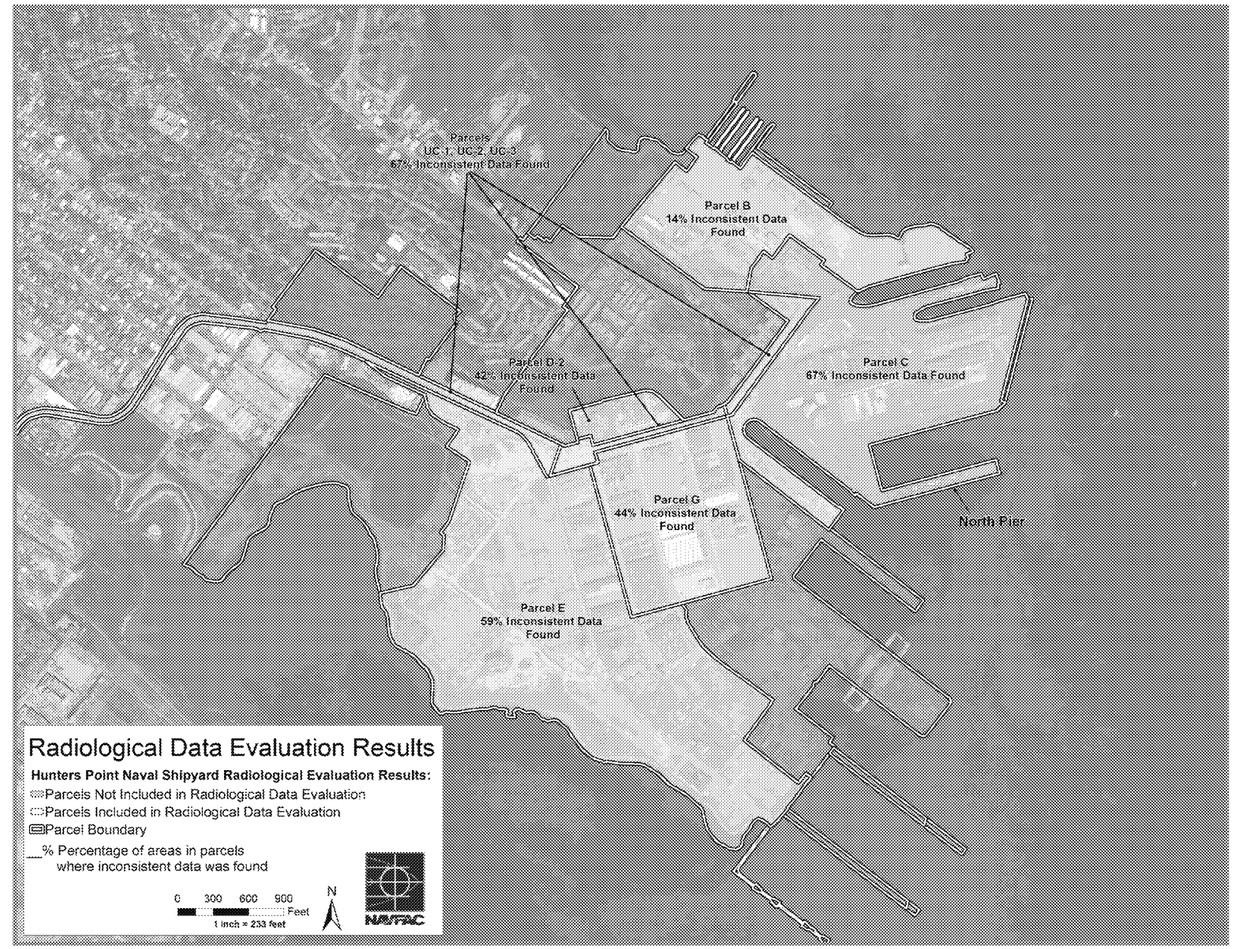
After reviewing more than 900,000 analytical results, evidence of data falsification was found in additional locations not previously identified. Past laboratory data quality and sample procedures complicate information already in question.

Potentially Falsified Data Identified

The percentages in the map below represent inconsistent data that was potentially falsified. Other data issues were identified and have created uncertainty for all radiological data collected by TtEC. Due to the lack of confidence in these results, the Navy will collect new data to ensure the site is safe.

Next Steps

Next steps are currently under development and include additional sampling to confirm that the parcels are safe for planned reuse before transferring the property to the City of San Francisco.



Note: For visual purposes, the utility corridors (UC) have been combined.
Individual UC results for areas where inconsistent data was found include: UC-1: 75% UC-2: 75% UC-3: 60%

Fact Check:

The Navy has evaluated approximately 70,000 samples and more than 900,000 analytical results.