

# Consolidated PCB Thermal Treatment Project Various Locations Oahu, Hawaii

**By: Janice Fukumoto  
Pacific Division**

**3/1/2006**



# Consolidated PCB Thermal Treatment Project Various Locations Oahu, Hawaii

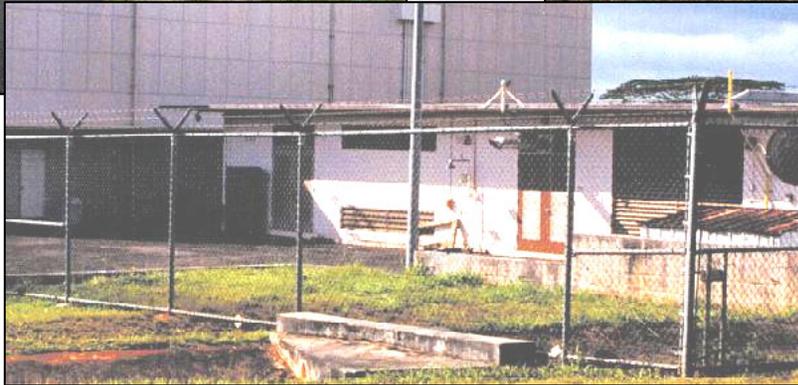


- **Project Summary** ←
- **Project History**
- **Treatment System On-Site**
- **Project Issues**
  - **Contractual**
  - **Funding**
  - **Technical**
    - Design
    - Resources
    - Excavation sites
    - On-site Treatment Facility
  - **Public**

# Project Summary



- **Excavation and treatment of 32,000 cy from 102 sites at various Navy Installation Restoration sites on Oahu.**



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## Project History

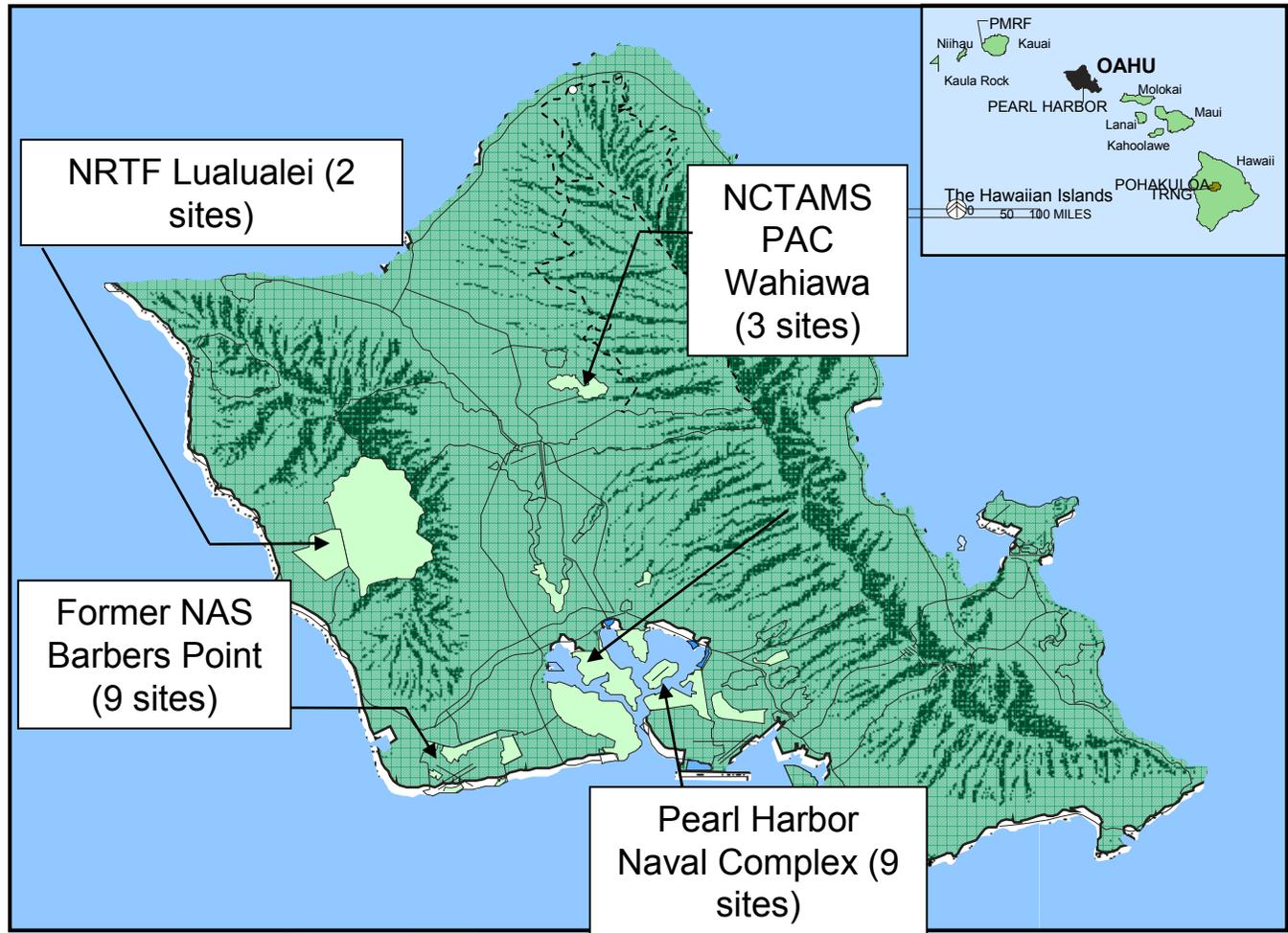


- **1997 – Four separate projects ongoing/planning stages**
  - Barbers Point BRAC RA at various transformer sites
  - NCTAMS PAC RA at various transformer sites
  - Pearl Harbor Naval Shipyard RA at 9 transformer sites
  - UST removal at an IR site



# Project History

## Consolidation of Original Sites

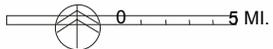


### • Consolidation of sites

#### –Regulator concurrence

- Consolidation of soils from noncontiguous sites
- Treat to 1ppm PCB for unrestricted use

#### –Consolidated EE/CA & AM



ISLAND OF OAHU – Original number of sites in this project

# Project History

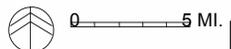
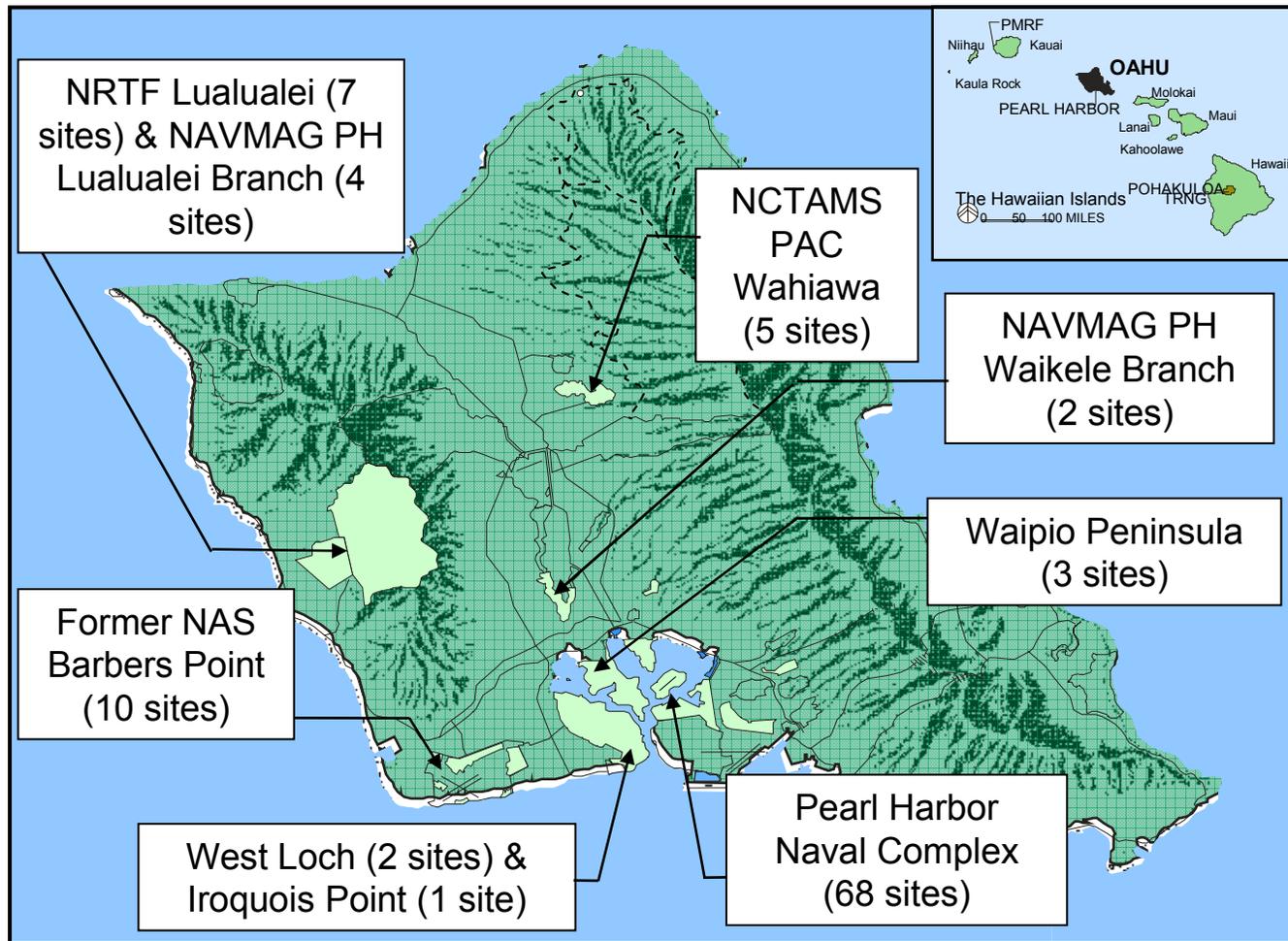
## Consolidation of Original Sites



**–Superfund  
Innovative  
Technology  
Evaluation (SITE)  
Program**

# Project History

## Consolidation of Current Sites



ISLAND OF OAHU – Total number of sites in this project

- **Additional sites**
- **Identified additional sites in 2001 and 2003**
- **Add-on AMs**
  - Regulator concurrence

## Project History



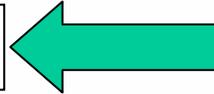
- **Award fixed price contract (FRAC) Dec 2002**
  - Established unit costs for treatment & excavation
- **Discussions with EPA and State regulators on system and test runs – March 2003 to present**
- **System setup at site - November 2003**
- **Excavation and treatment – November 2003 – May 2004**
  - Definitive Demonstration Test runs : Jan 2004



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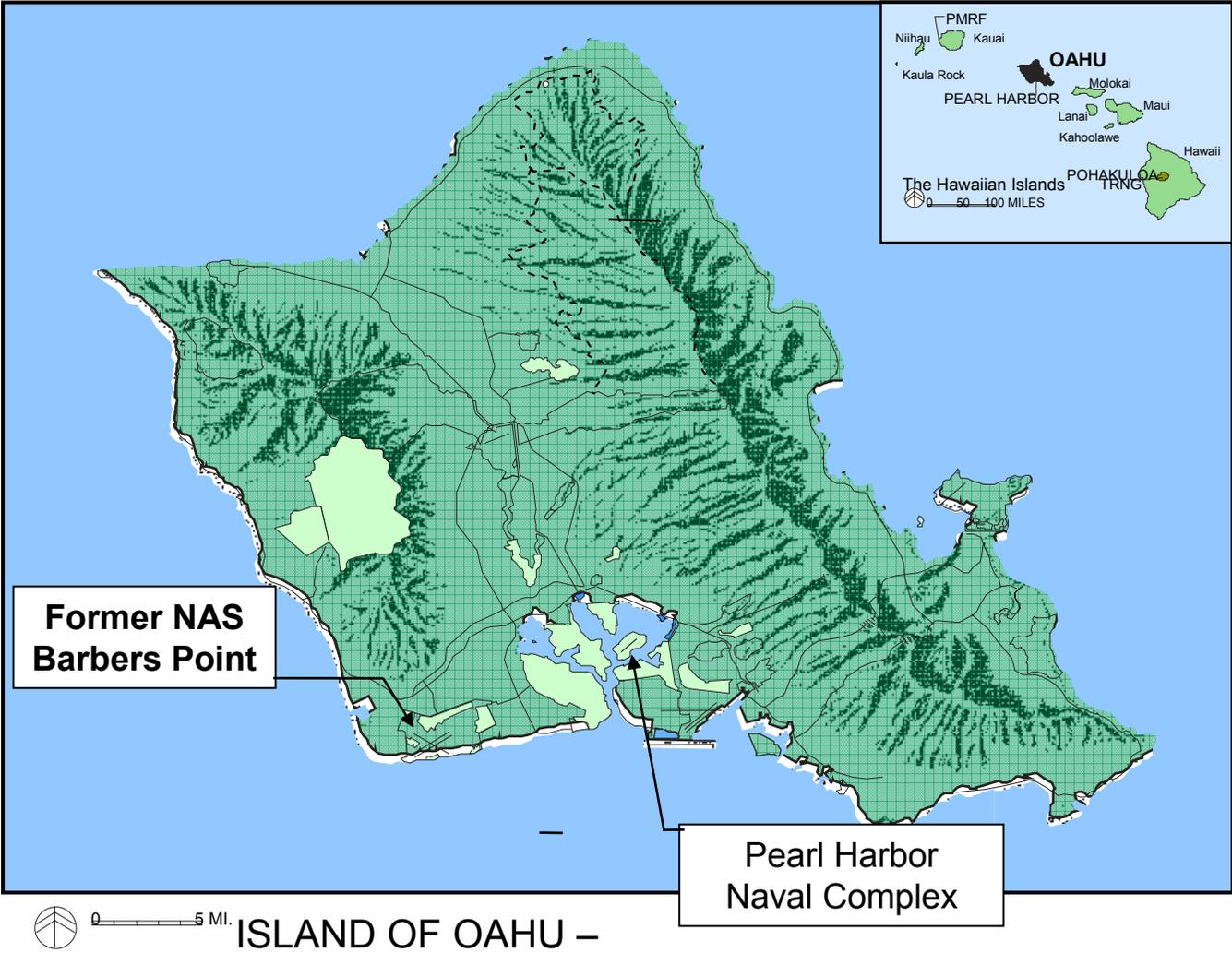
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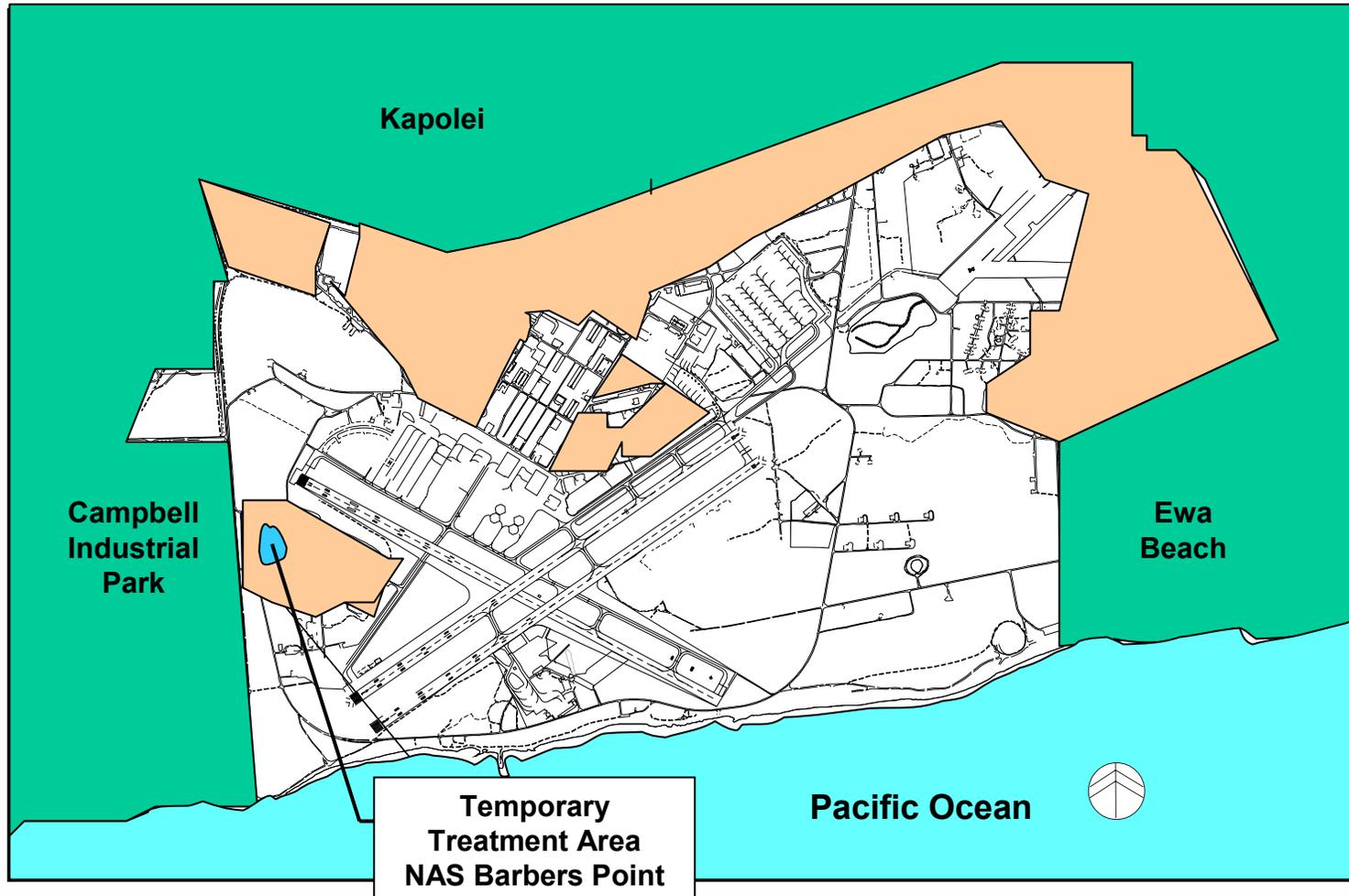
# Treatment System On-site



- Located at Barbers Point

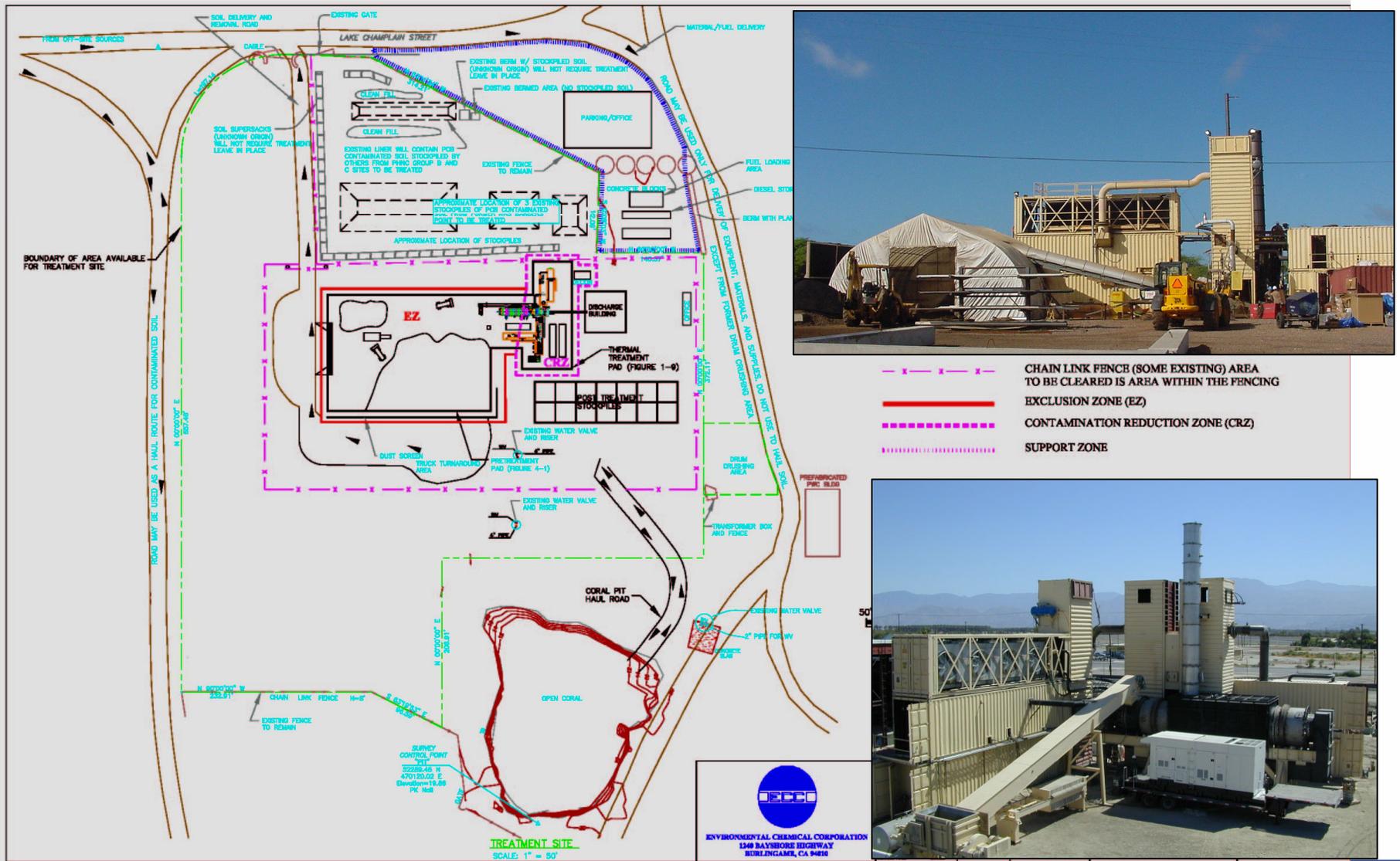


# Treatment System On-site

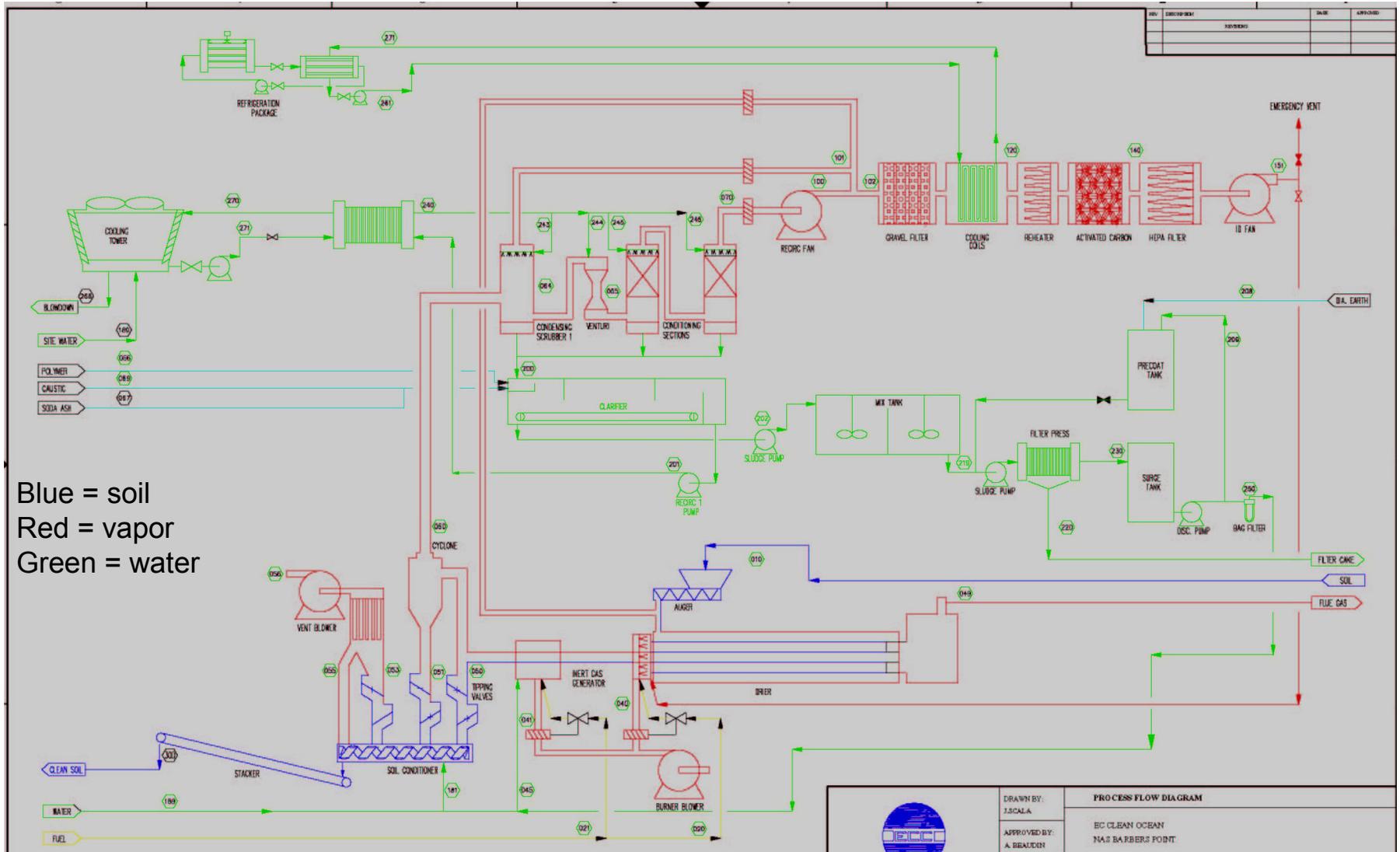


- Located on Navy Retained property at Barbers Point
- Located close to an industrial area

# Treatment System On-site



# Treatment System On-site



## Treatment System On-site



No Picture

- **Soil is offloaded onto the treatment pad**
- **Sized at the treatment pad**
- **Current treatment conditions:**
  - 12 tons/hr
  - 700°F

soil handling & treatment system

## Treatment System On-site



No Picture

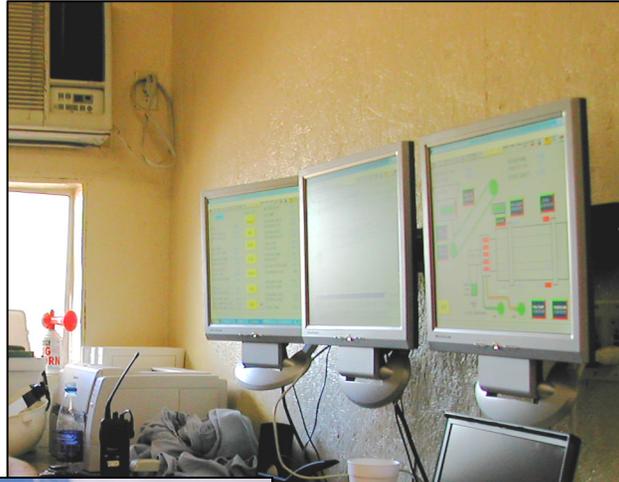
backside of treatment unit

- Treated soil conditioned with treated water from the system
- Treated soil discharged into a shelter
- Treated soil held in bins awaiting analytical

# Treatment System On-site



- Control room computer display of system operating parameters
  - Monitor
  - Control



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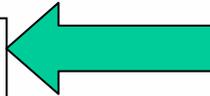
–Contractual

–Funding

–Technical

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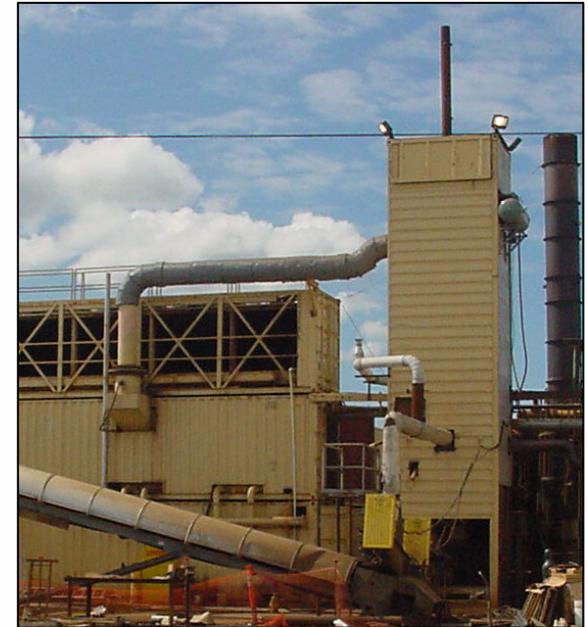


# Project Issues: Contractual



## –Advertised the project to Small Business

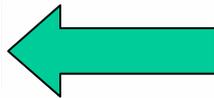
- Health and Safety issue during selection



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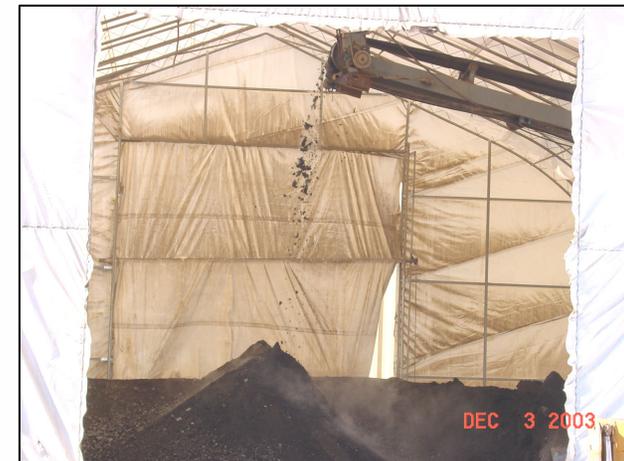
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## Project Issues: Funding



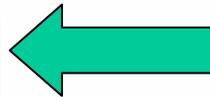
- Combined sites with high and low risks (NORM) to take advantage of the lower cost of treatment versus hauling off island.
- Delineation of sites = more soil than anticipated
  - Lack of funds to award all sites
- Cost savings projected to be
  - Current CY's awarded: 32,164 bulk cy
  - Cost to treat/cy: \$250/cy
  - Cost to ship off-island/cy: \$1,000/cy
  - Cost for mob/demob of system: \$1.5M
  - Cost savings for project: \$22.6M



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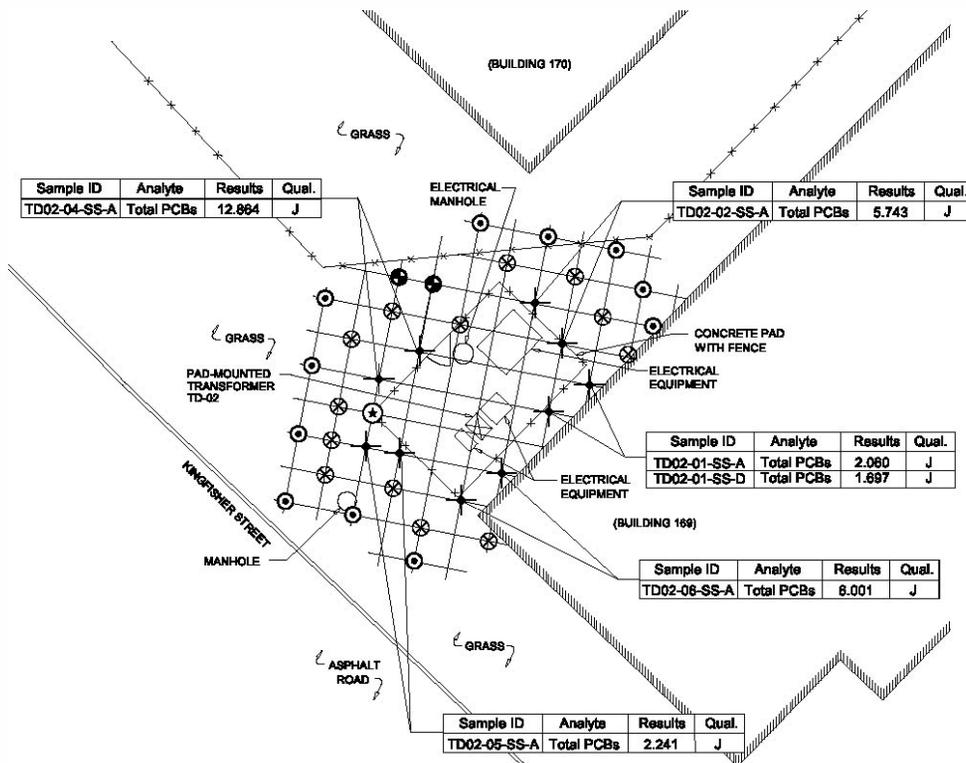
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# Project Issues: Technical - Design



- Delineation of sites
- Sample collection at various step-out locations and depths  
Progressively analyzing samples

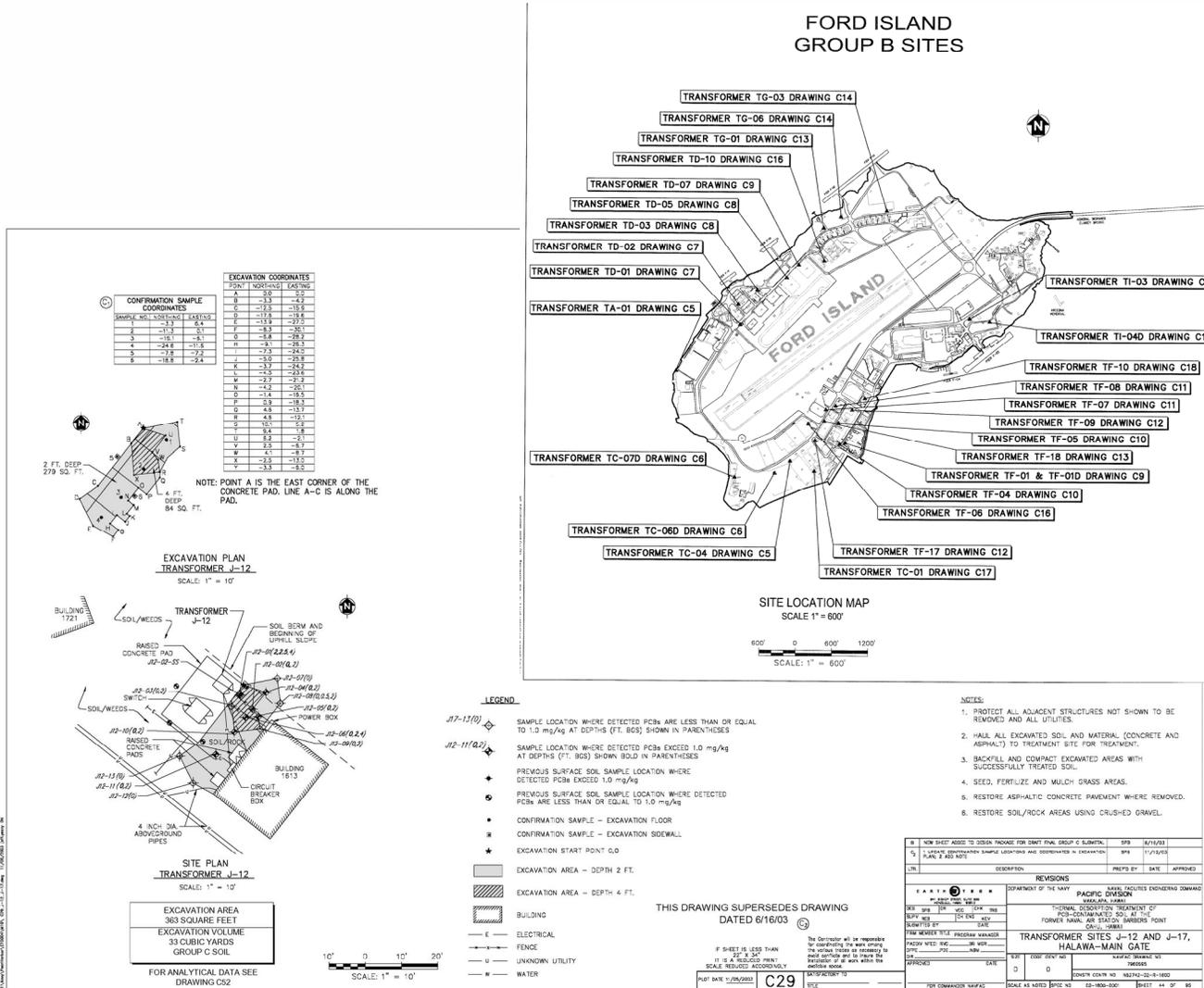


# Project Issues: Technical - Design



–Design prepared for fixed price contract

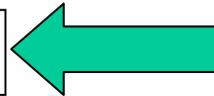
- Various locations
- Defined excavation areas
- Confirmation sampling grids



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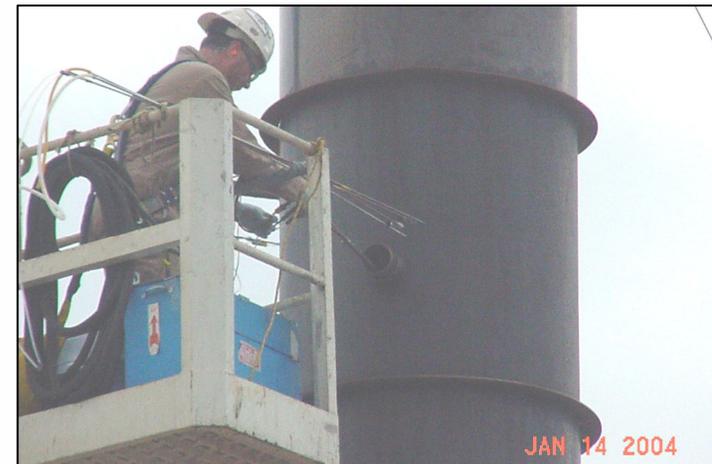
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## Project Issues: Technical - Resources



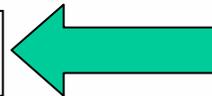
- CLEAN Contractor
- PACDIV ENV Compliance personnel (Air, TSCA, Haz Waste, etc.)
- PACDIV Safety
- ROICC
- NFESC assist in Process Safety Review in October 2003
- NFESC assist in discussions with the regulators



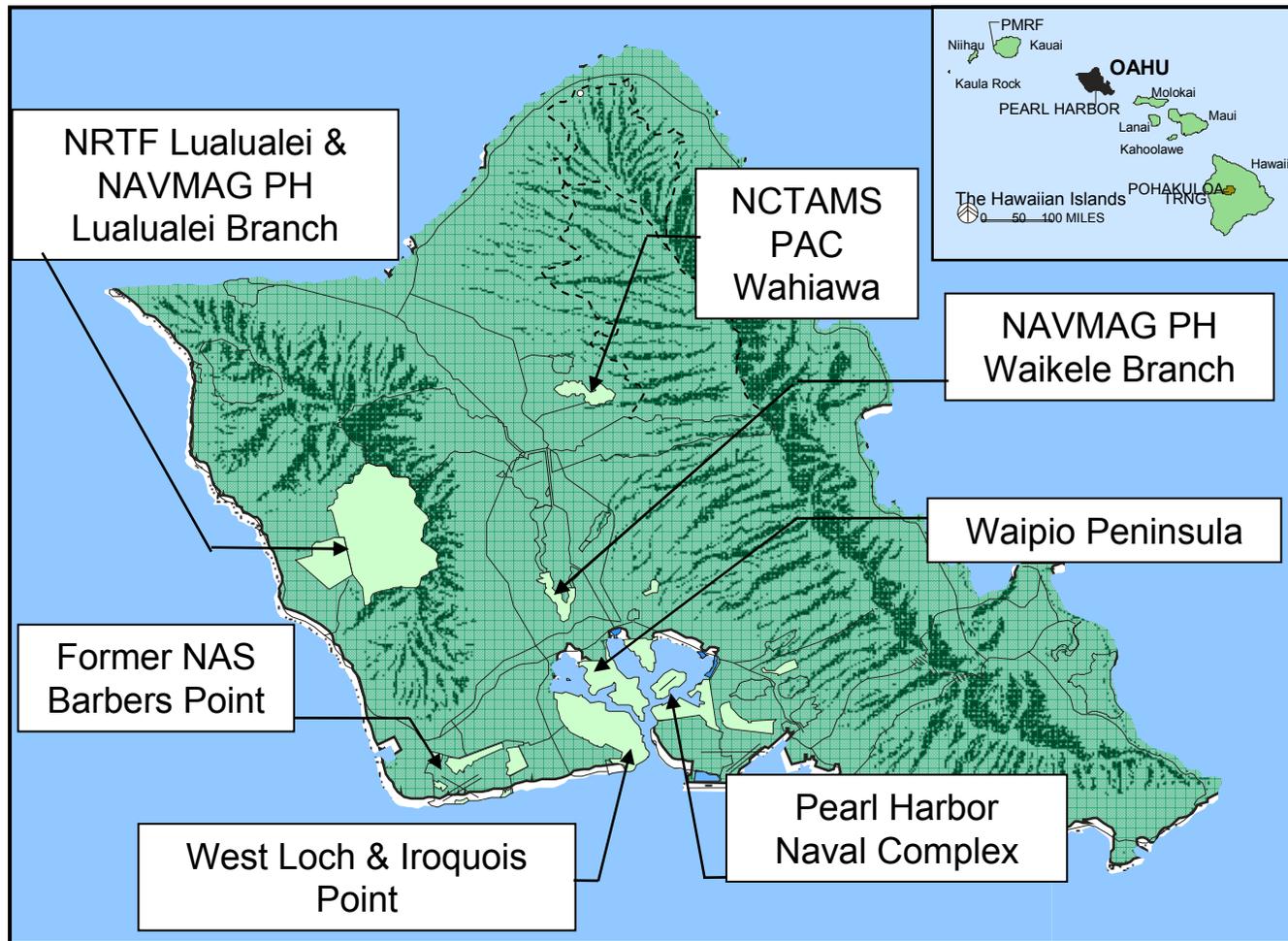
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# Project Issues: Technical - Excavations



- Coordination during design, startup, and execution of excavations
- Transportation of soils

ISLAND OF OAHU –

## Project Issues: Technical - Excavations



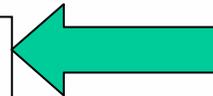
### •Dust issue



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# Project Issues: Technical ñ On-Site Treatment Unit



- Samples at
  - Baghouse
  - Ventline
  - Stack
  - Soil in-out



## Project Issues: Technical ñ On-Site Treatment Unit



- Feed Seal
- Dryer bolts
- HEPA filter

## Project Issues: Technical ñ On-Site Treatment Unit



- Soil preparation
  - Screener
  - Clogged feed
  - Weather



## Project Issues: Technical ñ On-Site Treatment Unit



- Treated soil bins



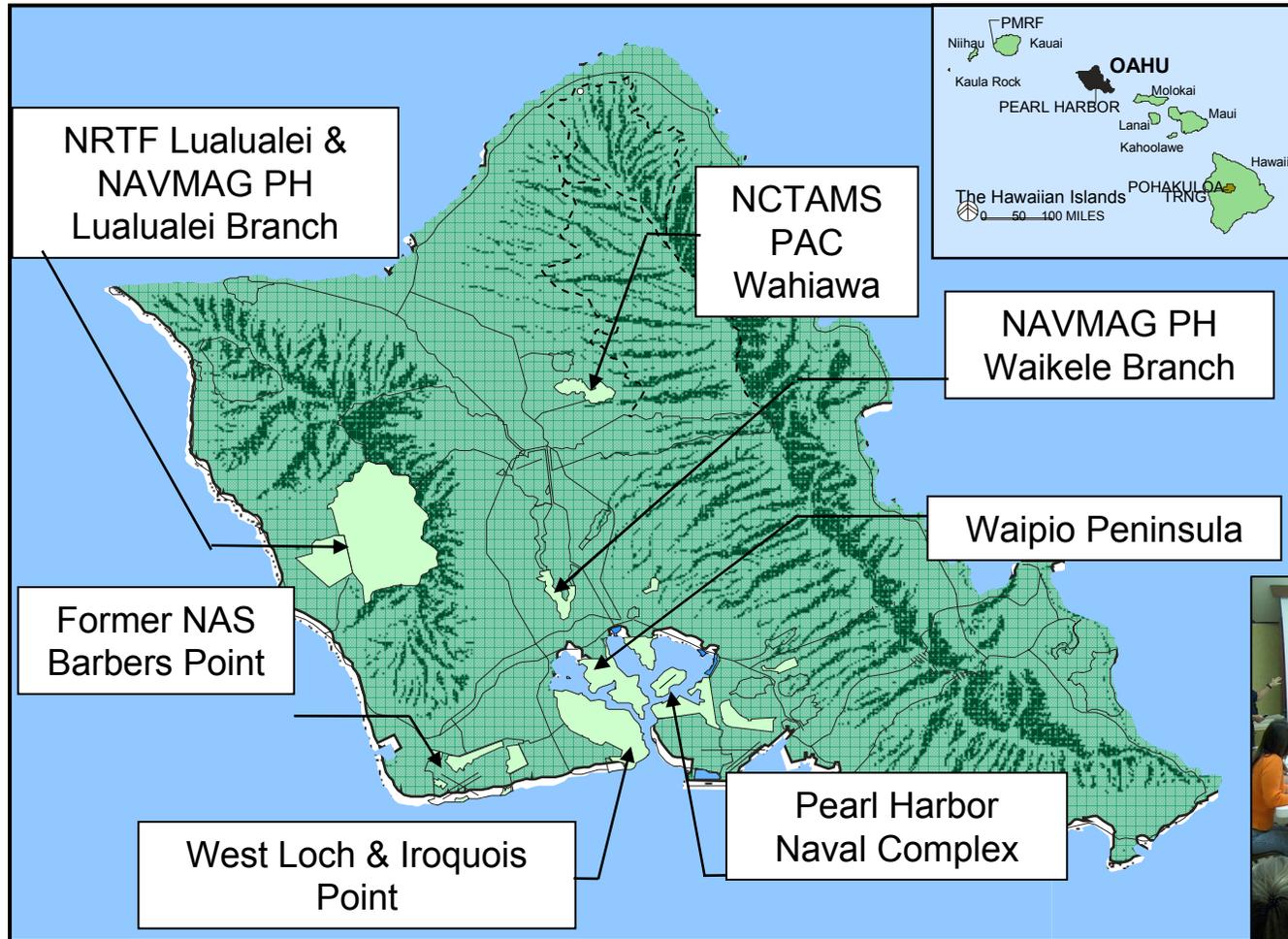
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# Project Issues: Public



- **RABs**
  - PHNC
  - Central Oahu
  - West Oahu
  - Barbers Point
- **Neighborhood Bd Mtg**



ISLAND OF OAHU –

# Project Issues: Public



## Navy to tackle contaminated soil

By Will Hoover  
Advertiser Leeward O'ahu Writer

For the first time in Hawai'i, the Navy today will fire up a t  
advanced heating unit that is expected to treat some 26,000  
PCB-contaminated soil excavated from various locations a  
stockpiled at the former Naval Air Station Barbers Point at



- Site tour of system prior to treating contaminated soil
- Media Day

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Centra  
site of  
polych  
to can

## Navy project gives soil fresh start

The Kalaeloa facility is a cost-effective solution, officials say

By Gregg K. Kakesako  
gkakesako@starbulletin.com

Over the next four months the Navy will "bake"  
of PCB-contaminated soil into an almost equal a  
material.



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