

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

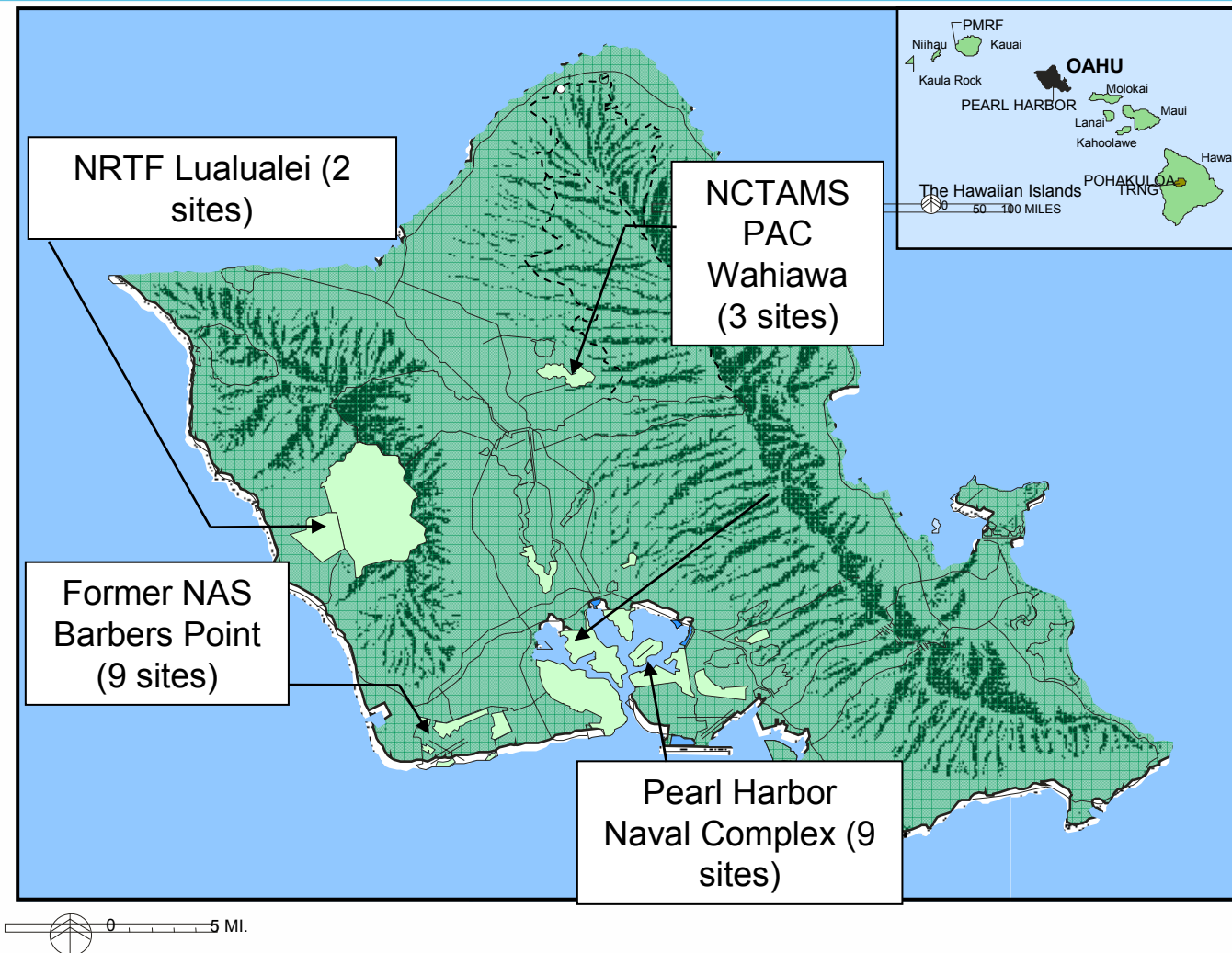


- **1997 – Four separate projects ongoing/planning stages**
 - Barbers Point BRAC RA at various transformer sites
 - NCTAMS PAC RA at various transformer sites
 - Pearl Harbor Naval Shipyard RA at 9 transformer sites
 - UST removal at an IR site



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

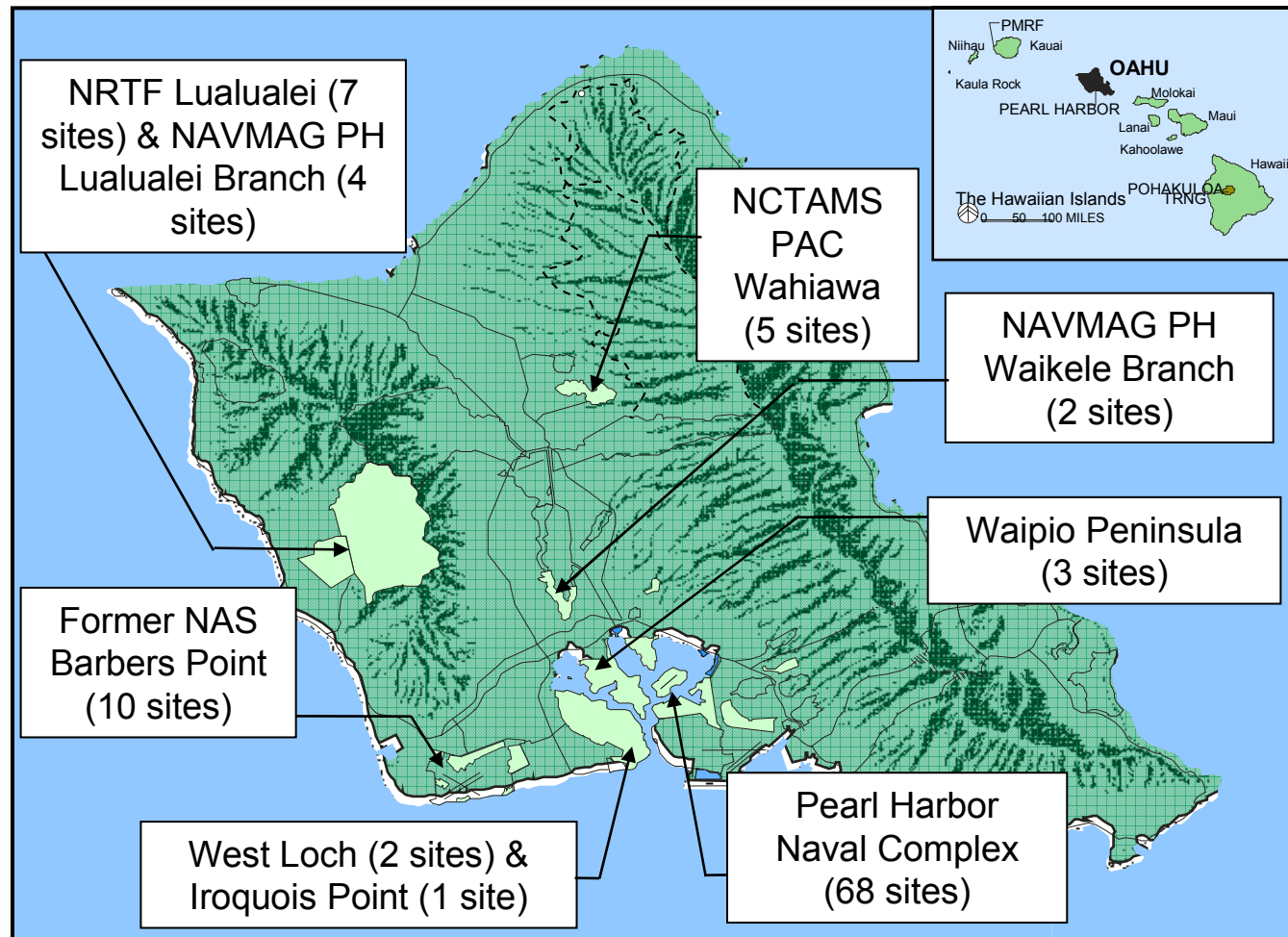
Consolidation of Original Sites



–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



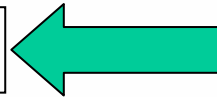
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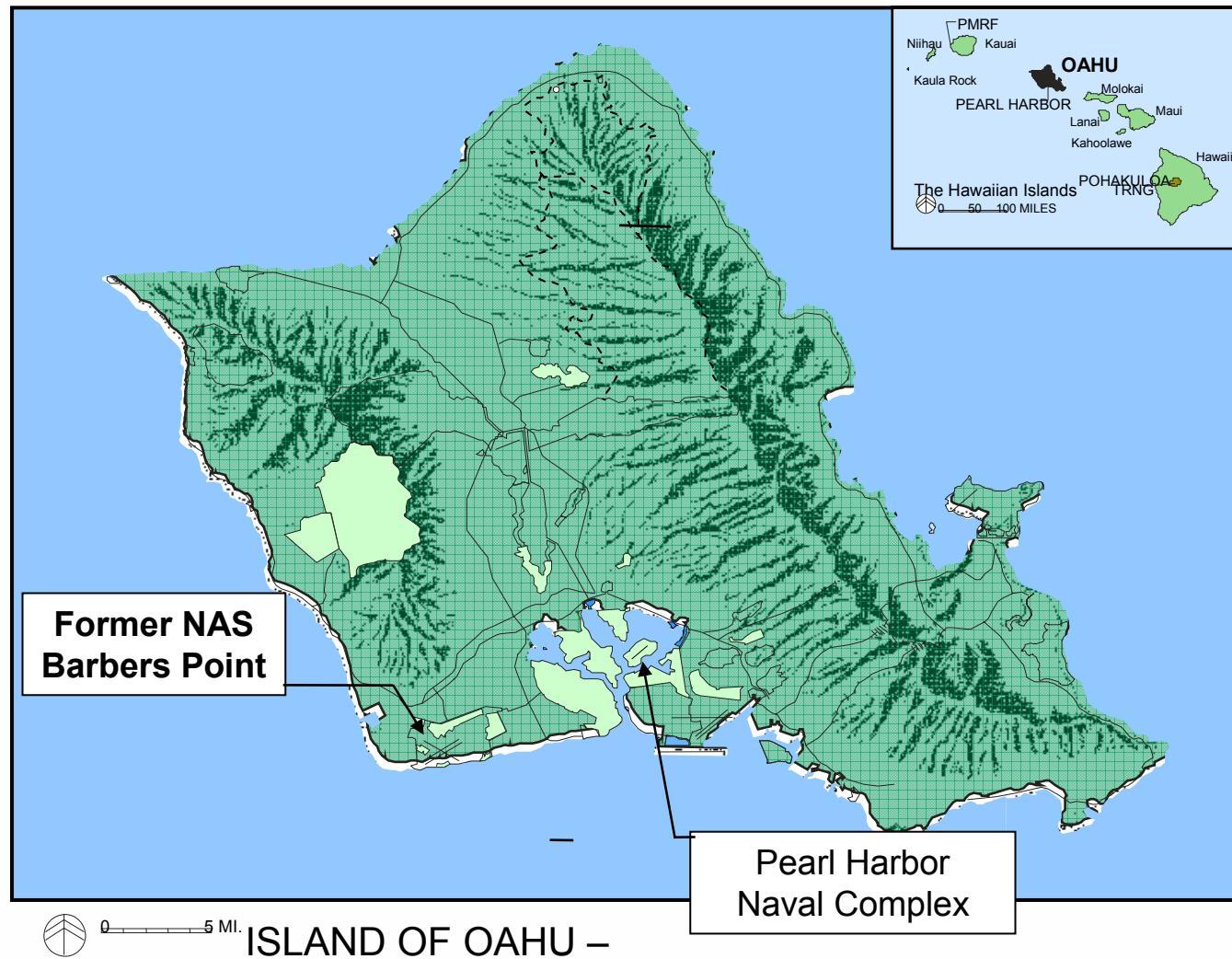
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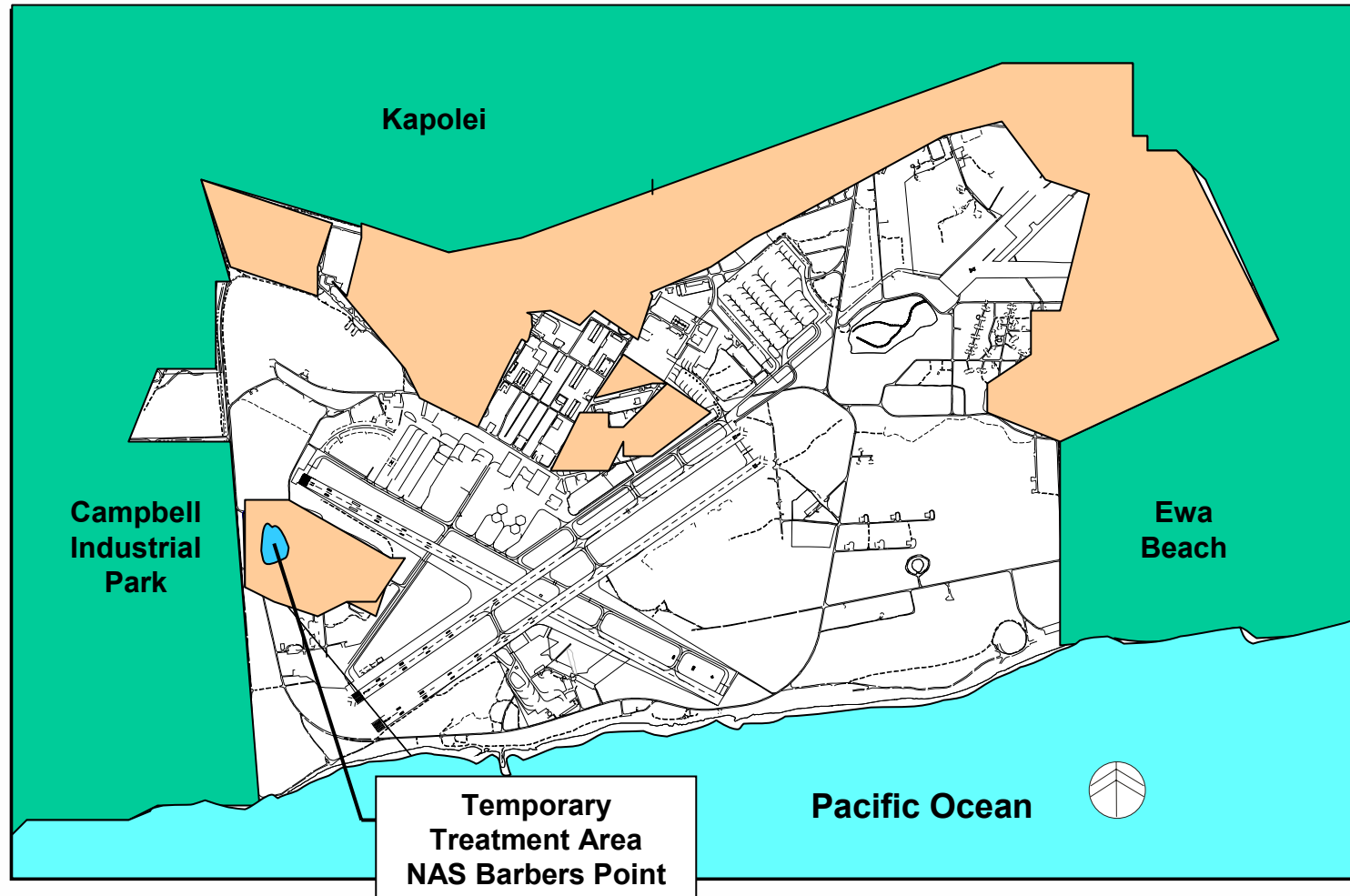
Treatment System On-site



- Located at Barbers Point

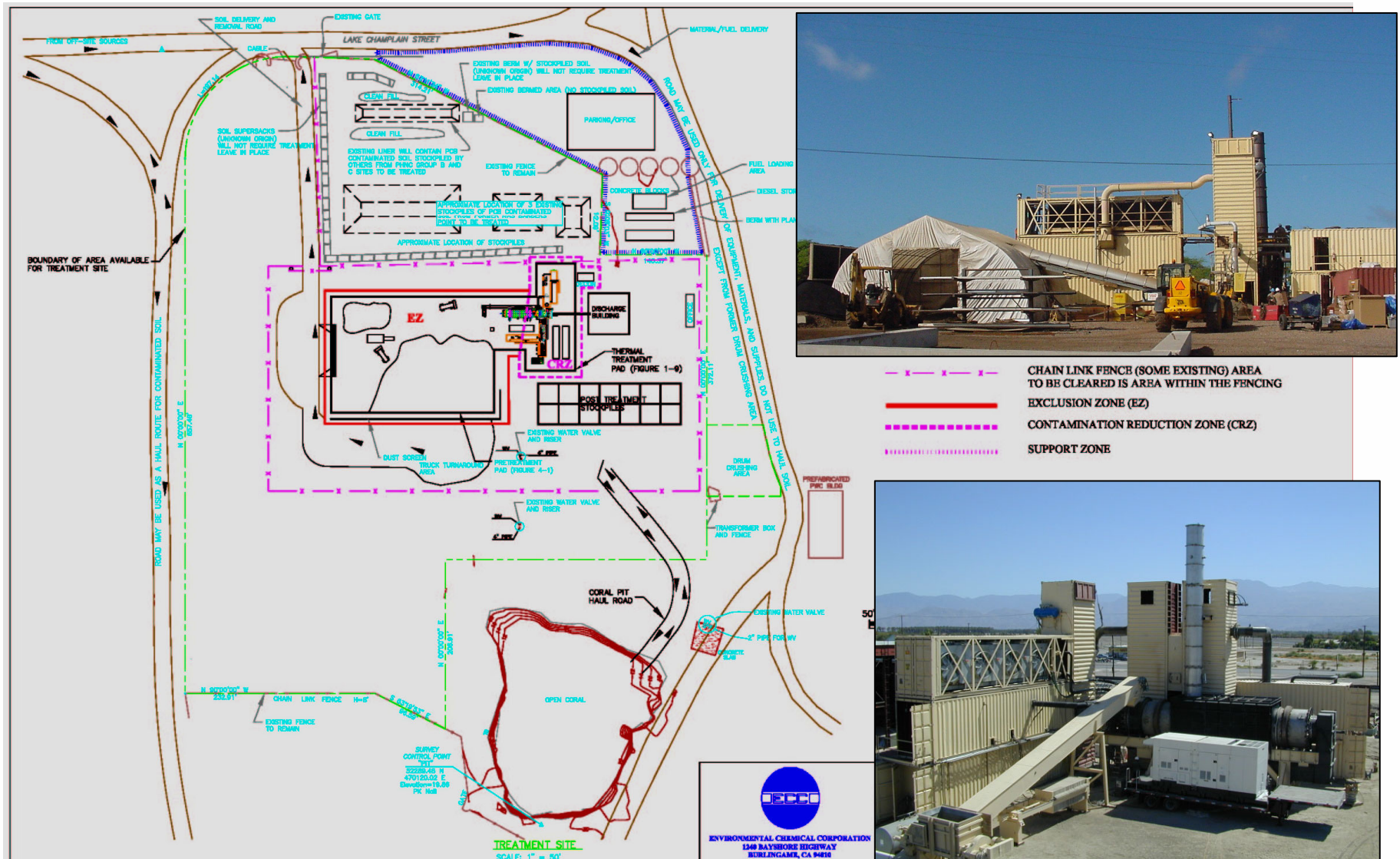


Treatment System On-site

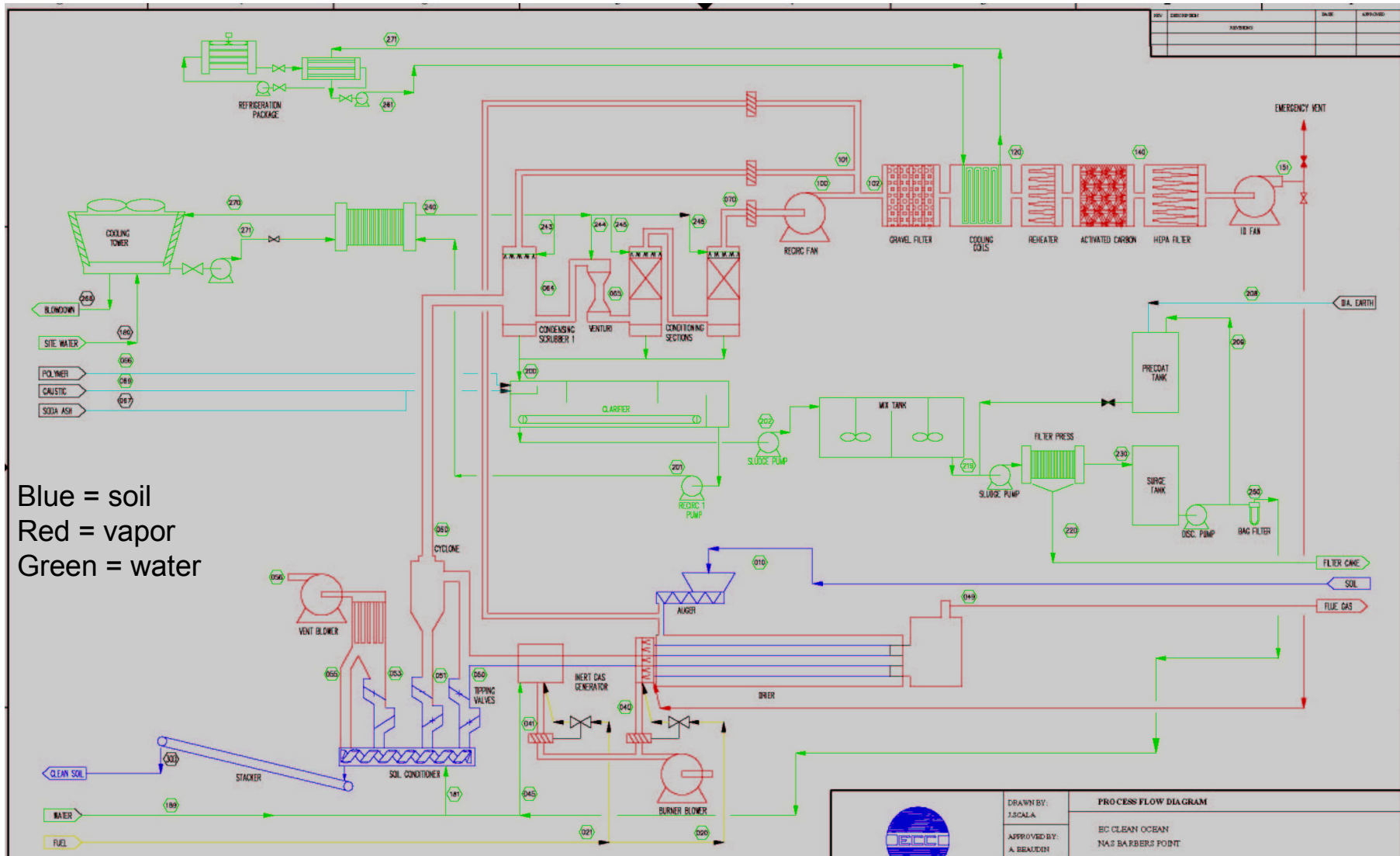


- Located on Navy Retained property at Barbers Point
- Located close to an industrial area

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

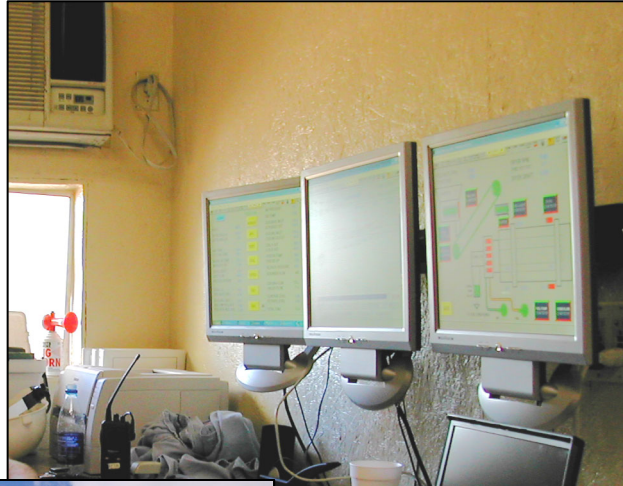
backside of treatment unit

- 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



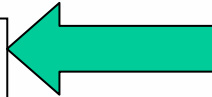
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Project Issues: Contractual



–Advertised the project to Small Business

- Health and Safety issue during selection



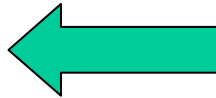
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Project Issues: Funding



- 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



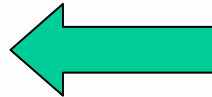
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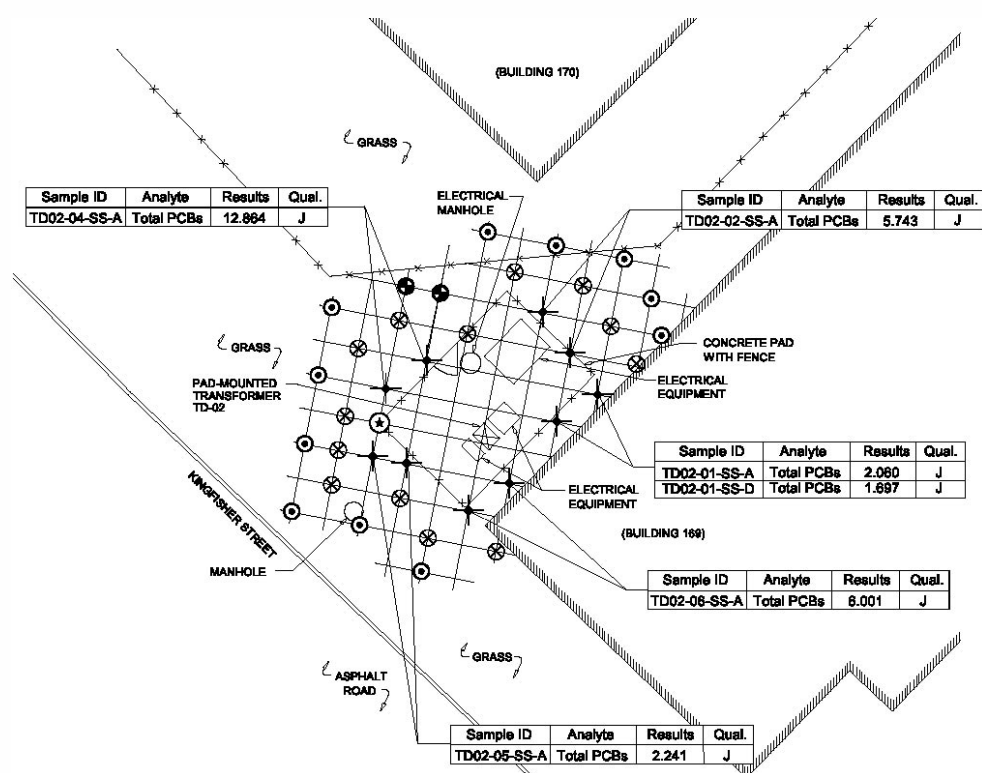
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Project Issues: Technical - Design



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



- Design prepared for fixed price contract

- Various locations
- Defined excavation areas
- Confirmation sampling grids



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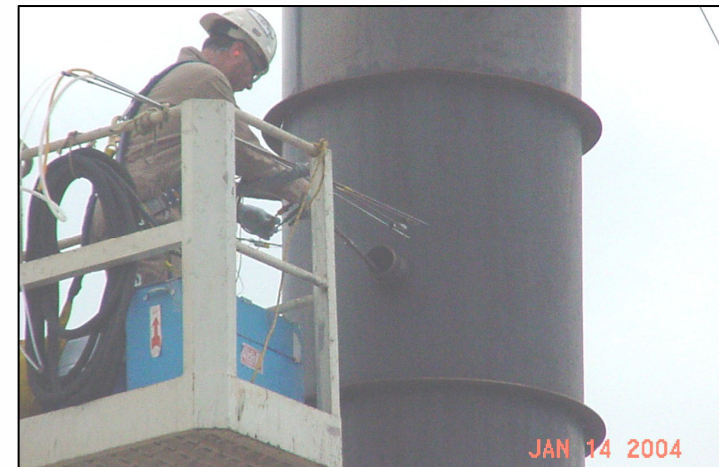
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Project Issues: Technical - Resources



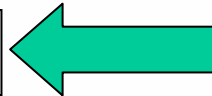
- CLEAN Contractor
- PACDIV ENV Compliance personnel (Air, TSCA, Haz Waste, etc.)
- PACDIV Safety
- ROICC
- NFESC assist in Process Safety Review in October 2003
- NFESC assist in discussions with the regulators



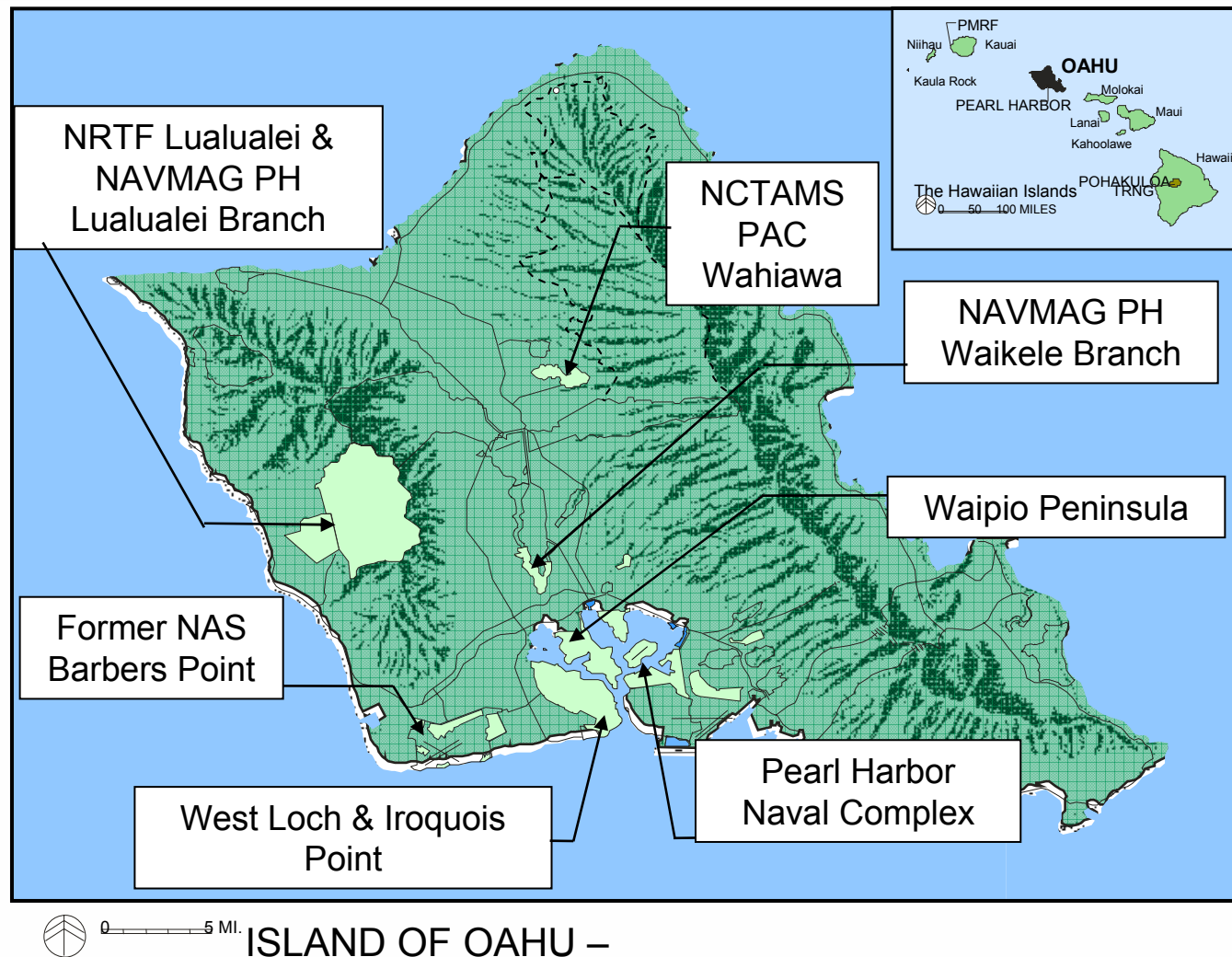
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Project Issues: Technical - Excavations



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

Project Issues: Technical - Excavations



- Dust issue



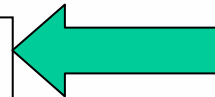
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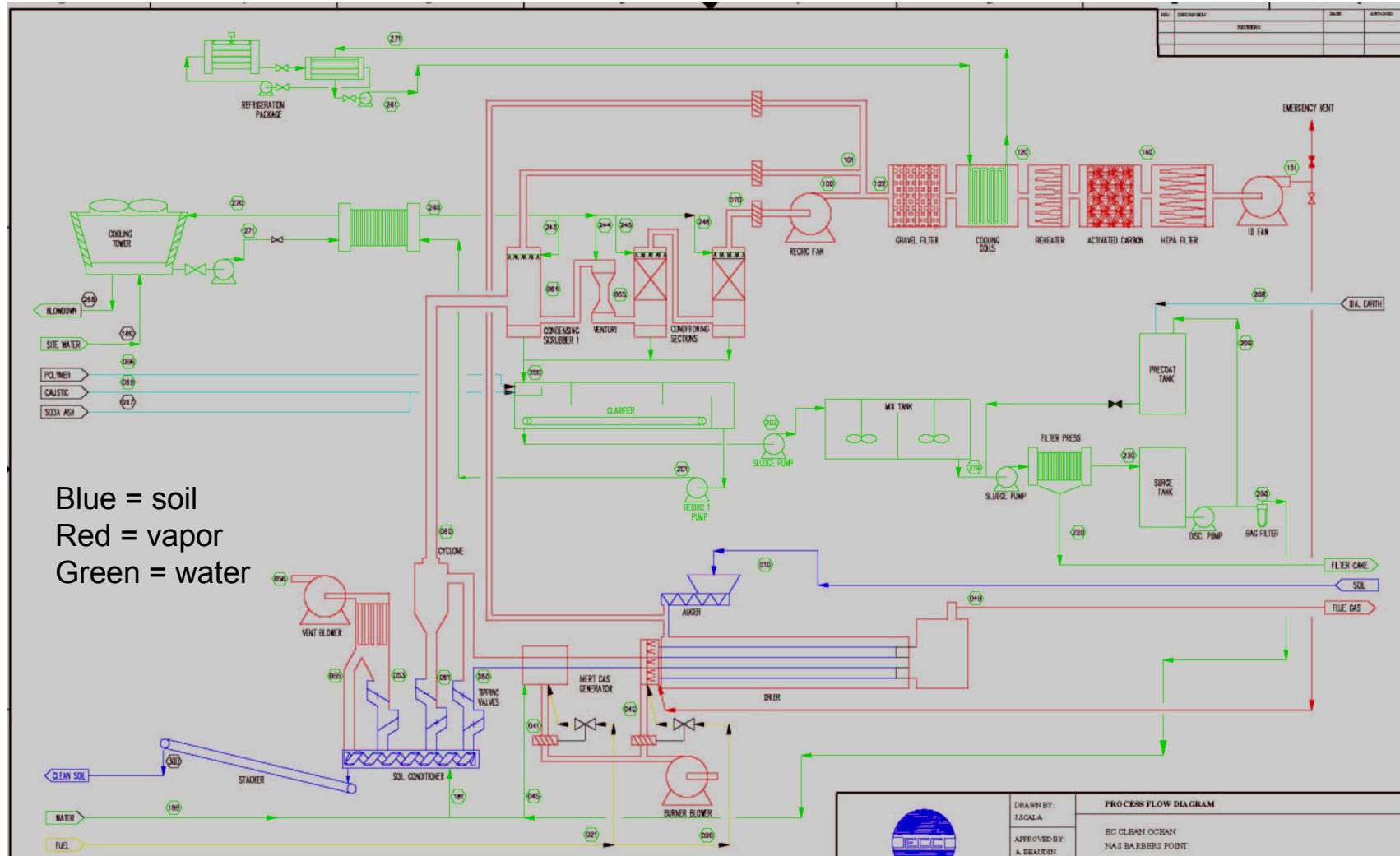
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Project Issues: Technical ñ On-Site Treatment Facility



• Definitive Demonstration test runs



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



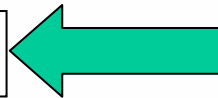
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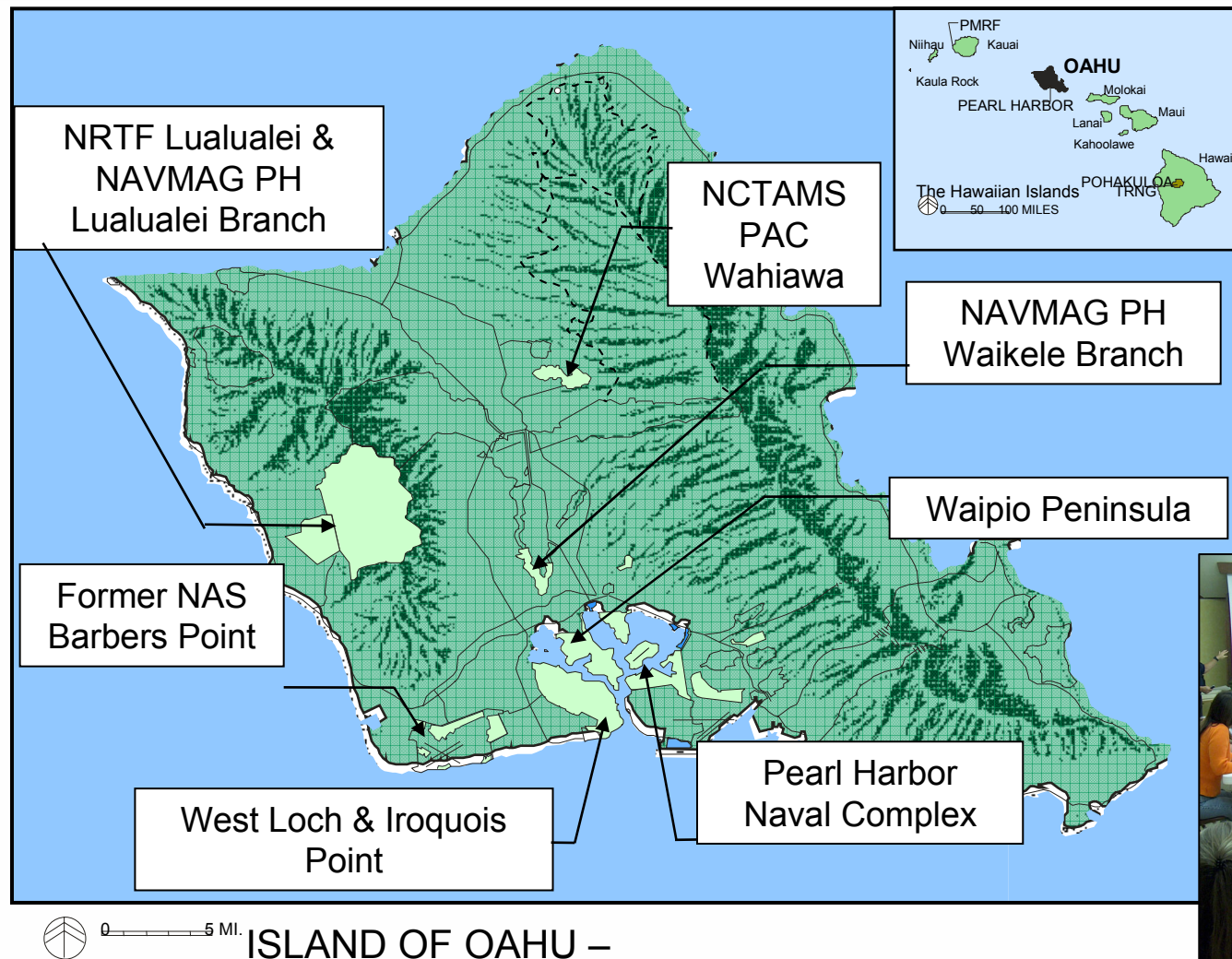
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Project Issues: Public



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



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

The co
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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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