

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**

**SAN FRANCISCO BAY REGION**

**1 JACKSON STREET, ROOM 6040**

**OAKLAND 94607**

Phone: Area Code 415  
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**Date:** June 1, 1987

**File No.:** 2169.6032

Mr. Greg Brown  
Code 1142A  
Department of the Navy  
Western Division, Naval Facilities Engineering Command  
P.O.Box 727  
San Bruno, California 94066-0720

**NOTICE  
OF**

Tentative Site Cleanup Order

**FOR**

Hunters Point Naval Shipyard Disestablished

Hunters Point

San Francisco, California

Comments or recommendations you may have concerning the  
Proposed Tentative Order \_\_\_\_\_ should be submitted in writing to  
this Regional Board by July 1, 1987. Comments  
received after this date cannot be given full consideration.

Sincerely,

Lester Feldman

Section Leader, Toxics Cleanup

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

TENTATIVE ORDER

SITE CLEANUP REQUIREMENTS FOR:

Hunters Point Naval Shipyard Disestablished  
Hunters Point  
San Francisco, CA

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Hunters Point Naval Shipyard Disestablished (hereinafter called the discharger) is located at the Southeast corner of the city and county of San Francisco, CA (see map - attachment 1). The discharger commenced operations at this site in 1941. Hunters Point Naval Shipyard was disestablished in June, 1974. In 1976, most of the Navy owned property was leased to Triple A Machine Shop, Incorporated, which operated the facility as a commercial shipyard until 1986.
2. The Department of the Navy developed the Navy Assessment and Control of Installation Pollutant Program (NACIP) to identify and control environmental contamination from past use and disposal of hazardous substances at Navy and Marine Corps installations. The NACIP program consists of three phases:
  - I) Initial Assessment Study (IAS): Identification of disposal sites and contaminated areas caused by past hazardous substance storage, handling or disposal practices. Identified sites are then individually evaluated with respect to their potential threat to human health or to the environment.
  - II) Confirmation Study: Verification of contamination at each site identified in the IAS, and characterization of the extent of the contamination and potential migration pathways.
  - III) Remedial Action: Provides the required corrective measures to mitigate or eliminate confirmed problems.
3. A report containing the findings and conclusions of the IAS for Hunters Point was released in October, 1984. The IAS team determined that twelve sites exist where hazardous materials were disposed of or spilled. Confirmation Studies were recommended for ten of these twelve sites. An incineration site, which was used between 1945 and 1948 for the elimination of garbage and refuse type wastes, was excluded from the Confirmation Study because the IAS found no evidence indicating hazardous wastes were disposed of at this site. The IAS also determined that a Confirmation Study was not necessary for an area where seven unlabeled 55 gallon drums have been stored. The IAS recommended that the contents of these drums be sampled prior to removal to determine if hazardous materials are present. Where necessary, the Navy stated that any contaminated soil will also be removed.

4. A proposal for the verification step of the Confirmation Study was released in January, 1985 and revised in April, 1985 to incorporate comments from the RWQCB, DHS and EPA. A former sand blasting and painting area for submarine superstructures, which was not identified in the IAS, was added to the list of sites to be investigated. The following seven areas were included in the verification step of the Confirmation Study:

1) Oil Reclamation Ponds: From 1944 to 1974, Hunters Point Naval Shipyard operated a waste oil reclamation system which used two man made unlined ponds for oil storage. The IAS determined that solvents, caustic sodas, ethylene glycol and chromates were also disposed of in these ponds.

2) Industrial Landfill: From 1958 to 1974, the Navy disposed of industrial and solid wastes along the west shore of the shipyard. Wastes included building construction and demolition wastes, domestic waste and refuse, dredge spoil materials, sand blast waste, shop industrial and chemical wastes, solvents, solid and liquid ship repair wastes, and low level radioactive wastes (from shipboard radium dials and electronics equipment).

3) Scrap Yard: From 1954 to 1974, submarine battery lead and copper, along with used electrical capacitors (containing PCBs) were crushed and stored on the unpaved soil at this site.

4) Old Transformer Storage Yard: From 1946 to 1974, used electrical transformers were stored on this unpaved site. The possibility that PCB's were contained in some transformer oils is high, however, there are no records of any PCB spills at this site.

5) Building 521 - Power Plant: A high pressure boiler power plant in Building 521 operated from 1950 to 1969. Since its shutdown, there has been an accumulation of waste asbestos, battery acids and chemical containers inside and outside of the plant. The soil surrounding the building is unpaved.

6) Pickling and Plate Yard: From 1947 to 1973, the Navy utilized three acid storage tanks, three open (brick-lined) pits for dipping large steel plates, and an open storage rack used for spraying steel plates with zinc chromate. Acid and zinc chromate residues coat most of the structures and the concrete pavement at this yard.

7) Bay Fill: From 1945 to 1978, the southwest Bay shore area was a site used for the disposal of sand blast waste (sand aggregate, steel, copper, lead, rust and lead-based paint scrapings).

8) Tank Farm: Since 1942 this site has been used for the storage of diesel fuel. The IAS found evidence of past spills.

9) Battery and Electroplating Shop: Building 123 is currently used as a commercial warehouse. Between 1944 and 1974, it operated as the submarine battery overhaul and storage shop as well as an electroplating shop. The building floor is contaminated with lead particles.

10) Bay Sediments: From 1942 to 1977, diversion structures for high storm water runoff would release wastewater overflows from the combined sanitary and storm sewer system directly into the Bay. The wastewater contained sulfuric acid, solvents, hexavalent chromium, copper and lead. In addition, from 1942 to about 1970, the battery and electroplating shop (Building 123) and the acid mixing plant (Building 124) discharged industrial wastewater directly to San Francisco Bay via a storm drain near Berth 64. This drain discharged approximately 12000 gallons per day.

11) Sub-Base Sand-Blast and Painting Area: This site was in operation from 1961 to 1974 and served as a sand-blasting and painting area for submarine superstructures. Zinc chromate paint was primarily used. There is also potential for fuel contamination of the native soil since submarine fuel lines were routinely painted here.

5. A report containing the findings and conclusions of the verification step of the Confirmation Study was released in April, 1987. The results of these studies are presently being reviewed by RWQCB staff.
6. The NACIP Program focuses attention exclusively on past hazardous substance storage, use and disposal practices on Navy property. Current operations and spill incidents are not included in the scope of the NACIP program. Presently there are two additional investigations underway at Hunters Point; a PCB spill at building 503 and alleged illegal dumping activities by Triple A Machine Shop, Incorporated.
7. In September, 1986, PCB contaminated soils were discovered during excavation of subsurface utility/sewer lines near Building 503 at Hunters Point. The subsurface investigation for this site is independent of the NACIP program because this contamination was discovered subsequent to the NACIP program's Initial Assessment Study. On December 22, 1986, the RWQCB responded to the Navy's proposed workplan for the PCB contaminated site. The RWQCB requested that the lateral and vertical extent of PCB in groundwater be determined prior to any excavation and that the Navy determine all potential migration routes of PCB in groundwater and via soil into uncontaminated groundwater. The Navy began interim investigation/cleanup activities at the PCB contaminated site on March 10, 1987 as approved in a letter from the RWQCB's Executive Officer dated February 4, 1987.
8. In 1976, most of the Navy owned property at Hunters Point was leased to Triple A Machine Shop, Inc., which operated the facility as a commercial shipyard until June, 1986. The Navy documented and reported several incidents of illegal dumping by Triple A Machine Shop, Inc., to the California Department of Health Services. The San Francisco District Attorney's Office is currently investigating the Triple A Machine Shop issues and has identified nineteen sites potentially polluted by Triple A Machine Shop activities. Eleven of these nineteen sites were previously identified during NACIP investigations. This Order will be amended to include the investigation/cleanup of any polluted sites at Hunters Point Naval Shipyard Disestablished which are identified subsequent to the issuance of this Order.

9. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 12, 1986. The Basin Plan contains water quality objectives and beneficial uses for San Francisco Bay and contiguous surface and ground waters.
10. The existing and potential beneficial uses of the ground and surface waters underlying and adjacent to the facility include:
  - a. Industrial process water supply
  - b. Industrial service water supply
  - c. Navigation
  - d. Water contact recreation
  - e. Non-contact water recreation
  - f. Ocean commercial and sport fishing
  - g. Wildlife habitat
  - h. Preservation of rare and endangered species
  - i. Fish migration
  - j. Fish spawning
  - k. Shellfish harvesting
  - l. Estuarine habitat
11. The discharger has caused or permitted, and threatens to cause or permit waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance.
12. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.
13. ~~Interim containment~~ and cleanup measures need to be implemented to alleviate the threat to the environment posed by the continued migration of polluted ground and/or surface waters and to provide a substantive technical basis for designing and evaluating the effectiveness of final cleanup alternatives.
14. The Board has notified the discharger and interested agencies and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the discharges and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.
15. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.

2. Further significant migration of pollutants through surface runoff or subsurface transport to waters of the State is prohibited.
3. Activities associated with pollution investigations and cleanup which will cause significant adverse migration of pollutants are prohibited.

B. SPECIFICATIONS

1. The storage, handling, treatment or disposal of soil or ground water containing pollutants shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. The discharger shall conduct monitoring activities as needed to define the current local hydrogeologic conditions, and the lateral and vertical extent of all soil and ground water pollution. Should monitoring results show evidence of pollutant migration, additional characterization of pollutant extent may be required.

C. PROVISIONS

1. The discharger shall submit to the Board acceptable monitoring program reports containing results of work performed according to a program prescribed by and/or amended by the Board's Executive Officer.
2. The discharger shall comply with Prohibitions A.1., A.2., and A.3., and Specifications B.1. and B.2. above, in accordance with the following time schedule and tasks:

COMPLETION DATE/TASK:

- a. 1) COMPLETION DATE: October 1, 1987

TASK: SOIL AND GROUND WATER POLLUTION CHARACTERIZATION: Submit a technical report acceptable to the Executive Officer containing a proposal to define the horizontal and vertical extent of all soil and groundwater pollution.

- 2) COMPLETION DATE: April 1, 1988

TASK: COMPLETION OF SOIL AND GROUND WATER POLLUTION CHARACTERIZATION: Submit a technical report acceptable to the Executive Officer documenting completion of the necessary tasks identified in the technical report submitted for Task 2.a.1).

- b. 1) COMPLETION DATE: July 1, 1988

TASK: INTERIM REMEDIAL ACTIONS: Submit a technical report acceptable to the Executive Officer which contains an evaluation of interim remedial alternatives, a recommended plan for interim remediation, and an implementation time schedule. This report shall evaluate

the removal and/or cleanup of polluted soils; evaluate alternative hydraulic control systems to contain and to initiate cleanup of polluted groundwater; and include a completed NPDES application to discharge to surface waters, if such discharge is an element of the plan.

2) COMPLETION DATE: October 1, 1988

TASK: COMPLETION OF INTERIM REMEDIAL ACTIONS: Submit a technical report acceptable to the Executive Officer documenting completion of the necessary tasks identified in the technical report submitted for Task 2.b.1).

c. 1) COMPLETION DATE: April 1, 1989

TASK: a) EVALUATE INTERIM HYDRAULIC CONTAINMENT AND SOIL REMOVAL MEASURES: Submit a technical report acceptable to the Executive Officer which evaluates the effectiveness of the interim hydraulic containment system. Such an evaluation shall include, but need not be limited to, an estimation of the flow capture zone of the extraction wells, establishment of the cones of depression by field measurements, and presentation of chemical monitoring data, if extraction wells are proposed. This report shall also evaluate and document the removal and/or cleanup of polluted soils, if such removal and/or cleanup is an element of the remedial measures.

b) MODIFICATION TO INTERIM ACTIONS: Specific modifications to the system and an implementation time schedule shall be proposed in the event that the soil remediation or hydraulic control system is demonstrated not to be effective in containing and removing the pollutants.

2) COMPLETION DATE: July 1, 1989

TASK: COMPLETION OF MODIFICATIONS TO INTERIM ACTIONS: Submit a technical report acceptable to the Executive Officer documenting completion of the necessary tasks identified in the technical report submitted for Task 2.c.1)b).

d. 1) COMPLETION DATE: October 1, 1989

TASK: PROPOSED FINAL CLEANUP OBJECTIVES AND ACTIONS: Submit a technical report acceptable to the Executive Officer containing the results of the remedial investigation; an evaluation of the installed interim remedial measures; a feasibility study evaluating alternative final remedial measures; the recommended measures necessary to achieve final cleanup objectives; and the tasks and time schedule necessary to implement the recommended final remedial measures.

3. The submittal of technical reports evaluating immediate, interim and final remedial measures will include a projection of the cost, effectiveness, benefits, and impact on public health, welfare, and environment of each alternative measure. The remedial investigation and feasibility study shall be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300); Section 25356.1 (c) of the California Health and Safety Code; CERCLA guidance documents with reference to Remedial Investigation, Feasibility Studies, and Removal Actions; and the State Water Resources Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California".
4. If the discharger is delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the discharger shall promptly notify the Executive Officer and the Board may consider revision to this Order.
5. Technical reports on compliance with the Prohibitions, Specifications, and Provisions of this Order shall be submitted bi-monthly to the Board commencing on October 1, 1987 and covering the previous two months. On a bi-monthly basis thereafter, these reports shall consist of a letter report that, (1) summarizes work completed since submittal of the previous report, and work projected to be completed by the time of the next report, (2) identifies any obstacles which may threaten compliance with the schedule of this Order and what actions are being taken to overcome these obstacles, and (3) includes, in the event of non-compliance with Provision C.2. or any other Specification or Provision of this Order, written notification which clarifies the reasons for non-compliance and which proposes specific measures and a schedule to achieve compliance. This written notification shall identify work not completed that was projected for completion, and shall identify the impact of non-compliance on achieving compliance with the remaining requirements of this Order.

The bi-monthly reports shall include, but need not be limited to, updated water table and piezometric surface maps for all affected water bearing zones, cross-sectional geological maps describing the hydrogeological setting of the site, and appropriately scaled and detailed base maps showing the location of all monitoring wells and extraction wells, and identifying adjacent facilities and structures.

6. The discharger shall review the findings of the San Francisco District Attorney's Office regarding the Triple A Machine Shop pollution investigations. Initial soil and ground water investigations shall be performed on those sites posing a threat to water quality as determined by the Board's Executive Officer. A report containing the results of these preliminary soil and ground water investigations, with proposals for future definitional studies, shall be submitted by October 1, 1987.

7. All hydrogeological plans, specifications, reports, and documents shall be signed by or stamped with the seal of a registered geologist, engineering geologist or professional engineer.
8. All samples shall be analyzed by State certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.
9. The discharger shall maintain in good working order, and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
10. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order, shall be provided to the following agencies:
  - a. San Francisco County Health Department
  - b. San Francisco District Attorney's Office
  - c. State Department of Health Services/TSCD
  - d. State Water Resources Control Board
  - e. U. S. Environmental Protection Agency, Region IX

The Executive Officer may additionally require copies of correspondence, reports and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order to be provided to a local repository for public use.

11. The discharger shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:
  - a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
  - b. Access to copy any records required to be kept under the terms and conditions of this Order.
  - c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
  - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
12. The discharger shall file a report on any changes in site occupancy and ownership associated with the facility described in this Order.
13. If any hazardous substance is discharged in or on any waters of the state, or discharged and deposited where it is, or probably will be discharged in or on any waters of the state, the discharger shall report such discharge to this Regional Board, at (415) 464-1255 on

weekdays during office hours from 8 a.m. to 5 p.m., and to the Office of Emergency Services at (800) 852-7550 during non-business hours. A written report shall be filed with the Regional Board within five (5) working days and shall contain information relative to: the nature of waste or pollutant, quantity involved, duration of incident, cause of spill, Spill Prevention, Control, and Countermeasure Plan (SPCC) in effect, if any, estimated size of affected area, nature of effects, corrective measures that have been taken or planned, and a schedule of these activities, and persons/agencies notified.

14. The Board will review this Order periodically and may revise the requirements when necessary.

I, Roger B. James, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on \_\_\_\_\_.

Roger B. James

Executive Officer

Attachments:

1. Area Map, Hunters Point Naval Shipyard Disestablished, San Francisco, California.

ATTACHMENT 1  
AREA MAP

NOTICE OF TENTATIVE SITE CLEANUP ORDER

THE ABOVE IDENTIFIED ATTACHMENT IS NOT  
AVAILABLE.

EXTENSIVE RESEARCH WAS PERFORMED BY  
SOUTHWEST DIVISION TO LOCATE THIS  
ATTACHMENT. THIS PAGE HAS BEEN INSERTED  
AS A PLACEHOLDER AND WILL BE REPLACED  
SHOULD THE MISSING ITEM BE LOCATED.

QUESTIONS MAY BE DIRECTED TO:

**DIANE C. SILVA**  
**RECORDS MANAGEMENT SPECIALIST**  
**SOUTHWEST DIVISION**  
**NAVAL FACILITIES ENGINEERING COMMAND**  
**1220 PACIFIC HIGHWAY**  
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