

Final

Finding of Suitability to Transfer for Former Long Beach Naval Complex

Long Beach, California



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Prepared for: Base Realignment and Closure Program Management Office West San Diego, California

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ACRONYMS AND ABBREVIATIONS

§	Section
§ §	Sections
ACM	Asbestos-containing material
AOC	Area of concern
AOEC	Area of ecological concern
AOPC	Area of potential concern
AST	Aboveground storage tank
BCP	BRAC Cleanup Plan
BEI	Bechtel Environmental, Inc.
bgs	Below ground surface
BNI	Bechtel National, Inc.
BRAC	Base Realignment and Closure
BRRM	Base Redevelopment and Realignment Manual
CCR	California Code of Regulations
CDHS	California Department of Health Services
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Chemical of concern
COP	California Ocean Plan
COPC	Chemical of potential concern
CRUP	Covenant to Restrict Use of Property
DCE	Dichloroethene
DDT	Dichlorodiphenyltrichloroethane
DERP	Defense Environmental Response Program
DFSP	Defense Fuel Support Point
DoD	Department of Defense
DTSC	California Department of Toxic Substances Control
EBS	Environmental Baseline Survey
ESI	Expanded site inspection
FFSRA	Federal Facility Site Remediation Agreement
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FOST	Finding of Suitability to Transfer
FS	Feasibility study
HHRA	Human Health Risk Assessment

ACRONYMS AND ABBREVIATIONS (CONTINUED)

HSC	Health and Safety Code
IC	Institutional control
IR	Installation Restoration
ISAS/SVE	In Situ Air Sparging/Soil Vapor Extraction
LBGS	Long Beach Generating Station
LBNC	Long Beach Naval Complex
LBNS	Long Beach Naval Station
LBNSY	Long Beach Naval Shipyard
LBNSY-ED	Long Beach Naval Shipyard Environmental Division
LBP	Lead-based paint
LIFOC	Lease in Furtherance of Conveyance
MARAD	Department of Transportation, Maritime Administration
MEC	Munitions and explosives of concern
MNA	Monitored natural attenuation
MTBE	Methyl Tert Butyl Ether
NAVFAC	Naval Facilities Engineering Command
Navy	Department of the Navy
NEESA	Naval Energy and Environmental Support Activity
NFA	No further action
NTCRA	Non-time critical remedial action
PA	Preliminary assessment
PAH	Polycyclic aromatic hydrocarbons
PCA	Petroleum Corrective Action
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethene
PMO	Program Management Office
POLB	Port of Long Beach
PRG	Preliminary remediation Goal (U.S. Environmental Protection Agency)
PVC	Polyvinyl Chloride
RACR	Remedial Action Completion Report
RAO	Remedial action objective
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
RD/RAWP	Remedial Design/ Remedial Action Work Plan
RFA	RCRA Facility Assessment

ACRONYMS AND ABBREVIATIONS (CONTINUED)

RG	Remedial goal
RI	Remedial Investigation
ROD	Record of Decision
RWQCB	California Regional Water Quality Control Board, Region 4
SARA	Superfund Amendments and Reauthorization Act
SCE	Southern California Edison Corporation
SERRF	Southeast Resource Recovery Facility
SGI	Supplemental Groundwater Investigation
SI	Site Inspection
SSS	Sanitary sewer system
SVOC	Semivolatile organic compound
SWMU	Solid Waste Management Unit
SWRCB	California State Water Resources Control Board
SWS	Stormwater system
TCE	Trichloroethene
TPH	Total petroleum hydrocarbons
U.S.C.	United States Code
UST	Underground storage tank
VC	Vinyl chloride
VOC	Volatile organic compound

1.0 PURPOSE

The purpose of this Finding of Suitability to Transfer (FOST) is to summarize how the requirements and notifications for hazardous substances, petroleum products, and other regulated materials on the 2014 FOST Parcel (described below) at the former Long Beach Naval Complex (LBNC) in Long Beach, California (Figure 1), have been satisfied, and to provide documentation that property included in the 2014 FOST Parcel is environmentally suitable to transfer.

For clarity, the property that is the subject of this FOST is referred to as the 2014 FOST Parcel, as identified in Figure 2. The 2014 FOST Parcel comprises: 1) two non-contiguous upland areas consisting of a larger rectangular and attached west extending linear area, and a smaller rectangular and attached south extending linear area; 2) one linear submerged land area (Annulus) surrounding the Long Beach Harbor West Basin (West Basin); 3) seven submerged land areas beneath former piers; and 4) three existing pier areas and their associated submerged lands. The individual areas within the 2014 FOST Parcel are further described in Section 2.0.

This FOST was prepared in accordance with the Department of Defense (DoD) Base Redevelopment and Realignment Manual (BRRM) (DoD 2006) and the Department of the Navy (Navy) Base Realignment and Closure (BRAC) Program Management Office (PMO) Policy for Processing Findings of Suitability to Transfer or Lease (BRAC PMO FOST Policy, Navy BRAC PMO 2008). It incorporates information and findings of numerous Navy environmental documents for former LBNC as referenced in the text, as well as information and publications provided by the Port of Long Beach (POLB) (POLB 2012, 2013a, 2013b).

2.0 PROPERTY DESCRIPTION

Former LBNC includes former Long Beach Naval Station (LBNS) and former Long Beach Naval Shipyard (LBNSY), both of which were closed under the Defense Base Closure and Realignment Act of 1990. LBNS operationally closed on September 30, 1994, and LBNSY operationally closed on September 30, 1997. A small part of the western portion of the former LBNC lies within the City of Los Angeles. However, the majority of the former LBNC, including the entirety of the 2014 FOST Parcel, lies within the City of Long Beach. In August 1998, the Navy and the City of Long Beach entered into a Lease in Furtherance of Conveyance (LIFOC), under which POLB assumed operational custody and control of the City of Long Beach portion of the former LBNC in advance of property transfer. Also in 1998, nearly all of the West Basin of Long Beach Harbor under control of the former LBNC reverted back to the City of Long Beach. From 1998 to 2002, the POLB demolished former LBNC facility structures and utilities, removed five piers and the seawall fronting the West Basin, and redeveloped the property for marine-based operations by its tenants (now known as POLB Pier T, Figure 3). The POLB also dredged the central and northern portions of the West Basin to facilitate deep-draft container vessel access at the terminal. In addition to the periodic maintenance dredging, the POLB conducted dredging in 2010 as part of the remedial activities at Installation Restoration (IR) Site 7 in the areas between Pier 1 and Pier Echo and between Pier 10 and Pier 15. POLB removed Pier 11, formerly located between Piers 10 and 12, before dredging (Figure 2).

In 2001, the Navy assigned 274 acres of former LBNC to the Department of Transportation, Maritime Administration (MARAD). MARAD subsequently deeded this property to the City of Long Beach, acting by and through the POLB's Harbor Commissioners. The 2014 FOST Parcel includes approximately 125.3 acres of non-contiguous property at the former LBNC (Figure 2) that were held back from the 2001 assignment and transfer, pending completion of further environmental response actions by the Navy. Approximately 67.6 acres lie along the northern property boundary of former LBNC adjacent to the North Seaside Avenue-West Ocean Boulevard transportation corridor: this acreage comprises a larger rectangular area and western strip and a smaller square-shaped area and includes IR Sites 8, 9, 10, and 16. The remaining approximately 57.7 acres of the 2014 FOST Parcel consists of the Annulus and Submerged Lands beneath the seven demolished and three existing piers within the West Basin that did not revert back to the City of Long Beach in 1998 (Figure 2). There are no buildings located on the 2014 FOST Parcel.

3.0 REGULATORY COORDINATION

On July 17, 2000, the Navy and the California Department of Toxic Substances Control (DTSC) entered into a Federal Facility Site Remediation Agreement (FFSRA) for former LBNC (Naval Facilities Engineering Command [NAVFAC] 2000a). Pursuant to the FFSRA, the Navy may satisfy some or all of its corrective action obligation under the Resource Conservation and Recovery Act (RCRA) (42 United States Code [U.S.C.] Section [§] 6901 et seq.) or California Health and Safety Code § 25200.10 through response actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This agreement to integrate RCRA corrective action obligations into the Navy's CERCLA response actions has been instrumental in completing the IR Program at former LBNC.

3.1 RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) PART A OR PART B PERMITS AND SUBTITLE C CORRECTIVE ACTION

This FOST reviews sites that were evaluated and addressed under the Navy's CERCLA and Defense Environmental Response Program (DERP) authority, as well as sites addressed under the corrective action requirements of RCRA Subtitle C (for solid waste management units [SWMU]), and RCRA Subtitle I (for underground storage tanks [UST]) administered by the State of California. These corrective action authorities are similar to CERCLA in that they require response/corrective action (cleanup) where necessary to ensure adequate protection of human health and the environment - see § 121(d) of CERCLA, Health and Safety Code (HSC) § 25296.10(b), Title 23 California Code of Regulations (CCR) Sections (§§) 2720 (definition of "corrective action") and 2725(c), and Title 22 CCR § 66264.101(a).

A decision that no further action (NFA) is required to protect human health and the environment, made by the Navy or an environmental regulator under the laws and regulations listed above, also supports a Navy determination under § 120(h) of CERCLA that all remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken.

The rationale for integrating CERCLA and RCRA corrective action requirements is straightforward. The cleanup standard for CERCLA is set forth in § 121 of CERCLA (Cleanup Standards), which states in the relevant part of Subsection 121(b)(1): "...The President shall select a remedial action that is protective of human health and the environment..." (42 U.S.C. § 9621(b)(1)). The cleanup standard for RCRA Subtitle C corrective action in the State of California, as set forth in Title 22 CCR § 66264.101(a), provides: "The owner or operator of a facility seeking a permit for the transfer, treatment, storage, or disposal of hazardous waste shall institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid or hazardous waste management unit at the facility, regardless of the time at which waste was placed in such unit." Also see HSC §§ 25187 and 25200.10(b).

The DERP, codified as 10 U.S.C. §§ 2701–2709, gave the DoD Environmental Restoration Program a statutory basis. The Navy implements the DERP subject to, and in a manner consistent with, CERCLA and its regulations.

There are no active RCRA facility permits at former LBNC. In 1983, the Navy obtained a Hazardous Waste Facility Permit (CA6170023109) for storage of hazardous waste at LBNSY, Building 118, SWMU 1. The permit was extended to 1990 until a new facility was constructed and permitted (same permit number) at Building 314 (not on the 2014 FOST Parcel). Closure of SWMU 1 (Building 118) was issued in a DTSC letter granting a "Closure Certification Acknowledgement" dated March 8, 2006. Closure of the Building 314 RCRA-permitted unit (SWMU 2) was issued in a letter indicating an "Acceptance of Closure Certification" by DTSC in September 2002.

A total of 33 SWMUs were described in the RCRA Facility Assessment (RFA) Report prepared by the California Department of Health Services (CDHS) in November 1989 (CDHS 1989). A total of 18 of these SWMUs (including SWMU 1, Building 118) are located on the 2014 FOST Parcel. All of these SWMUs have received closure and NFA determinations from DTSC based on preliminary assessments (PA), closure certification acknowledgements, or have been investigated further and closed under the Navy's IR Program (Table 1).

3.2 RCRA SUBTITLE I CORRECTIVE ACTION

The California Regional Water Quality Control Board, Region 4 (RWQCB), administers the UST corrective action program at former LBNC pursuant to RCRA Subtitle I and §§ 25280-25299.8 of the California HSC. The authority of the RWQCB to require corrective action at UST sites is set forth in Title 23 CCR Division 3, Chapter 16. The Navy implements Petroleum Corrective Action (PCA) activities at former LBNC in coordination with the RWQCB.

3.3 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA)

CERCLA response actions are initiated at environmental sites where CERCLA hazardous substances have been or may have been released. Under Executive Order 12580, the Navy is the lead agency responsible for CERCLA cleanup efforts at Navy properties. Five IR sites are included in this FOST. CERCLA investigations were conducted under the IR program for these sites and are discussed in Section 4.1.

4.0 SUMMARY OF ENVIRONMENTAL CONDITIONS AND NOTIFICATIONS

This section summarizes the environmental conditions, actions taken, and notifications to be included in the Covenants, Conditions, and Restrictions that will be provided to MARAD for inclusion in the quitclaim deed(s), as they relate to CERCLA, petroleum products and derivatives, asbestos-containing materials (ACM), lead-based paint (LBP), pesticides, polychlorinated biphenyls (PCB), munitions and explosives of concern (MEC), and other regulated materials.

The deed(s) for the 2014 FOST Parcel will contain, to the extent such information is available on the Property based on a complete search of agency files, a notification of hazardous substances stored for 1 year or more, or known to be released, or disposed of within the 2014 FOST Parcel, in the form and manner prescribed by CERCLA (42 U.S.C. Section 9620(h)) and Title 40 of the Code of Federal Regulations (CFR) Part 373. This notice is provided in Attachment 1, the Hazardous Substances Notification Table.

4.1 CERCLA PROGRAM

CERCLA, also known as Superfund, addresses environmental releases or threatened releases of hazardous substances to the air, surface water, groundwater, sediment, and/or soil. In 1986, Congress enacted the Superfund Amendments and Reauthorization Act (SARA), which mandated that the DoD follow the same cleanup regulations that apply to private entities. SARA also established the DERP, through which the DoD conducts environmental restoration activities. The Navy IR Program was designed to identify and clean up contamination from hazardous substances, pollutants, and contaminants resulting from past Navy activities to protect human health and the environment at present and former Navy installations. The CERCLA IR sites within the 2014 FOST Parcel are discussed below, together with two areas of concern (AOC), where a specific deed notification of the possible presence of CERCLA hazardous substances will be provided (Figure 2).

4.1.1 Installation Restoration (IR) Site 7

IR Site 7 is approximately 645 acres and includes the West Basin and the Annulus (Figure 2). During operation of the former LBNC, LBNS provided coordination and support to ships and other naval activities in the area, and LBNSY provided logistical support for assigned ships and

performed work in connection with conversion, overhaul, repair, alteration, dry-docking, and outfitting ships. Eleven piers within the boundary of IR Site 7 (Figure 2) supported these operations. From the early 1940s to the mid-1970s, wastes from various industrial areas and from cleaning process tanks on the former LBNC were discharged into IR Site 7. Wastes were also discharged into IR Site 7 through the storm drain system and from flushing the drydocks. Primary sources included land-and ship-based activities, such as lead caulking, painting or paint removal, boiler cleaning, and pipe-flushing operations. Stormwater discharge and flushing drydocks also represent historical primary release mechanisms and potential sources of contaminants in IR Site 7 sediments.

In August 1998, title to most of the West Basin (majority of IR Site 7) reverted to the City of Long Beach under its rights to automatically reacquire the harbor after the majority of Navy uses ceased. The Navy retained ownership of the Annulus, Piers 10, 12, 15, and 16, and Submerged Lands underlying then-existing Piers 1, 2, 3, 6, 7, 9, 10, 11, 12, 15, and 16 (Figure 2). Concurrent with the reversion of the majority of IR Site 7, the Navy executed the LIFOC with the POLB for properties that included among others, the 100-foot-wide Annulus and Submerged Lands underlying then-existing piers. Pier 12 and its submerged lands were not included in the LIFOC, since this property has remained an active DoD fuel facility. Under the LIFOC, the POLB performed the following redevelopment activities that occurred at the portion of IR Site 7 within the 2014 FOST Parcel (Annulus and Submerged Lands under former and existing piers) (Bechtel Environmental, Inc. [BEI] 2003):

- Demolished and removed Piers 1, 2, 3, 6, 7, 9, and 11;
- Demolished and removed the seawall located along the northern perimeter of IR Site 7, and constructed a new seawall and new docking facilities in its place; and
- Dismantled and reconstructed portions of Pier 16.

Piers still existing at IR Site 7 include Piers 10, 12 (Pier 12 is part of Defense Fuel Support Point [DFSP] San Pedro), 15, and 16 (Figure 2). The POLB currently uses the majority of IR Site 7 to support the marine-based operations of its tenants (BEI 2003).

The Remedial Investigation (RI) at IR Site 7 identified metals, polycyclic aromatic hydrocarbons (PAH), PCBs, and pesticides (particularly dichlorodiphenyltrichloroethane [DDT]) as chemicals of ecological concern, because they were detected at levels that exceed sediment screening criteria (Bechtel National, Inc. [BNI] 1997a). The collective physical, chemical, and biological data for surface and subsurface sediments were used to identify seven distinct submerged areas as areas of ecological concern (AOEC) A through G within the West Basin (Figure 4) (BEI 2003).

The Feasibility Study (FS) at IR Site 7 evaluated remedial alternatives ranging from the no action alternative to remediation though dredging/disposal and institutional controls (IC) to limit or preclude the unauthorized disturbance of the chemically impacted sediments beneath the piers (BEI 2003). An FS Addendum issued in 2006 further developed and evaluated ICs as a remedial

option that would protect benthic organisms from adverse impacts at AOECs where chemically impacted sediments would remain under existing piers (CDM 2006).

The Record of Decision (ROD) for IR Site 7 selected no action at AOECs B and D, and ICs at AOECs E, F, and G to prevent disturbance of submerged sediments under existing Piers 12, 15, and 16 (Navy BRAC PMO West 2007). The ROD selected remedial action (dredging/disposal) at AOECs A and C, which was implemented by the POLB per a Consent Agreement for Sediment Cleanup with DTSC (POLB 2013a). Dredging of AOEC-A, which is located in the northeastern corner of the West Basin between former Pier 1 and the land area formerly named Pier Echo (Figure 4), occurred from July to September 2010. Dredging of AOEC-C West, which is located within the West Basin adjacent to the former LBNS Mole and includes the area from approximately 300 feet east of Pier 10 to the west edge of Pier 12, occurred from August to December 2010. Dredging of AOEC-C East, which is located within the West Basin adjacent to the former LBNS Mole between Piers 12 and 15, occurred from December 2010 to February 2011. Sediment at the three areas was sampled during the process to verify that the impacted sediments were removed, and additional dredging was conducted for AOEC-A, with completion in October 2010. Results from sediment core samples collected after dredging was completed at the AOECs confirmed that the chemical concentrations were all below the target Sediment Management Objective criteria developed during the FS and specified in the ROD for IR Site 7 (POLB 2013a). In its letter dated June 26, 2013, DTSC concurred that the POLB had successfully completed sediment removal in accordance with the IR Site 7 ROD and also stated that ICs had been implemented to prevent disturbance of sediments beneath Piers 15 and 16, as well as the DoD active fuel facility Pier 12.

4.1.2 IR Site 8

IR Site 8, identified as the former Building 210 trichloroethene (TCE) Disposal Site, is a 45- by 240-foot area located on former LBNSY property (Figure 2). IR Site 8 is bounded to the south by former Avenue D and to the north at the former LBNSY fence-line and is currently part of the marine container storage facility. Historically, TCE, acids, and plating solutions were used in Building 210 while electronic systems were repaired. Waste TCE was reportedly disposed in the vicinity of the fence line along the northern site boundary.

Results from the RI at IR Site 8 indicated only low concentrations of methylene chloride in soil and no metals in soil that exceeded background concentrations (BNI 1997b). Groundwater results at IR Site 8 included low concentrations of methylene chloride and acetone, both attributed to probable laboratory contamination. Chromium was the only metal reported in groundwater at a concentration exceeding its background; it also exceeded its California Ocean Plan (COP) limit (California State Water Resources Control Board [SWRCB] 2001). The human health risk assessment (HHRA) conducted for the RI concluded that chemicals detected in soil and groundwater at IR Site 8 did not pose an unacceptable risk to human health under an industrial use scenario.

The ROD/Remedial Action Plan (RAP) for IR Sites 8 and 10 documented the selected remedy of groundwater monitoring and ICs for IR Site 8 (Navy BRAC PMO West 2004). The ROD/RAP

identified chromium as the only chemical of concern (COC) for groundwater at IR Site 8 based on concerns that it could migrate to surface water at concentrations exceeding its COP limit. A remedial goal (RG) for chromium at IR Site 8 was established in the Remedial Design/Remedial Action Work Plan (RD/RAWP) (Battelle 2007a). Quarterly groundwater monitoring began in April 2004 and was reduced to a semi-annual frequency in June 2006 after concurrence from the DTSC and the RWQCB. Results presented in the 2007 Annual Groundwater Monitoring Report (Battelle 2008) demonstrated that chromium would not migrate to surface waters at concentrations exceeding the COP limit for this metal (SWRCB 2001). As a result, DTSC and RWQCB concurred with the recommendation to discontinue groundwater monitoring at IR Site 8.

The 2009 Final Remedial Action Completion Report (RACR) for IR Sites 8 and 10 was prepared to document that long-term groundwater monitoring had been completed at the two sites (Battelle 2009a). The RACR also stated that all remedial action objectives (RAO) had been achieved and would continue to be achieved, based on the results of the groundwater monitoring program and continued implementation of ICs that ensure land use remains industrial. The RWQCB and DTSC concurred with the Final RACR for IR Sites 8 and 10 in February 2009 and August 2009. In 2014, the Navy requested concurrence from the RWQCB and DTSC for removal of certain ICs that were no longer necessary because groundwater RAOs had been achieved. The RWQCB concurred on April 3, 2014; DTSC concurred on July 31, 2014.

4.1.3 IR Site 9

IR Site 9, Building 129, is located in the north-central portion of the LBNSY, as shown in Figure 2. It consists of an approximate 200- by 540-foot area where Building 129 and two adjacent Quonset huts on the north side of the Building were formerly located. The first floor of Building 129, initially dirt overlain with wooden blocks, contained an electronics and machine shop that operated from 1940 to 1973. The shop generated waste oils, greases, and solvents that were reportedly discharged into concrete trenches leading to four underground sumps located at each corner of Building 129. The sumps were routinely pumped out and waste was taken off site for disposal; however, the trenches would occasionally overflow and spill unknown quantities of waste liquid onto the building floor (Naval Energy and Environmental Support Activity [NEESA] 1983). The two Quonset huts north of Building 129 were used to store liquids used for metal plating, such as chromic acid and solvents, until the mid-1970s. A number of spills are known to have occurred at and in the vicinity of the huts (NEESA 1983).

IR Site 9 was recommended for further investigation for potential contamination during the LBNSY RFA (CDHS 1989). The 1991 Site Inspection (SI) that included IR Site 9 confirmed the presence of several chlorinated and non-chlorinated volatile organic compounds (VOC) in soil and groundwater at the site. Elevated concentrations of semivolatile organic compounds (SVOC) and total petroleum hydrocarbons (TPH) were also reported in soil. Elevated concentrations of TPH, along with arsenic and mercury at levels exceeding background, were reported in groundwater. The RI completed in 1997 reported VOC contaminants in soil at concentrations below industrial screening levels and metals below background levels. The RI identified four groundwater areas of potential concern, based on chlorinated VOCs reported in

groundwater beneath or adjacent to IR Site 9 (BNI 1997b); however, the RI did not completely delineate the extent of these contaminants. A supplemental groundwater investigation (SGI) conducted in 1999 identified and investigated additional sources of VOCs and delineated a total of six individual chlorinated VOC plumes (BNI 1999). The plumes were characterized in terms of specific VOCs, such as tetrachloroethene (PCE), TCE, dichloroethene (DCE), and vinyl chloride (VC), and by concentrations that exceeded COP criteria. On this basis, two of the plumes were approved for NFA by the regulatory agencies. The collective RI and SGI data were evaluated in an HHRA; this assessment concluded that exposure to soil and groundwater at IR Site 9 did not present an unacceptable risk to human health assuming controls would be in place to restrict current and future land use to industrial (BNI 1999).

The remedy selected for IR Site 9 in the Final ROD/RAP was monitored natural attenuation (MNA) for groundwater and ICs to ensure land use remains industrial (Navy BRAC PMO West 2005). Specific ICs for IR Site 9 were identified in a RD/RAWP (Battelle 2007a).

Quarterly groundwater monitoring for MNA was implemented in April 2004 for TCE, PCE, and their degradation products. Groundwater monitoring data indicated decreasing COC trends in many of the monitoring wells at the site; groundwater monitoring was reduced to semi-annual frequency beginning in June 2006 after concurrence from the regulatory agencies. A 2010 Technical Memorandum concluded that COCs in groundwater would not migrate to surface water at concentrations exceeding applicable water quality criteria, based on 2004 through 2010 groundwater monitoring data (Battelle 2010a). The Technical Memorandum indicated that the RAO for groundwater at IR Site 9 had been met, which was subsequently confirmed in the 2010 Annual Groundwater Monitoring Report submitted to the regulatory agencies in April 2011 (Oneida Total Integrated Enterprises 2011). The RWQCB and DTSC concurred with no further groundwater monitoring and ICs to ensure industrial land use at IR Site 9 in letters dated February 2011 and April 28, 2011.

The 2012 IR Site 9 RACR documented achievement of the groundwater RAO, the elimination of certain of the ICs related to groundwater, and the continued implementation of the remaining ICs to ensure industrial land use (Battelle 2012). DTSC and RWQCB concurred with recommendations in the RACR, in letters dated May 16, 2012, and October 8, 2012.

4.1.4 IR Site 10

IR Site 10, Lot H, Past Operations, consisted of an approximate 350- by 350-foot parking area (Parking Lot H), which was used as a scrapyard from 1952 to 1957 (Figure 2). IR Site 10 is currently paved and used for roads, equipment, and marine container storage. Material reportedly stored at the site during its use as a scrapyard included batteries, waste oil, radar equipment containing mercury, and spent sandblast material. During semiannual auctions of the batteries for reclamation, battery acid was reportedly disposed by pouring it on the ground. An estimated 1,700 to 2,400 gallons per year of battery acid were disposed of in this manner. In addition, infrequent, unintentional releases of mercury may have occurred from leaking radar equipment stored in the scrapyard (NEESA 1983).

The 1997 LBNSY RI for IR Site 10 reported a number of results for metals in soil at concentrations exceeding background, but less than industrial screening criteria (BNI 1997b). Groundwater results included low concentrations of TCE, DCE, and several PAHs; of these, concentrations of TCE exceeded its preliminary remediation goal (PRG) for tap water, and pyrene concentrations exceeded the COP limit. The only metal exceeding its background concentration and COP limit in groundwater was barium, reported in one groundwater sample. The HHRA conducted for the RI concluded that chemicals detected in soil and groundwater at IR Site 10 did not pose unacceptable risk to human health under an industrial use scenario (BNI 1997b).

The ROD/RAP for IR Sites 8 and 10 documented the selected remedy of groundwater monitoring and ICs for IR Site 10 (Navy BRAC PMO West 2004). The ROD/RAP identified pyrene and barium as COCs for groundwater at IR Site 10 based on concern that they could migrate to surface water at concentrations exceeding COP limits. RGs for pyrene and barium were established in the RD/RAWP (Battelle 2007a). Results from groundwater monitoring rounds conducted from March 2004 to May 2007 indicated that concentrations of COCs in groundwater did not exceed RGs after the sixth monitoring round in September 2005 (Battelle 2007b). The RWQCB and DTSC concurred with the Navy's recommendation to discontinue groundwater monitoring in letters dated August 2007 and December 2007.

In 2009, the final RACR for IR Sites 8 and 10 documented achievement of the groundwater RAOs at the two sites and the continued implementation of ICs to ensure industrial land use (Battelle 2009a). The RWQCB and DTSC concurred with the Final RACR for IR Sites 8 and 10 in February 2009 and August 2009. In 2014, the Navy requested concurrence from the RWQCB and DTSC for the removal of certain of the ICs that were no longer necessary because groundwater RAOs had been achieved. The RWQCB concurred on April 3, 2014; DTSC concurred on July 31, 2014.

4.1.5 IR Site 16

IR Site 16, originally designated as AOC PT 1 (later changed to AOC 65), included an approximate 80- by 125-foot area of the former plating shop in Building 210 and its vicinity (Figure 2). The plating shop, initially located within Building 129, was moved into the northeastern corner of Building 210 shortly after its construction in 1974, and was operated until 1997. Building 129 was not designated as part of AOC PT 1 and is not included in the IR Site 16 footprint. The plating operations in Building 210 included approximately 63 aboveground process tanks, ranging in size from 55 to 5,400 gallons (Battelle 2005).

During PA sampling activities conducted in June 1998, soil and groundwater samples were collected at AOC PT 1 and analyzed for VOCs, SVOCs, hexavalent chromium, and total cyanide (CDM 2000). Reported concentrations of these chemicals of potential concern (COPC) in soil and groundwater did not exceed industrial screening criteria. As a result, NFA was recommended for soil and groundwater beneath the plating shop; however, the PA Report recommended that future demolition should take into account that the concrete floor inside Building 210 where plating operations occurred might have absorbed contaminants (CDM 2000).

During demolition of Building 210 in late 2000 to early 2001, concrete and soil deemed contaminated based on visual yellowish-green staining were removed. As a result, AOC PT 1 (AOC 65) was added to the IR Program as IR Site 16 in May 2001.

An Expanded SI (ESI) was conducted at IR Site 16 in the northeastern portion of Building 210 in two phases to identify and delineate the vertical and horizontal extents of metals in soil and groundwater. In 2002, the first phase reported that concentrations of cyanide, hexavalent chromium, and other metals in soil were below soil background concentrations and industrial screening levels (Battelle 2002). Results for metals in groundwater also did not exceed background concentrations or COP limits, except for cadmium, thallium, and zinc. Of these, zinc was determined to be a COPC because of its relatively high frequency of detection above its background concentration in groundwater. Additional soil and groundwater samples were collected at IR Site 16 during the second phase of the ESI, completed in March 2004 because of access delays to adjacent off-site property. The second phase results found that metals concentrations in both soil and groundwater did not exceed background concentrations or industrial screening criteria, and the final ESI recommended NFA for soil and groundwater (Battelle 2005). In letters dated July 11, 2005, and September 2, 2005, DTSC and RWQCB concurred with the NFA recommendation in the Final ESI Report.

In 2008, data for IR Site 16 were compared with residential screening criteria in a site closure report prepared for 15 AOCs at former LBNC (Battelle 2009b). Results indicated that soil and groundwater samples for metals did not exceed these criteria, and the site was recommended for NFA with unrestricted use. DTSC and the RWQCB approved the NFA recommendation for unrestricted use in letters dated February 2, 2010, and March 25, 2010.

4.2 AREAS OF CONCERN (AOC)

AOCs at former LBNC were initially identified in the 1996 Environmental Baseline Survey (EBS) (LBNSY Environmental Division [LBNSY-ED] 1996a). These AOCs included hazardous waste storage facilities, industrial wastewater system sites, PCB-containing electrical equipment, process tanks, satellite accumulation points, sanitary sewers, storm drains, historical sites (sites based on information in records), and USTs. AOCs at former LBNC, including CERCLA, RCRA, and compliance sites, have been addressed under the IR Program with agreement from the regulatory agencies.

More than 345 AOCs have been identified at former LBNC in the following: EBS documents prepared for LBNSY and LBNS in 1994 and 1996 (BNI 1994; LBNSY-ED 1996a); a supplemental EBS for LBNS in 1997 (BNI 1997c); NAVFAC Southwest BRAC Cleanup Plan (BCP) (NAVFAC 1999); and through implementation of the IR Program. Of these, 200 AOCs are located within the 2014 FOST Parcel. All have received NFA concurrence from DTSC and the RWQCB without restrictions (Table 2), with the exception of AOC sanitary sewer system (SSS) 1, a site with residual petroleum that is discussed in Section 4.3.2. Two additional AOCs, stormwater system (SWS) 4 and SWS 5, have received NFA concurrence without restrictions, but require a specific deed notification when the property transfers.

4.2.1 Stormwater System (SWS) 4 and SWS 5

AOCs SWS 4 and SWS 5 consist of drainage and discharge tunnels associated with former Drydock 2 and Drydock 3 (Figure 2). These AOCs are located at the northern ends of the former Drydocks and were closed by the POLB before the Drydocks were filled and paved over during redevelopment. The POLB placed an additional 10 to 15 feet of fill over the Drydocks at that time, and the AOCs are now approximately 60 feet below the present land surface.

A PA that included SWS 4 and SWS 5 recommended collecting sediment samples from the sumps at SWS 4 and SWS 5 (CDM 1998a). Sediment samples were subsequently collected in June 1998 from the Drydock 2 drainage tunnel (SWS 4) at its lowest elevation point and from the Drydock 3 drainage tunnel (SWS 5) at its lowest elevation (CDM 1998b). Concentrations of TPH (diesel and motor oil), naphthalene, PAHs, PCBs, arsenic, copper, and lead in the two samples exceeded residential risk-based screening levels. Further action, including sealing the tunnels to prevent discharge of contaminated sediment into the harbor, was recommended for both AOCs (CDM 1998b). The drainage and discharge tunnels were completely sealed and encapsulated in concrete by POLB in early 2001 during redevelopment at former LBNC (Battelle 2010b).

On May 14, 2001, the Navy sent a letter to DTSC and RWQCB verifying the completion of the tunnel sealing and requesting concurrence with NFA for SWS 4 and SWS 5. In letters dated May 30, 2001 and July 31, 2001, the DTSC and RWQCB concurred with the Navy's NFA recommendation for SWS 4 and SWS 5. DTSC's concurrence letter included language that SWS 4 and SWS 5 were to be used by the POLB for port-related industrial activities only. To clarify the regulatory status, the Navy issued a site closure report for AOCs SWS 4 and SWS 5 in September 2010 (Battelle 2010b). The report documented the history of investigations and actions related to the AOCs and included the previous NFA concurrence letters from DTSC and RWQCB. In its February 6, 2013, letter, DTSC concurred with the NFA closures for AOCs SWS 4 and SWS 5 without restrictions, and stated "The Navy has agreed, upon transfer of the property, to include a deed notification of the possible presence of contaminated sediments in the concreted sumps approximately 50 feet below ground surface (bgs) at these two AOCs." As stated above, AOCs SWS 4 and SWS 5 are now approximately 60 feet below the current land surface due to the additional 10-15 feet of fill cover added by the POLB (Battelle 2010b). An appropriate notification will be included in the deed of transfer.

4.3 PETROLEUM PRODUCTS AND DERIVATIVES

PCA activities at former LBNC are conducted concurrently with the IR Program. These activities cover USTs, aboveground storage tanks (AST), and other AOCs that contained or were otherwise contaminated by only petroleum products and their derivatives. The identification, investigation, cleanup as necessary, and closure of these UST, AST, and AOC sites at former LBNC have been conducted as part of the former LBNC IR Program that addressed AOCs, with oversight and concurrence of the RWQCB. Other than the two petroleum sites discussed below, all PCA activities are complete; the sites have received concurrence for NFA and are closed, as summarized in Table 2. The Former Gasoline Station (Building 101) USTs Site (Figure 2) is

currently being investigated by the Navy with the oversight of the RWQCB and is discussed below in Section 4.3.1. In addition, residual TPH contamination associated with AOC SSS 1 is discussed below in Section 4.3.2.

4.3.1 Former Gasoline Station (Building 101)

The Former Gasoline Station (Building 101) USTs Site (Figure 2) included 20 USTs in operation between 1943 and 1997. Of the 20 USTs containing petroleum products, 15 USTs were removed from the service station in 1968. Two 5,000-gallon USTs (USTs 101.4 and 101.5) were investigated and removed in 1993 (Geofon 2003). Three 15,000 gallon USTs (USTs 101.1, 101.2, and 101.3) containing diesel, regular gasoline, and unleaded gasoline, and the associated product island and dispensers were removed in July 1997. This removal was documented in a removal action and closure report (Geofon 1998).

A summary groundwater monitoring report for the Building 101 Site covering September 2003 through March 2006 was submitted to regulatory agencies in June 2006 and recommended site closure (Geofon 2006a). In a letter dated July 18, 2006, RWQCB stated that it did not have any comments on the document.

In a letter dated September 6, 2011, the RWQCB indicated it could not concur with NFA at the Building 101 Site as a result of potential continuing sources of methyl tert butyl ether (MTBE), incomplete characterization of oxygenates, and the need to evaluate potential remedial efforts for MTBE. RWQCB comments were based on temporal observations at individual monitoring wells from the last two quarterly groundwater monitoring events conducted in 2006. The Navy completed additional groundwater sampling in November 2013 and has requested closure under the Low-Threat UST Case Closure Policy (SWRCB 2012) in the May 2014 Groundwater Monitoring Report for Former Building 101 Site (Trevet 2014).

4.3.2 Sanitary Sewer System (SSS) 1

AOC SSS 1 consists of a specific portion of the former LBNSY subsurface sanitary sewer system (Figure 2). The sewer system in total was a network of 6- to 12-inch-diameter subsurface clay, concrete, and polyvinyl chloride (PVC) gravity-flow SSS lines leading to three 12- to 18-inch steel force main lines. SSS 1 was included in a group of 25 AOCs (Group B) that were investigated in a PA conducted in 1998 (CDM 1998a). Based on the recommendations presented in that report, soil sampling was conducted at several locations along the SSS line where breaks or missing sections were observed in video inspections. Results were presented in the follow-on PA and sampling report issued in April 2000 (CDM 2000). The RWQCB concurred with NFA at that time based on anticipated industrial land use in the future.

The Navy issued a Revised Final Closure Report for 15 AOCs, including SSS 1, on December 4, 2009 (Battelle 2009b). DTSC issued a letter dated February 2, 2010, concurring with NFA and unrestricted use for the 15 AOCs, but deferred the issue of residual TPH in soil at four AOCs, including SSS 1, to RWQCB. In a letter dated March 25, 2010, RWQCB concurred

with unrestricted use for three of the AOCs, but did not concur with unrestricted use for SSS 1; the basis the RWQCB cited was residual TPH reported in soil samples collected in March 1999 at depths of approximately 20 feet below current ground surface at concentrations exceeding San Francisco Bay Regional Board Environmental Screening Levels (CDM 2000). Because no new data are available to confirm current TPH concentrations, the deed will restrict property use at SSS 1 (Figure 2) to industrial use only based on the potential presence of TPH at concentrations not appropriate for unrestricted use.

4.3.3 Closed Underground Storage Tanks (UST)

No USTs of any type are located on the 2014 FOST Parcel. A total of 37 petroleum USTs were formerly located on the 2014 FOST Parcel. These USTs are identified as AOCs among those listed in Table 2. All of the USTs, with the exception of the Building 101 Site, have received NFA closure from RWQCB. The Building 101 Site is discussed above and in Section 6.2.1.

4.3.4 Closed Aboveground Storage Tanks (AST)

No ASTs are currently located on the 2014 FOST Parcel. The only AST formerly located on the 2014 FOST Parcel, AST 206 (LBNSY-ED 1996a), was removed by the POLB during redevelopment under the LIFOC.

4.4 ASBESTOS-CONTAINING MATERIAL (ACM)

A number of asbestos surveys were conducted at former LBNC (Dames & Moore 1992; Enviro Group 1994; LBNSY-ED 1994, 1996b). ACM was found in more than half of the structures surveyed. Under the 1998 LIFOC, the POLB demolished all buildings on the 2014 FOST Parcel (NAVFAC 1998, 2001) and was required to transport and dispose of ACM off site in accordance with federal and state laws and regulations. With the exception of Piers 10, 15, and 16, there are no longer any Navy buildings or structures on the 2014 FOST Parcel. According to the Final Supplemental EBS for LBNS (BNI 1997c), asbestos surveys listed above confirmed ACM to be present at Piers 15 and 16, but absent at Pier 10 (Figure 2). Based on standard construction practices of the time, there is the potential for ACM to be associated with any underground fuel, steam, or hot water lines at the former LBNC that were not removed during the POLB's extensive redevelopment activities. Potential exposure to ACM, if present on any remaining subsurface structures, is remote because the POLB spread 10 to 15 feet of fill over the LBNC property during redevelopment to establish new grade. A notification will nevertheless be included in the deed regarding the potential presence of ACM within the property and on remaining piers, in accordance with applicable law.

4.5 LEAD-BASED PAINT (LBP)

LBP hazards are defined in the Federal Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X of Public Law 102550), as codified in 42 U.S.C. Section 4822 (Act) as "any condition that causes exposure to lead...that would result in adverse health effects." The Act

provides for regulation of hazard abatement from LBP. Hazards include lead-contaminated dust and soil for target housing only. The Act defines target housing as any housing constructed before 1978, except any housing for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing for the elderly or persons with disabilities) or any zero-bedroom dwelling. Under the Act, the Navy is required to disclose the presence of known LBP and/or LBP hazards prior to the sale or transfer of property to a non-federal entity.

There are no LBP-containing buildings or structures on the 2014 FOST property, with the exception of Piers 10, 15, and 16 (Figure 2). Former LBNC did not contain target housing and thus did not require LBP surveys. However, it was assumed that LBP was used at the former facility based on the age of the buildings or structures. Under the 1998 LIFOC, the POLB demolished all buildings on the 2014 FOST Parcel and was required to transport and dispose of LBP in accordance with federal and state laws and regulations (NAVFAC 1998, 2001). Existing Piers 10, 15, and 16 were constructed prior to 1978, and may contain LBP. However, since these structures are not target housing, the Navy was not required to perform an LBP survey. The deed will nevertheless contain notifications of the possible presence of LBP within the property and at the existing piers, and of the requirement for the transferee to manage any such LBP in accordance with applicable local, state, and federal law.

4.6 POLYCHLORINATED BIPHENYLS (PCB)

DoD policy guidance for PCBs is based on the Toxic Substances Control Act regulations found in Title 40 CFR Part 761. No PCB-containing electrical equipment is currently located on the 2014 FOST Parcel. There were two PCB-containing electrical switches and four transformers formerly located on Pier 2. There was one PCB-containing electrical switch and one transformer formerly located on Pier 3. None of this equipment contained PCBs at concentrations exceeding 51 parts per million (LBNSY-ED 1996a). POLB removed the equipment under the LIFOC during demolition of the piers in 1998 to 2001 (NAVFAC 1998, 2001).

4.7 MUNITIONS AND EXPLOSIVES OF CONCERN (MEC)

There are no munitions response sites located on former LBNC, and no evidence has been found to indicate LBNSY ever formally handled munitions (LBNSY-ED 1996a). No weapons systems or ranges are known to be located on former LBNS (BNI 1997c). Incidental MEC (discarded military munitions) were encountered in sediments in only two areas of the West Basin. MEC were encountered in the stockpiled dredge spoils that were dredged from the submerged area along POLB Pier T between former Pier 6 and Pier 9 during POLB redevelopment activities in 2004-2006 (Figure 4). POLB performed additional maintenance dredging in this area in 2012, and no further MEC was encountered. The second occurrence of incidental MEC was during IR Site 7 CERCLA remedial action 2010 dredging activities in the submerged sediments along POLB Pier T between former Pier 1 and former Pier Echo (Figure 4). No additional MEC were encountered during POLB dredging events conducted in the remainder of the West Basin, including the dredging conducted in 2010 between Piers 10 and Pier 15 during the implementation of the CERCLA remedial action for IR Site 7 (Figure 4). This CERCLA

remedial action included dredging of portions of the submerged land that is part of the 2014 FOST Parcel. In addition, no MEC was encountered in sediments during POLB improvements to Pier 16 in 2011 or during the 2012 and 2013 maintenance dredging events conducted in the West Basin Approach Channel to POLB Pier T that extends diagonally across the West Basin from the harbor entrance east of IR Site 1 to the western end of Pier T near Piers 6 and 7 (Figure 4).

The presence of MEC in the West Basin sediments was determined to be incidental based on the operational history of the LBNC. There were no munitions handling facilities and the procedure was to off-load munitions at Naval Weapons Station Seal Beach prior to entering the LBNC. The findings of MEC were infrequent and limited to two areas of the West Basin, even though there were numerous sediment-disturbing events throughout the West Basin since the closure of the LBNC. The likelihood of encountering MEC in the Submerged Land portions of the 2014 FOST Parcel is considered to be very low, especially in light of the extensive dredging and pier improvement activities that took place in the West Basin sediments in 2011, 2012, and 2013, during which no MEC was encountered. The deed will nevertheless contain a notification of the low probability that MEC may be present in the submerged portions of the 2014 FOST Parcel, together with information on the proper point of contact to ensure that the appropriate response is taken, if necessary, in the unlikely event that MEC is encountered.

4.8 PESTICIDES

There were no pesticide storage or mixing areas located on former LBNC. Pesticides were applied by contractors on an as-needed basis under the supervision of facilities and maintenance personnel (BNI 1994; LBNSY-ED 1996a). In addition, under the 1998 LIFOC, the POLB demolished all upland structures on the 2014 FOST Parcel, spread 10 to 15 feet of fill at the LBNC property to establish new grade, and repaved the surface with asphalt, removing the potential for pesticides residue to remain at the surface (NAVFAC 1998, 2001). The deed will nevertheless contain a notification, and the transferee will acknowledge, that registered pesticides have been applied to the property conveyed and may continue to be present thereon. The deed will contain an acknowledgement from the transferee that where a pesticide was applied by the Navy or at the Navy's direction, the pesticide was applied in accordance with its intended purpose and consistently with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)(7 U.S.C. § 136, et seq.) and other applicable laws and regulations. The transferee will covenant and agree that if it should take any action with regard to the property, including demolition of structures or any disturbance or removal of soil that may expose, or cause a release of, a threatened release of, or an exposure to, any such pesticide, the transferee will assume all responsibility and liability therefore.

5.0 ADJACENT PROPERTIES

In accordance with DoD BRRM guidance and the BRAC PMO FOST Policy, this FOST contains an analysis of adjacent property conditions related to hazardous substances, petroleum products, or other regulated materials that could potentially impact the 2014 FOST Parcel. In each instance, the Navy has determined that the activities at adjacent parcels have not impacted the suitability to transfer the 2014 FOST Parcel.

IR Site 1, Mole Solid Waste Operations, and IR Site 2, Chemical Materials and Waste Storage Area, are located at the east end of the former LBNS Mole, adjacent to the 2014 FOST Parcel Annulus (Figure 3). The Navy still retains custody and control of the property that makes up these two IR sites. Solid waste was disposed at IR Site 1 from the mid-1940s to the mid-1960s. IR Site 2 was used as a storage area for containerized chemical raw materials and wastes from the mid-1960s to the 1980s (Table 3). These two sites were initially investigated during the RI for IR Sites 1 through 6A (BNI 1996), then further investigated to define five areas of potential concern (AOPCs) for soil and groundwater contamination (BNI 1997d). AOPCs 1 and 4 at the two sites were recommended for further remediation. After the ROD for IR Sites 1 and 2 (Navy BRAC PMO West 2000), remedial action was implemented at the two AOPCs, consisting of excavation and removal of drums and debris and in situ air sparging/soil vapor extraction (ISAS/SVE). Soil was removed in 2000 and 2001 and the ISAS/SVE system was installed and operated from October 2001 to August 2003. Long-term groundwater monitoring conducted through 2007 demonstrated no contaminant rebound after cessation of the ISAS/SVE system, and a RACR was issued to document completion of the active portion of the remedial action and continuation of ICs (Battelle 2007c). The RWQCB concurred with ending groundwater monitoring at IR Sites 1 and 2 in April 2009. A 5-year review that included IR Sites 1 and 2 concluded that the remedy at these sites was protective of human health and the environment (Chadux-Tt 2009).

The Navy has addressed radiological contaminants initially detected at IR Sites 1 and 2 during the 2000 and 2001 excavations in a radiological field investigation completed in late December 2008. A Final Radiological Survey Report was submitted to the regulatory agencies in May 2014 (Cabrera 2014). The environmental investigations and remedial response at IR Sites 1 and 2 have progressed to the point where the CERCLA site boundaries at these sites have been established to conservatively encompass all known contamination and any potential migration. Therefore, IR Sites 1 and 2 are not expected to impact the 2014 FOST Parcel.

5.2 IR SITE 3

IR Site 3, Industrial Waste Disposal Pits, is located within POLB Pier T property along the eastern and southwestern portions of the former LBNS Mole, and adjacent to the Annulus (Figure 3). This site formerly contained pits used to dispose of industrial wastes and trash from the 1940s to the early 1970s (Table 3). Property that included IR Site 3 was transferred to the POLB in 2001. IR Site 3 was investigated during the RI for IR Sites 1 through 6A (BNI 1996). Significant soil contamination was not found, but the RI identified groundwater contaminated by several VOCs above industrial PRGs. A supplemental field activity to the RI delineated a groundwater plume of commingled chlorinated and non-chlorinated VOCs above COP limits in the fill portion of the shallow water-bearing zone at one AOPC at IR Site 3 (BNI 1997d). Groundwater monitoring was subsequently implemented at the site beginning in 1997. The ROD for IR Sites 3 through 6A selected quarterly groundwater monitoring at IR Site 3 to ensure that groundwater contaminants do not migrate into marine ecosystems at concentrations above COP limits, and ICs to ensure land use remains industrial only (Navy BRAC PMO West 1999). IR Site 3 was granted conditional NFA status by the DTSC and RWQCB on August 5, 2003, and

July 11, 2003, after it was demonstrated that concentrations of VOCs were decreasing or stable at the site. However, the RWQCB and DTSC requested a final round of groundwater sampling during the 2004 5-Year Review conducted for former LBNC IR sites (Battelle 2004a). The final groundwater monitoring event was conducted in May 2004 and confirmed that concentrations of VOCs were stable. The results were documented in a groundwater sampling report dated September 2004 (Battelle 2004b) and in the 2004 5-Year Review Report (Battelle 2004a). The DTSC concurred with the conclusions for IR Sites 3 and 6A in these reports on November 2, 2004, and the RWQCB concurred with the conclusions on January 6, 2005, granting a Response Complete status for both sites (Table 3). ICs remain in place at IR Site 3 to ensure continued industrial land use.

5.3 IR SITE 4

IR Site 4, Mole Extension Operations, is located within POLB Pier T property along the southwestern and western portions of the former LBNS Mole and adjacent to the Annulus (Figure 3). Fill material (sandblast grit and construction debris) was deposited along the edge of the Mole at this IR Site from the 1950s to 1972 (Table 3). The portion of IR Site 4 property exclusive of DFSP San Pedro was transferred to the POLB in 2001. IR Site 4 was investigated during the RI for IR Sites 1 through 6A (BNI 1996). Significant soil contamination was not found, but two low concentration chlorinated solvent groundwater plumes were delineated at two AOPCs. A supplemental field activity to the RI conducted in 1996 determined that VOC concentrations at these AOPCs were below COP limits (BNI 1997d), but the Navy and agencies agreed to continue groundwater monitoring of four site wells to confirm that VOC levels The groundwater monitoring program at IR Site 4 was remained below COP criteria. discontinued in April 1999 after no VOCs exceeded these levels. The ROD for IR Sites 3 through 6A documented that no cleanup of soil or groundwater was warranted at IR Site 4 and selected ICs to ensure land use remains industrial only (Navy BRAC PMO West 1999). The Final ROD was signed by the Navy on June 7, 1999; RWQCB on November 30, 1998; and DTSC on June 25, 1999 (Table 3). ICs remain in place at IR Site 4 to ensure industrial land use.

5.4 IR SITE 7

The majority of IR Site 7, Harbor Sediments, is located within the West Basin and reverted back to the City of Long Beach in 1998 (Figure 3). The Annulus and Submerged Lands underlying existing Piers 10, 15, and 16 and the former piers are part of the 2014 FOST Parcel, as described in Section 4.1.1. Descriptions of historical land use, environmental investigations, site cleanup actions, and more recent POLB redevelopment activities at and around IR Site 7 are also presented in Section 4.1.1 and Section 4.7. In its June 11, 2013, letter, DTSC concurred that the POLB had completed the remedial action at IR Site 7 (West Basin) specified in the final ROD, and acknowledged that ICs are in place to ensure that sediments beneath Piers 12, 15, and 16 are not disturbed in the future. ICs will be monitored by CERCLA statutory five-year reviews in perpetuity or until the ICs have been released and terminated when ecological risk no longer exists per the final IR Site 7 ROD. Incidental MEC was also encountered during POLB redevelopment activities, as discussed in Section 4.7.

IR Sites 11, 12, and 13 are located to the east of the 2014 FOST Parcel on property that now is part of POLB Terminal T (Figure 3). This property reverted back to the City of Long Beach in 1998 after closure of LBNSY. IR Site 11 was a topographic low area that was filled in with material containing sandblast grit in 1975 (Table 3). IR Site 12 was a parking lot where sandblast grit disposal and historical drum crushing occurred from 1971 to 1975. IR Site 13 was used from the early 1970s to 1997 to store equipment and portable waste-storage tanks that contained hazardous substances. RIs were conducted at these Sites to determine the nature and extent of contamination (BNI 1997b); Feasibility Studies were conducted to assemble and evaluate remedial alternatives (Battelle 2001; BNI 2001); and groundwater monitoring and ICs were selected as the remedy for these Sites in a Final ROD/RAP (Navy BRAC PMO West 2006). Historical and current groundwater flow directions indicate that the potential pathway for COCs to migrate from these Sites to surface water is through capture by the dewatering wells associated with the Long Beach Generating Station (LBGS) (formerly Southern California Edison [SCE]) and subsequent discharge into the harbor. Groundwater monitoring was initiated at these Sites in April 2004. After the RAOs were achieved, and on agency concurrence, groundwater monitoring was discontinued in 2013 at IR Site 11 and in 2009 at IR Site 13. The current groundwater monitoring program includes only one well at IR Site 12 (NW-12-08) for monitoring arsenic.

5.6 IR SITE 14

IR Site 14 (former Building 46), located adjacent to the northwest extension portion of the 2014 FOST Parcel and adjacent to the North Seaside Avenue-West Ocean Boulevard transportation corridor (Figure 3), which is on property under Navy custody and control, was the location where dry cleaning operations were performed between the late 1950s and the mid-1960s. A non-time critical remedial action (NTCRA) is in progress at this site to address chlorinated VOCs (including PCE, TCE, DCE, and VC) in groundwater at concentrations exceeding RGs set forth in the Action Memorandum (NAVFAC 2000b). The NTCRA has included three groundwater biostimulation treatments to promote the reductive dechlorination of VOCs. Groundwater monitoring has been conducted since 2002 to evaluate and track remediation progress. Recent results have shown that concentrations of all COCs in IR Site 14 monitoring wells have been reduced to less than RGs. The Navy is currently continuing semiannual groundwater monitoring to confirm that COCs remain at or below RGs. COCs from this site are not expected to affect the 2014 FOST Parcel because groundwater flows to the northeast at IR Site 14 and the surrounding area (Geofon 2006b).

5.7 DEFENSE FUEL SUPPORT POINT (DFSP) SAN PEDRO

Property located along the southwest portion of the former LBNS Mole, within the eastern end of IR Site 4 and immediately west of IR Site 3, is considered part of DFSP San Pedro (Figure 3). This property, which includes Pier 12, remains under federal custody and control and is operated by the Defense Logistics Agency as an active fueling system for Navy ships. ICs to prohibit disturbance of contaminated sediment beneath Pier 12 are in place as part of the IR Site 7 CERCLA remedy.

5.8 LONG BEACH GENERATING STATION (LBGS)

The LBGS is located north of the 2014 FOST Parcel on the north side of West Ocean Boulevard (Figure 3). SCE owned the property and engaged in generation and distribution of power on the property from 1910 until 1998, when the generating station was sold to Long Beach Generation LLC. The sale took place during implementation of RCRA closure activities, with a stipulation that SCE retains liability for and continues to implement closure activities at the site. A Covenant to Restrict Use of Property (CRUP) is in place between the current property owner, Long Beach Generation LLC, and DTSC for a 0.46-acre portion of the LBGS known as the Surface Impoundment Property to limit land use, restrict surface disturbance, and prohibit raising of food. The LBGS is also currently a permitted small quantity waste generator for substances that include oily wastes and spent solvents from equipment lubrication and cleaning.

5.9 PORT OF LONG BEACH (POLB) PIER S

POLB Pier S is located north of the 2014 FOST Parcel on the north side of West Ocean Boulevard (Figure 3). A 163-acre portion of this property is identified on DTSC's EnviroStor website as a voluntary cleanup site (DTSC 2013). The Pier S property is part of Wilmington Oil Field and has had a history of oil production and disposal of oil field waste dating back to the 1930s. In 1994, the POLB purchased 720 acres of crude oil production field property in the Long Beach area from Union Pacific Resources Corporation, including the Pier S area. POLB and DTSC entered into a voluntary cleanup agreement in September 1997 to investigate and remediate site contamination at Pier S and other properties purchased by POLB. POLB removed and in situ stabilized contaminated material and relocated oil facilities at Pier S in 2005, but all remedial action is not yet complete. The POLB, in conjunction with the U.S. Army Corps of Engineers, completed an Environmental Impact Statement/Environmental Impact Report for the Pier S Terminal and Back Channel (Cerritos Channel) Improvements Project (POLB 2012) that includes final remedial action and installation of a monitoring well network on Pier S land to run concurrently with project construction. After the monitoring well network is in place, administrative controls, including a deed restriction and long-term operations and maintenance of the remedy, would be implemented (POLB 2012). Based on direction of groundwater flow in the area toward the north-northeast that is influenced in part by dewatering wells on the LBGS property, any potential migration of groundwater contaminants on the Pier S property would be toward the north and away from the 2014 FOST Parcel.

5.10 SOUTHEAST RESOURCE RECOVERY FACILITY (SERRF)

The Southeast Resource Recovery Facility (SERRF) is located north of the 2014 FOST Parcel on the west side of State Highway 47, adjacent to Pier S (Figure 3). SERRF is a privately operated facility owned by a separate authority created by a joint powers agreement between the Los Angeles Sanitation Districts and the City of Long Beach. SERRF uses recycling and mass burn technology to reduce the volume of solid waste by about 80 percent, while producing and selling electrical energy to LBGS. SERRF was listed on the state Leaking Underground Storage Tank list for groundwater contamination from a diesel UST. The site was closed by the RWQCB in December 2002 (SWRCB 2013).

6.0 SUMMARY OF RESTRICTIONS

This Section summarizes land use restrictions associated with transfer of the 2014 FOST Parcel related to CERCLA sites and petroleum sites. These restrictions ensure that post-transfer use of this property is consistent with protection of human health and the environment.

6.1 CERCLA

CERCLA ICs will be implemented to prevent exposures to COCs in soil and groundwater on portions of the 2014 FOST Parcel. ICs will be incorporated into Covenants, Conditions, and Restrictions that will be provided to MARAD for required inclusion in the deed(s) between MARAD and the City of Long Beach, and in a CRUP between the DTSC and the Navy to limit unauthorized exposure to contaminated soil and groundwater. The ICs will be implemented in accordance with environmental documentation developed by the Navy with the participation and concurrence of DTSC and the RWQCB. The deed will contain a clause requiring the transferee to complete an annual inspection of ICs to confirm they are being maintained and remain effective.

6.1.1 IR Site 7

The following ICs will be incorporated into the deed(s) for the portions of the 2014 FOST Parcel located beneath Piers 15 and 16 (submerged lands) shown on Figure 2:

• There shall be no disturbance of sediments within the Areas of Ecological Concern (AOEC) associated with Piers 15 and 16 without the prior written approval of the Navy and DTSC.

6.1.2 IR Sites 8, 9, and 10

The following ICs will be incorporated into the deed(s) for IR Sites 8, 9, and 10, shown on Figure 2:

- Land use shall remain industrial and use by sensitive populations, including residences, childcare centers, schools, playgrounds, or hospitals for humans, shall be prohibited.
- There shall be no disturbance of soil or disturbance or use of groundwater without the prior written approval of the Navy and DTSC.

6.2 PETROLEUM PRODUCTS AND DERIVATIVES

Deed(s) for transfer of property that include open petroleum sites or areas of residual petroleum contamination subject to restrictions will contain a notice stating that the property has been

investigated and remediated, but contains sites with residual petroleum contamination that are the subject of restrictions. In addition, the deed(s) will contain a clause wherein the transferee acknowledges that with the exception of the Building 101 Site (Figure 2), which is the subject of an ongoing Navy response action as described below, all sites on the 2014 FOST Parcel containing petroleum or its derivatives have been closed with the concurrence of the regulatory agencies. This clause will require the transferee to assume all obligations, liabilities, costs, and burdens with respect to the transferee's development, improvement, use, or maintenance of sites that may contain residual petroleum or any derivative thereof and that are known and identified in this FOST, and with respect to any act or failure to act by the transferee that causes or exacerbates the release or threat of release of residual petroleum from such sites.

Under PCA activities at former LBNC, the 2014 FOST Parcel may be transferred before the Navy obtains regulatory closure for petroleum sites. Transfer of property to a non-federal entity while petroleum remediation is ongoing is allowable under CERCLA Section 120(h)(3) because CERCLA Section 101(14) excludes crude oil and fractions of crude oil, including the hazardous substances such as benzene and MTBE that are constituents of those petroleum substances, from the definition of hazardous substance. The Navy may fulfill its petroleum remediation obligation by completing regulatory closeout under Navy direction or by requiring the transferee to complete these actions on behalf of the Navy as part of a negotiated agreement.

6.2.1 Building 101 Site

Although the Navy is seeking NFA and unrestricted use for the Building 101 Site under the Low-Threat UST Case Closure Policy (SWRCB 2012), it is not yet known whether the conditions at the site will support residential use because of the potentially unacceptable human health risk from MTBE in groundwater. Accordingly, land use and activity restrictions will be necessary at the time of transfer.

The deed will contain a notice stating that residual petroleum contamination remains in place within the 2014 FOST Parcel at the Building 101 Site. The notice will state that the property is suitable for industrial use but is currently the subject of an investigation by the Navy to determine if it is suitable for unrestricted use. The deed will also contain the following restrictions:

- Land use shall remain industrial and use by sensitive populations, including residences, childcare centers, schools, playgrounds, or hospitals for humans, shall be prohibited.
- The transferee shall submit a groundwater management plan to RWQCB and the Navy for prior approval for any work conducted on any portion of the affected property that involves subsurface excavation or groundwater contact.

The notification and restrictions will remain in effect at the property until such time as the Navy or transferee demonstrates that the Building 101 Site is suitable for unrestricted use.

6.2.2 AOC SSS 1

Because of the potential for residual petroleum contaminants at depths of approximately 20 feet bgs and at concentrations unsuitable for unrestricted use at this AOC (Figure 2), the deed will contain the following restriction:

• Land use shall remain industrial and use by sensitive populations, including residences, childcare centers, schools, playgrounds, or hospitals for humans, shall be prohibited.

7.0 CERCLA COVENANTS, ACCESS PROVISIONS, AND NOTIFICATIONS

7.1 CERCLA § 120(h)(3)(A)(i) NOTICE

Pursuant to CERCLA § 120(h)(3)(A)(i)(I) and (II), any deeds transferring the 2014 FOST Parcel will contain a notice providing available information regarding the type, quantity, and location of hazardous substances and the time at which such substances were stored, released, or disposed of, as defined in CERCLA § 120(h).

7.2 CERCLA § 120(h)(3)(A)(i) DESCRIPTION OF REMEDIAL ACTION TAKEN

Pursuant to CERCLA § 120(h)(3)(A)(i)(III), any deeds transferring the 2014 FOST Parcel will contain a description of the remedial action taken, if any, on the Parcel.

7.3 CERCLA § 120(h)(3)(A)(ii) COVENANT

The deed for transfer of any property on which "any hazardous substance was stored for one year or more, [or] known to have been released, or disposed..." as a result of former activities conducted by the U.S., will include a covenant made pursuant to CERCLA § 120(h)(3)(A)(i) and (B). The covenant will warrant that "all remedial action necessary to protect human health and the environment with respect to any hazardous substance identified pursuant to § 120(h)(3)(A)(i)(I) of the CERCLA of 1980 remaining on the property has been taken before the date of this deed(s)" and that "any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States." This covenant will not apply to any remedial action required on the 2014 FOST Parcel that is the result of an act or omission of the transferee that causes a new release of hazardous substances.

7.4 CERCLA § 120(h)(3) ACCESS CLAUSE

Pursuant to CERCLA § 120(h)(3)(A)(iii), any deeds transferring the 2014 FOST Parcel will contain a clause retaining and reserving to the United States a perpetual and assignable easement and right of access on, over, and through the Property, to enter upon the Parcel in any case in which remedial action or corrective action is found to be necessary on the part of the United

States after the date of such transfer, without regard to whether such remedial action or corrective action is on the Parcel or on adjoining or nearby lands.

8.0 FINDING OF SUITABILITY TO TRANSFER STATEMENT

Based on the information contained in this FOST and the notices, restrictions, and covenants that will be contained in the deed, the subject 2014 FOST Parcel property at the former Long Beach Naval Complex is suitable for transfer.

July. Signature:

Date: <u>ZZ171/614</u>

Lawrence Lansdale Environmental Director Base Realignment and Closure Program Management Office Naval Facilities Engineering Command By Direction

9.0 REFERENCES

- Battelle. 2001. Final Feasibility Study for Installation Restoration Sites 8, 10, and 11, Long Beach Naval Complex, Long Beach, California. September.
- Battelle. 2002. Draft Expanded Site Inspection Report for Installation Restoration (IR) Site 16, Building210 Former Plating Shop at Former Long Beach Naval Shipyard, Long Beach, California.
- Battelle. 2004a. Five-Year Review Report for Installation Restoration Sites 1-6A and 14 at Long Beach Naval Complex and OU-1 Former Palos Verdes Navy Housing. December.
- Battelle. 2004b. Groundwater Sampling Report for Installation Restoration Sites 3 and 6A, Former Naval Station Long Beach, Long Beach, California. September.
- Battelle. 2005. Final Expanded Site Inspection Report for Installation Restoration (IR) Site 16, Building210 Former Plating Shop at Former Long Beach Naval Shipyard, Long Beach, California.
- Battelle. 2007a. Final Remedial Design/Remedial Action Work Plan for Installation Restoration Sites 8, 9, 10, 11, 12, and 13, Former Long Beach Naval Shipyard, Long Beach, California. July.
- Battelle. 2007b. 2006 Annual Groundwater Monitoring Report for IR Sites 8, 9, 10, 11, 12, and 13 at Former Long Beach Naval Shipyard, Long Beach, California.
- Battelle. 2007c. Final Remedial Action Completion Report. IR Sites 1 and 2. Former Naval Station Long Beach, Long Beach, California. September.
- Battelle. 2008. 2007 Annual Groundwater Monitoring Report for IR Sites 8, 9, 10, 11, 12, and 13 at Former Long Beach Naval Shipyard, Long Beach, California.
- Battelle. 2009a. Final Remedial Action Completion Report for IR Sites 8 and 10 at Former Long Beach Naval Shipyard, Long Beach, California. July.
- Battelle. 2009b. Revised Final Site Closure Report for Fifteen Areas of Concern Located at the Former Long Beach Naval Complex, California. December.
- Battelle. 2010a. Technical Memorandum, Evaluation and Recommendation for Remedial Action Completion for Installation Restoration Site 9, Former Long Beach Naval Shipyard, Long Beach, California. August.
- Battelle. 2010b. Final Site Closure Documentation Report for Storm Water System (SWS) 4 and SWS 5, Former Long Beach Naval Shipyard, Long Beach, California. September.
- Battelle. 2012. Revised Final Remedial Action Completion Report for Installation Restoration Site 9 at Former Long Beach Naval Shipyard, Long Beach, California. November.

- Bechtel Environmental, Inc (BEI). 2003. Final Feasibility Study IR Site 7, Naval Station Long Beach, Long Beach, California. September.
- Bechtel National, Inc. (BNI). 1994. Revised Final CERFA Environmental Baseline Survey (EBS) for Naval Station, Long Beach, California. April.
- BNI. 1996. Final Remedial Investigation (RI) Report, Installation Restoration Program for Sites 1 through 6A, Naval Station Long Beach, Long Beach, California.
- BNI. 1997a. Final Remedial Investigation (RI) Report, Installation Restoration Program for Site 7 (West Basin), Naval Station Long Beach, Long Beach, California. December.
- BNI. 1997b. Final Remedial Investigation (RI) Report, Installation Restoration Program for Sites 8 through 13, Long Beach Naval Shipyard, Long Beach, California.
- BNI. 1997c. Final Supplemental Environmental Baseline Survey for Naval Station Long Beach, Long Beach, California. March.
- BNI. 1997d. Final Appendix U (Supplemental Field Activity) of the Final Remedial Investigation (RI) Report Installation Restoration Program for Sites 1 through 6A, Naval Station Long Beach, Long Beach, California.
- BNI. 1999. Final Supplemental Groundwater Investigation for Installation Restoration Program Sites 9, 12, and 13 at the Long Beach Naval Shipyard, Long Beach, California. February.
- BNI. 2001. Final Feasibility Study (FS) Report, IRP Sites 9, 12, and 13, Former Long Beach Naval Shipyard. October.
- California Department of Health Services (CDHS). 1989. RCRA Facility Assessment, Long Beach Naval Shipyard, Long Beach, California.
- California Department of Toxic Substances Control (DTSC). 2013. EnviroStor database website http://dtsc.ca.gov/database/. November.
- California State Water Resources Control Board (SWRCB). 2001. California Ocean Plan. State Water Resources Control Board, California Environmental Protection Agency.
- SWRCB. 2012. Low-Threat Underground Storage Tank Case Closure Policy (Resolution No. 2012-0016). Effective August 17, 2012.
- SWRCB. 2013. Geotracker database website http://geotracker.waterboards.ca.gov/. November.
- Cabrera Services, Inc. (Cabrera). 2014 Final Supplemental Radiological Assessment of Installation Restoration Sites 1 and 2, Long Beach Naval Complex, Long Beach, California. May.
- CDM Federal Programs Corporation (CDM). 1998a. Final Preliminary Assessment Report for 25 Group B Areas of Concern, Long Beach Naval Shipyard.

- CDM. 1998b. Final Sampling Report for Nine Group B Areas of Concern, Long Beach Naval Shipyard.
- CDM. 2000. Final Preliminary Assessment/Sampling Report, 171 Group B Areas of Concern, Long Beach Naval Shipyard, Long Beach, California. April.
- CDM. 2006. Final Feasibility Study Addendum for Installation Restoration Site 7, Long Beach Naval Complex. July.
- Chadux-Tt. 2009. Final Five-Year Review Report, Installation Restoration Sites 1–6A and 8– 14, Former Long Beach Naval Complex, Long Beach, California. December.
- Department of Defense (DoD). 2006. Base Redevelopment and Realignment Manual. Office of the Deputy Under Secretary of Defense (Installations and Environment). March.
- Dames & Moore. 1992. Asbestos Register for 49 Buildings, Long Beach Naval Station. April.
- Enviro Group. 1994. Final Asbestos Survey Report of Various Buildings at Long Beach Naval Station for SWDIV Naval Facilities Engineering Command. June.
- Geofon, Inc. 1998. Removal Report Removal and Disposal of Underground Storage Tanks (USTs) and Removal and Treatment of Hydrocarbon Contaminated Soil at Building 101, Long Beach Naval Complex, Long Beach, California. May.
- Geofon, Inc. 2003. Final Revised Corrective Action Plan (CAP) for Groundwater Former Long Beach Naval Shipyard (LBNSY) Gasoline Station (Building 101) Long Beach, California.
- Geofon, Inc. 2006a. Summary Groundwater Monitoring Report, Groundwater Samples Collected from September 2003 through March 2006 at the Former Gasoline Station Building 101 Site, Former Long Beach Naval Shipyard, Long Beach, California. June.
- Geofon, Inc. 2006b. Work Plan for Groundwater Sampling and Analysis, IR Site 14, Former Naval Station Long Beach, Long Beach, California. February.
- Long Beach Naval Shipyard Environmental Division (LBNSY-ED). 1994. Asbestos Survey of Long Beach Naval Station Structures. March.
- LBNSY-ED. 1996a. Final Environmental Baseline Survey at Long Beach Naval Shipyard, Los Angeles County, California. November.
- LBNSY-ED. 1996b. Asbestos Survey of Mole and Mole Corridor. January.
- Naval Energy and Environmental Support Activity (NEESA). 1983. Initial Assessment Study of Naval Complex, Long Beach, California. August.
- Naval Facilities Engineering Command Southwest Division (NAVFAC). 1998. Final Finding of Suitability to Lease, Naval Complex Long Beach, California. June.

- NAVFAC. 1999. Final Base Realignment and Closure (BRAC) Cleanup Plan (BCP), Long Beach Naval Complex, Long Beach, California. April.
- NAVFAC. 2000a. Federal Facility Site Remediation Agreement (FFSRA), Long Beach Naval Complex, Long Beach, California. July.
- NAVFAC. 2000b. Final Action Memorandum for Installation Restoration Site 14, Naval Station Long Beach, Long Beach, California.
- NAVFAC. 2001. Final Finding of Suitability to Transfer, Portion of Naval Complex Long Beach, Long Beach, California. June.
- Navy Base Realignment and Closure (BRAC) Program Management Office (PMO). 2008. Policy for Processing Findings of Suitability to Transfer or Lease. September.
- Navy BRAC PMO West. 1999. Final Record of Decision for Installation Restoration Sites 3, 4, 5, and 6A, Naval Station Long Beach, Long Beach, California.
- Navy BRAC PMO West. 2000. Final Record of Decision for Installation Restoration Sites 1 and 2, Naval Station Long Beach, California.
- Navy BRAC PMO West. 2004. Final Record of Decision (ROD)/Remedial Action Plan (RAP), Installation Restoration Sites 8 and 10, Former Long Beach Naval Shipyard, Long Beach, California. September.
- Navy BRAC PMO West. 2005. Record of Decision (ROD)/Remedial Action Plan (RAP) for Installation Restoration Site 9, Long Beach Naval Complex, Long Beach, California. August.
- Navy BRAC PMO West. 2006. Record of Decision/Remedial Action Plan for Installation Restoration Sites 11, 12 and 13, Former Long Beach Naval Shipyard, Long Beach, California. August.
- Navy BRAC PMO West. 2007. Final Record of Decision (ROD), Installation Restoration Site 7, Operable Unit 3, Former Long Beach Naval Complex, Long Beach, California. September.
- Oneida Total Integrated Enterprises. 2011. 2010 Annual Groundwater Monitoring Report for IR Sites 9, 11, 12, and 13 at Former Long Beach Naval Shipyard, Long Beach, California. April 15.
- Port of Long Beach (POLB). 2012. Pier S Terminal and Back Channel Improvements Project, Final Environmental Impact Statement and Environmental Impact Report, prepared for U.S. Army Corps of Engineers. November.
- POLB. 2013a. Final Contaminated Sediment Remediation Implementation Report, Installation Restoration Site 7, Port of Long Beach, Long Beach, California. March.

POLB. 2013b. Port of Long Beach website http://www.polb.com/. November.

Trevet. 2014. Final 2013 Groundwater Monitoring Report, Former Building 101 Site, Former Long Beach Naval Shipyard, Long Beach, California. May.
FIGURES





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CAD/M XD: GIS& FOSTLBNC BNC 1\CTO-0050 AECRU V/BRAC SKSTATION' TABLES

TABLE 1: SOLID WASTE MANAGEMENT UNITS

Finding of Suitability to Transfer for Former Long Beach Naval Complex Long Beach, California

SWMU	Description	Status
1	Former Building 118 Hazardous Waste Storage Facility (Permitted Facility)	NFA ¹
3	Former Building 202 (Paint Shop) 90-day Accumulation Area	NFA ²
4	Former Building 54 (Transportation Shop) 90-day Accumulation Area	NFA ²
6	Former Building 129 (Marine Machine Shop) 90-day Accumulation Area and Process Tank Area	NFA ²
7	Former Building 132 (Machine Shop) and 90-day Accumulation Area	NFA ²
8	Former Plating Operations (Shop 5106 in former Building 210) and 90-day Accumulation Area	IR Site 16 – NFA (see Section 4.1.5)
9	Former Electrical Shop (Shop 51), former Electronics Shop (Shop 66), former Weapons Shop (Shop 67) in former Building 210 and 90-day Accumulation Area	NFA ²
10	Former Building 210 PCB 90-day Accumulation Area	NFA ²
11	Former Building 128 (Shipfitter Shop) and 90-day Accumulation Area	NFA ²
13	Utilities Shop Operations (former Shop 03)	NFA ²
14	Former Pipefitters Shop (Shop 56) in former Building 132 East	NFA ²
15	Former Supply Department (Code 500)	IR Site 9 – NFA (see Section 4.1.3)
18	Former Freon Cleaning and Reclamation Unit in former Building 210	NFA ²
19	TCE Reclamation in former Building 128	NFA ²
20	Former Parking Lot H, Past Operations	IR Site 10 – NFA (see Section 4.1.4)
24	Former Pier Accumulation Areas	NFA ²
32	Harbor Sediments	IR Site 7 (see Sections 4.1.1 and 5.4)
33	Former Underground Storage Tanks	NFA (RWQCB)

Notes:

 Department of Toxic Substance Control (DTSC) granted a "Closure Certification Acknowledgement" letter dated March 8, 2006.
 DTSC Office of Military Facilities (OMF) granted NFA based on Preliminary Assessments (PAs) for Groups A and B areas of concern (AOC) completed in April 1997 and April 2000.

Acronyms and Abbreviations

IR	Installation Restoration	TCE	Trichloroethene
NFA	No further action required		
PCB	Polychlorinated biphenyl		
RWQCB	Regional Water Quality Control Board		
SWMU	Solid Waste Management Unit		

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site HIST 9	Former Storage Area Scrap Metal and Oils	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Scrap metal and potentially oil.	1970 to 1975
AOC Site HWF 1	Bldg. 118 (former) Treatment, Storage, and Disposal Facility (TSDF)	The PA for the 171 Group B AOCs completed in April 2000. In February 2002, DTSC requested that additional samples be collected to determine if soil in the vicinity of Bldg. 118 contributes to hexavalent chromium contamination in groundwater. Additional data was collected and the Navy requested clean closure certification in a report describing field investigation results in May 2002. No further action required.	Paints, solvents, resins, PCBs, petroleum products, coolants, coatings, metals, pesticides, containers, caustics, and acids.	1980 to 1990
AOC Site HWF 4	Bldg. 54 Less-Than-90-Day	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Various operational wastes including aerosol paint, antifreeze, hydraulic fluid, lead-acid batteries, oil, oil filters, paint, sludge with heavy metals (from Building 108), and spill pads with oil.	1980s to 1996
AOC Site HWF 8	Bldg. 453 Less-Than-90-Day	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Aerosol oil cans, adhesives, batteries, sandblast grit, and waste paint.	1980 to 1996
AOC Site HWF 9	Bldg. 454 Less-Than-90-Day	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Various operational wastes including absorbent pads, adhesive, aerosol cans, antifreeze, blasting grit, epoxy resin, fuel filters, grinding waste, hydraulic oil, JP-5, paint, preservative grease, rags, rosin, and 1,1,1-TCA.	1989 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site HWF 11	Bldg. 457 Less-Than-90-Day	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Aerosol paint cans, paint epoxy/enamel, oily rags, and rags saturated with acetone.	1980 to 1997
AOC Site HWF 13	Bldg. 54 Less-Than-180-Day Battery Storage	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Lead-acid vehicle batteries.	Prior to 1965 to 1996
AOC Site IWS 1	Pipeline	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 2/28/00 by CUPA. Approved 5/31/00 by the DTSC.	Heavy metals, dissolved sulfides, nitrates, cyanide, oil and grease, and hexavalent chromium.	1986 to 1997
AOC Site IWS 5	O/W Separator & Clarifier Bldg. 132 (FTU5)	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 4/17/01 by CUPA.	Rinse water containing oils and grease, metals, rosin wastes, boiler condensate, and valve cleaning wastes.	Approx. 1960s to 1996
AOC Site IWS 6	O/W Separator & Clarifier Bldg. 54 (FTU7)	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 4/17/01 by CUPA.	Rinse water containing oils and grease.	1963 to 1996
AOC Site IWS 7	O/W Separator & Clarifier Bldg. 210 (FTU8)	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 4/17/01 by CUPA.	Oily wastewater from stream- cleaning operations.	1970 to 1996
AOC Site MISC 1	Wood Block Floors Bldg. 128	The PA for the 171 Group B AOCs completed in April 2000. Contaminated soil was removed and closure report was prepared. No further action required. Approved 2/9/01 by the DTSC. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Potential spills from Building 128 activities onto the wood block floors.	1945 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site MISC 2	Wood Block Floors Bldg. 129	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Potential spills (hydraulic oil, waste oils, greases, degreasers, and solvents) from Building 129 activities onto the wood block floors.	1940 to 1996
AOC Site MISC 4	Wood Block Floors Bldg. 132	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Potential for spills onto the wood block floors from grease, oily rags and absorbent, waste oil, sand blast grit, glass bead dust, aluminum oxide dust, hydrochloric acid, caustic soda, chromic acid, rust preventative, brazing flux, TCE, and asbestos construction material.	1940s to 1996
AOC Site MISC 5	Dirt Floor Foundry/Heat Treat Bldg. 128	The PA for the 171 Group B AOCs completed in April 2000. Contaminated soil was removed and closure report was prepared. No further action required. Approved 2/9/01 by the DTSC. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Materials spilled on the dirt floor including: Olivine sand, oil, metal slag, used glass beads, and TCA.	Prior to 1955 to 1997
AOC Site MISC 6	Diesel Test Cells Including USTs 129.3 to 129.9 (Bldg. 129)	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Potential spills from general maintenance and leaks from engines, sumps, USTs, and associated pipelines.	1944 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site MISC 8	Transportation Facility Yard Associated with Bldg. 54	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Potential spills from waste oil, gasoline, paint thinner, grease, caustics, acids, solvents, battery waste, and rinse water from washing activities. Potential leaks from sumps, drains, and pits.	1945 to 1996
AOC Site PCB 1	Disconnect Switch 10A-1AC (Pier 2 Substation 10A) PCBs	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	PCBs.	Not available.
AOC Site PCB 2	Disconnect Switch Y10-2 (Pier 2 Substation 10) PCBs	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	PCBs.	Not available.
AOC Site PCB 3	Oil Switch Y6-2 (Pier 3 Substation 6) PCBs	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	PCBs.	Not available.
AOC Site PCB 4	Transformer 107-1AC (Pier 3 Substation 6 PCBs	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Non-PCB oil.	Not available.
AOC Site PCB 5	Transformer 10A-1AC (Pier 2 Substation 10A) PCBs	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	PCBs.	Not available.
AOC Site PCB 6	Transformer 10 A-2AC (Pier 2 Substation 10A) PCBs	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	PCBs.	Not available.
AOC Site PCB 7	Transformer 10B-1AC (Pier 2 Substation 10B) PCBs	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	PCBs.	Not available.

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site PCB 8	Transformer 10B-2AC (Pier 2 Substation 10B) PCBs	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	PCBs.	Not available.
AOC Site PCB 19	Bldg. 129, PCB Solid Waste (SAP #129)	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	PCB Solid Waste.	1944 to 1997
AOC Site PCB 21	Bldg. 210, PCB Capacitors (SAP #210)	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	PCB capacitor waste.	1970 to 1996
AOC Site PT 1	Plating Shop Bldg. 210	Chromium contamination was discovered in groundwater during building demolition activities in January 2001. Therefore, this site was investigated further under the IR program as IR Site 16. Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Sodium hydroxide solution, TCE, hydrochloric acid solution, chromium acid solution, dilute caustic, aluminum etchant, methylene chloride, and nitric acid.	1974 to 1997
AOC Site PT 2	Plating Shop (closed) Bldg. 129 (NW)	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Cadmium, chromium, nickel, copper, silver, cyanide, rinse water, hydrochloric, sulfuric, and nitric acids; and solvent degreaser TCE.	Early 1940s to 1974

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site PT 3	Plating Shop (closed) Bldg. 205	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Used degreasers, oils, and/or grease from cleaning operations.	Approx. 1978 to the late 1980s.
AOC Site PT 4	Cleaning/Plating Shop (closed) Bldg. 132 (NE)	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Cee Bee C-47, caustic solution, sequestering and wetting agents. Caustic and detergent residue.	Early 1960s to the late 1980s
AOC Site PT 5	Plating Shop (closed) Bldg. 132 Second Floor	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	1,1,1-TCA, caustic cleaner, muriatic acid, chromic acid, microbright acid solution, and alkali.	1978 to mid- 1990s
AOC Site PT 7	Cleaning Dip Tanks (closed) Bldg. 129 (SE)	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Condensate including oil, grease, detergents, and inorganic solids. Rinse water including oil and grease, detergent, methylene chloride, cresol, chromic acid, nitric acid, sulfuric acid, copper, and zinc. Wastewater.	Approx. 1977 to the late 1980s
			Overflow wastewater containing organic contaminants such as phenolic compounds.	

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site PT 10	Quenching Tanks Bldg. 128 (E, NE)	The PA for the 171 Group B AOCs completed in April 2000. Further groundwater sampling completed in 2001. No further action required. Approved by the DTSC 4/10/01 and by the RWQCB 6/13/01. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Metals, oil and grease in the quench tank wastewater. Waste: 1,1,1-TCA from solvent degreaser tank.	1945 to 1996
AOC Site PT 11	Plasma Arc Cutting Tank Bldg. 128 (S)	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Metal slag waste from the plasma arc cutting process.	1940s to 1996
AOC Site SAP 3	Bldg. 9 Various Locations, 1 st Floor, Waste Oil	The Final PA Report for 25 Group B AOCs was issued in June 1998. No further action required. Approved 8/26/98 by the DTSC.	Waste oil.	1992 to 1996
AOC Site SAP 4	Bldg. 9 Various Locations, 1 st Floor, Waste Paint	The Final PA Report for 25 Group B AOCs was issued in June 1998. No further action required. Approved 8/26/98 by the DTSC.	Waste paint.	1992 to 1996
AOC Site SAP 5	Bldg. 9 Various Locations, 1 st Floor, Waste Adhesive	The Final PA Report for 25 Group B AOCs was issued in June 1998. No further action required. Approved 8/26/98 by the DTSC.	Waste adhesive.	1992 to 1996
AOC Site SAP 6	Bldg. 9 Various Locations, 1 st Floor, Waste Aerosol Solvent	The Final PA Report for 25 Group B AOCs was issued in June 1998. No further action required. Approved 8/26/98 by the DTSC.	Waste aerosol solvent.	1992 to 1996
AOC Site SAP 7	Bldg. 9 Various Locations, 1 st Floor, Waste Batteries	The Final PA Report for 25 Group B AOCs was issued in June 1998. No further action required. Approved 8/26/98 by the DTSC.	Waste batteries.	1992 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 16	Bldg. 54, Service Bay, 1 st Floor, Waste Grease, SAP #54-457-1	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste grease.	1995 to 1997
AOC Site SAP 17	Bldg. 54, Service Bay, 1 st Floor, Recyclable Oil, SAP #54-457-2	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Recyclable oil.	1995 to 1997
AOC Site SAP 18	Bldg. 54, Service Bay, 1 st Floor, Waste Solvent, SAP #54-457-3	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste solvent.	1995 to 1997
AOC Site SAP 19	Bldg. 54, Service Bay, 1 st Floor, Recyclable Antifreeze, SAP #54-457-4	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Recyclable antifreeze.	1995 to 1997
AOC Site SAP 20	Bldg. 54, Service Bay, 1 st Floor, Waste Fuel Filters, SAP #54-457-5	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste fuel filters.	1995 to 1997
AOC Site SAP 21	Bldg. 54, Service Bay, 1 st Floor, Waste Transmission Fluid, SAP #54-457-6	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste transmission fluid.	1995 to 1997
AOC Site SAP 22	Bldg. 54, Service Bay, 1 st Floor, Recyclable Dirty Rags, SAP #54-457-8	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Recyclable dirty rags.	1995 to 1997
AOC Site SAP 23	Bldg. 54, Steam Wash Rack, 1 st Floor, Grease, SAP #54-98-01	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste grease.	1995 to 1997
AOC Site SAP 24	Bldg. 91, 1 st Floor, Waste Oil	The Final PA Report for 25 Group B AOCs was issued in June 1998. No further action required. Approved 8/26/98 by the DTSC.	Waste oil.	1992 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 25	Bldg. 128 Machine Section, 1 st Floor, Empty Aerosol Penetrant, Lube Cans, SAP #128-11-13	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Empty aerosol penetrant and lube cans.	1993 to 1997
AOC Site SAP 26	Bldg. 128 Machine Section, 1 st Floor, Waste Oil & Water, SAP #128-11-16	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste oil and water.	1993 to 1997
AOC Site SAP 27	Bldg. 128, Fabrication Section, 1 st Floor, Aerosol Cans (Solvent), SAP #128-11-10	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Aerosol cans (solvent).	1993 to 1997
AOC Site SAP 28	Bldg. 128, Foundry, 1 st Floor, Metal Dust, SAP #128-41-6	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Metal dust.	1993 to 1997
AOC Site SAP 29	Bldg. 128, Foundry, 1 st Floor, Sandblast Grit, SAP #128-41-7	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Sand blast grit.	1993 to 1997
AOC Site SAP 30	Bldg. 128, Layout & Machine Section, 1 st Floor, Oily Rags, SAP #128-11-19	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily rags.	1993 to 1997
AOC Site SAP 31	Bldg. 128, Layout Section, 1 st Floor, Empty Aerosol Paint Cans, SAP #128-11-15	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Empty aerosol paint cans.	1993 to 1997
AOC Site SAP 32	Bldg. 128, 1 st Floor, Safe Step with Oil, SAP #128-11-17	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Safe Step with oil.	1993 to 1997
AOC Site SAP 33	Bldg. 128, Layout & Machine Section, 1 st Floor, Oily Rags, SAP #128-11-14	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily rags.	1993 to 1997

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 34	Bldg. 128, Assembly Section, 1 st Floor, Floor Sweeping w/Contaminant Metal Dust, SAP #128-11-21	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Floor sweepings with contaminated metal dust.	1993 to 1997
AOC Site SAP 35	Bldg. 128, Columns C-25, 1 st Floor, CM-100 Sludge (Dry), SAP #128-11-22	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	CM-100 dry sludge.	1993 to 1997
AOC Site SAP 36	Bldg. 128, Columns C-23, 1 st Floor, CM-100 Sludge (Dry), SAP #128-11-23	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	CM-100 dry sludge.	1996 to 1997
AOC Site SAP 37	Bldg. 128, Heat Treat Section, 1 st Floor, Used Glass Bead (Sandblast), SAP #128-41-12	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Used glass bead dust (sandblast).	1993 to 1997
AOC Site SAP 38	Bldg. 128, Foundry Outer West Wall, 1 st Floor, Exhaust Ventilation Debris, SAP #128-41-14	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Exhaust ventilation debris.	1995 to 1997
AOC Site SAP 39	Bldg. 128, Various, 1 st Floor, Aerosol Cans (Oil Based), SAP #128-41-2	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Aerosol paint cans (oil based).	1993 to 1997
AOC Site SAP 40	Bldg. 128, Foundry Outer West Wall, 1 st Floor, Exhaust Ventilation Debris, SAP #128-41-23	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Exhaust ventilation debris.	1995 to 1997
AOC Site SAP 41	Bldg. 128, Foundry, 1 st Floor, Metal Slag, SAP #128-41-4	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Metal slag.	1993 to 1997

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 42	Bldg. 128, Foundry, 1 st Floor, Used Core Sand, SAP #128-41-5	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Used core sand.	1993 to 1997
AOC Site SAP 43	Bldg. 128, Various, 1 st Floor, Used Absorbent, SAP #128-41-8	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Used absorbent.	1993 to 1997
AOC Site SAP 44	Bldg. 128, Tube & Fabrication Section, 1 st Floor, Aerosol Cans (Paint), SAP #128-41-9	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Aerosol paint cans.	1993 to 1997
AOC Site SAP 45	Bldg. 129, Air Compressor Repair, 1 st Floor, Oily Absorbent Pads, SAP #129-38-10	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily absorbent pads.	1994 to 1996
AOC Site SAP 46	Bldg. 129, 1 st Floor, Hydraulic Oil, SAP #129-2	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Hydraulic oil.	1995 to 1996
AOC Site SAP 47	Bldg. 129, 1 st Floor, Oily Rags, SAP #129-3	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily rags.	1995 to 1996
AOC Site SAP 48	Bldg. 129, Air Compressor Repair, 1 st Floor, Oily Rags, SAP #129-38-11	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily rags.	1994 to 1996
AOC Site SAP 49	Bldg. 129, 1 st Floor, Lubricating Oil, SAP #129-4	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Lubricating oil.	1995 to 1996
AOC Site SAP 50	Bldg. 129, 1 st Floor, Lubricating Oil, SAP #129-4	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily absorbent pads.	1995 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 51	Bldg. 129, 1 st Floor, Sandblast Grit Waste, SAP #129-5	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Spent sandblast grit.	1995 to 1996
AOC Site SAP 52	Bldg. 129 Test Cell/Shop, 1 st Floor, Hydraulic Oil 2110 TH	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste hydraulic oil.	1992 to 1996
AOC Site SAP 53	Bldg. 129 Test Cell/Shop, 1 st Floor, Hydraulic Oil 2135 TH	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste hydraulic oil.	1992 to 1996
AOC Site SAP 54	Bldg. 129 Test Cell, 1 st Floor, Lube Oil PE-30	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste lube oil.	1992 to 1996
AOC Site SAP 55	Bldg. 129 Test Cell, 1 st Floor, Lube Oil 9250	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste lube oil.	1992 to 1996
AOC Site SAP 56	Bldg. 129 Test Cell, 1 st Floor, Fyrquel Preservative	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste Fyrquel preservative.	1992 to 1996
AOC Site SAP 57	Bldg. 129 Test Cell/Shop, 1 st Floor, Lube Oil 80/90	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste lube oil.	1992 to 1996
AOC Site SAP 58	Bldg. 129 Test Cell, 1 st Floor, Fyrquel Lubricant	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste Fyrquel lubricant.	1992 to 1996
AOC Site SAP 59	Bldg. 129 North End, 1 st Floor, Vacuum Pump Oil	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Vacuum pump oil.	1992 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 60	Bldg. 129 North End, 1 st Floor, Refrigeration Oil	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste refrigeration oil.	1992 to 1996
AOC Site SAP 74	Bldg. 132 Pump Section, 1 st Floor, Oily Rags, SAP #132-31-1	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily rags.	1993 to 1997
AOC Site SAP 75	Bldg. 132, 1 st Intermediate, Waste Grease, SAP #132-31-12	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Waste grease.	1944 to 1996
AOC Site SAP 76	Bldg. 132 Shop 37-14, 1 st Floor, Oily Absorbent, SAP #132-31-13	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily absorbent.	1993 to 1997
AOC Site SAP 77	Bldg. 132, 2 nd Floor, Oily Rags, SAP #132-31-17	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Oily rags.	1994 to 1996
AOC Site SAP 78	Bldg. 132 Pump Section, 1 st Floor, Oily Absorbent, SAP #132-31-2	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily absorbent.	1993 to 1997
AOC Site SAP 79	Bldg. 132 Machine Shop, 1 st Floor, Waste Oil, SAP #132-31-3	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste oil.	1993 to 1997
AOC Site SAP 80	Bldg. 132 Pump Section, 1 st Floor, Used Absorbent Pads, SAP #132-31-4	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Used absorbent pads.	1993 to 1997
AOC Site SAP 81	Bldg. 132 Machine Shop, 1 st Floor, Oily Absorbent Socks, SAP #132-31-5	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily absorbent socks.	1993 to 1997

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 82	Bldg. 132 Grinding Section, 1 st Floor, Grinding Swarf, SAP #132-31-6	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Grinding swarf.	1993 to 1997
AOC Site SAP 83	Bldg. 132 Shops, 1 st Floor, Oil Rags, SAP #132-56-1	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily rags from clean-up.	1993 to 1997
AOC Site SAP 84	Bldg. 132 Waveguide Shop, 1 st Floor, Waste Oil, SAP #132-56-10	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste oil.	1993 to 1997
AOC Site SAP 85	Bldg. 132 Shops, 1 st Floor, Aerosol, Gas, SAP #132-56-2	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste aerosol (gas).	1993 to 1997
AOC Site SAP 86	Bldg. 132 Shops, 1 st Floor, Absorbents, SAP #132-56-3	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Used absorbents.	1993 to 1997
AOC Site SAP 87	Bldg. 132 Waveguide Shop, 1 st Floor, TCA, SAP #132-56-4	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	1, 1, 1-TCA.	1993 to 1997
AOC Site SAP 88	Bldg. 132 Waveguide Shop, 1 st Floor, Spent Alcohol, SAP #132-56-5	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Spent alcohol from cleanup activities.	1993 to 1997
AOC Site SAP 89	Bldg. 132 Shops, 1 st Floor, Glass Beads, SAP #132-56-7	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Spent glass beads from sandblasting activities.	1993 to 1997
AOC Site SAP 90	Bldg. 132 Shops, 1 st Floor, Brazing Flux, SAP #132-56-8	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste brazing flux.	1993 to 1997

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 91	Bldg. 132 Shops, 1 st Floor, Consumable Batteries, SAP #132-56-9	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Used consumable batteries from flashlights, clocks, and pagers.	1994 to 1997
AOC Site SAP 92	Bldg. 132 Shops, 1 st Floor, Asbestos Construction Materials,SAP #132E-56-11	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste asbestos construction materials.	1994 to 1997
AOC Site SAP 93	Bldg. 132 Prop Shop, 1 st Floor, Electrode Slag Surfacing, SAP #B-132-26-18	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Electrode slag surfacing generated from welding activities.	1995 to 1997
AOC Site SAP 94	Bldg. 132, 1 st Floor, Alkaline Batteries, SAP #B-132-38-1	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Alkaline batteries generated from ship and shop operations.	1995 to 1997
AOC Site SAP 95	Bldg. 132 J131, 1 st Floor, Oily Rags, SAP #B-132-938-02	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily rags.	1995 to 1997
AOC Site SAP 96	Bldg. 132, 1 st Floor, Absorbent Pads, SAP #B-132-938-03	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste absorbent pads.	1995 to 1997
AOC Site SAP 97	Bldg. 132 L-50-06, 1 st Floor, 1,1,1-TCA	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste 1,1,1-TCA.	1992 to 1997
AOC Site SAP 98	Bldg. 132 N-04, 1 st Floor, Wood Rosin	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste wood rosin.	1992 to 1997
AOC Site SAP 99	Bldg. 132 L-04, 1 st Floor, Rubber Hoses Contaminated	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Contaminated rubber hoses.	1992 to 1997

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 100	Bldg. 132 M-1, 1 st Floor, Oily Absorbent Material Safe Step	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Oily absorbent material (Safe Step).	1992 to 1997
AOC Site SAP 101	Bldg. 132 1-50-7, 1 st Floor, Oil Waste	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste tungsten rods.	1992 to 1997
AOC Site SAP 102	Bldg. 132 In-shop/On-ship, 1 st Floor, Tungsten Rod	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste tungsten rods.	1992 to 1997
AOC Site SAP 103	Bldg. 132 In-shop, 1 st Floor, Cobalt Rod	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste cobalt rods.	1992 to 1997
AOC Site SAP 104	Bldg. 132 In-shop/On-ship, 1 st Floor, Monel Rod	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste monel rods.	1992 to 1997
AOC Site SAP 105	Bldg. 132 N-1, 1 st Floor, Solvent Cement Soaked Rags	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste solvent cement soaked rags.	1992 to 1997
AOC Site SAP 106	Bldg. 132 M-04, 1 st Floor, Oily Rags, Soaked	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Soaked oily rags.	1992 to 1997
AOC Site SAP 107	Bldg. 132 L-05, 1 st Floor, Alcohol, Isopropyl	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste isopropyl alcohol.	1992 to 1997
AOC Site SAP 108	Bldg. 202, 1 st Floor, Epoxy and Enamel Paint, SAP #202- 71-1	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste epoxy and enamel paint.	1994 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 109	Bldg. 202, 1 st Floor, Epoxy and Enamel Paint, SAP #202-71-2	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste epoxy and enamel paint.	1994 to 1996
AOC Site SAP 110	Bldg. 204, 1 st Floor, Used Garnet, SAP #202-71-10	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Used garnet.	1976 to 1997
AOC Site SAP 111	Bldg. 202, 1 st Floor, Epoxy and Enamel Paint, SAP #202-71-3	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste epoxy and enamel paint.	1994 to 1996
AOC Site SAP 112	Bldg. 202, 1 st Floor, Epoxy and Enamel Paint, SAP #202-71-4	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste epoxy and enamel paint.	1994 to 1996
AOC Site SAP 113	Bldg. 202, 1 st Floor, Epoxy and Enamel Paint, SAP #202-71-5	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste epoxy and enamel paint.	1994 to 1996
AOC Site SAP 114	Bldg. 202, 1 st Floor, Epoxy and Enamel Paint, SAP #202-71-6	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste epoxy and enamel paint.	1994 to 1996
AOC Site SAP 117	Bldg. 204, 1 st Floor, Used Garnet, SAP #202-71-9	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Used garnet.	1976 to 1997
AOC Site SAP 118	Bldg. 201, 1 st Floor, Lubricating Oil, SAP #201-6	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Waste oil.	1980 to 1996
AOC Site SAP 119	Bldg. 210 Outside NE, E-25, 1 st Floor, Paint Chips, SAP #210-51-10	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Paint chips.	1970 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 120	Bldg. 210 Outside NE, E-25, 1 st Floor, Glass Bead Blast Waste Material, SAP #210-51-11	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Glass bead blast waste material.	1970 to 1996
AOC Site SAP 121	Bldg. 210, 1 st Floor, Aerosol Cans, Paint, SAP #210-51-14	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Aerosol cans, paints.	1970 to 1996
AOC Site SAP 122	Bldg. 210, 1 st Floor, Aerosol Cans, Lubricant, SAP #210-51-15	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Aerosol cans, lubricant.	1970 to 1996
AOC Site SAP 123	Bldg. 210, Outside F-7 Steam Rack, 1 st Floor, Waste Oil, SAP #210-51-16	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Waste oil, hydraulic.	1970 to 1996
AOC Site SAP 124	Bldg. 210, Outside F-7 Steam Rack, 1 st Floor, Waste Oil, SAP #210-51-16	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC. SAP 124 is a duplicate of SAP 123 (an error from the original PA report).	Waste oil, hydraulic.	1970 to 1996
AOC Site SAP 125	Bldg. 210, 1 st Floor, Oily Rags, SAP #210-51-18	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Oily rags.	1970 to 1996
AOC Site SAP 126	Bldg. 210, 1 st Floor, Waste Oil, SAP #210-51-23	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Waste oil.	1970 to 1996
AOC Site SAP 127	Bldg. 210, 1 st Floor, Gear Grease, SAP #210-66-1	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Gear grease.	1970 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 128	Bldg. 210, 1 st Floor, Aerosol Cans, Non-Paint, SAP #210-66-6	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Aerosol cans, non-paint.	1970 to 1996
AOC Site SAP 129	Bldg. 210, 1 st Floor, Waste Lube Oil, SAP #210-66-7	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Waste lube oil.	1970 to 1996
AOC Site SAP 130	Bldg. 210, 1 st Floor, Oily Pads, SAP #210-67-17	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Oily pads.	1970 to 1996
AOC Site SAP 131	Bldg. 210, 1 st Floor, Waste Oil, SAP #210-67-22	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Waste oil.	1970 to 1996
AOC Site SAP 132	Bldg. 210, 1 st Floor, Waste Garnet, SAP #210-71-24	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Waste garnet.	1970 to 1996
AOC Site SAP 133	Bldg. 210, Spray Booth, Outside E-5, 1 st Floor, Waste Paint, Solid, SAP #210-71-25	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Waste paint (solid).	1993 to 1996
AOC Site SAP 154	Bldg. 129, 2 nd Floor, Acid Waste, SAP #129-1180-5	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Acid waste, wet lab.	1944 to 1997
AOC Site SAP 155	Bldg. 129, 2 nd Floor, Acid Waste, SAP #129-1180-2	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Acid waste.	1944 to 1997
AOC Site SAP 156	Bldg. 129, 2 nd Floor, Oil and Solvents, SAP #129-1180-3	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Oil and solvents, general chemistry room.	1944 to 1997

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 157	Bldg. 129, 3 rd Floor, Fuel Oil, SAP #129-1180-4	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Oil, jet fuel, greases and other petroleum products were tested in this lab.	1944 to 1997
AOC Site SAP 158	Bldg. 129, 2 nd Floor, Acid Waste, SAP #129-1180-5	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC. SAP 158 is a duplicate of SAP 154 (an error from the original PA report).	Acid waste, wet lab.	1944 to 1997
AOC Site SAP 159	Bldg. 132, 1 st Intermediate, Oily Absorbent, SAP #132-31-10	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Oily absorbents.	1944 to 1996
AOC Site SAP 160	Bldg. 132, 2 nd Floor, Waste Oil, SAP #132-31-14	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Waste oils.	1944 to 1996
AOC Site SAP 161	Bldg. 132, 2 nd Floor, Oily Absorbent, SAP #132-31-15	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Oily absorbents.	1944 to 1996
AOC Site SAP 162	Bldg. 132, 2 nd Floor, Oily Absorbent Pads, SAP #132-31-18	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Oil absorbent pads.	1944 to 1996
AOC Site SAP 163	Bldg. 132, 2 nd Floor, Oily Rags, SAP #132-31-9	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Oily rags.	1944 to 1996
AOC Site SAP 164	Bldg. 132, 2 nd Floor, Oily Rags, SAP #B-132-SIMA-13	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Oily rags.	1944 to 1996
AOC Site SAP 165	Bldg. 132, 2 nd Floor, Sandblast Grit, SAP #B-132-SIMA-14	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Sandblast grit.	1944 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 166	Bldg. 132, 2 nd Floor, Liquid Paint/Solvent	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Liquid paint and solvent.	1944 to 1996
AOC Site SAP 167	Bldg. 132, 2 nd Floor, Liquid Solvent	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Liquid solvent.	1944 to 1996
AOC Site SAP 168	Bldg. 132, 2 nd Floor, Solid Paint/Sweepings	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Solid paint and sweepings.	1944 to 1996
AOC Site SAP 169	Bldg. 132, 2 nd Floor, Glass Bead Dust	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Glass bead dust.	1944 to 1996
AOC Site SAP 170	Bldg. 132, 2 nd Floor, Aluminum Oxide Dust	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Aluminum oxide dust.	1944 to 1996
AOC Site SAP 171	Bldg. 210, Outside NE, E-24, Chrome Stained Rags and Tape, SAP #210-51-9	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Chrome stained rags and tape.	1993 to 1996
AOC Site SAP 172	Bldg. 210, 3 rd , Floor, C-13, Aerosol Cans, Paint, SAP #210-34-32	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Aerosol cans, paint.	1970 to 1996
AOC Site SAP 173	Bldg. 210, 3 rd , Floor, C-13, Aerosol Cans, Non-Paint, SAP #210-34-33	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Aerosol cans, non-paint.	1970 to 1996
AOC Site SAP 174	Bldg. 210, 3 rd Floor, Batteries, SAP #210-34-34	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Batteries.	1970 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SAP 175	Bldg. 210, 2 nd Floor, Liquid Developer, SAP #210-51-29	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Liquid developer.	1970 to 1996
AOC Site SAP 176	Bldg. 210, 2 nd Floor, Aluminum & Stainless Steel Etchant, SAP #210-51-30	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Aluminum and stainless steel etchant.	1970 to 1996
AOC Site SAP 177	Bldg. 210, 2 nd Floor, Ferric Chloride Waste Liquid, SAP #210-51-1	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Ferric chloride waste liquid.	1970 to 1996
AOC Site SAP 178	Bldg. 210, 3 rd Floor, Glass Bead Dust, SAP #210-67-43	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Glass bead dust.	1970 to 1996
AOC Site SAP 179	Bldg. 210, 5 th Floor, Paint Rags, SAP #210-71-37	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Paint rags.	1970 to 1996
AOC Site SAP 180	Bldg. 210, 5 th Floor, C-24, Glass Bead Waste Material, SAP #210-71-38	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Glass bead waste.	1970 to 1996
AOC Site SAP 181	Bldg. 210, 5 th Floor, Dry Poly Paint Chips, SAP #210-71-41	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Dry poly paint chips.	1970 to 1996
AOC Site SAP 202	Pier #2, P-1, Cleanup Solvent, SAP #PR2-71-04	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Cleanup solvent.	1946 to 1996

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SSS 1	Sanitary Sewer System Lines	The Final PA Report for 25 Group B AOCs was issued in June 1998. Sampling was conducted at 9 of the 25 AOCs, including this site. The Final Addendum Sampling Report was issued in October 1999 and recommended No further action. Approved 10/14/99 by the RWQCB.	Sanitary sewage, as well as various hazardous and toxic wastes disposed of in sinks, sumps, drains, and manholes.	1943 to present (1998)
AOC Site SSS 2	Pit H	The PA for the 171 Group B AOCs was completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Sanitary sewage, as well as various hazardous and toxic wastes disposed in sinks, sumps, drains, and manholes.	1943 to present (1999)
AOC Site SSS 4	Pit G	The PA for the 171 Group B AOCs was completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Sanitary sewage, as well as various hazardous and toxic wastes disposed in sinks, sumps, drains, and manholes.	1943 to present (1999)
AOC Site SSS 5	Holding Tank Bldg. 207	The PA for the 171 Group B AOCs was completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Sanitary sewage, as well as various hazardous and toxic wastes disposed in sinks, sumps, drains, and manholes.	1943 to present (1999)
AOC Site SWS 1	Force Main Lines	The Final PA Report for 25 Group B AOCs was issued in June 1998. No further action required. Approved 8/26/98 by the DTSC.	Storm water that historically contained varying amounts of toxic and hazardous residuals and wastes.	1955 to present (1998)
AOC Site SWS 2	Storm Water System Drain Lines	The Final PA Report for 25 Group B AOCs was issued in June 1998. Sampling was conducted at 9 of the 25 AOCs, including this site. The Final Addendum Sampling Report was issued in October 1999. No further action required. Approved 10/6/99 by the DTSC.	Storm water, as well as hazardous and toxic wastes, was disposed of in storm drains intentionally and as non-stormwater discharges.	1943 to present (1998)

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site SWS 4	Drydock 2 Water Tunnels	The Final PA Report for 25 Group B AOCs was issued in June 1998. Sampling was conducted at 9 of the 25 AOCs, including this site. The Sampling Report for 9 Group B AOCs was issued in November 1998. No further action required. Approved 5/30/01 by the DTSC. DTSC follow up NFA concurrence letter dated 2/6/13 recognized Navy's agreement to a deed notification.	Discharge water containing waste paint, oily waste, rags, and sandblast grit from drydock operations.	1943 to 1997
AOC Site SWS 5	Drydock 3 Water Tunnels	The Final PA Report for 25 Group B AOCs was issued in June 1998. Sampling was conducted at 9 of the 25 AOCs. The Sampling Report for 9 Group B AOCs was issued in November 1998. No further action required. Approved 5/30/01 by the DTSC. DTSC follow up NFA concurrence letter dated 2/6/13 recognized Navy's agreement to a deed notification.	Discharge water containing waste paint, oily waste, rags, and sandblast grit from drydock operations.	1943 to 1997
AOC Site UST 1	Fuel Oil Tanks 128.1 & 128.2 (128.3, concrete valve pit)	Site Closure Report was completed in January 1999. Approved 2/19/99 by the RWQCB. The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC.	Diesel fuel, paint waste, and waste from other shipyard activities.	1943 to 1996
AOC Site UST 2	Paint Wash Tank 216.1	The PA for the 171 Group B AOCs completed in April 2000. UST was removed under Compliance Program in 1999. No further action required. Approved 2/7/01 by the RWQCB for site closure. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Rinse water potentially containing sandblast grit contaminated with heavy metals and paint.	1980 to 1993

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
AOC Site UST 3	Diesel Fuel Tanks 129.1, 129.2	The PA for the 171 Group B AOCs completed in April 2000. USTs were removed in 1996. No further action required. Approved 5/22/98 by the RWQCB for site closure.	Potential diesel fuel leaks from USTs.	1986 to 1996
AOC Site UST 4	Paint Wash Tanks 202.1, 202.2, 202.3	The PA for the 171 Group B AOCs completed in April 2000. No further action required. Approved 5/31/00 by the DTSC. Closure Report for 15 AOCs completed in June 2009. NFA without restricted use required. Approved 2/2/10 by the DTSC and 3/25/10 by the RWQCB.	Paint waste, alkaline solutions, stripping solutions containing paint, varnish remover, and sodium hydroxide. Also aluminum and steel sandblast grit.	1986 to 1996
AOC Site UST 10	Diesel Fuel Tank 207.1	The PA for the 171 Group B AOCs completed in April 2000. UST was removed in August 1997. No further action required. Approved July 1998 by the RWQCB for site closure.	Potential diesel fuel leaks from the UST.	1986 to 1997
AOC Site UST 11	Fuel Tank 353	The Final Group A AOC PA for the POI was issued in April 1997. No further action required. Approved 6/20/97 by the DTSC.	Fuel oil.	Removed 1946
AOPC Site NSTA 2	Forced sanitary sewer main (from Long Beach Naval Shipyard to Sewer Pit E)	Final PA Report issued February 1996. No further action required. Approved 3/14/96 by the DTSC.	Sanitary and Industrial wastewater.	1941 to 1997
AOPC Site NSTA 3	Forced sanitary sewer main (from Mole to Sewer Pit E)	Final PA Report issued February 1996. No further action required. Approved 3/14/96 by the DTSC.	Sanitary and Industrial wastewater.	1945 to1997
AOPC Site NSTA 4	Gravity sewer lateral which runs from Building 8	Final PA Report issued February 1996. No further action required. Approved 3/14/96 by the DTSC.	Sanitary and Industrial wastewater.	1941 to 1994
AOPC Site NSTA 10	Hazardous waste satellite storage area (Building 152)	Final PA Report issued February 1996. No further action required. Approved 3/14/96 by the DTSC.	Empty paint cans, empty drums, paint wastes, and household hazardous waste.	1990(?) to 1994

AOC	Description	History Summary	Waste Characteristics	Dates of Operation
Building 118	Former Hazardous Waste Storage	A letter report, presenting the results of the field investigations and requesting a RCRA permit closure, was submitted in May 2002. DTSC requested that four additional monitoring wells be installed and monitored quarterly for one year. Four quarterly groundwater monitoring events were performed from September 2004 to June 2005. The Second Annual Groundwater Monitoring Report was submitted for review on February 7, 2006 and recommended clean closure for Building 118. No further action required. Approved 3/8/06 by the DTSC.	Temporary (less than one year) Storage of containerized hazardous wastes.	1980-1990
Building 129	Oil/Water Separator	Removal and sampling completed in 2000. No further action required. Approved 2/1/01 by the DTSC and December 2001 by the RWQCB.	Fuel oils and solvents.	Not Available
Notes: AOC – Area of Concern AOPC – Area of Potential Concern CUPA – Certified Unified Program Agency DTSC – Department of Toxic Substances Control (CA) FTU – Fixed Treatment Unit HIST – Historical Site HWF – Hazardous Waste Facility IWS – Industrial Waste Line IR – Installation Restoration		MISC – Miscellaneous NFA – No Further Action NSTA – Naval Station O/W – Oil/Water PA – Preliminary Assessment PCBs – Polychlorinated Biphenyls POI – Point of Interest PT – Plating Shop RCRA – Resource Conservation and Recovery Act	RWQCB – Regional Water Quality Control Board (CA) SAP – Satellite Accumulation Point SSS – Sanitary Sewer System SWS – Storm Water System TCA - Trichloroethane TCE - Trichloroethene TSDF- Treatment Storage and Disposal Facility UST – Underground Storage Tank	

TABLE 3: STATUS OF FORMER LBNC IR SITES ON ADJACENT PROPERTIES

Finding of Suitability to Transfer for Former Long Beach Naval Complex Long Beach, California

Site No.	Description and Remedy	Current Status
IR Site 1 - Mole Solid Waste Operations	This site was used to dispose of solid wastes by cut and fill methods from the mid-1940s to the mid-1960s. The ROD was signed in July 2000. The selected remedy included debris and soil removal, ISAS/SVE system, groundwater monitoring, and ICs.	Active remediation of chemical contaminants is complete. Radiological conditions are currently being addressed. A final WP to collect additional radiological data was submitted to DTSC and CDHS in September 2008. The radiological fieldwork was completed in December 2008. The Final Radiological Survey Report was issued in May 2014. A third 5-year review is scheduled for 2014.
IR Site 2 - Chemical Materials and Waste Storage Area	This area stored pallets of containerized raw materials and wastes from the mid-1960s to 1980. This site has the same ROD date and remedy as Site 1.	Active remediation of chemical contaminants is complete. Radiological conditions are currently being addressed. A final WP to collect additional radiological data was submitted to DTSC and CDHS in September 2008. The radiological fieldwork was completed in December 2008. The Final Radiological Survey Report was issued in May 2014. A third 5-year review is scheduled for 2014.
IR Site 3 - Industrial Waste Disposal Pits	The pits were used to dispose of industrial wastes and trash from the 1940s to the early 1970s. The ROD was signed in June 1999. The selected remedy included ICs and groundwater monitoring.	DTSC and RWQCB concurred in November 2004 and January 2005, respectively, that IR Site 3 achieved response complete status. Groundwater monitoring is complete. The Navy has properly destroyed the groundwater monitoring wells at IR Site 3. A third 5-year review is scheduled for 2014.
IR Site 4 - Mole Extension Operations	Fill material (sandblast grit and construction debris) was deposited along the edge of the Mole Pier from the 1950s to 1972. The ROD was signed in June 1999. The selected remedy was ICs.	The Navy has properly destroyed the groundwater monitoring wells at IR Site 4. A third 5-year review is scheduled for 2014.
IR Site 7 – Harbor Sediments (West Basin portion exclusive of the Annulus and Submerged Lands beneath former and existing piers)	Wastes from various industrial areas and processes at former LBNC were discharged from the early 1940s through the mid-1970s into IR Site 7 through the storm drain and drydock flushing. The ROD was signed in September 1997, specifying active remediation (dredging/ disposal) at AOECs A and C, and ICs at AOECs E and F. AOECs B and D required no action.	The POLB assumed responsibility for implementation of the IR Site 7 West Basin remedial action specified in the ROD. AOEC-A was dredged from July to September 2010, AOEC-C West was dredged from August to December 2010, and AOEC-C East was dredged from December 2010 to February 2011. Post-dredging sediment sampling confirmed that COCs were below Sediment Management Objectives specified in the ROD. DTSC concurred with completion of remedial action and ICs for sediments beneath Piers 12, 15, and 16 (AOECs E, F, and G) on June 26, 2013.
IR Site 11 - Hillside East of Drydock No. 1	Sandblast grit was used in 1975 to fill in low areas and to extend the edge of the embankment that adjoins Site 11. The ROD was signed in August 2006. The selected remedy included ICs and groundwater monitoring.	After the RAOs were achieved, and upon agency concurrence, groundwater monitoring was discontinued in 2011 at IR Site 11.
IR Site 12 - Parking Lot X, Toxic Sandblast Disposal	Site activities consisted of sandblast grit disposal and drum crushing from 1971 to 1975. The ROD was signed in August 2006. The selected remedy included ICs, groundwater monitoring, and maintenance of pavement and other surface improvements made by the POLB.	The groundwater monitoring program includes one well (NW-12-08) that monitors groundwater at IR Site 12 for the only remaining COC, arsenic. The Navy is currently preparing a Technical Memorandum, which addresses arsenic in groundwater, in response to regulatory comments.

TABLE 3: STATUS OF FORMER LBNC IR SITES ON ADJACENT PROPERTIES

Finding of Suitability to Transfer for Former Long Beach Naval Complex Long Beach, California

Site No.	Description and Remedy	Current Status
IR Site 13 - Tank Farm near Building 303 (Hazardous Waste Storage)	The site was used from the early 1970s to 1997 for storage of equipment and portable waste-storage tanks that contained hazardous substances. The ROD was signed in August 2006. The selected remedy included ICs and groundwater monitoring.	After the RAOs were achieved, and upon agency concurrence, groundwater monitoring was discontinued in 2009 at IR Site 13.
IR Site 14 – Former Building 46 dry cleaning facility	The site was reportedly used from the late 1950s and mid-1960s for dry cleaning operations. A NTCRA was implemented in 2000 to address chlorinated VOCs in groundwater.	The Navy continues to implement the enhanced MNA remedy for groundwater. Nutrient injections of emulsified oil and bacteria were completed in February and March 2009. Groundwater monitoring and evaluation of bioremediation continue on a semiannual schedule. Recent results have shown that COCs have been reduced below RGs and the Navy continues monitoring to confirm these results.
Acronyms and Abb	reviations:	
AOEC / CDHS 0 COC 0 DTSC 1 ICs 1 ISAS/SVE 1 LBNC 1 MNA 1 NTCRA 1	Area of Ecological Concern California Department of Health Services Chemical of Concern Department of Toxic Substances Control Institutional Controls Installation Restoration In Situ Air Sparging/Soil Vapor Extraction Long Beach Naval Complex Monitored Natural Attenuation Non-Time Critical Remedial Action	

Port of Long Beach Remedial Action Objective POLB

RAO RG Remedial Goal

ROD Record of Decision

California Regional Water Quality Control Board, Region 4 Volatile Organic Compounds RWQCB

VOC WP Work Plan ATTACHMENT 1 HAZARDOUS SUBSTANCES NOTIFICATION TABLE
Location ^b	Hazardous Substance	Reportable Quantity (Ibs)	CAS Number	RCRA Waste Code	Quantity Stored, Released or Disposed ^c	Date Stored, Released, or Disposed ^c	Stored (S), Released (R), or Disposed (D) ^c	Action Taken
	polycyclic aromatic hydrocarbons	NA	NA	NA	unknown	unknown	R	Based on former LBNC historical operations, wastes from various industrial areas involved in ship conversion, overhaul and repair, and cleaning of process tanks were discharged into IR Site 7 (West Basin) through the storm
IR Site 7	polychorinated biphenyls	1	1336-36-3	NA	unknown	unknown	R	conducted between 1992 and 2003 identified COCs in sediment at levels presenting ecological risk to marine benthic life. A 2007 Record of Decision (ROD) selected the remedy for basin sediments. The remedy included a
	DDT	1	50-29-3	NA	unknown	unknown	R	combination of sediment removal by dredging in areas of ecological concern (AOEC A and C) adjacent to the areas within the 2014 FOST parcel, and ICs for sediment beneath piers 15 and 16 that are included in the 2014 FOST parcel. The POLB completed remedial action in 2011, with DTSC concurrence for NFA and ICs in June 2013.
IR Site 8	chromium	5000	7440-47-3	NA	unknown	unknown	R, D	Building 210, located within the IR Site 8 boundary, contained an electronics shop that used TCE, along with acids and plating solutions. Waste TCE was reportedly disposed in the vicinity of the fenceline at the north site boundary. Soil and groundwater investigations conducted from 1991 to 2000 did not find chemicals of concern (COCs) in soil exceeding industrial screening levels but identified chromium in groundwater above California Ocean Plan (COP) limits. A ROD signed in 2004 selected groundwater monitoring and ICs. Monitoring results from 2004 to 2007 demonstrated COCs would not migrate to surface water at levels exceeding COP limits. Regulatory agencies concurred with NFA and ICs in letters dated February 2009 and August 2009.
	tetrachloroethene	100	127-18-4	NA	unknown	unknown	R, D	Past operations in former electronics and machine shops located inside Building 129 generated waste oils, greases, and solvents that were disposed or collected in concrete trenches leading to four underground sumps. According to NEESA (1983), the sumps were routinely pumped out and
IR Site 9	trichloroethene	100	79-01-6	NA	unknown	unknown	R, D	waste taken offsite for disposal; however, the trenches reportedly would occasionally overflow and spill unknown quantities of waste liquid onto the building floor. Environmental investigations conducted between 1991 and 1997 found soil COCs below industrial screening levels and background, but
	vinyl chloride	1	75-01-04	NA	unknown	unknown	R	reported several VOCs in groundwater above COP limits. Supplemental groundwater investigation delineated extent and identified PCE, TCE, and degration products at levels requiring further action. A ROD signed in 2005 selected MNA, groundwater monitoring, and ICs to address COCs. Groundwater monitoring from 2004 to 2010 demonstrated COCs would not migrate to surface water at levels exceeding COP criteria. Regulatory agencies concurred with NFA and ICs in letters dated May and October 2012.

Location ^b	Hazardous Substance	Reportable Quantity (Ibs)	CAS Number	RCRA Waste Code	Quantity Stored, Released or Disposed ^c	Date Stored, Released, or Disposed ^c	Stored (S), Released (R), or Disposed (D) ^c	Action Taken
	barium	5000	81-25-4	NA	unknown	unknown	R	IR Site 10, Lot H, was used as a scrapyard from 1952 to 1957. During this time, material reportedly stored at the site included batteries, waste oil, radar equipment containing mercury, and spent sandblast material. During routine annual surplus auctions held at Lot H, battery acid was reportedly
IR Site 10	pyrene	5000	129-00-0	NA	unknown	unknown	R	disposed by pouring it on the ground. Soil and groundwater investigations conducted from 1991 to 2000 did not find COCs in soil exceeding industrial screening levels but identified barium and pyrene in groundwater above COP limits. A ROD signed in 2004 selected groundwater monitoring and ICs for the site remedy. Monitoring results from 2004 to 2007 demonstrated COCs would not migrate to surface water at levels exceeding COP limits. Regulatory agencies concurred with NFA and ICs in letters dated February 2009 and August 2009.
	cadmium	10	7440-43-9	NA	unknown	unknown	R	IR Site 16 was added to the IR Program after Building 210 demolition encountered staining at a former plating shop area. Initial investigation in 2002 did not find soil COCs above industrial screening levels or background
IR Site 16	thallium	1000	82870-81-3	NA	unknown	unknown	R	but reported cadmium, thallium, and zinc in groundwater above COP limits. Additional investigation in 2004 found COCs in both soil and groundwater were below screening levels and background. An expanded site inspection
	zinc	1000	9029-97-4	NA	unknown	unknown	R	report was completed June 2005 and regulatory agencies concurred with NFA at IR Site 16 in letters dated July 2005 and September 2005.
Building 100, Flam Stg locker	Devoe Epoxy Coating 235-C- 0910	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 100	Automotive Additives	NA	NA	NA	50 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 100	Battery Additive	NA	NA	NA	unknown	unknown	S	Materials stored on site. No spills or releases reported.
Building 100, Photo Lab	CP Universal Fixer	NA	NA	NA	unknown	unknown	S	Materials stored on site. No spills or releases reported.
Building 100, Photo Lab	Hypo Clear	NA	NA	NA	unknown	unknown	S	Materials stored on site. No spills or releases reported.
Building 100, Photo Lab	Potassium Ferricyanide	NA	13746-66-2	NA	unknown	unknown	S	Materials stored on site. No spills or releases reported.
Building 100, Photo Lab	Sodium Sulfite	5000	1333-83-1	NA	43 pints	unknown	S	Materials stored on site. No spills or releases reported.
Building 100, Photo Lab	Solvent	100	8052-41-3	NA	10 quarts	unknown	S	Materials stored on site. No spills or releases reported.
Building 101	Cyamacrylate Adhesive	NA	NA 70.02.1	NA	unknown	unknown	S	Materials stored on site. No spills or releases reported.
Building 101	ISOPROPYLAICONOL	5000	/8-83-1	U140	unknown	UNKNOWN	5	Materials stored on site. No spills or releases reported.
Building 101	Solvent Cleaner	100	NA 8052-41-2			unknown	<u> </u>	Materials stored on site. No spills or releases reported
Building 124	Anti Spatter	NA	NA	NA	15 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 124	Anti-sieze	NA	NA	NA	10 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 124	Degreasers	NA	NA	NA	5 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 124	Flux (several types)	NA	NA	NA	10 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 124	Lubricants (various)	NA	NA	NA	20 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 124	Magnaflux Dye Check Developer/Penetrant	NA	NA	NA	10 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 124	PVC Cement	NA	NA	NA	5 quarts	unknown	S	Materials stored on site. No spills or releases reported.

Location ^b	Hazardous Substance	Reportable Quantity (Ibs)	CAS Number	RCRA Waste Code	Quantity Stored, Released or Disposed ^c	Date Stored, Released, or Disposed ^c	Stored (S), Released (R), or Disposed (D) ^c	Action Taken
Building 124	Spat-R-Pruf	NA	NA	NA	2 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Adhesive Glue	NA	NA	NA	1 case	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Aluminum, Graphite, Zircon	5000	NA	NA	20 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Ammonia	100	7664-41-7	NA	4 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Asphalite, Clay, Pentachlor	10	608-93-5	U183	10 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Calcium Carbonate 50%	NA	1317-65-3	NA	10 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Carbon Black	NA	1333-86-4	NA	55 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Carbon Free Hat Top	NA	NA	NA	55 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Cleaning Compound Solvent	NA	8052-41-3	NA	5 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Cutting Fluid, Castrol VS550-P	100	NA	NA	55 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Iron (III) Oxide	NA	1309-37-1	NA	55 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	K-17 Salt	NA	NA	NA	30 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Mist Coolant M-18	NA	NA	NA	160 ounces	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Neutral Salt Rectifier	NA	NA	NA	30 gallons	unknown	5	Materials stored on site. No spills or releases reported.
Building 128	Polyester No-Bake Resin	NA	NA	NA	55 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Polyethylene Polyphenyl	100	NA	NA	55 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Screw-loose Nut Buster	NA	NA	NA	4 cases	unknown	S	Materials stored on site. No spills or releases reported.
Building 128, Storage Locker	Sodium Hydroxide	1000	1310-73-02	NA	165 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Sodium Silicate Solution	NA	1344-09-8	NA	55 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Tap Aid,Doyle Specialties	NA	NA	NA	2 cases	unknown	S	Materials stored on site. No spills or releases reported.
Building 128, Storage Locker	Trichloroethane 1-1-1	1000	71-55-6	U226	55 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Trisodium Phosphate	5000	7601-54-9	NA	165 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 128	Zinc Chromate Primer	10	13530-65-9	NA	144 ounces	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	Alcohol	5000	78-83-1	U140	5 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 37-06	Anglarnol 75	NA	NA	NA	55 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 37-06	Anti-Seize	NA	NA	NA	11 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	Cleaning Compound	NA	NA	NA	2 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	Cutting Oils/Fluids	NA	NA	NA	10 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	Dry Cleaning Solvent	100	127-18-4	U210	10 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	Freon 113	5000	75-69-4	U121	3,600 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 129	High-Tack Permatex	NA	NA	NA	12 cans	unknown	S	Materials stored on site. No spills or releases reported.

Location ^b	Hazardous Substance	Reportable Quantity (Ibs)	CAS Number	RCRA Waste Code	Quantity Stored, Released or Disposed ^c	Date Stored, Released, or Disposed ^c	Stored (S), Released (R), or Disposed (D) ^c	Action Taken
Building 129, Shop 38	Metal Reaming Compound	NA	NA	NA	15 pints	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	Protecto - Flex	NA	NA	NA	28 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 37-06	Safety Kleen	NA	NA	NA	25 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 37-46	Simple Green Soap	NA	NA	NA	5 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 37-06	Solvent Formula - 1000	100	NA	NA	14 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	Solvent Formula 1000	100	NA	NA	24 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	SPC Water Primer	NA	NA	NA	9 quarts	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	Thinner Dope and Lacguer	100	NA	NA	2 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	Trichloroethylene	100	79-01-6	U228	10 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 38	Tricresyl Phosphate	100	1330-78-5	NA	100 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 37-06	Type 2 Dry Cleaning Solvent	100	127-18-1	U210	50 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, QA Lab	Various Chemicals	NA	NA	NA	unknown	unknown	S	Materials stored on site. No spills or releases reported.
Building 129, Shop 71	Various Paints	NA	NA	NA	unknown	unknown	S	Materials stored on site. No spills or releases reported.
Building 130	Ammonia Developer Diazo 26	100	61-82-5	NA	4 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 130	Antifreeze	5000	107-21-1	NA	4 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 130	Blast Off	NA	NA	NA	24 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 130	Blue Layout Fluid (643)	NA	NA	NA	564 ounces	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 31	132 Cutting Oil	NA	NA	NA	50 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 31	2190 Turbine Oil	NA	NA	NA	6 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 56	Diesel	NA	68334-30-5	NA	10 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 31	Grease, Aircraft	NA	NA	NA	11 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 56	Hose Assembly Lubricant	NA	NA	NA	336 ounces	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 31	Hydraulic Fluid	NA	NA	NA	15 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 56	Hydraulic Oil	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 31	Lube Oil	NA	NA	NA	13 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 37	Lube Oil	NA	NA	NA	5 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 56	Lubricating Oil/Refrig	NA	NA	NA	27 quarts	unknown	S	Materials stored on site. No spills or releases reported.

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Building 132, Propellor Shop	Machine Oil	NA	NA	NA	unknown	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 31	MS2190 TEP Oil	NA	NA	NA	20 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 31	Multi-Purpose Gear Oil	NA	NA	NA	15 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132	Oil	NA	NA	NA	8 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Outdoor storage	Oil and Water Mix	NA	NA	NA	unknown	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 31	Penetrating Oil	NA	NA	NA	58 pints	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 56	Penetrating Oil	NA	NA	NA	26 pints	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 31	Roller Bearing Grease	NA	NA	NA	22 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 132, Shop 56	Vacuum Pump Oil	NA	NA	NA	9 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202, Paint Room	Butyl Acetate	5000	123-86-4	NA	145 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202, Compound	Devoe ABC #3 Black	NA	NA	NA	110 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202, Compound	Devoe ABC #3 Red	NA	NA	NA	90 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202, Paint Room	Ethylene Glycol Moncibutyl Ether	5000	107-21-1	NA	155 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202, Paint Room	Ethylene Glycol Monomethyl Ether	5000	107-21-1	NA	60 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202	P-111 Soft White	NA	NA	NA	70 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202	E-124 Soft White	NA	NA	NA	35 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202	Gray TT-E-489	NA	NA	NA	16 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202	Heat Rest Aluminum	NA	7429-90-5	NA	45 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202	Industrial Aluminum	NA	7429-90-5	NA	150 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202, Paint Room	Paint Thinner	100	64475-85-0	NA	6 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202	Silicone Aluminum	NA	7429-90-5	NA	39 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202	Silicone Haze Gray	NA	NA	NA	150 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202	Thinner ST-1	100	NA	NA	18 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202, Paint Room	Toluene	1000	108-88-3	U220	2 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 202	Zinc Chromate	1000	13530-65-9	NA	35 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Add. Agent 66	NA	NA	NA	4 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-05	Isopropyl Alcohol	5000	78-83-1	U140	11 quarts	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Alkalume Preplate	NA	NA	NA	500 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-08	Alum Etchant 165G	NA	NA	NA	1800 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-08	Anti-Seize Compound	NA	NA	NA	1 pound	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Barium Carbonate	NA	513-77-9	NA	13 pounds	unknown	S	Materials stored on site. No spills or releases reported.

Location ^b	Hazardous Substance	Reportable Quantity (Ibs)	CAS Number	RCRA Waste Code	Quantity Stored, Released or Disposed ^c	Date Stored, Released, or Disposed ^c	Stored (S), Released (R), or Disposed (D) ^c	Action Taken
Building 210, Shop 51-03	Black Aerosol Lacquer	NA	NA	NA	14 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-05	Boric Acid	5000	11113-50-1	NA	400 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	Breakfree	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Caustic Potash	1000	1310-73-02	NA	800 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Cee Bee A-94	NA	NA	NA	450 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Chromic Acid Flakes	10	13765-19-0	U032	800 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 01/02	Cleaner, Lubricant Preservant	NA	NA	NA	2 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 01/02	Cleaning Compound	NA	NA	NA	10 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 01/02	Cleaning Solution	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-08	Cleaning Solution	NA	NA	NA	2 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210,	Cleaning Solution Watch	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Copper Cyanide	10	544-92-3	P029	700 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Corner Coat 1781-I	NA	NA	NA	100 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Lube Oil	NA	NA	NA	50 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210,	Deoxidizer 263G	NA	NA	NA	1200 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210	Devcon F Aluminum	NA	7429-90-5	NA	15 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210,	Dope and Lacquer	100	64475-85-0	NA	3 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210,		NA	NA	NA	400 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210,	Econo-Cad L	NA	NA	NA	20 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Shop 51-06 Building 210,	Econo-Chrome 300	1000	NA	NA	400 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Shop 51-06 Building 210,	Econo-Chrome 40	1000	NA	NA	1800 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210,	Enstrip A1J-78	NA	NA	NA	5 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210,	Ferric Chloride Solution	1000	7705-08-0	NA	55 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Snop 51-16 Building 210,	Fotofoil M Developer	NA	NA	NA	32 bottles	unknown	S	Materials stored on site. No spills or releases reported.
Shop 51-16 Building 210,	Fotofoll M Fixer	NA	NA	NA	24 bottles	unknown	S	Materials stored on site. No spills or releases reported.
Shop 51-16 Building 210, Shop 51-06	Fumetroll 101	NA	NA	NA	100 gallons	unknown	S	Materials stored on site. No spills or releases reported.

Location ^b	Hazardous Substance	Reportable Quantity (Ibs)	CAS Number	RCRA Waste Code	Quantity Stored, Released or Disposed ^c	Date Stored, Released, or Disposed ^c	Stored (S), Released (R), or Disposed (D) ^c	Action Taken
Building 210, Shop 51-03	Gray Aerosol Lacquer	NA	64475-85-0	NA	10 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Harshaw BNA	NA	NA	NA	16 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	Henry 356	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	Insulation Varnish	NA	8030-30-6	NA	4 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-08	Insulation Varnish	NA	8030-30-6	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Iradite CZ-218/YL-9	NA	NA	NA	110 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-09	Isopropyl Alcohol	5000	78-83-1	U140	23 quarts	unknown	S	Materials stored on site. No spills or releases reported.
Building 210	Lube Oil	NA	NA	NA	110 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-08	Lube Oil	NA	NA	NA	2 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	Lubricating Oil	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Micel Microbate	NA	NA	NA	500 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Mineral Spirits	NA	64475-85-0	NA	330 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Muratic Acid	5000	7647-01-0	NA	2000 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Nickel Additive NP-M2	10	NA	NA	8 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Nickel Additive ZD-100	10	NA	NA	8 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Nickel Additive ZD-220	10	NA	NA	17 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Nickel Sulfate Crystals	100	7786-81-4	NA	150 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	Petroleum Technical	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210	Photo Resist, Stripper	NA	NA	NA	5 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Potassium Cyanide	10	151-50-8	P098	500 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-09	Protective Coating Insulating Compound	NA	NA	NA	6 quarts	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Red Stop Paint	NA	NA	NA	20 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	Reliable #72 Remover Paint	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Resist-X Anti-Corrosion	NA	NA	NA	3 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-08	Rinsing Solution	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	Rinsing Solution Watch	NA	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	San Del 2 Technical Cleaner	NA	NA	NA	4 gallons	unknown	S	Materials stored on site. No spills or releases reported.

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Building 210, Shop 51-08	Scotch Kote	NA	NA	NA	4 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-09	Scotch Kote	NA	NA	NA	12 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	Sealing Additive	NA	NA	NA	10 bottles	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 66	Various Chemicals	NA	NA	NA	Various	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 67	Various Chemicals	NA	NA	NA	Various	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Plating Shop	Various Chemicals	NA	NA	NA	Various	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Silver Additive 30-BP	1000	7440-22-4	NA	16 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Soda Ash, Dense	1000	1310-73-02	NA	400 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Sodium Cyanide	10	143-33-9	NA	200 pounds	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Sodium Hydroxide	1000	1310-73-02	NA	1180 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-08	Soldering Flux	NA	NA	NA	4 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-15	Stainless Steel Developer	NA	NA	NA	9 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	Thinner, Dope, and Lacguer	100	NA	NA	1 gallon	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 01/02	Trichloroethane	1000	71-55-6	U226	3 gallons	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-03	Trichloroethane	1000	71-55-6	U226	12 cans	unknown	S	Materials stored on site. No spills or releases reported.
Building 210, Shop 51-05	Trichloroethane	1000	71-55-6	U226	1 gallon	unknown	S	None. Materials stored on site. No spills or releases reported.
Building 210, Shop 51-08	Trichloroethane	1000	71-55-6	U226	4 gallons	unknown	S	None. Materials stored on site. No spills or releases reported.
Building 210, Shop 51-16	Trichloroethane	1000	71-55-6	U226	11 cans	unknown	S	None. Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Trichloroethane-1,1,1	1000	71-55-6	U226	1000 gallons	unknown	S	None. Materials stored on site. No spills or releases reported.
Building 210, Shop 51-09	Trichlorotrifluoroethane	5000	75-69-4	U121	14 cans	unknown	S	None. Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Unichrome Coat	NA	NA	NA	110 gallons	unknown	S	None. Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Varnish	NA	8030-30-6	NA	110 gallons	unknown	S	None. Materials stored on site. No spills or releases reported.
Building 210, Shop 51-05	Watch Rinsing Solution	NA	NA	NA	1 gallon	unknown	S	None. Materials stored on site. No spills or releases reported.
Building 210, Shop 51-06	Zinc Purifier	NA	NA	NA	5 gallons	unknown	S	None. Materials stored on site. No spills or releases reported.
Building 54	Antifreeze	5000	107-21-1	NA	55 gallons	unknown	S	None. Materials stored on site. No spills or releases reported.
Building 54	Paint	NA	NA	NA	60 gallons	unknown	S	None. Materials stored on site. No spills or releases reported.
PIER 1,2,3	AFFF	NA	NA	NA	UNKNOWN	unknown	5	None. Materials stored on site. No spills or releases reported.
PIER 1,2,3	ALL	NA	INA	INA	ULIKITOWIT	ULIKITOWIT	3	none, materials stored on site, no spins of releases reported.

Location ^b	Hazardous Substance	Reportable Quantity (Ibs)	CAS Number	RCRA Waste Code	Quantity Stored, Released or Disposed ^c	Date Stored, Released, or Disposed ^c	Stored (S), Released (R), or Disposed (D) ^c	Action Taken
PIER 1,2,3	Boiler/Feedwater Chemicals	NA	NA	NA	unknown	unknown	S	None. Materials stored on site. No spills or releases reported.
PIER 1,2,3	Paint Related Materials	NA	NA	NA	unknown	unknown	S	None. Materials stored on site. No spills or releases reported.
PIER 1,2,3	Solvent	100	8052-41-3	NA	unknown	unknown	S	None. Materials stored on site. No spills or releases reported.
Piers 6, 7, 5, 15, 16, and E	FFF	NA	NA	NA	unknown	unknown	S	None. Materials stored on site. No spills or releases reported.
Piers 6, 7, 9, 15, 16, and E	AFFF	NA	NA	NA	unknown	unknown	S	None. Materials stored on site. No spills or releases reported.
Piers 6, 7, 9, 15, 16, and 2	Boiler/Feedwater Chemicals	NA	NA	NA	unknown	unknown	S	None. Materials stored on site. No spills or releases reported.
Piers 6, 7, 9, 15, 16, and E	Paint Related Materials	NA	NA	NA	unknown	unknown	S	None. Materials stored on site. No spills or releases reported.
Piers 6, 7, 9, 15, 16, and E	Solvent	100	8052-41-3	NA	unknown	unknown	S	None. Materials stored on site. No spills or releases reported.
Warehouse F	Corrosives	1000	1310732	NA	unknown	unknown	S	None. Materials stored on site. No spills or releases reported.
Warehouse F	Flammable liquids	NA	NA	NA	unknown	unknown	S	None. Materials stored on site. No spills or releases reported.

Notes a

The information contained in this table is required under the authority of regulations promulgated under section 120(h) of the Comprehensive Environmental Response, Liability, and Compensation Act (CERCLA) U.S.C. section 9620(h). The table is prepared in accordance wih 40 CFR 373 and 40 CFR 302.4. The substances which do not have chemical-specific breakdown (and associated annual reportable quantity) are not listed in 40 CFR 302.4 and therefore have no corresponding CAS number, no regulatory synonyms, no RCRA waste numbers, and no reportable quantities. Hazardous substances were compiled based on known contamination at the sites, and on information reported in environmental baseline surveys (EBS) covering LBNC (NAVSTA and IRNSY-FD 1996a).

b No chemicals were found to be stored, disposed, or released within other areas of the 2014 FOST Parcel.

c Per Navy BRRM (DoD 2006) and BRAC PMO policy (Navy BRAC PMO 2008), FOSTs shall provide notification of hazardous substances stored for one (1) year or more, or known to be released, or disposed of within the 2014 FOST Parcel, in the form and manner prescribed by CERCLA (42USC Section 9620(h)) and Title 40 of the Code of Federal Regulations (CFR) Part 373. The quantity stored, released, or disposed, and the date stored, released, or disposed, is unknown because documentation related to storage, release, or disposal of these hazardous substances was not available during records searches for the property, or contained in EBS documents listed above in note "a".

ATTACHMENT 2 RESPONSES TO REGULATORY AGENCY COMMENTS

Comment	Location in		
No.	Document	Comment	Response
Reviewe	r: Ms. Christine Hous	ton, Port of Long Beach (POLB), Comments dated: June 13, 20	014
Specific (Comments		
1	Page 1, Section 1.0, paragraph 2, 2 nd sentence	Comment: The phrases following the semicolon don't describe upland areas.	Response: The 2 nd sentence of paragraph 2 has been revised as follows: "The 2014 FOST Parcel comprises: 1) two non-contiguous upland areas consisting of a larger rectangular and attached west extending linear area, and a smaller rectangular and attached south extending linear area; 2) one linear submerged land area (Annulus) surrounding the Long Beach Harbor West Basin (West Basin); 3) seven submerged land areas beneath former piers; and 4) three existing pier areas and their associated submerged lands."
2.	Page 1, Section 2.0, paragraph 1, 5 th sentence	Comment: The lease was between Navy and City of Long Beach.	Response: The 5 th sentence of Section 2.0, paragraph 1 has been revised as follows: <i>"In August 1998, the Navy and the City of Long Beach entered into a Lease in Furtherance of Conveyance (LIFOC), under which POLB assumed operational custody and control of the City of Long Beach portion of the former LBNC in advance of property transfer."</i>
3.	Page 1, Section .2.0, paragraph 1, 7 th sentence	Comment: Note, only the northern and western parts of the property are container terminal/Pier T. Sea Launch/Energia and MARAD are not container terminals.	Response: The 7 th sentence of Section 2.0, paragraph 1 has been revised as follows: <i>"From 1998 to 2002, the POLB demolished former LBNC facility structures and utilities, removed five piers and the seawall fronting the West Basin, and redeveloped the property for marine-based operations by its tenants (now known as POLB Pier T, Figure 3)."</i>
4.	Page 5, Section 4.1.1, paragraph 1, 3 rd sentence	Comment: Not sure I would characterize the piers as being "at" IR Site 7. Within the boundaries?	Response: The 3 rd sentence of Section 4.1.1, paragraph 1 has been revised as follows: <i>"Eleven piers within the boundary of IR Site 7 (Figure 2) supported these operations."</i>
5.	Page 5, Section 4.1.1, paragraph 3, 2 nd sentence	Comment: "cargo" and "container" are redundant. I would rephrase the whole sentence to say "POLB currently uses the majority of IR Site 7 to support the marine-based operations of its tenants." That way, the other two tenants are included.	Response: The 2 nd sentence in Section 4.1.1, paragraph 3 has been revised as follows: " <i>The POLB currently uses the majority of IR Site 7 to support the marine-based operations of its tenants (BEI 2003).</i> "

Comment No.	Location in Document	Comment	Response
Reviewe	r: Ms. Christine Hous	ton, Port of Long Beach (POLB), Comments dated: June 13, 20	014
6.	Page 10, Section 4.2, paragraph 1, 2 nd sentence	Comment: Hazardous water! Never heard that term before. Hazardous liquids, yes, but not sure its water anymore if its hazardous.	Response: The term "hazardous water" is a typographical error, it has been corrected to "hazardous waste" in the sentence.
7.	Page 18, Section 5.4, paragraph 1, 4 th sentence	Comment: While we understand that the IC says "don't disturb the sediments", there may be a time in the distant future where we take out one or more of the piers and REMOVE contaminated sediments. With regulatory oversight, of course.	Response: Comment noted. For clarity, the following sentence has been added immediately following the 4 th sentence of paragraph 1 in Section 5.4: <i>"ICs will be monitored by CERCLA statutory five-year reviews in perpetuity or until the ICs have been released and terminated when ecological risk no longer exists per the final IR Site 7 ROD."</i>

Comment No.	Location in Document	Comment	Response
Reviewer.	Mr. Robert Ehe, Calife	ornia Regional Water Quality Control Board, Los Angeles Region (RV	VQCB), Comments dated: July 11, 2014
General	Comments		
1		Comment: Regional Board Staff concurs with the conclusion in the DRAFT FOST that the designated property is environmentally suitable for transfer based on the information provided, and on requirements that shall be incorporated into the notices, restrictions, and covenants that shall be included in the property deed(s) of the 2014 FOST Parcel property (designated in the Draft FOST).	Response: The Navy appreciates RWQCB's review and concurrence on this document.

Comment No.	Location in Document	Comment	Response
Reviewer: Mr. Alan Hsu, California Department of Toxic Substances Control (DTSC), Comments dated: July 31, 2014			
General Comments			
1		Comment: The FOST parcel includes portions of Installation Restoration (IR) Site 7 which had not been previously reverted to the Port of Long Beach and IR Sites 8, 9, 10, and 16. The FOST parcel also includes two former areas of concern (AOC) – Stormwater System (SWS) 4 and SWS 5 and two petroleum product sites, Building 101 and Sanitary Sewer System (SSS) 1. The land use restrictions associated with the transfer of the 2014 FOST parcel include restrictions on IR Site 7, IR Sites 8, 9 and 10, Building 101 and AOC SSS1. In addition, a deed notification will be included for the transfer of SWS 4 and SWS 5. DTSC staff has reviewed and concurs on the FOST. DTSC staff will prepare a Covenant to Restrict Use of Property (CRUP) in coordination with the Navy to be executed at time of property assignment.	Response: The Navy appreciates DTSC's review and concurrence on this document.