



-----NUMBER EIGHTEEN (18)-----

-----DEED OF RATIFICATION AND CONVERSION-----

-----TO PUBLIC INSTRUMENT OF QUITCLAIM DEED-----

-----CDR PARCEL ONE (1)-----

---At San Juan, Puerto Rico, this twenty sixth (26<sup>th</sup>) day of January, Two Thousand Twelve (2012).-----

-----BEFORE ME-----

---HÉCTOR F. LEBRÓN GONZÁLEZ, Attorney at Law and Notary Public in and for the Commonwealth of Puerto Rico, with residence in Guaynabo, Puerto Rico and offices located at Suite Four Hundred Three (403), Two Two One (221) Plaza, Two Two One (221) Ponce de León Avenue, Hato Rey, San Juan, Puerto Rico.-----

-----APPEAR-----

---AS PARTY OF THE FIRST PART: United States of America, hereinafter "Grantor", acting by and through the Department of the Navy (the "Navy"), Real Estate Contracting Officer, under and pursuant to the powers and authority contained in the provisions of Section 2905(b)(4) of the Defense Base Closure and Realignment Act of 1990, 10 U.S.C. § 2687 note, as amended, and the implementing regulations of the Department of Defense (32 C.F.R. Part 174), having an address of four thousand nine hundred eleven (4911) South Broad Street, Philadelphia, Pennsylvania herein represented by Gregory C. Preston, also known as Gregory Charles Preston, of legal age, married and resident of the State of New Jersey, United States of America, who is authorized to appear in this deed as real estate contracting officer, by virtue of that Certificate of Appointment signed by the Assistant Secretary of the Navy (Installations and Environment) on August eighteenth (18<sup>th</sup>), Two Thousand Six (2006).-----

---AS PARTY OF THE SECOND PART: the Commonwealth of Puerto Rico, hereinafter "Grantee", acting by and

through the Local Redevelopment Authority for Naval Station Roosevelt Roads, public corporation and government instrumentality of the Commonwealth of Puerto Rico, herein represented by its Acting Executive Director, Jaime López Díaz, of legal age, married and resident of San Juan, Puerto Rico, as authorized by the Resolution Approving the Economic Development Conveyance Memorandum of Agreement Between the United States of America Acting by and Through the Navy and the Local Redevelopment Authority for Naval Station Roosevelt Roads signed on December twentieth (20th) two thousand eleven (2011) certified by Certificate of Resolution authorized by the Secretary of the Board of Directors, Robert Báez, on January twentieth (20th) of the year two thousand twelve (2011), under affidavit number two thousand four hundred and sixty nine (2469).-----

---I, the Notary, certify that I am personally acquainted with the persons appearing herein and by their statements I further certify as to their age, civil status, profession and residence. They assure me that they have and in my judgment they do have the necessary legal capacity to execute this instrument, and accordingly they do hereby.-----

-----STATE-----

---FIRST: The United States of America and the Commonwealth of Puerto Rico entered into a Quitclaim Deed dated January twenty fifth (25<sup>th</sup>), Two Thousand Twelve (2012), executed by the United States of America, represented by Gregory C. Preston, Real Estate Contracting Officer and the Local Redevelopment Authority for Naval Station Roosevelt Roads represented by Jaime López Díaz, as its Acting Executive Director, hereinafter "Quitclaim Deed".-----

---SECOND: The appearing parties state that the Quitclaim Deed pursuant to which the United States of



America transferred to the Local Redevelopment Authority for Naval Station Roosevelt Roads the title of the following described property, hereinafter the "Property", is presently in effect:-----

---CDR PARCEL ONE (1)-SWMU SEVEN SLASH EIGHT (7/8)---  
RURAL: Parcel of land identified as SWMU Seven Slash Eight (7/8), situated in the Wards of Machos and Guayacán, Municipality of Ceiba, Puerto Rico, containing an area of one hundred one thousand fifty four square meters and two hundred thirty thousandths of a square meter (101,054.230 s.m.); equivalent to twenty five cuerdas and seven hundred eleven thousandths of a cuerda (25.711cuerdas); bounded on the NORTH, EAST and WEST by lands of the principal estate from which it is segregated, property of the United States of America, on the SOUTH by lands of Parcel forty six (46) (Homeland Security), Parcel forty seven (47) (Army Reserve) and by lands of the principal estate from which it is segregated, all properties of the United States of America.-----

---The Property was segregated from the Consolidated Parcel created by virtue of Deed of Consolidation Deed Number One (1), executed on the Twenty-fifth (25th) day of January, Two Thousand Twelve (2012), before Notary Public Eduardo Tamargo, pending presentation at the Registry of the Property, Fajardo Section.-----

---THIRD: The Grantor acquired title to the Property by virtue of segregation.-----

---FOURTH: The Property is free of liens and encumbrances except those that may appear of record.-----

---FIFTH: The Grantor, as agreed in the Quitclaim Deed for and in consideration of the perpetual use of the Property, transfers to the Grantee and to its successors and assigns, subject to the reservations, exceptions, restrictions, conditions and covenants expressed and set forth in the Quitclaim Deed, all right, title and interest in and to the Property.-----

---SIXTH: This conveyance is made subject to any and all existing rights-of-way, easements, covenants and agreements affecting the Property.-----

---SEVENTH: It is understood and agreed that the Grantee, its assigns, and all parties shall comply with



all applicable Federal, State, municipal, and local laws, rules, orders, ordinances, and regulations in the occupation, use, and operation of the Property.-----

---EIGHT: The Quitclaim consists of fourteen (14) pages. Appended thereto are ten (10) Exhibits that the appearing parties have agreed to attach to the first certified copy of this deed for purposes of recordation.-----

---NINTH: The appearing parties have agreed to convert the Quitclaim Deed into a public instrument for the purpose of recording it in the corresponding section of the Registry of Property of Puerto Rico and hereby do so by delivering the Quitclaim Deed to me, the Notary, which I proceed to attach to the original of the Quitclaim Deed so as to make it an integral part of my protocol of public instruments for the current year.----

---TENTH: In addition to the contents of this public deed, the appearing parties hereby ratify and confirm all of the terms and conditions of the Quitclaim Deed and acknowledge that the attached document which they have delivered to me contains all the terms, covenants and conditions of their agreement, as per the terms of the present deed. -----

---ELEVENTH: The appearing parties hereby agree to the extent required by law applicable to the United States of America, to fully cooperate to remedy promptly any and all technical defects and irregularities of title that may constitute an impediment or bar to the due and proper recordation of this deed in the Registry of Property, free from defects, including, without limitation, the execution and filing for record of any supplementary or clarification deeds, affidavits, and other public and/or private documents. Any obligation created on the United States of America, is specifically made subject to the availability of appropriated funds





to be used for such purposes. Nothing contained herein shall be interpreted to require obligations or payments by the United States of America that are in violation of the Anti-Deficiency Act, 31 U.S.C § 1341.-----

---TWELFTH: Only for purposes of recording the present deed at the Registry of the Property, the Property is valued at ONE THOUSAND DOLLARS (\$1,000.00).-----

---THIRTEENTH: The appearing parties hereby request the Registrar of the Property to record the Quitclaim Deed which has been acknowledged, ratified and converted to a public deed hereunder, together with the restrictive covenants therein stated.-----

-----ACCEPTANCE-----

---The appearing parties in accordance with the particulars of this Deed accept the same, in all its parts after, I, the Notary, gave them the necessary legal admonitions and warnings pertinent to this public instrument. Thus, the appearing parties state and execute this deed in my presence after having read the same, and place their initials on each and every page hereof and signs their name on the last page of this deed, before, me the Notary, that as to everything else hereinbefore stated, I the Notary, hereby ATTEST.-----



---Signed: GREGORY CHARLES PRESTON, JAIME LOPEZ DIAZ. -----

---Signed, sealed, marked and flourished: HECTOR F. LEBRON GONZALEZ. -----

---Here appear the corresponding internal revenue stamps and the notarial stamp tax duly canceled with the notarial seal; which also appear. The initials of the appearing parties and the sign and seal of the Notary appear at the margin of each folio of the original of this document and the signatures of the appearing parties appear at the end of said original. -----

---I, the Notary CERTIFY that: the foregoing is a true, correct and exact copy of the original deed which under number EIGHTEEN (18) appears in my protocol of public instruments for the current year, consisting of FIVE (5) folios; there are the corresponding internal revenue stamps and notarial stamp canceled with the notarial seal on the last page of the original of the deed; that the initials of the appearing parties appear at the margin of each page of the original of this deed and the signatures of the appearing parties appear at the end of said original deed; that the seal and flourish of the notary appear on every page of the original of this deed and his signature, seal, mark and flourish appear on the last page of it, and issue this FIRST certified copy hereof to JAIME LOPEZ DIAZ. -----

---I have placed the corresponding note at the margin of the original of this document, which I sign, seal, mark and flourish, this twenty-sixth (26<sup>th</sup>) day of January, two thousand twelve (2012). -----

NOTARY PUBLIC



**QUITCLAIM DEED**  
**CDR PARCEL 1 (SWMU 7/8)**

1       **THIS INDENTURE** ("Quitclaim Deed") is made the 25th day of January, 2012 between  
2       **United States of America**, acting by and through the Secretary of the Navy, NAVFAC Base  
3       Closure Program Management Office Southeast, Charleston, South Carolina, hereinafter referred  
4       to as "**GOVERNMENT**," and **Local Redevelopment Authority for Naval Station Roosevelt**  
5       **Roads**, a government instrumentality of the Commonwealth of Puerto Rico ("Commonwealth"),  
6       created, operated, and existing under and by virtue of the laws of the Commonwealth, and  
7       designated by the Commonwealth and the Office of Economic Adjustment on behalf of the  
8       Secretary of Defense as the public agency to plan, promote, and implement the redevelopment  
9       of the former Naval Station Roosevelt Roads, hereinafter referred to as "**GRANTEE**." It is based  
10      upon the following facts:

**Recitals**

11  
12  
13  
14       A. Pursuant to Section 8132 of the Department of Defense Appropriations Act for  
15      Fiscal Year 2004 (Public Law No. 108-87; the "Appropriations Act"), the GOVERNMENT was  
16      directed to close Naval Station Roosevelt Roads, Puerto Rico ("NSRR") no later than six (6)  
17      months after the enactment of the Appropriations Act, and to do so pursuant to the procedures  
18      and authorities contained in the Defense Base Closure and Realignment Act of 1990, as amended  
19      (title XXIX of Public Law No. 101-510, 10 U.S.C. § 2687 note; the "Base Closure Act").

20  
21       B. Pursuant to the power and authority provided by Section 2905(b)(4) of the Base  
22      Closure Act and the implementing regulations of the Department of Defense (32 C.F.R. Part  
23      174), the GOVERNMENT is authorized to convey surplus property at a closing installation to a  
24      local redevelopment authority for economic development purposes.

25  
26       C. On August 30, 2006, the Office of Economic Adjustment of the Department of  
27      Defense recognized the GRANTEE, also known as the Portal del Futuro Authority and the  
28      Roosevelt Roads Naval Base Lands and Facilities Redevelopment Authority, as the local  
29      redevelopment authority for purposes of implementing the local redevelopment plan at NSRR.

30  
31       D. GRANTEE, by application dated 17 December 2010, requested an "Economic  
32      Development Conveyance" ("EDC") of a portion of the surplus property comprised of  
33      approximately 1370.20 acres of the former Naval Station Roosevelt Roads, Ceiba, Puerto Rico.

34  
35       E. The GRANTEE's EDC application was accepted by the GOVERNMENT on 16  
36      September 2011.

37  
38       F. The GOVERNMENT and the GRANTEE executed an Economic Development  
39      Conveyance Memorandum of Agreement on December 20, 2011 ("EDC Agreement") detailing

**CDR Parcel 1 Deed**

**Page 2.**

1 the specifics of the transfer of property under the Government-approved EDC, including the  
2 consideration to be paid by the GRANTEE to the GOVERNMENT for such transfer.

3  
4 G. GRANTEE hereby offers consideration in the amount set forth in the EDC  
5 Agreement, plus other good and valuable consideration, to it in hand paid by GRANTEE, the  
6 receipt of which is hereby acknowledged; and GOVERNMENT has granted, bargained, sold,  
7 and released and by these presents does grant, bargain, sell, and release unto the said  
8 GRANTEE, its successors, and assigns, all right title and interest in and to that certain parcel of  
9 real property at the former NSRR and identified as "CDR Parcel 1", by the NSRR Disposal Map  
10 attached hereto and made a part hereof as **Exhibit "A."**

11  
12 **NOW THEREFORE**, by the acceptance of this Quitclaim Deed or any rights hereunder,  
13 the GRANTEE, for itself, its successors and assigns, agrees that the transfer of all the property  
14 transferred by this Quitclaim Deed is accepted subject to the following terms, restrictions,  
15 reservations, covenants, and conditions set forth below, which shall run with the land, provided  
16 that the property transferred hereby may be successively transferred only with the proviso that  
17 any such subsequent transferee assumes all of the obligations imposed upon the GRANTEE by  
18 the provisions of this Quitclaim Deed with respect to the property being transferred.

19  
20 **IN CONSIDERATION OF THE FOREGOING**, of the terms and conditions set forth  
21 below and of other good and valuable consideration (the receipt and adequacy of which, as  
22 consideration, the parties hereto both acknowledge), the parties hereto, intending to be legally  
23 bound hereby, have agreed to, and do hereby, effectuate the conveyance set forth below.

24  
25 **Conveyance Language**

26  
27 GOVERNMENT does hereby, subject to any easements and encumbrances of record and  
28 subject to the reservations, exceptions, notices, covenants, conditions, and restrictions expressly  
29 contained herein, grant, sell, convey, remise, release, and quitclaim unto GRANTEE, its heirs,  
30 successors, and its assigns, without any warranty, express or implied, as to the quantity or quality  
31 of GOVERNMENT's title (except such warranties as are specifically set forth herein, required  
32 by 42 U.S.C. § 9620(h)(3), or otherwise required by law), all GOVERNMENT's right, title, and  
33 interest in that certain real property, comprising 24.971 acres or 25.711 cuerdas in size  
34 (collectively, "PROPERTY"), including, but not limited to the underlying estate, buildings,  
35 structures, and improvements situated or installed thereon, commonly known as and referred to  
36 herein as CDR Parcel 1, more fully described on the documents attached to this Quitclaim Deed  
37 and incorporated herein as **Exhibit "B"**, incorporated herein.

38  
39 **TOGETHER WITH** all and singular the ways, waters, water-courses, driveways, rights,  
40 hereditaments and appurtenances, whatsoever thereunto belonging, or in any wise appertaining,  
41 and the reversions and remainders, rents, issues and profits thereof; and all the estate, right, title,  
42 interest, property, claim and demand whatsoever of GOVERNMENT, in law, equity, or  
43 otherwise howsoever, of, in, and to the same and every part thereof, and

CDR Parcel 1 Deed

Page 3.

TO HAVE AND TO HOLD the said lots or pieces of ground above described, the hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the said GRANTEE, its heirs, its successors, and its assigns, and subject to the reservations, restrictions, and conditions set forth in this instrument, to and for the only proper use and behalf of the said GRANTEE, its heirs, its successors, and its assigns forever.

Special Sections

I. Access Easements: GRANTEE, upon acceptance of the PROPERTY, shall enjoy the right and use of, and GRANTOR hereby assigns to GRANTEE, GRANTEE's interest in that certain non-exclusive easement(s) constituted by public deed number five hundred, seventy-five (575), executed on October 8<sup>th</sup>, 2010 for the benefit of the GOVERNMENT, its successors, and assigns, all as illustrated by Exhibit "C".

Special Environmental Notices for Early Transfer Property

II. Notice of Environmental Condition: Information concerning the environmental condition of the PROPERTY is contained in the document known as the **Finding of Suitability for Transfer (FOST)** dated 05 January 2009, which is attached hereto and made a part hereof as **Exhibit "D"** and incorporated herein by reference, and the receipt of which is hereby acknowledged by the GRANTEE. An **Environmental Condition of Property (ECP)** report is referenced in the FOST; the FOST and ECP reference environmental conditions on the PROPERTY and on other property not subject to this Quitclaim Deed. Those restrictions and environmental conditions described in the FOST and ECP which are applicable to the PROPERTY are contained in this Quitclaim Deed. The FOST sets forth the basis for the GOVERNMENT's determination that the PROPERTY is suitable for transfer. GRANTEE has been advised that GOVERNMENT has not completed all those environmental investigations and remedial actions on the PROPERTY necessary for GOVERNMENT to provide to GRANTEE, the deed covenant required by section 120(h)(3)(A)(ii)(I) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9620(h)(3)(A)(ii)(I). However, Section 120(h)(3)(C) of CERCLA, 42 U.S.C. § 9620(h)(3)(C), authorizes the early transfer of contaminated federal real property with Commonwealth Governor approval, in advance of providing that covenant provided the requirements of CERCLA Section 120(h)(3)(C) are satisfied. GOVERNMENT executed a **Covenant Deferral Request ("CDR")**, in the form attached hereto as **Exhibit "E"** to facilitate the approval by the Governor of the Commonwealth of Puerto Rico of such early transfer, and such approval has been received and is attached hereto as **Exhibit "F"**. Together, the ECP, CDR and FOST contain all pertinent information currently known by GOVERNMENT as to the environmental condition of the PROPERTY. GRANTEE hereby acknowledges that it has been provided copies of the CDR and FOST as well as the ECP. The specific environmental conditions and land use controls described in the FOST, CDR and ECP, which are applicable to the PROPERTY, are contained in this Quitclaim Deed.

CDR Parcel 1 Deed

Page 4.

1 **III. Representation, Warranty, and Covenant required by 42 U.S.C.**  
2 **§ 9620(h)(3)(A)(ii)(II):** GOVERNMENT covenants and warrants in accordance with Section  
3 120(h)(3)(A)(ii)(II) of CERCLA, 42 U.S.C. § 9620(h)(3)(A)(ii)(I), that any additional remedial  
4 action found to be necessary after the date of this transfer shall be conducted by the United  
5 States. Pursuant to Section 120(h)(3)(C)(ii) of the Comprehensive Environmental Response,  
6 Compensation and Liability Act of 1980, 42 U.S.C. § 9620(h)(3)(C)(ii), the United States  
7 provides the following response action assurances:  
8

9 The GOVERNMENT hereby provides assurance that it shall take all necessary response actions  
10 on the PROPERTY, provided that under Section 120(h) of CERCLA, the GOVERNMENT's  
11 requirement to take such response actions shall not apply in any case in which the person or  
12 entity to whom the PROPERTY is transferred is a potentially responsible party with respect to  
13 the PROPERTY. GOVERNMENT identified a schedule for investigation and completion of all  
14 necessary response actions as approved by the U.S. Environmental Protection Agency ("EPA");  
15 such schedule is attached as **Exhibit "G"** to this Quitclaim Deed. The timing of completion of  
16 all such response actions is subject to future Congressional authorizations and appropriations.  
17

18 The GOVERNMENT hereby provides assurance that it shall submit annually through  
19 established channels, appropriate budget requests to the Director of the Office of Management  
20 and Budget, with a copy to GRANTEE, that fully addresses the work completion schedule  
21 agreed upon, as set forth in **Exhibit "G"**, but not already funded, for the completion of all  
22 necessary response actions, subject to future Congressional authorizations and appropriations.  
23

24 Upon completion of all response actions necessary to protect human health and the environment  
25 with respect to any hazardous substance remaining on the PROPERTY on the date of transfer,  
26 GOVERNMENT shall execute and deliver to GRANTEE or its successors or assigns that then  
27 own the PROPERTY, or the applicable portion thereof, an appropriate document, in recordable  
28 form, warranting that all such response actions have been taken. GOVERNMENT may provide  
29 such warranty when remedial systems are determined to be operating properly and successfully  
30 as provided in CERCLA section 120(h)(3)(B).  
31

32 **IV. Reservation of Access as Required by 42 U.S.C. §9620(h)(3)(A)(iii):** The United  
33 States retains and reserves a perpetual and assignable easement and right of access on, over, and  
34 through the PROPERTY, to enter upon the PROPERTY in any case in which an environmental  
35 response or corrective action is found to be necessary on the part of the United States, without  
36 regard to whether such environmental response or corrective action is on the PROPERTY or on  
37 adjoining nearby lands. Such easement and right of access includes, without limitation, the right  
38 to perform any environmental investigation, survey, monitoring, sampling, testing, drilling,  
39 boring, coring, testpitting, installing monitoring or pumping wells or other treatment facilities,  
40 response action, corrective action, or any other action necessary for the United States to meet its  
41 responsibilities under applicable laws and as provided for in this instrument. Such easement and  
42 right of access shall be binding on the GRANTEE and its successors and assigns and shall run  
43 with the land.

**CDR Parcel 1 Deed**

**Page 5.**

1  
2 In exercising such easement and right of access, the United States shall provide the GRANTEE  
3 or its successors or assigns, as the case may be, with reasonable notice of its intent to enter upon  
4 the PROPERTY and exercise its rights under this clause, which notice may be severely curtailed  
5 or even eliminated in emergency situations. The United States shall use reasonable means to  
6 avoid and to minimize interference with the GRANTEE's and the GRANTEE's successors' and  
7 assigns' quiet enjoyment of the PROPERTY. At the completion of work, the work site shall be  
8 reasonably restored. Such easement and right of access includes the right to obtain and use utility  
9 services, including water, gas, electricity, sewer, and communications services available on the  
10 PROPERTY at a reasonable charge to the United States. Excluding the reasonable charges for  
11 such utility services, no fee, charge, or compensation will be due the GRANTEE, nor its  
12 successor and assigns, for the exercise of the easement and right of access hereby retained by the  
13 United States.

14  
15 In exercising such easement and right of access, neither the GRANTEE nor its successors and  
16 assigns, as the case may be, shall have any claim at law or equity against the United States or any  
17 officer, employee, agent, contractor of any tier, or servant of the United States based on actions  
18 taken by the United States or its officers, employees, agents, contractors of any tier, or servants  
19 pursuant to and in accordance with this clause; Provided, however, that nothing in this paragraph  
20 shall be considered as a waiver by the GRANTEE and its successors and assigns of any remedy  
21 available to them under the Federal Tort Claims Act.

22 **V. Notice Of Hazardous Substance Activity in accordance with 42 U.S.C.**  
23 **§9620(h)(3)(A)(i):** Exhibit "H" to this Quitclaim Deed provides information as to those  
24 hazardous substances which it is known, based upon GOVERNMENT's complete search of its  
25 files, were stored for one (1) year or more, or were released or disposed of on the PROPERTY.  
26 The information contained in Exhibit "H" is required under 42 U.S.C. § 9620(h)(3)(A)(i), and  
27 implementing EPA regulations at Title 40, Code of Federal Regulations, Part 373.

28  
29 **VI. Grantee Notice Requirement Regarding Future Sale or Assignment:** In accordance  
30 with that certain RCRA 7003 Administrative Order on Consent (EPA Docket No. RCRA-02-  
31 2007-7301) ("Order"), and for as long as such Order is in effect, GRANTEE, on behalf of its  
32 heirs, successors and assigns, covenants that it shall provide written notice to the  
33 GOVERNMENT of any subsequent sale or assignment of the PROPERTY, or any portion  
34 thereof, and provide contact information concerning the new owner or assignee. The following  
35 is the point of contact for notice to the GOVERNMENT:

36  
37 Director  
38 NAVFAC BRAC Program Management Office SE  
39 4130 Faber Place Drive  
40 Suite 202  
41 North Charleston, SC 29405  
42

**CDR Parcel 1 Deed**

**Page 6.**

1 In the event GRANTEE, its successors or assigns (each hereinafter called a "Transferor")  
2 conveys the PROPERTY, or any portion thereof, the Transferor shall provide to the party  
3 acquiring the PROPERTY, or any portion thereof, notice of this requirement.

4  
5 **VII. Lead Based Paint Hazard Disclosure and Acknowledgment:** The PROPERTY  
6 contains improvements that, due to their age, are likely to have been painted with lead based  
7 paint.

8  
9 1. Lead from paint, paint chips, and dust can pose health hazards if not managed  
10 properly. Pursuant to 40 C.F.R. Section 745.113, the following notice is provided; "Every  
11 purchaser of any interest in residential real property on which a residential dwelling was built  
12 prior to 1978 is notified that such property may present exposure to lead from lead-based paint  
13 that may place young children at risk of developing lead poisoning. Lead poisoning in young  
14 children may produce permanent neurological damage, including learning disabilities, reduced  
15 intelligence quotient, behavioral problems, and impaired memory. Lead poisoning also poses a  
16 particular risk to pregnant women. The seller of any interest in residential real property is  
17 required to provide the buyer with any information on lead-based paint hazards from risk  
18 assessments or inspections in the seller's possession and notify the buyer of any known lead-  
19 based paint hazards. A risk assessment or inspection for possible lead-based paint hazards is  
20 recommended prior to purchase." The GRANTEE will be responsible for managing all lead-  
21 based paint and potential lead-based paint in compliance with all applicable Federal,  
22 Commonwealth, and local laws and regulations.

23  
24 2. The GRANTEE hereby acknowledges the required disclosure of the presence of  
25 any known LBP and/or LBP hazards in target housing constructed prior to 1978 in accordance  
26 with the Residential Lead-Based Paint Hazard Reduction Act of 1992, 42 U.S.C. Section 4852d  
27 (Title X). The GRANTOR agrees that it has provided to GRANTEE, and GRANTEE  
28 acknowledges the receipt of, available records and reports pertaining to LBP and/or LBP hazards  
29 and receipt of the Environmental Protection Agency (EPA) approved pamphlet: Renovate Right:  
30 Important Lead Hazard Information for Families, Child Care Providers and Schools.  
31 Furthermore, the GRANTEE acknowledges that it has read and understood the EPA pamphlet.

32  
33 3. The GRANTEE covenants and agrees that, in any improvements on the  
34 PROPERTY defined as target housing by Title X and constructed prior to 1978, LBP hazards  
35 will be disclosed to potential occupants in accordance with Title X before use of such  
36 improvements as a residential dwelling (as defined in Title X). Further, the GRANTEE  
37 covenants and agrees that it shall, or it shall require future transferees of the PROPERTY to,  
38 abate LBP hazards in any applicable target housing in accordance with the requirements of Title  
39 X, to the extent applicable, before re-occupancy of the residential dwelling, in accordance with  
40 applicable laws. "Target housing" means any housing constructed prior to 1978, except housing  
41 for the elderly or persons with disabilities (unless any child who is less than six (6) years of age  
42 resides, or is expected to reside, in such housing) or any zero-bedroom dwelling.



CDR Parcel 1 Deed

Page 7.

1           4.     The GRANTEE acknowledges that the GRANTOR assumes no liability for costs  
2 or any damages for personal injury, illness, disability, or death to the GRANTEE, or to any other  
3 person, including members of the general public, arising from or incident to the purchase,  
4 transportation, removal, handling, use, disposition, or other activity causing or leading to contact  
5 of any kind whatsoever with LBP on the PROPERTY, arising after the conveyance of the  
6 PROPERTY from the GRANTOR to the GRANTEE, whether the GRANTEE has properly  
7 warned, or failed to properly warn, the persons injured.

8  
9           5.     Upon execution of this Quitclaim Deed, the GRANTEE covenants and agrees that  
10 it shall, and it shall require future transferees of the PROPERTY to, be responsible at its own  
11 cost and expense for the maintenance and management of LBP and LBP hazards located in the  
12 improvements on the PROPERTY, and the GRANTEE shall comply with Title X and all  
13 applicable Federal, Commonwealth, and local laws relating to LBP.

14  
15 **VIII. Asbestos Containing Materials Disclosure and Acknowledgment:** GRANTEE hereby  
16 acknowledges that asbestos containing materials (ACM) remain in buildings on the PROPERTY  
17 and agrees to manage any and all remaining ACM in accordance with applicable laws and  
18 regulations.

19           1.     GRANTOR covenants that it has provided to the GRANTEE all documentation in  
20 its possession regarding the presence of any known ACM, and the GRANTEE acknowledges  
21 receipt of documentation disclosing the presence of any known ACM in the buildings and  
22 structures on the PROPERTY. The GRANTEE covenants that it will, and it will require future  
23 transferees of the PROPERTY to, prohibit use or occupancy of buildings and structures, or  
24 portions thereof, containing known friable and accessible, or damaged ACM prior to abatement  
25 of the friable and accessible, or damaged ACM or demolition of the building or structure, to the  
26 extent required by applicable law.

27  
28           2.     The GRANTEE covenants and agrees that it shall require, and it shall require  
29 future transferees of the PROPERTY, in its use and occupancy of the PROPERTY, including but  
30 not limited to demolition of buildings containing ACM, to comply with all applicable Federal,  
31 Commonwealth and local laws relating to ACM. The GRANTEE acknowledges that the  
32 GRANTOR assumes no liability for costs or any damages for personal injury, illness, disability,  
33 or death to the GRANTEE, or to any other person, including members of the general public,  
34 arising from or incident to the purchase, transportation, removal, handling, use, disposition, or  
35 activity causing or leading to contact of any kind whatsoever with ACM in the improvements on  
36 the PROPERTY, arising after the conveyance of the PROPERTY from the GRANTOR to the  
37 GRANTEE, whether the GRANTEE has properly warned, or failed to properly warn the persons  
38 injured.

39  
40           3.     The GRANTEE covenants and agrees that it shall, and it shall require future  
41 transferees of the PROPERTY, upon demolition of the improvements located on the  
42 PROPERTY, remove all ACM in accordance with the EPA National Emission Standard for  
43 Hazardous Air Pollutants (NESHAP), 40 C.F.R. Section 61, Subpart M and applicable

**CDR Parcel 1 Deed**

**Page 8.**

1 Commonwealth laws and regulations.

2  
3 **IX. Presence of PCBs:** GRANTEE acknowledges that fluorescent light fixture ballasts  
4 located within improvements on the PROPERTY may contain PCBs. Prior to beginning any  
5 maintenance, alterations, demolition, restoration, or construction work affecting improvements,  
6 GRANTEE must determine if PCB ballasts are present. If present, PCB ballasts and/or fixtures  
7 must be disposed of properly at GRANTEE's expense, in accordance with all applicable Federal,  
8 Commonwealth, and local laws and regulations.

9  
10 **X. Covenant and Restriction regarding Non-residential Use:** GRANTEE hereby  
11 covenants, on behalf of itself, its successors, and its assigns, that no permanent residences shall  
12 be constructed or otherwise developed on the PROPERTY, and that no portion of the  
13 PROPERTY shall be used as a permanent residence. Any removal of soils, foundations, paving,  
14 or underground utilities shall be in accordance with applicable legal requirements.

15  
16 **XI. Covenant and Restriction regarding Excavation Prohibited:** GRANTEE hereby  
17 covenants, on behalf of itself, its successors, and its assigns, that excavation, drilling, or other  
18 disturbance or removal of soils or sediments or other invasive activities on the PROPERTY shall  
19 be prohibited.

20  
21 **XII. Covenant and Restriction regarding Groundwater:** GRANTEE hereby covenants, on  
22 behalf of itself, its successors, and its assigns, that installation of any groundwater extraction  
23 wells or the use of any groundwater drawn from the PROPERTY shall be prohibited. Before  
24 constructing any improvements on the PROPERTY, the potential for vapor intrusion from  
25 groundwater and possible resulting impacts to indoor air quality shall be considered and, as  
26 needed, addressed during building design and construction.

27  
28 **XIII. Covenant and Restriction regarding Remedial Systems Non-interference Controls:**  
29 GRANTEE covenants that it shall not undertake and shall require its lessees and licensees to not  
30 undertake any activity on the PROPERTY which would interfere with the ready use or  
31 effectiveness of, or otherwise cause any damage to, all existing and any future groundwater  
32 monitoring or extraction wells or remedial systems (including pumps, wells, piping, utilities and  
33 associated appurtenances) installed by the GOVERNMENT on the PROPERTY, provided  
34 GOVERNMENT provides written notice to GRANTEE of their existence and location thereof,  
35 until such wells or systems are no longer needed for environmental investigation and/or  
36 remediation, as reasonably determined by GOVERNMENT with the concurrence of EPA. Such  
37 wells or remedial systems and their associated appurtenances shall be decommissioned, closed or  
38 removed by GOVERNMENT in accordance with applicable Federal, Commonwealth and local  
39 laws at GOVERNMENT's expense.

40  
41 **XIV. Covenant and Restriction Regarding Annual Inspections:** GRANTEE covenants that  
42 it or its designee shall perform annual inspections of the PROPERTY to ensure that all land use  
43 controls, as hereinafter set forth, are being complied with and provide a written certification to

**CDR Parcel 1 Deed**

**Page 9.**

1 the GOVERNMENT certifying such compliance, for as long as land use controls are required on  
2 the PROPERTY. Such annual certifications shall be provided using the form attached hereto as  
3 Exhibit "I" or similar form as may later be approved by EPA.  
4

5 **XV. Notice of Resource Conservation and Recovery Act (RCRA) Order Compliance:**

6 GRANTEE, its successors and assigns, hereby covenants that it shall not undertake, and shall  
7 require its lessees and licensees to not undertake, any activity on the PROPERTY which is not  
8 consistent with the RCRA Administrative Order on Consent between EPA and the  
9 GOVERNMENT or any activity which would interfere with the GOVERNMENT'S ability to  
10 comply with said Order or any provision thereof, as currently in effect or as may later be  
11 modified from time to time by EPA. GRANTEE acknowledges that the GOVERNMENT has  
12 provided a copy of the current RCRA Order to GRANTEE for its review and information and  
13 that GRANTEE will, in turn, provide a copy of the same to each of its successors and assigns to  
14 the PROPERTY for their information and required compliance with this provision.  
15

16 **XVI. Release of Environmental Conditions and/or Grantee Covenants:** GOVERNMENT

17 shall consider a request to release the environmental conditions and GRANTEE covenants  
18 related to the PROPERTY only with EPA concurrence. GOVERNMENT shall respond  
19 promptly and in good faith to any written request by the GRANTEE, its successors or assigns  
20 that the GOVERNMENT extinguish, release or otherwise modify any of the environmental  
21 conditions or GRANTEE covenants because of full satisfaction of the essential purposes thereof,  
22 or achievement of remedial goals. Any such request must include a letter from EPA, or other  
23 suitable documentation from EPA, stating that site rehabilitation with respect to environmental  
24 conditions on the PROPERTY has been achieved and no further remedial action is required.  
25

26 **XVII. Development, Improvement or Maintenance of Land Restricted by Environmental**  
27 **Conditions, Covenants or Land Use Controls:** In the event the GRANTEE, its successors and

28 assigns desires to develop, improve, use, or maintain the PROPERTY in a manner that is  
29 restricted or prohibited by the Environmental Conditions, Covenants or Land Use Controls  
30 contained within this Quitclaim Deed, the GRANTEE, its successors and assigns shall provide  
31 the GOVERNMENT with a written request seeking approval for the requested activity.  
32 GOVERNMENT shall respond to these written requests promptly and in good faith PROVIDED  
33 the request includes both a full description of the proposed work, including but not limited to the  
34 actual work plan maps, drawings and specifications, AND documentation from EPA is furnished  
35 indicating that EPA has reviewed the proposed development, improvement, or maintenance  
36 activity and does not object thereto.  
37

38 **XVIII. Non-interference with Navigable Airspace:** The GRANTEE covenants for itself,  
39 successors, and assigns, and every successor in interest to the PROPERTY herein described, or  
40 any part thereof, that any construction or alteration is prohibited unless a determination of no  
41 hazard to air navigation is issued by the Federal Aviation Administration in accordance with  
42 Title 14, Code of Federal Regulation, Part 77, entitled "Objects Affecting Navigable Airspace",  
43 or under the Authority of the Federal Aviation Act of 1958, as amended.

CDR Parcel 1 Deed

Page 10.

1  
2 **XIX. Protection of Archeological Resources:** The GRANTEE shall monitor for  
3 archeological artifacts during its construction activities and shall take appropriate action should  
4 any artifacts be discovered in accordance with the Memorandum of Agreement between the  
5 United States Navy and the Puerto Rico Historic Preservation Officer concerning the disposal of  
6 Naval Activity Puerto Rico executed September 28, 2011.  
7

8 **XX. Protection of Wetlands:** The GRANTEE is hereby notified that the PROPERTY may  
9 contain wetlands. Wetland activities such as filling, draining or altering are regulated by Federal  
10 laws. Section 404 of the Clean Water Act (CWA) establishes a program to regulate the  
11 discharge of dredged or fill material into waters of the United States, including wetlands.  
12 Activities in waters of the United States regulated under this program include fill for  
13 development, water resource projects (such as dams and levees), infrastructure development  
14 (such as highways and airports) and mining projects.  
15

16 **GENERAL PROVISIONS**  
17

18 **XXI. Conveyance is "As Is - Where Is":** Except as expressly provided in this Quitclaim  
19 Deed or as otherwise required by law, the PROPERTY is being conveyed "AS IS" and "WHERE  
20 IS," without representation, warranty, or guaranty as to quality, quantity, character, condition,  
21 size, kind, or fitness for a particular purpose.  
22

23 **XXII. Covenant regarding Non-Discrimination:** GRANTEE covenants for itself, its  
24 successors, and assigns and every successor in interest to the PROPERTY, or any part thereof,  
25 that GRANTEE and such heirs, successors, and assigns shall not discriminate upon the basis of  
26 race, color, religion, disability, or national origin in the use, occupancy, sale, or lease of the  
27 PROPERTY, or in their employment practices conducted thereon. This covenant shall not apply  
28 however, to the lease or rental of a room or rooms within a family dwelling unit, nor shall it  
29 apply with respect to PROPERTY used primarily for religious purposes. The United States of  
30 America shall be deemed a beneficiary of this covenant without regard to whether it remains the  
31 owner of any land or interest therein in the locality of the PROPERTY hereby conveyed and  
32 shall have the sole right to enforce this covenant in any court of competent jurisdiction.  
33

34 **XXIII. General Notice Provision:** To facilitate such future cooperation, the following  
35 points of contact have been designated by the GOVERNMENT, GRANTEE, United States  
36 Environmental Protection Agency (USEPA) and Puerto Rico Environmental Quality Board  
37 (PREQB):  
38

39 **GOVERNMENT:** Director  
40 NAVFAC BRAC Program Management Office Southeast  
41 4130 Faber Place Drive, Suite 202  
42 North Charleston, SC 29405  
43

**CDR Parcel 1 Deed**  
**Page 11.**

GRANTEE: Executive Director  
Local Redevelopment Authority for Naval Station Roosevelt Roads  
The New San Juan Office Building  
159 Chardon Avenue, 2<sup>nd</sup> Floor  
Hato Rey, PR 00918

With a copy to: Kutak Rock LLP  
1101 Connecticut Avenue, NW  
Suite 1000  
Washington, DC 20036  
Attention: George Schlossberg, Esq.

USEPA: U.S. Environmental Protection Agency  
Region 2  
290 Broadway - 22nd Floor  
New York, NY 10007-1866  
Attention: Chief, RCRA Programs Branch

PREQB: Puerto Rico Environmental Quality Board  
Oficina del Presidente - Piso 5 Ave.  
Ponce de Leon #1308  
Carr Estatal 8838  
Sector El Cinco  
Rio Piedras, PR 00926

**XXIV. Recording of Title:** The appearing parties do hereby acknowledge that although this Quitclaim Deed is a valid and legally binding document, it may not fulfill the requirements established by the Mortgage and Registry Property Act of 1979 for the recording of titles at the Registry of Property of Puerto Rico (the "Registry"). Therefore, the appearing parties agree to jointly take all actions reasonably necessary in accordance with and subject to the authorities and limitations proscribed by applicable Federal and Commonwealth law to cause the recordable documents to be executed, filed and registered in the Registry.

The appearing parties do hereby further acknowledge and recognize that in order for these parcels to exist as separate properties and be developed as intended, it may be necessary for the same to be segregated and the need for necessary easements to be created for the benefit of these parcels may arise. In the event that such easements are granted by the GOVERNMENT, the appearing parties acknowledge that the Recordable Documents must include such transactions and in a timely manner and agree to jointly take all actions reasonably necessary in accordance with and subject to the authorities and limitations proscribed by applicable Federal and Commonwealth law to cause the recordable documents to be executed, filed and registered in the Registry.

**CDR Parcel 1 Deed**

**Page 12.**

1 Notwithstanding the foregoing, it is the intent of the appearing parties that immediately upon  
2 execution of this Quitclaim Deed, as it appears herein, all right, title and interest in the  
3 PROPERTY shall have conveyed to the GRANTEE.

4  
5 Any requirement for the obligation or payment of funds by the GOVERNMENT established by  
6 any provision of this Quitclaim Deed shall be subject to the availability of appropriated funds,  
7 and no provision herein shall be interpreted to require an obligation or payment in violation of  
8 the Anti-Deficiency Act, 31 U.S.C. Section 1341.

9  
10 **XXV. Counterparts:** This Quitclaim Deed may be executed in counterparts, each of  
11 which shall be deemed to be an original, and such counterparts may be assembled to form a  
12 single document.

13  
14 **The remainder of this page is intentionally left blank**




Execution

IN WITNESS WHEREOF, the undersigned, acting pursuant to the authority vested unto him as Real Estate Contracting Officer for the United States of America, has hereunto executed this Quitclaim Deed the day and year first written above.

UNITED STATES OF AMERICA

By: Navy BRAC PMO

By:   
Gregory C. Preston  
Real Estate Contracting Officer

Affidavit No. -2508- (copy)

Acknowledged and subscribed before me by Gregory C. Preston, of legal age, married, public servant and resident of Mount Laurel, New Jersey, in his capacity as Real Estate Contracting Officer of the NAVY BRAC PMO of the Department of the Defense of the United States of America, who I personally know.

In San Juan, Puerto Rico on this 25 day of January, 2012.

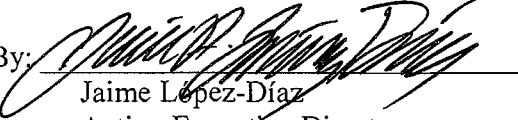
[Signatures Continue on Following Page]



**CDR Parcel 1 Deed**  
**Page 14.**

IN WITNESS WHEREOF, the undersigned, acting pursuant to the authority vested unto him, as Acting Executive Director, has hereunto executed and accepted this Quitclaim Deed as of the day and year first written above.

LOCAL REDEVELOPMENT AUTHORITY  
NAVAL STATION ROOSEVELT ROADS

By:   
Jaime López-Díaz  
Acting Executive Director

Affidavit No. -743- (copy)

Acknowledged and subscribed to before me, by Jaime López-Díaz, of legal age, married, public servant and resident of San Juan, Puerto Rico in his capacity as Acting Executive Director, who I personally know.

In San Juan, Puerto Rico this 21 day of January, 2012.



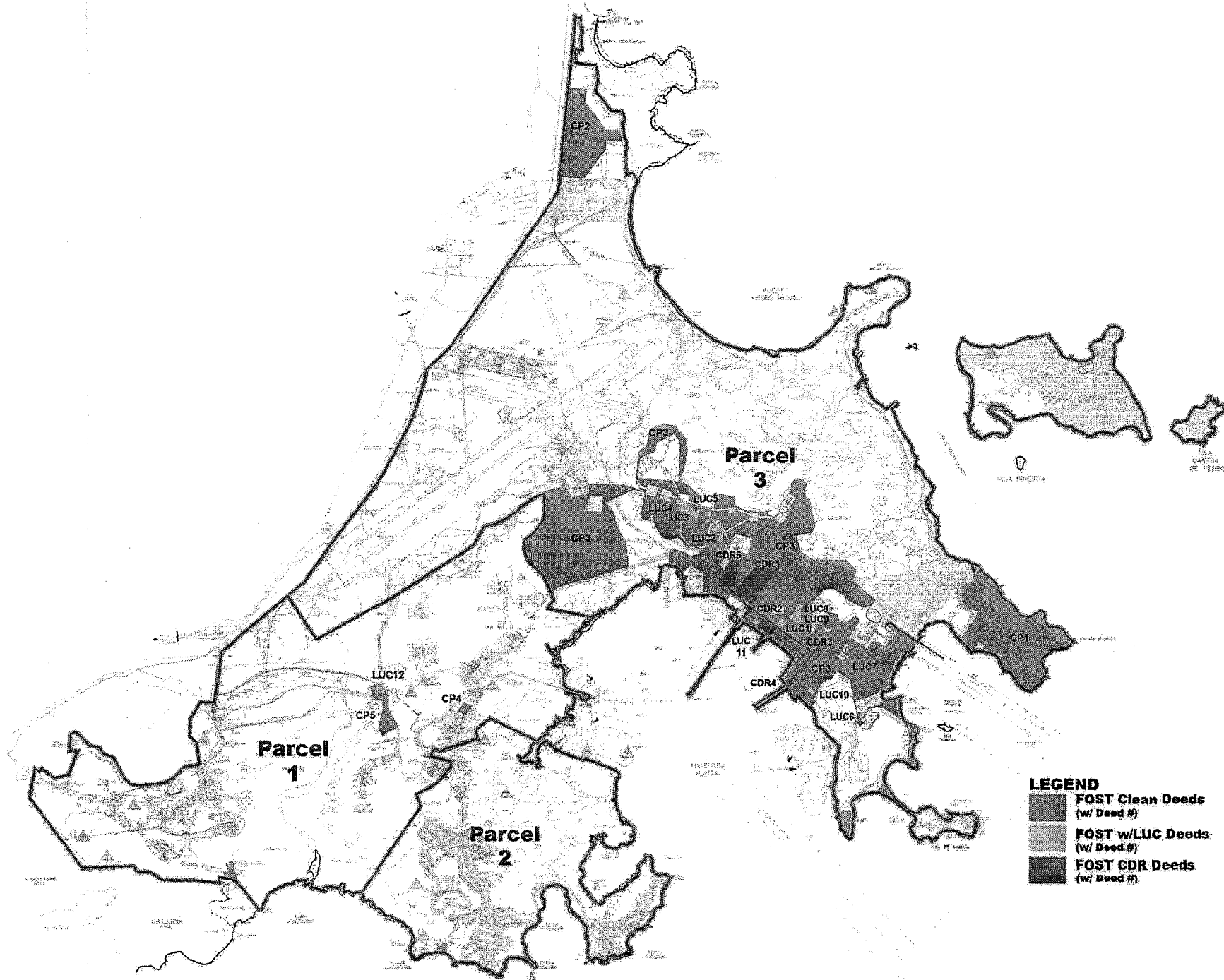


**Exhibit "A"**

**NSRR DISPOSAL MAP**

1

2

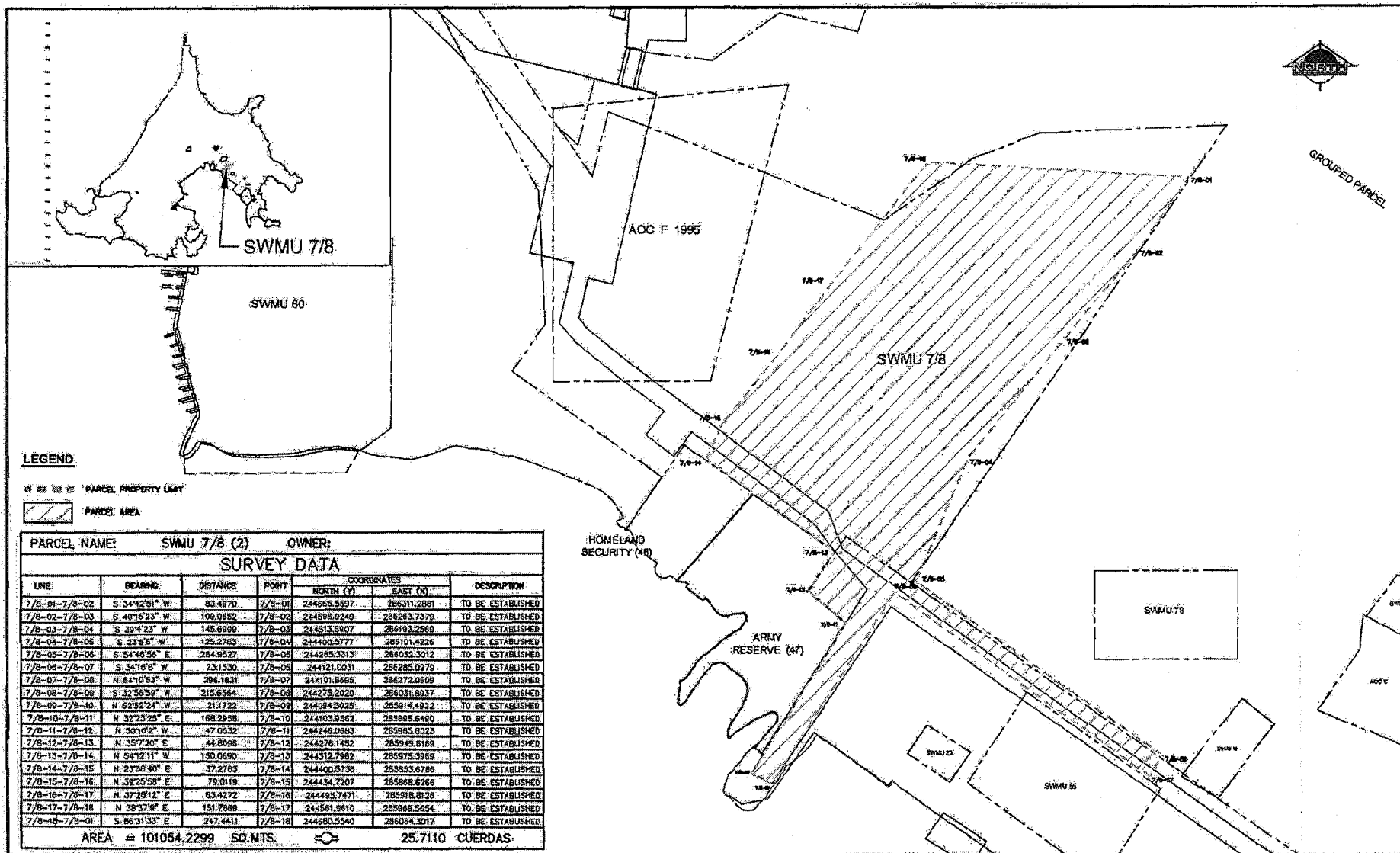


**Exhibit "B"**

1

**LEGAL DESCRIPTIONS OF PROPERTY CONVEYED**

2 RURAL: Parcel of land identified as SWMU 7/8, situated in the Wards of Machos and Guayacán, Municipality of  
3 Ceiba, Puerto Rico, containing an area of one hundred one thousand fifty four square meters and two hundred  
4 thirty thousandths of a square meter (101,054.230 s.m.); equivalent to twenty five cuerdas and seven hundred  
5 eleven thousandths of a cuerda (25.711 cuerdas); bounded on the NORTH, EAST and WEST by lands of the  
6 principal estate from which it is segregated, property of the United States of America, on the SOUTH by lands of  
7 Parcel 46 (Homeland Security), Parcel 47 (Army Reserve) and by lands of the principal estate from which it is  
8 segregated, all properties of the United States of America.



**PROJECT:**  
 RE-DEVELOPMENT FOR FORMER NAVAL  
 STATION ROOSEVELT ROADS  
 Ceiba & Naguabo, Puerto Rico:  
 Autoridad para el Redesarrollo Local  
 Roosevelt Roads

All drawings and copies thereof are instruments of service and as such remain the property of the designer. They are to be used only with respect to the project. With the execution of any copy or use for each party to this contract, all copies are to be returned or suitably acknowledged to the designer upon completion of the work. COPYRIGHT © 2012 ALL RIGHTS RESERVED

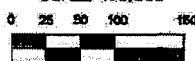
**TITLE:**  
 SWMU 7/8 PARCEL  
 (CONSOLIDATED PARCEL PORTION)  
 FOST CDR

SCALE: 1:5,000

DATE: JANUARY 2012

**NOTES:**  
 1. SURVEY DATA OBTAINED FROM PLANS PREPARED BY BAKER AND/OR TRANSYSTEMS FOR NAVAL ACTIVITY PUERTO RICO.  
 2. COORDINATES IN PUERTO RICO VIRGIN ISLANDS NAD 83 SYSTEM (METERS)

SCALE 1:5,000



AUTORIDAD PARA EL REDESARROLLO LOCAL  
 ROOSEVELT ROADS - PUERTO RICO



**INTEGR0**  
 architects & engineers, PSC  
 (787) 787.2111 www.integr0.com

DN-241

1  
2  
3  
4  
5

**Exhibit "C"**  
**ACCESS EASEMENTS**

----DEED NUMBER FIVE HUNDRED SEVENTY FIVE (575)----

----- DEED OF CONSTITUTION OF PATH EASEMENTS-----

---In San Juan, Puerto Rico, this eighth (8<sup>th</sup>)  
day of October of the year two thousand ten  
(2010).-----

----- BEFORE ME -----

---RAUL J. VILA SELLES, Attorney-at-Law and Notary  
Public in and for the Commonwealth of Puerto Rico,  
with office and residence in San Juan, Puerto  
Rico.-----

----- APPEARS -----

---AS SOLE PARTY: United States of America, acting  
by and through the Department of the Navy, Base  
Realignment and Closure Program Management Office,  
Southeast, under and pursuant to the powers and  
authority contained in the provisions of Title Ten  
(10), Section Two Thousand Eight Hundred Seventy-  
Eight (2878), of the United States Code, and  
regulations and orders promulgated thereunder,  
having an address of forty-one thirty (4130) Faber  
Place Drive, Suite Two Hundred Two (202) North  
Charleston, South Carolina herein represented by  
Gregory C. Preston, also known as Gregory Charles  
Preston, of legal age, married and resident of the  
State of New Jersey, United States of America, who  
is authorized to appear in this deed as real  
estate contracting officer, by virtue of that  
Certificate of Appointment signed by B.J. Penn,  
Assistant Secretary of the Navy (Installations and  
Environment), on August eighteenth (18<sup>th</sup>), two  
thousand six (2006).-----

---I, the Notary Public, do hereby certify and  
attest that I personally know the appearing party

and his age, civil status, and residence, by his statements, he assures me to have, and in my judgment he does have, the legal capacity necessary for the execution of this deed, and for that purpose he freely-----

----- STATES-----

---FIRST: That the Airport, the Conservation Zones, Los Machos Three (3), and the Hospital parcels, appear recorded in the Registry of the Property, in favor of the United States of America, described in the English language as follows:-----

----- AIRPORT-----

---"Rural: Parcel of land identified as Airport situated in the Wards of Machos, Chupacallos and Quebrada Seca, Municipality of Ceiba, Puerto Rico, containing six million six hundred sixty-one thousand eight hundred and three point six (6,661,803.6) square meters equivalent to one thousand six hundred ninety-four point nine hundred forty-five (1694.945) cuerdas, more or less. Bounded on the North and West by the Municipality of Ceiba, and on the South and East by lands of the principal estate from which it is segregated."-----

----- CONSERVATION ZONES-----

---"Rural: Parcel of land identified as Conservation Zones situated in the Wards of Los Machos, Guayacán and Quebrada Seca, Municipality of Ceiba and the Ward of Daguao, Municipality of Naguabo, Puerto Rico, containing an area of twelve million eighty five thousand nine hundred and thirty point nine (12,085,930.9) square meters equivalent to three thousand and seventy-four point nine hundred and ninety (3074.990) cuerdas more or less, comprised of the following:-----

---Conservation Zone One (1)-----

---"Rural: Parcel of land identified as Conservation Zone One (1) situated in the Ward of Daguao, Municipality of Naguabo, Puerto Rico containing an area of three hundred seventy-three thousand five hundred and forty-four point six (373,544.6) square meters equivalent to ninety-five point zero four zero (95.040) cuerdas, more or less, bounded on the North and East by lands of the principal estate from which it is segregated, on the South, by Felix Robles and the Municipality of Naguabo, Puerto Rico, and on the West, by the Municipality of Naguabo, Puerto Rico."-----

---Conservation Zone Five (5)-----

---"Rural: Parcel of land identified as Conservation Zone Five (5) situated in the Wards of Guayacan and Quebrada Seca, Municipality of Ceiba, Puerto Rico and the Ward of Dagua, Municipality of Naguabo, Puerto Rico, containing an area of three million six hundred and thirty-nine thousand four hundred and eighty-five point zero (3,639,485.0) square meters, equivalent to nine hundred and twenty-five point nine hundred eighty-four (925.984) cuerdas, more or less, comprising the following:-----

---Portion A. Municipality of Ceiba;-----

---"Rural: Parcel of land identified as Conservation Zone Five (5) situated in the Wards of Guayacan and Quebrada Seca, Municipality of Ceiba, Puerto Rico, containing an area of two million two hundred and seventy thousand eight hundred and five point five (2,270,805.5) square meters, equivalent to five hundred seventy-seven point seven hundred fifty-five (577.755) cuerdas, more or less, bounded on the North, East and West by lands of the principal estate from which it is segregated and on the South by Bahia Algodones."---

---Portion B. Municipality of Naguabo;-----

---"Rural: Parcel of land identified as Conservation Zone Five (5) situated in the Ward of Dagua, Municipality of Naguabo, Puerto Rico, containing an area of one million three hundred sixty-eight thousand six hundred seventy-nine point five (1,368,679.5) square meters, equivalent to three hundred forty-eight point two hundred twenty-nine (348.229) cuerdas, more or less, bounded on the North, East and West by lands of the principal estate from which it is segregated and on the South, by Bahia Algodones."-----

---Conservation Zone Nine (9);-----

---"Rural: Parcel of land identified as Conservation Zone Nine (9) situated in the Ward of Guayacan, Municipality of Ceiba, Puerto Rico containing an area of ten thousand three hundred and twenty-three point one (10,323.1) square meters, equivalent to two point six hundred and twenty-six (2.626) cuerdas, more or less, bounded on the North, South and West by lands of the principal estate from which it is segregated; on the East by the Caribbean Sea."-----

---Conservation Zone Eleven (11);-----

---"Rural: Parcel of land identified as Conservation Zone Eleven (11) situated in the Ward of Guayacan, Municipality of Ceiba, Puerto Rico containing an area of four thousand seven hundred and sixty-four point eight (4,764.8) square meters, equivalent to one point two hundred and twelve (1.212) cuerdas, more or less, bounded on



the North, South and West by lands of the principal estate from which it is segregated; on the East by the Caribbean Sea."-----

---Conservation Zone Twelve (12);-----

---"Rural: Parcel of land identified as Conservation Zone Twelve (12) situated in the Ward of Guayacan, Municipality of Ceiba, Puerto Rico containing an area of seventy thousand two hundred and forty nine point nine (70,249.9) square meters, equivalent to seventeen point eight hundred and seventy three (17,873) cuerdas, more or less, bounded on the North and East by the Caribbean Sea and on the South and West by lands of the principal estate from which it is segregated."-----

---Conservation Zone Thirteen (13);-----

---"Rural: Parcel of land identified as Conservation Zone Thirteen (13) situated in the Ward of Guayacan, Municipality of Ceiba, Puerto Rico containing an area of one million five hundred and forty thousand and ten point nine (1,540,010.9) square meters, equivalent to three hundred and ninety-one point eight hundred and twenty-one (391.821) cuerdas, more or less, bounded on the North by lands of the principal estate from which it is segregated and Ensenada Honda, on the East by Ensenada Honda, on the South by lands of the principal estate from which it is segregated and by the Caribbean Sea, on the West by lands of the principal estate from which it is segregated."-----

---Conservation Zone Twenty-Six (26);-----

---"Rural: Parcel of land identified as Conservation Zone Twenty-Six (26) situated in the Ward of Guayacan, Municipality of Ceiba, Puerto Rico containing an area of one hundred and seventy-one thousand seven hundred and thirty-one point two (171,731.2) square meters, equivalent to forty-three point six hundred and ninety-three (43.693) cuerdas, more or less, bounded on the North, South and West by lands of the principal estate from which it is segregated; on the East by the Ensenada Honda."-----

---Conservation Zone Twenty-Eight (28);-----

---"Rural: Parcel of land identified as Conservation Zone Twenty-Eight (28) situated in the Ward of Guayacan, Municipality of Ceiba, Puerto Rico containing an area of six hundred and seven thousand three hundred and thirty point eight (607,330.8) square meters, equivalent to one hundred and fifty-four point five hundred and twenty-two (154.522) cuerdas, more or less, bounded on the North, East and West by lands of the principal estate from which it is segregated; on the South by the Ensenada Honda."-----

---Conservation Zone Los Machos Parcel One (1);---

---"Rural: Parcel of land identified as Los Machos Parcel One (1) situated in the Ward of Machos, Municipality of Ceiba, Puerto Rico containing an area of two hundred seventy-four thousand forty-two point two (274,042.2) square meters, equivalent to sixty-nine point seven hundred twenty-four (69.724) cuerdas, more or less, bounded on the North by the Majagua River, on the East by lands of the Commonwealth of Puerto Rico Department of Natural Resources, on the South by the lands of the principal estate from which it is segregated, and on the West by lands of Puerto Del Rey."-----

---Conservation Zone Thirty-Nine (39);-----

---"Rural: Parcel of land identified as Conservation Zone Thirty-Nine (39) situated in the Ward of Machos, Municipality of Ceiba, Puerto Rico containing an area of five million three hundred seventy-nine thousand nine hundred, and nineteen point nine (5,379,919.9) square meters, equivalent to one thousand three hundred and sixty-eight point seven hundred and ninety-nine (1,368.799) cuerdas, more or less, bounded on the North by Media Mundo and by lands of the principal estate from which it is segregated, on the East by the Caribbean Sea and by lands of the principal estate from which it is segregated and on the South and West by lands of the principal estate from which it is segregated."-----

---Conservation Zone Fifty-Eight (58);-----

---"Rural: Parcel of land identified as Conservation Zone Fifty-Eight (58) situated in the Ward of Guayacan, Municipality of Ceiba, Puerto Rico containing an area of two thousand eighty-eight point six (2,088.6) square meters, equivalent to zero point five hundred and thirty-one (0.531) of a cuerda, more or less, bounded on the North, East and South by lands of the principal estate from which it is segregated, on the West by Ensenada Honda."-----

---Conservation Zone Sixty (60);-----

---"Rural: Parcel of land identified as Conservation Zone Sixty (60) situated in the Ward of Guayacan, Municipality of Ceiba, Puerto Rico containing an area of one thousand nine hundred and ninety-four point seven (1,994.7) square meters, equivalent to zero point five hundred and seven (0.507) of a cuerda, more or less, bounded on the North, East and West by lands of the principal estate from which it is segregated; on the South by the Caribbean Sea."-----

---Conservation Zone Sixty-Five (65);-----

---"Rural: Parcel of land identified as Conservation Zone Sixty-Five (65) situated in the Ward of Machos, Municipality of Ceiba, Puerto Rico containing an area of five thousand six hundred and twenty - four point four (5,624.4) square

meters, equivalent to one point four hundred and thirty-one (1.431) cuerdas, more or less, bounded on the North, East and West by lands of the principal estate from which it is segregated; on the South by the Caribbean Sea."-----

---Conservation Zone Sixty-Six (66);-----

---"Rural: Parcel of land identified as Conservation Zone Sixty-Six (66) situated in the Ward of Machos, Municipality of Ceiba, Puerto Rico containing an area of four thousand eight hundred and twenty point eight (4,820.8) square meters, equivalent to one point two hundred and twenty-seven (1.227) cuerdas, more or less, bounded on the North, East and South by lands of the principal estate from which it is segregated; on the West by the Caribbean Sea."-----

---LOS MACHOS THREE (3)-----

---"Rural: Parcel of land identified as Los Machos Parcel Three situated in the Ward of Machos, Municipality of Ceiba, Puerto Rico, containing five hundred sixty-nine thousand two hundred ninety-eight point three (569,298.3) square meters equivalent to one hundred forty-four point eight hundred forty-five (144.845) cuerdas, more or less. Bounded on the North and South by the lands of the principal estate from which it is segregated, on the East by the edge of water of Puerto Medio Mundo, and on the West by lands of the principal estate from which it is segregated."-----

-----HOSPITAL-----

---"Rural: Parcel of land identified as Hospital situated in the Ward of Machos, Municipality of Ceiba, Puerto Rico, containing an area of one hundred thirteen thousand seventy seven point zero (113,077.0) square meters equivalent to twenty-eight point seven hundred seventy (28.770) cuerdas, more or less, bounded on the North, East, South and West by lands of the principal estate from which it is segregated."-----

---All of the above described parcels were segregated from property number nine thousand seven hundred fifty-two (9,752), recorded at Page seventy-six (76), of volume one hundred fifty-one (151) of Ceiba, Registry of Property of Puerto Rico, Fajardo Section.-----

---As per the Registry of the Property, all of the above parcels are free from liens and encumbrances.-----

---SECOND: That the appearing party represents that it is also the owner and sole title holder of the following parcel of land, which is the remnant after the segregation of the Airport, the Conservation Zones, Los Machos Three (3), and the Hospital parcels. Said remnant is described in the English language as follows, hereinafter "Remnant":-----

---"Rural: Parcel of land identified as Naval Activity Puerto Rico, formerly Naval Station Roosevelt Roads situated in the Wards of Chupacallos, Los Machos, Ensenada Honda, Guayacán and Quebrada Seca, Municipality of Ceiba and the Ward of Daguao, Municipality of Naguabo, Puerto Rico, containing an area of fourteen million one hundred and seventy seven thousand six hundred and thirty eight point two (14,177,638.2) square meters equivalent to three thousand six hundred and seven point one hundred and seventy-nine (3,607.179) cuerdas more or less, divided into two portions as follows:-----

---Portion A - Municipality of Ceiba - Rural: Parcel of land identified as Naval Activity Puerto Rico, formerly Naval Station Roosevelt Roads situated in the Wards of Chupacallos, Los Machos, Ensenada Honda, Guayacán and Quebrada Seca, Municipality of Ceiba, Puerto Rico, containing an area of twelve million one hundred twenty-eight thousand seven hundred and eighty-one point four (12,128,781.4) square meters equivalent to three thousand and eighty-five point eight hundred and ninety-three (3,085.893) cuerdas, more or less, bounded on the North, by the southerly bank of the Demajagua River and Puerto Del Rey Marina and lands of the United States of America; on the East, by the Caribbean Sea; on the South, by Ensenada Honda, Bahía Algodones and lands of the United States of America; on the West, by the Easterly line of the railroad Right of Way of the Fajardo Development Company.-----

---Portion B - Municipality of Naguabo - Rural: Parcel of land identified as Naval Activity Puerto Rico, formerly Naval Station Roosevelt Roads situated in the Ward of Daguao, Municipality of Naguabo, Puerto Rico containing an area of two million forty-eight thousand eight hundred and fifty-six point eight (2,048,856.8) square meters, equivalent to five hundred and twenty-one point two hundred and eighty-six (521.286) cuerdas, more or less, bounded on the North and East by lands of the United States of America; on the South, by Felix Robles and the Municipality of Naguabo, Puerto Rico; and on the West, by the Municipality of Naguabo, Puerto Rico.-----

---The remnant of property number nine thousand seven hundred fifty-two (9,752), recorded at Page seventy-six (76), of volume one hundred fifty-one (151) of Ceiba, Registry of Property of Puerto Rico, Fajardo Section.-----

---As per the Registry of the Property, the Remnant is free from liens and encumbrances.-----

---THIRD: The Airport, the Conservation Zones, the Los Machos Three (3), the Hospital parcels and the Remnant resulted from deed of segregations and description of remnant, number five hundred seventy four (574), executed on eighth (8th) day of October, two thousand ten (2010), before Notary Public Raúl J. Vilá Sellés.-----

---FOURTH: The Government hereby reserves and constitutes a perpetual non-exclusive easement for the purpose of motor vehicle and pedestrian ingress and egress over upon and across the Airport parcel for the construction, repair, replacement, maintenance and operation of a two-lane roadway, for the use and benefit of the Conservation Zones parcel, Los Machos Three (3) parcel, the Hospital Parcel and the Remnant, their owners, successors, assigns, tenants, subtenants, licensees, suppliers and customers which easement is described as follows:-----

---"Strip of land located in the wards of Machos, Chupacallos and Quebrada Seca, Municipality of Ceiba, with a total area of thirty-two thousand five hundred ninety-six point two (32,596.2) square meters, equivalent to eight point two hundred ninety-four (8.294) cuerdas, consisting of:-----

----- Segment Two (2) -----

---"Strip of land having an area of nineteen thousand six hundred fifteen point four (19,615.4) square meters, equivalent to four point nine

hundred ninety-one (4.991) cuerdas, with a length of one thousand three hundred four point zero (1,304.0) meters and a width of fifteen point zero zero (15.00) meters running from North to South."

----- Segment Four (4) -----

---"Strip of land having an area of twelve thousand nine hundred eighty point eight (12,980.8) square meters, equivalent to three point three hundred three (3.303) cuerdas, with a length of seven hundred sixty point zero (760.0) meters and a width of fifteen point zero (15.0) meters running from South to North."

---FIFTH: To be recorded at the Registry of the Property, the easement is valued at ONE THOUSAND DOLLARS (\$1,000.00),-----

---SIXTH: The appearing party also hereby reserves and constitutes a perpetual non-exclusive easement for the purpose of motor vehicle and pedestrian ingress and egress over, upon and across the Conservation Zones parcel for the construction, repair, replacement, maintenance and operation of various two-lane roadways, for the use and benefit of the Airport parcel, the Los Machos Three (3) parcel, the Hospital Parcel and the Remnant, their owners, successors, assigns, tenants, subtenants, licensees, suppliers and customers which easement is described as follows:-----

---"Strip of land located in the wards of Los Machos, Guayacán and Quebrada Seca, Municipality of Ceiba and the ward of Dagua, Municipality of Naguabo, with a total area of one hundred thirty-eight thousand and twelve point five (138,012.5) square meters, equivalent to thirty-five point one hundred and fourteen (35.114) cuerdas, consisting of:-----

----- Segment Three (3) -----

---"Strip of land having an area of twenty-six thousand four hundred ninety-four point four (26,494.4) square meters, equivalent to six point seven hundred forty-one (6.741) cuerdas, with a length of one thousand seven hundred sixty-six point zero (1766.0) meters and a width of fifteen (15) meters running from Southwest to Northeast, thence Southwest."

----- Segment Five (5) -----

---"Strip of land having an area of twenty-two thousand four hundred eleven point five (22,411.5) square meters, equivalent to five point seven hundred two (5.702) cuerdas, with a length of one thousand three hundred point zero (1,300.0) meters and a variable width running from Northwest to Southeast and thence Southwest."-----

----- Segment Eight (8) -----

---"Strip of land having an area of sixteen thousand nine hundred forty-nine point three (16,949.3) square meters, equivalent to four point three hundred twelve (4.312) cuerdas, with a length of one thousand one hundred twenty-nine point zero (1,129.0) meters and a width of fifteen (15) meters running from West to East, thence South to Northeast."-----

----- Segment Nine (9) -----

---"Strip of land having an area of forty-six thousand eight hundred twenty-six point two (46,826.2) square meters, equivalent to eleven point nine hundred fourteen (11.914) cuerdas, with a length of three thousand one hundred sixteen point zero (3,116.0) meters and with a variable width running from North to South."-----

----- Segment Fourteen (14) -----

---"Strip of land having an area of nine thousand six hundred thirty-nine point two (9,639.2) square meters, equivalent to two point four hundred fifty-two (2.452) cuerdas, with a length of six hundred forty-two point zero (642.0) meters and a width of fifteen (15) meters running from East to West thence South."-----

----- Segment Eighteen (18) -----

---"Strip of land having an area of six thousand four hundred twenty-one point seven (6,421.7) square meters, equivalent to one point six hundred thirty-four (1.634) cuerdas, with a length of three hundred fifty-five point zero (355.0) meters and a width of eighteen (18) meters running from East to West."-----

----- Segment Twenty (20) -----

---"Strip of land having an area of six thousand four hundred forty-eight point four (6,448.4) square meters, equivalent to one point six hundred forty-one (1.641) cuerdas, with length of four hundred thirty point zero (430.0) meters and a width of fifteen (15) meters running from Southwest to Northeast."-----

----- Segment Twenty Two (22) -----

---"Strip of land having an area of two thousand eight hundred twenty-one point eight (2,821.8) square meters, equivalent to zero point seven

hundred eighteen (0.718) cuerda, with a length of one hundred eighty-eight point zero (188.0) meters and a width of fifteen (15) meters running from North to South."-----

---SEVENTH: To be recorded at the Registry of Property, the easement is valued at ONE THOUSAND DOLLARS (\$1,000.00).-----

---EIGHTH: The appearing party also hereby reserves and constitutes a perpetual non-exclusive easement for the purpose of motor vehicle and pedestrian ingress and egress over, upon and across Los Machos Three (3) parcel for the construction, repair, replacement, maintenance and operation of various two-lane roadways for the use and benefit of the Airport parcel, the Conservation Zones parcel, the Hospital Parcel and the Remnant, their owners, successors, assigns, tenants, subtenants, licensees, suppliers and customers which easement is described as follows:-

-----Segment One (1) I-----

---"Strip of land having an area of ten thousand four hundred twenty-five point five (10,425.5) square meters, equivalent to two point six hundred fifty-three (2.653) cuerdas, with a length of five hundred sixty-eight point zero (568.0) meters and a variable width running from South to North."----

---NINTH: To be recorded at the Registry of the Property, the easement is valued at ONE THOUSAND DOLLARS (\$1,000.00).-----

---TENTH: The appearing party also hereby reserves and constitutes a perpetual non-exclusive easement for the purpose of motor vehicle and pedestrian ingress and egress over, upon and across the Remnant for the construction, repair, replacement, maintenance and operation of a two-lane roadways for the use and benefit of the Airport parcel, Los Machos Three (3) parcel, the Hospital Parcel and



the Conservation Zones parcel, their owners, successors, assigns, tenants, subtenants, licensees, suppliers and customers which easement is described as follows:-----

---"Strip of land located in the wards of Chupacallos, Los Machos, Ensenada Honda, Guayacán and Quebrada Seca, Municipality of Ceiba and ward of Dagua, Municipality of Naguabo, with a total area of three hundred fifty-three thousand three hundred and sixty-four point six (353,364.6) square meters, equivalent to eighty-nine point nine hundred fifty-three (89.953) cuerdas, consisting of:-----

----- Segment One (1) II-----

---"Strip of land having an area of ten thousand one hundred ninety-eight point three (10,198.3) square meters, equivalent to two point five hundred ninety-five (2.595) cuerdas, with a length of six hundred seventy-eight point five (678.5) meters and a width of fifteen point zero (15.0) meters running from South to North."-----

----- Segment Six (6) -----

---"Strip of land having an area of nine thousand two hundred twenty-six point eight (9,226.8) square meters, equivalent to two point three hundred forty-eight (2.348) cuerdas, a length of five hundred twelve point zero (512.0) meters and a width of eighteen (18) meters running from Northwest to Southeast."-----

----- Segment Seven (7) -----

---"Strip of land having an area of fifty thousand eight hundred ninety point one (50,890.1) square meters, equivalent to twelve point nine hundred forty-eight (12.948) cuerdas, with a length of three thousand two hundred fifty point zero (3250.0) meters and with a variable width running from West to East."-----

----- Segment Ten (10)-----

---"Strip of land having an area of fourteen thousand six hundred seventy-eight point two (14,678.2) square meters, equivalent to three point seven hundred thirty-five (3.735) cuerdas, with a length of eight hundred twenty-six point zero (826.0) meters and a variable width running from Southwest to Northeast."-----

----- Segment Eleven (11) -----

---"Strip of land having an area of eighty thousand five hundred seventy-two point nine (80,572.9) square meters, equivalent to twenty point five hundred forty-six (20.546) cuerdas, with a length of three thousand four hundred

seventeen point zero (3417.0) meters and a variable width running from North to South thence from Southwest to Northeast."-----

----- Segment Twelve (12) -----

---"Strip of land having an area of five thousand one hundred eighty three point eight (5,183.8) square meters, equivalent to one point three hundred nineteen (1.319) cuerdas, with a length of three hundred forty-six point zero (346.0) meters with a width of fifteen (15) meters running from East to West."-----

----- Segment Thirteen (13) -----

---"Strip of land having an area of thirty-six thousand six hundred ninety-three point nine (36,693.9) square meters, equivalent to nine point three hundred thirty-six (9.336) cuerdas, with a length of two thousand two hundred eighty-seven point zero (2287.0) meters and a variable width running from Northwest to Southeast."-----

----- Segment Fifteen (15) I -----

---"Strip of land having an area of seventeen thousand eight hundred two point five (17,802.5) square meters, equivalent to four point five hundred twenty-nine (4.529) cuerdas, with a length of one thousand twenty-four point zero (1,024.0) meters and a variable width running from Southeast to Northwest."-----

----- Segment Fifteen (15) II -----

---"Strip of land having an area of six thousand two hundred and eighty point seven (6,280.7) square meters, equivalent to one point five hundred ninety-eight (1.598) cuerdas, with a length of three hundred and forty-nine point zero (349.0) meters and a variable width running from Northwest to Southeast."-----

----- Segment Sixteen (16) -----

---"Strip of land having an area of thirty-three thousand two hundred thirty-three point four (33,233.4) square meters, equivalent to eight point four hundred fifty-five (8.455) cuerdas, with a length of two thousand two hundred fifteen point zero (2,215.0) meters and a width of fifteen (15) meters running from Northwest to Southeast."-----

----- Segment Seventeen (17) -----

---"Strip of land having an area of five thousand seventy-nine point two (5,079.2) square meters, equivalent to one point two hundred ninety-two (1.292) cuerdas, with a length of three hundred forty point zero (340.0) meters and a variable width running from North to South."-----

----- Segment Nineteen (19) -----

---"Strip of land having an area of thirty-two thousand six hundred six point nine (32,606.9) square meters, equivalent to eight point two hundred ninety-six (8.296) cuerdas, with a length of one thousand eight hundred twenty-three point zero (1,823.0) meters and a variable width running from East to West thence South."-----

----- Segment Twenty-One (21) -----

---"Strip of land having an area of twenty thousand five hundred eighty-two point six (20,582.6) square meters, equivalent to five point two hundred thirty-seven (5.237) cuerdas, with a length of one thousand three hundred seventy point zero (1370.0) meters and a width of fifteen (15) meters running from North to South."-----

----- Segment Twenty-Three (23) -----

---"Strip of land having an area of five thousand thirty-seven point zero (5,037.0) square meters, equivalent to one point two hundred eighty-two (1.282) cuerdas, with a length of three hundred thirty-six point zero (336.0) meters and a width of fifteen (15) meters running from Southwest to Northeast."-----

----- Segment Twenty-Four (24) -----

---"Strip of land having an area of ten thousand four hundred thirty-seven point three (10,437.3) square meters, equivalent to two point six hundred fifty-six (2.656) cuerdas, with a length of six hundred ninety-seven point zero (697.0) meters and a width of fifteen (15) meters running from Northeast to Southwest."-----

----- Segment Twenty-Five (25) -----

---"Strip of land having an area of two thousand ninety-nine point three (2,099.3) square meters, equivalent to zero point five hundred thirty-four (0.534) cuerda, with a length of one hundred forty point zero (140.0) meters and a width of fifteen (15) meters running from East to West."-----

----- Segment Twenty-Six (26) -----

---"Strip of land having an area of two thousand four hundred fifty point two (2,450.2) square meters, equivalent to zero point six hundred twenty-three (0.623) cuerda, with a length of two hundred forty-one point zero (241.0) meters and a variable width running from South to North."-----

----- Segment Twenty-Seven (27) -----

---"Strip of land having an area of ten thousand three hundred eleven point five (10,311.5) square meters, equivalent to two point six hundred twenty-four (2.624) cuerdas, with a length of six

hundred eighty-seven point zero (687.0) meters and a width of fifteen (15) meters running from South to North."

---ELEVENTH: To be recorded at the Registry of the Property, the easement is valued at ONE THOUSAND DOLLARS (\$1,000.00).

---TWELFTH: The appearing party also hereby reserves and constitutes a perpetual non-exclusive easement for the purpose of communication utilities over, upon and across the Remnant for the construction, repair, replacement, maintenance and operation of communication utilities for the use and benefit of the Airport parcel, Los Machos Three (3) parcel, the Conservation Zones parcel, and the Hospital parcel, their owners, successors, assigns, tenants, subtenants, licensees, suppliers and customers which easement is described as follows.

----- Segment Twenty-Eight (28) -----

---"Strip of land having an area of twenty-four thousand nine hundred fifty-six point eight (24,956.8) square meters, equivalent to six point three hundred fifty (6.350) cuerdas, with a length of seven hundred seventy-seven point zero (777.0) meters and a variable width running from North to South."

---THIRTEENTH: To be recorded at the Registry of Property, the easement is valued at ONE THOUSAND DOLLARS (\$1,000.00).

---FOURTEENTH: The appearing party requests from the Registry of the Property to record all of the above easements in its books.

---FIFTEENTH: All easements constituted by this deed are graphically depicted IN Exhibit "A", attached and made part of this deed.

---SIXTEENTH: The geometric descriptions of all the easement segments constituted in this deed,

are included, attached and made part of this deed,  
as Exhibit 'B'.

----- ACCEPTANCE -----

---The appearing party in accordance with the  
particulars of this Deed accepts the same, in all  
its parts after, I, the Notary, gave him the  
necessary legal admonitions and warnings pertinent  
to this public instrument. Thus, the appearing  
party states and executes this deed in my presence  
after having read the same, and places his  
initials on each and every page hereof and signs  
his name on the last page of this deed, before, me  
the Notary, that as to everything else  
hereinbefore stated, I, the Notary, hereby  
ATTEST.



Gregory E. Preston

Q



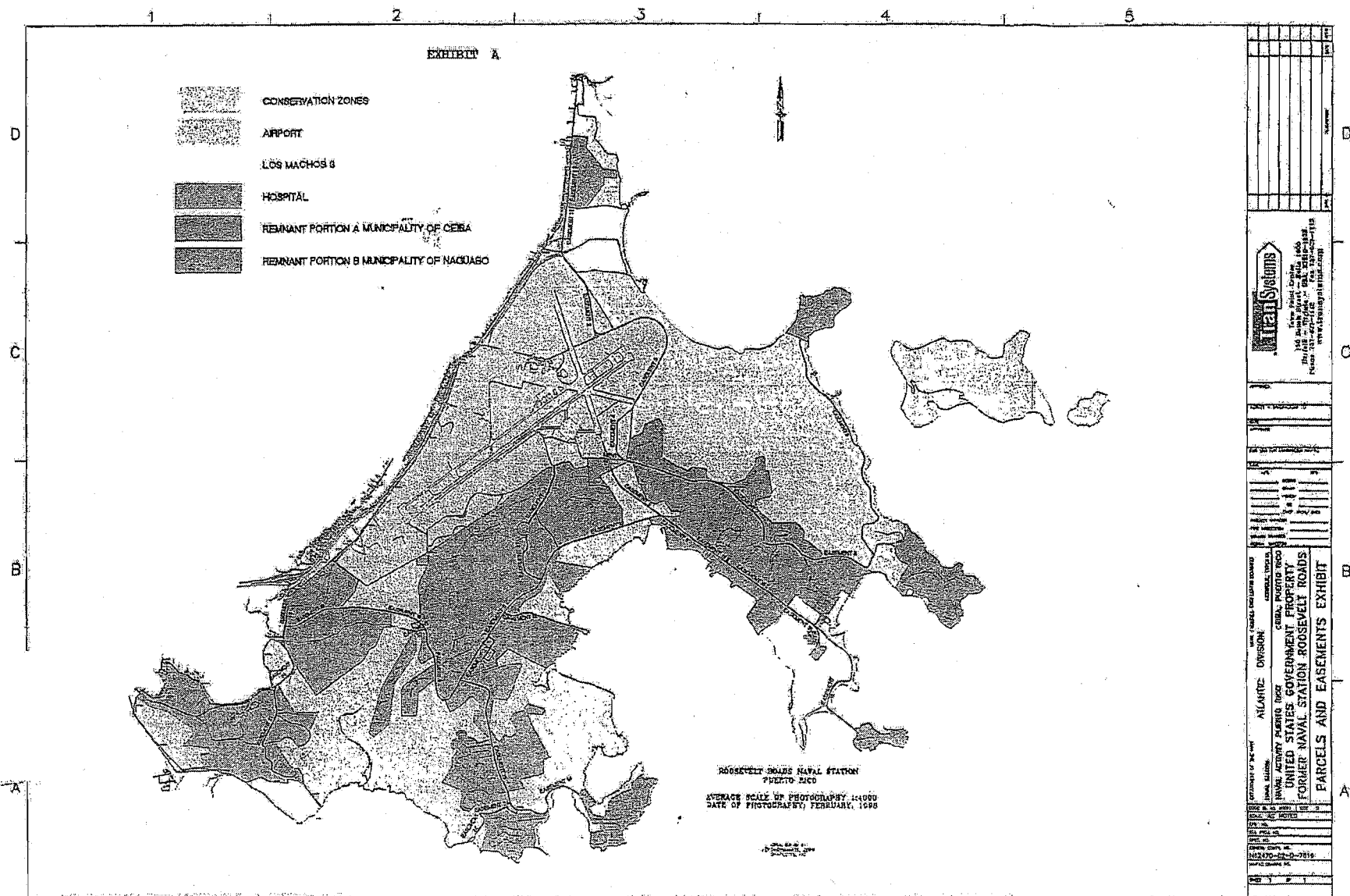


EXHIBIT B

LEGAL DESCRIPTION FOR EASEMENT 1 I

Beginning at a survey control point in the Ward of Machos, said point being a brass disk set in concrete. Said point also known as 'MOUND' and having a northing of 813308.1492 and an easting of 933097.0283 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 1 I". Thence N71°50'03"W 1107.34' to an iron rod set, the True Point of Beginning, having a northing of 813653.3852 and an easting of 932044.8782:

Thence S73°51'24"W 49.23' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 345.49', chord bearing of N03°53'25"W

Radius=880.61'

Arc=347.75'

Thence N82°34'38"W 25.39' to an iron rod set;

Thence N07°25'22"E 219.33' to an iron rod set;

Thence N13°24'22"E 243.35' to an iron rod set;

Thence N07°25'22"E 659.31' to an iron rod set;

Thence S05°28'47"W 408.52' to point not set;

Thence S81°38'12"E 49.28' to a point not set;

Thence S05°28'47"W 406.87' to point not set;

Thence S07°25'22"W 660.14' to point not set;

Thence S82°34'38"E 25.39' to a point not set;

Thence S07°25'22"W 461.34' to a point not set;

Thence N82°34'38"W 25.39' to a point not set;

Thence following a curve to an iron rod set, the True Point of Beginning with a long chord of 325.39', chord bearing of S03°51'45"E

Radius=831.39'

Arc=327.50'

Said easement containing 112,218.3-square feet or 2.576 acres, which equates to 10,425.5 square meters or 2.653 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 1 II

Beginning at a survey control point in the Ward of Machos, said point being a brass disk set in concrete. Said point also known as 'MOUND' and having a northing of 813308.1492 and an easting of 933097.0283 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 1 II". Thence N22°09'05"W 2361.27' to an iron rod set, the True Point of Beginning, having a northing of 815495.1376 and an easting of 932206.6955;

Thence N81°38'12"W 49.28' to a point not set;

Thence N05°28'47"E 1994.60' to point not set;

Thence following a curve to a point not set with a long chord of 165.85', chord bearing of N03°53'22"W

Radius=509.39'

Arc=166.59°

Thence N05°39'24"E 117.42' to a point not set;

Thence following a curve to a point not set with a long chord of 291.12', chord bearing of S09°37'27"E

Radius=558.61'

Arc=294.51°

Thence S05°28'47"W 1997.07' to iron rod set, the True Point of Beginning.

Said easement containing 109,772.7 square feet or 2.520 acres, which equates to 10,198.3 square meters or 2.595 cuerdas.



## LEGAL DESCRIPTION FOR EASEMENT 2

Beginning at a survey control point in the Ward of Machos, said point being a brass disk set in concrete. Said point also known as 'MOUND' and having a northing of 813,308.1492 and an easting of 933,097.0283 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 2 AND 4". Thence S50°05'29"W 669.86' to an iron rod set, the True Point of Beginning, having a northing of 812,878.3902 and an easting of 932,583.1982:

Thence S40°00'38"E 475.27' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 175.59', chord bearing of S33°21'21"E

Radius=757.61'

Arc=175.98'

Thence following a curve to a point not set with a long chord of 236.66', chord bearing of S17°42'56"E

Radius=757.61'

Arc=237.63'

Thence S08°43'48"E 1218.66' to a point not set;

Thence following a curve to a point not set with a long chord of 280.30', chord bearing of S10°31'28"E

Radius=4475.39'

Arc=280.33'

Thence following a curve to a point not set with a long chord of 397.21', chord bearing of S63°21'56"E

Radius=255.39'

Arc=455.07'

Thence N65°35'16"E 450.10' to a point not set;

Thence S32°17'53"E 49.69' to an iron rod set;

Thence S65°35'16"W 456.92' to a point not set;

Thence following a curve to a point not set with a long chord of 473.76', chord bearing of N63°21'56"W

Radius=304.61'

Arc=542.77'

Thence following a curve to a point not set with a long chord of 283.38', chord bearing of N10°31'28"W

Radius=4524.61'

Arc=283.41'

Thence N08°43'48"W 1218.66' to a point not set;

Thence following a curve to a point not set with a long chord of 381.96', chord bearing of N24°22'13"W

Radius=708.39'

Arc=386.74'

Thence N40°00'38"W 475.27' to a point not set;

Thence following a curve to a point not set with a long chord of 100.10', chord bearing of N39°32'42"W

Radius=6159.61'

Arc=100.13'

Thence N39°04'45"W 504.41' to a point not set;

Thence following a curve to a point not set with a long chord of 695.26', chord bearing of N15°49'42"W

Radius=880.61'

Arc=366.97'

Thence N73°51'24"E 49.23' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 344.74', chord bearing of S27°06'48"E

Radius=831.39'

Arc=347.26'

Thence S39°04'45"E 504.41' to an iron rod set;

Thence following a curve to an iron rod set, the True Point of Beginning with a long chord of 99.30', chord bearing of S39°32'42"E

Radius=6110.39'

Arc=99.33'

Said parcel containing 211,137.3 square feet or 4.847 acres, which equates to 19,615.4 square meters or 4.991 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 3

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as "DOG" and having a northing of 805443.8964 and an easting of 933110.4735 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 3". Thence N38°43'22"W 2713.86' to an iron rod set, the True Point of Beginning, having a northing of 807561.2021 and an easting of 934808.1316;

Thence following a curve to an iron rod set with a long chord of 56.94', chord bearing of N32°31'39"E

Radius=690.39'

Arc=56.95'

Thence N30°09'51"E 2439.05' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 1728.76', chord bearing of N42°07'27"W

Radius=907.39'

Arc=2289.65'

Thence S65°35'16"W 900.31' to an iron rod set;

Thence N32°17'53"W 49.69' to a point not set;

Thence N65°35'16"E 907.13' to a point not set;

Thence following a curve to a point not set with a long chord of 1822.53', chord bearing of S42°07'27"E

Radius=956.61'

Arc=2413.85'

Thence S30°09'51"W 2439.05' to a point not set;

Thence following a curve to a point not set with a long chord of 139.87', chord bearing of S35°35'25"W

Radius=739.61'

Arc=140.08'

Thence N05°12'00"E 90.85' to an iron rod set, the True Point of Beginning.

Said parcel containing 285,182.4 square feet or 6.547 acres, which equates to 26,494.4 square meters or 6.741 cuerdas.

#### LEGAL DESCRIPTION FOR EASEMENT 4

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'DOG' and having a northing of 805443.8964 and an easting of 933110.4735 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 2 AND 4". Thence N62°37'08"E 1139.76' to a point not set, the True Point of Beginning, having a northing of 805,968.0807 and an easting of 934,122.5427;

Thence N00°54'31"E 804.84' to a point not set;

Thence following a curve to a point not set with a long chord of 352.02', chord bearing of N25°23'51"E

Radius=424.61'

Arc=362.97'

Thence N49°53'12"E 523.53' to a point not set;

Thence following a curve to an iron rod set with a long chord of 180.18', chord bearing of N42°23'19"E

Radius=690.39'

Arc=180.70'

Thence S05°12'00"W 90.85' to a point not set;

Thence following a curve to a point not set with a long chord of 114.39', chord bearing of S45°27'05"W

Radius=739.61'

Arc=114.51'

Thence S49°53'12"W 523.53' to a point not set;

Thence following a curve to a point not set with a long chord of 311.21', chord bearing of S25°23'51"W

Radius=375.39'

Arc=320.90'

Thence S00°54'31"W 804.84' to a point not set;

Thence following a curve to a point not set with a long chord of 228.76', chord bearing of S06°58'49"W

Radius=833.39'

Arc=229.49'

Thence S22°19'52"E 75.42' to a point not set;

Thence following a curve to a point not set with a long chord of 367.19', chord bearing of S50°02'12"E

Radius=1543.42'

Arc=368.06'

Thence following a curve to an iron rod set with a long chord of 122.25', chord bearing of N82°40'41"W

Radius=2024.61'

Arc=122.25'

Thence N84°24'28"W 234.63' to a point not set;

Thence following a curve to a point not set with a long chord of 108.82', chord bearing of N20°10'41"E

Radius=107.10'

Arc=114.15'

Thence N14°52'08"W 157.68' to a point not set;

Thence following a curve to a point not set, the True Point of Beginning with a long chord of 242.28', chord bearing of N06°58'49"W

Radius=882.61'

Arc=243.04'

Said parcel containing 139,723.1 square feet or 3.208 acres, which equates to 12,980.8 square meters or 3.303 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 5

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point known as "DOG" and having a northing of 805443.8964 and an easting of 933110.4735 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 5". Thence S63°03'51"E 937.62' to an iron rod set, the True Point of Beginning, having a northing of 805019.1597 and an easting of 933946.3774:

Thence N63°28'17"E 59.67' to a point not set;

Thence S18°11'14"E 118.94' to a point not set;

Thence following a curve to a point not set with a long chord of 966.77', chord bearing of S36°32'12"E

Radius=1535.48'

Arc=983.50'

Thence S54°53'10"E 1634.30' to an iron rod set;

Thence S35°06'50"W 59.04' to an iron rod set;

Thence S86°03'23"W 149.04' to an iron rod;

Thence S73°15'38"W 1435.54' to an iron rod set;

Thence N01°00'48"W 51.13' to a point not set;

Thence N73°15'38"E 1421.68' to a point not set;

Thence N35°06'50"E 63.51' to a point not set;

Thence N54°53'10"W 1479.86' to a point not set;

Thence following a curve to a point not set, with a long chord of 1003.94', chord bearing of N36°32'12"W

Radius=1594.52'

Arc=1021.31'

Thence N18°11'14"W 110.29' to a point not set, True Point of Beginning.

Said parcel containing 214,234.4 square feet or 5.538 acres, which equates to 22,411.5 square meters or 5.702 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 6

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point known as "DOG" and having a northing of 805443.8964 and an easting of 933110.4735 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 6". Thence S51°52'31"E 3608.69' to an iron rod set, the True Point of Beginning, having a northing of 803215.9800 and an easting of 935949.3161:

Thence S54°53'10"E 1682.19' to an iron rod set;

Thence S35°06'50"W 59.04' to a point not set;

Thence N54°53'10"W 1682.19' to an iron rod set;

Thence N35°06'50"E 59.04' to an iron rod set, True Point of Beginning.

Said parcel containing 99,316.4 square feet or 2.280 acres, which equates to 9,226.8 square meters or 2.348 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 7

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete, Said point also known as 'DOG' and having a northing of 805443.8964 and an easting of 933110.4735 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 7". Thence N84°48'49"E 678.98' to a iron rod set, the True Point of Beginning, having a northing of 805505.2720 and an easting of 933786.6709:

Thence following a curve to an iron rod set with a long chord of 233.97', chord bearing of S85°20'41"E

Radius=7154.61'

Arc=234.00'

Thence S84°24'28"E 370.31' to an iron rod set;

Thence following a curve to a point not set with a long chord of 406.50', chord bearing of S78°38'46"E

Radius=2024.61'

Arc=407.19'

Thence S72°53'04"E 1013.37' to a point not set;

Thence following a curve to a point not set with a long chord of 370.17', chord bearing of S72°16'21"E

Radius=17324.61'

Arc=370.15'

Thence S71°39'37"E 1034.77' to a point not set;

Thence following a curve to a point not set with a long chord of 179.23', chord bearing of S82°31'33"E

Radius=475.39'

Arc=108.30'

Thence N86°36'32"E 255.03' to a point not set;

Thence following a curve to a point not set with a long chord of 1380.42', chord bearing of S69°39'13"E

Radius=1714.61'

Arc=1420.72'

Thence S45°54'58"E 670.96' to a point not set;

Thence following a curve to a point not set with a long chord of 341.13', chord bearing of S51°10'05"E

Radius=1863.39'

Arc=341.62'

Thence following a curve to a point not set with a long chord of 365.16', chord bearing of S46°46'26"E

Radius=1089.61'

Arc=366.90'

Thence S37°07'39"E 155.80' to a point not set;

Thence following a curve to a point not set with a long chord of 644.81', chord bearing of S16°29'13"E

Radius=914.61'

Arc=658.97'

Thence S04°09'13"W 115.96' to a point not set;

Thence following a curve to a point not set with a long chord of 380.82', chord bearing of S39°35'22"E

Radius=275.39'

Arc=420.50'

Thence following a curve to a point not set with a long chord of 96.52', chord bearing of S89°50'47"E

Radius=425.39'

Arc=96.72'  
 Thence N83°38'23"E 113.50' to a point not set;  
 Thence following a curve to a point not set with a long chord of 325.11', chord bearing of  
 N81°34'11"E  
 Radius=4500.39'  
 Arc=325.18'  
 Thence following a curve to a point not set with a long chord of 327.37', chord bearing of  
 S81°57'14"E  
 Radius=514.61'  
 Arc=333.15'  
 Thence following a curve to a point not set with a long chord of 437.63', chord bearing of  
 S50°05'07"E  
 Radius=949.61'  
 Arc=441.60'  
 Thence S36°45'47"E 111.79' to a point not set;  
 Thence S63°24'52"E 381.66' to a point not set;  
 Thence following a curve to a point not set with a long chord of 230.00', chord bearing of  
 S81°15'13"E  
 Radius=375.39'  
 Arc=233.76'  
 Thence N80°54'26"E 167.83' to an iron rod set;  
 Thence S09°05'34"E 49.22' to an iron rod set;  
 Thence S80°54'26"W 167.83' to a point not set;  
 Thence following a curve to a point not set with a long chord of 260.16, chord bearing of  
 N81°15'13"W  
 Radius=424.61'  
 Arc=264.41'  
 Thence N63°24'52"W 234.68' to a point not set;  
 Thence S53°14'13"W 71.16' to an iron rod set;  
 Thence N36°45'47"W 265.23' to an iron rod set;  
 Thence following a curve to an iron rod set with a long chord of 414.95, chord bearing of  
 N50°05'07"W  
 Radius=900.39'  
 Arc=418.71'  
 Thence following a curve to an iron rod set with a long chord of 296.05, chord bearing of  
 N81°57'14"W  
 Radius=465.39'  
 Arc=301.29'  
 Thence following a curve to an iron rod set with a long chord of 328.67, chord bearing of  
 S81°34'11"W  
 Radius=4549.61'  
 Arc=328.74'  
 Thence S83°38'23"W 113.50' to a point not set;  
 Thence following a curve to a point not set with a long chord of 258.88, chord bearing of  
 N80°31'59"W  
 Radius=474.61'  
 Arc=262.21'  
 Thence following a curve to a point not set with a long chord of 109.91, chord bearing of  
 N72°07'44"W  
 Radius=425.39'  
 Arc=110.22'  
 Thence N79°33'06"W 66.90' to a point not set;  
 Thence N08°57'37"E 71.30' to a point not set;  
 Thence following a curve to a point not set with a long chord of 173.64, chord bearing of  
 N06°33'25"E  
 Radius=2070.39'



Arc=173.69'  
 Thence N04°09'13"E 130.84' to a point not set;  
 Thence following a curve to a point not set with a long chord of 610.11, chord bearing of  
 N16°29'13"W  
 Radius=865.39'  
 Arc=623.50'  
 Thence N37°07'39"W 155.80' to a point not set;  
 Thence following a curve to a point not set with a long chord of 348.67, chord bearing of  
 N46°46'26"W  
 Radius=1040.39'  
 Arc=350.32'  
 Thence following a curve to a point not set with a long chord of 350.15, chord bearing of  
 N51°10'05"W  
 Radius=1912.61'  
 Arc=350.64'  
 Thence N45°54'58"W 670.96' to a point not set;  
 Thence following a curve to a point not set with a long chord of 1340.80, chord bearing of  
 N69°39'13"W  
 Radius=1665.39'  
 Arc=1379.93'  
 Thence S86°36'32"W 255.03' to a point not set;  
 Thence following a curve to a point not set with a long chord of 197.78, chord bearing of  
 N82°31'33"W  
 Radius=524.61'  
 Arc=198.97'  
 Thence N71°39'37"W 1034.77' to a point not set;  
 Thence following a curve to a point not set with a long chord of 369.10, chord bearing of  
 N72°16'21"W  
 Radius=17275.39'  
 Arc=369.10'  
 Thence N72°53'04"W 1013.37' to an iron rod set;  
 Thence following a curve to a point not set with a long chord of 396.62, chord bearing of  
 N78°38'46"W  
 Radius=1975.39'  
 Arc=397.29'  
 Thence N84°24'28"W 370.31' to a point not set;  
 Thence following a curve to a point not set with a long chord of 148.75, chord bearing of  
 N85°00'27"W  
 Radius=7105.39'  
 Arc=148.75'  
 Thence S18°11'14"E 425.70' to a point not set;  
 Thence S63°28'17"W 59.67' to a point not set;  
 Thence N18°11'14"W 511.68' to an iron rod set, the True Point of Beginning.

Said parcel containing 547774.2 square feet or 12.575 acres, which equates to 50890.1 square  
 meters or 12.948 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 8

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'CAMP' and having a northing of 800851.3059 and an easting of 941574.6311 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS, BASEMENT 8". Thence N46°18'42"E 1016.77' to an iron rod set, the True Point of Beginning, having a northing of 801527.5403 and an easting of 942333.9276:

Thence N80°54'26"E 434.18' to a point not set;

Thence following a curve to a point not set with a long chord of 463.10', chord bearing of N88°02'26"E

Radius=1864.61'

Arc=464.29'

Thence following a curve to a point not set with a long chord of 362.68', chord bearing of S73°28'41"E

Radius=921.61'

Arc=365.07'

Thence S62°07'48"E 205.39' to a point not set;

Thence following a curve to a point not set with a long chord of 267.28', chord bearing of S59°53'37"E

Radius=3424.61'

Arc=267.34'

Thence S57°39'26"E 142.96' to a point not set;

Thence following a curve to a point not set with a long chord of 168.92', chord bearing of N72°25'43"E

Radius=110.39'

Arc=192.34'

Thence N22°30'51"E 341.86' to a point not set;

Thence following a curve to a point not set with a long chord of 140.48', chord bearing of N27°43'01"E

Radius=774.61'

Arc=140.67'

Thence N32°55'10"E 115.54' to a point not set;

Thence following a curve to a point not set with a long chord of 88.65', chord bearing of N19°14'16"E

Radius=187.39'

Arc=89.49'

Thence N05°33'22"E 84.71' to a point not set;

Thence following a curve to a point not set with a long chord of 213.72', chord bearing of N43°17'24"E

Radius=174.61'

Arc=229.99'

Thence N81°01'25"E 75.96' to a point not set;

Thence following a curve to a point not set with a long chord of 389.23', chord bearing of S83°49'31"E

Radius=744.61'

Arc=393.81'

Thence S68°40'26"E 72.89' to a point not set;

Thence following a curve to an iron rod set with a long chord of 117.78', chord bearing of S48°57'51"E

Radius=174.61'

Arc=120.13'

Thence S60°44'45"W 49.22' to an iron rod set;

Thence following a curve to a point not set with a long chord of 84.58', chord bearing of N48°57'51"W

Radius=125.39'

Arc=86.27'

Thence N68°40'26"W 72.89' to a point not set;

Thence following a curve to a point not set with a long chord of 363.50', chord bearing of N83°49'31"W

Radius=695.39'

Arc=367.78'

Thence S81°01'25"W 75.96' to a point not set;

Thence following a curve to a point not set with a long chord of 153.48, chord bearing of S43°17'24"W

Radius=125.39'

Arc=165.16'

Thence S05°33'22"W 84.71' to a point not set;

Thence following a curve to a point not set with a long chord of 111.93, chord bearing of S19°14'16"W

Radius=236.61'

Arc=113.00'

Thence S32°55'10"W 115.54' to a point not set;

Thence following a curve to a point not set with a long chord of 131.55, chord bearing of S27°43'01"W

Radius=725.39'

Arc=131.73'

Thence S22°30'51"W 341.86' to a point not set;

Thence following a curve to an iron rod set with a long chord of 244.23, chord bearing of S72°25'43"W

Radius=159.61'

Arc=278.09'

Thence N57°39'26"W 142.96' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 263.44, chord bearing of N59°53'37"W

Radius=3375.39'

Arc=263.50'

Thence N62°07'48"W 205.39' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 343.32, chord bearing of N73°28'41"W

Radius=872.39'

Arc=345.57'

Thence following a curve to an iron rod set with a long chord of 450.87, chord bearing of S88°02'26"W

Radius=1815.39'

Arc=452.04'

Thence S80°54'26"W 434.18' to an iron rod set;

Thence N09°05'34"W 49.22' to an iron rod set, the True Point of Beginning.

Said parcel containing 182,440.5 square feet or 4.188 acres, which equates to 16,949.3 square meters or 4.312 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 9

Beginning at a survey control point in the Ward of Machos, said point being a brass disk set in concrete. Said point also known as 'MEDIO' and having a northing of 811980.2405 and an easting of 943163.0741 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 9". Thence S42°23'29"W 2323.47' to an iron rod set, the True Point of Beginning, having a northing of 810264.2284 and an easting of 941596.6070:

Thence S32°59'45"W 82.86' to a point not set;

Thence following a curve to a point not set with a long chord of 134.73', chord bearing of S07°18'20"W

Radius=155.39'

Arc=139.35'

Thence S18°23'05"E 614.93' to a point not set;

Thence following a curve to a point not set with a long chord of 519.04', chord bearing of S07°14'21"E

Radius=1336.61'

Arc=522.35'

Thence following a curve to a point not set with a long chord of 409.95', chord bearing of S20°10'31"E

Radius=500.39'

Arc=422.38'

Thence S44°21'26"E 316.11' to a point not set;

Thence following a curve to a point not set with a long chord of 279.89', chord bearing of S48°38'12"E

Radius=1875.39'

Arc=280.15'

Thence S52°54'58"E 262.43' to a point not set;

Thence following a curve to a point not set with a long chord of 327.97', chord bearing of S44°00'48"E

Radius=1059.61'

Arc=329.29'

Thence S35°06'38"E 708.86' to a point not set;

Thence following a curve to a point not set with a long chord of 373.98', chord bearing of S29°35'03"E

Radius=1941.61'

Arc=374.56'

Thence S24°03'27"E 204.94' to a point not set;

Thence following a curve to a point not set with a long chord of 176.57', chord bearing of S22°00'17"E

Radius=2464.61'

Arc=176.61'

Thence S19°57'06"E 375.36' to a point not set;

Thence following a curve to a point not set with a long chord of 163.91', chord bearing of S47°48'32"E

Radius=175.39'

Arc=170.55'

Thence following a curve to a point not set with a long chord of 222.47', chord bearing of S51°29'26"E

Radius=271.61'

Arc=229.21'

Thence S27°18'54"E 248.18' to a point not set;

Thence following a curve to a point not set with a long chord of 418.53', chord bearing of S01°54'00"E

Radius=487.61'

Arc=432.58'

Thence following a curve to a point not set with a long chord of 722.70', chord bearing of S06°02'21"E

Radius=732.60'

Arc=755.77'

Thence S35°35'35"E 38.54' to a point not set;

Thence following a curve to a point not set with a long chord of 161.65', chord bearing of S40°29'50"E

Radius=945.39'

Arc=161.85'

Thence following a curve to a point not set with a long chord of 194.35', chord bearing of S23°14'25"E

Radius=257.61'

Arc=199.28'

Thence S01°04'45"E 554.93' to a point not set;

Thence following a curve to a point not set with a long chord of 199.53', chord bearing of S20°08'47"E

Radius=305.39'

Arc=203.26'

Thence S39°12'50"E 315.83' to a point not set;

Thence following a curve to a point not set with a long chord of 200.61', chord bearing of S02°53'13"W

Radius=149.61'

Arc=219.87'

Thence S44°59'16"W 27.23' to a point not set;

Thence following a curve to a point not set with a long chord of 343.49', chord bearing of S65°05'37"W

Radius=499.61'

Arc=350.64'

Thence S85°11'57"W 104.52' to a point not set;

Thence following a curve to a point not set with a long chord of 229.39', chord bearing of S44°21'35"W

Radius=175.39'

Arc=250.03'

Thence S03°31'12"W 236.43' to a point not set;

Thence following a curve to a point not set with a long chord of 170.76', chord bearing of S14°08'35"E

Radius=281.39'

Arc=173.49'

Thence S31°48'22"E 236.41' to a point not set;

Thence following a curve to a point not set with a long chord of 114.50', chord bearing of S34°40'16"E

Radius=1145.39'

Arc=114.55'

Thence S37°32'10"E 355.00' to a point not set;

Thence S32°55'10"W 35.18' to a point not set;

Thence following a curve to a point not set with a long chord of 55.09', chord bearing of S30°52'53"W

Radius=774.61'

Arc=55.10'

Thence N08°32'02"W 72.51' to a point not set;

Thence N37°32'10"W 323.62' to a point not set;

Thence following a curve to a point not set with a long chord of 119.42', chord bearing of N34°40'16"W

Radius=1194.61'

Arc=119.47  
 Thence N31°48'22"W 236.41' to a point not set;  
 Thence following a curve to a point not set with a long chord of 200.63', chord bearing of  
 N14°08'35"W  
 Radius=330.61'  
 Arc=203.84  
 Thence N03°31'12"E 236.43' to a point not set;  
 Thence following a curve to a point not set with a long chord of 293.76', chord bearing of  
 N44°21'35"E  
 Radius=224.61'  
 Arc=320.20  
 Thence N85°11'57"E 104.52' to a point not set;  
 Thence following a curve to a point not set with a long chord of 309.65', chord bearing of  
 N65°05'37"E  
 Radius=450.39'  
 Arc=316.09  
 Thence N44°59'16"E 27.23' to a point not set;  
 Thence following a curve to a point not set with a long chord of 134.61', chord bearing of  
 N02°53'13"E  
 Radius=100.39'  
 Arc=147.53  
 Thence N39°12'50"W 315.83' to a point not set;  
 Thence following a curve to a point not set with a long chord of 231.69', chord bearing of  
 N20°08'47"W  
 Radius=354.61'  
 Arc=236.02  
 Thence N10°04'45"W 554.93' to a point not set;  
 Thence following a curve to a point not set with a long chord of 157.22', chord bearing of  
 N23°14'25"W  
 Radius=208.39'  
 Arc=161.21  
 Thence following a curve to a point not set with a long chord of 170.06', chord bearing of  
 N40°29'50"W  
 Radius=994.61'  
 Arc=170.27  
 Thence N35°35'35"W 38.54' to a point not set;  
 Thence following a curve to a point not set with a long chord of 771.26', chord bearing of  
 N06°02'21"W  
 Radius=781.82'  
 Arc=806.55  
 Thence following a curve to a point not set with a long chord of 376.29', chord bearing of  
 N01°54'00"W  
 Radius=438.39'  
 Arc=388.92  
 Thence N27°18'54"W 248.18' to a point not set;  
 Thence following a curve to a point not set with a long chord of 182.15', chord bearing of  
 N51°29'26"W  
 Radius=222.39'  
 Arc=187.67  
 Thence following a curve to a point not set with a long chord of 209.91', chord bearing of  
 N47°48'32"W  
 Radius=224.61'  
 Arc=218.41  
 Thence N19°57'06"W 375.36' to a point not set;  
 Thence following a curve to a point not set with a long chord of 173.04', chord bearing of  
 N22°00'17"W

Radius=2415.39'

Arc=173.08

Thence N24°03'27"W 204.94' to a point not set;

Thence following a curve to a point not set with a long chord of 364.50', chord bearing of N29°35'03"W

Radius=1892.39'

Arc=365.07

Thence N35°06'38"W 708.86' to a point not set;

Thence following a curve to a point not set with a long chord of 312.73', chord bearing of N44°00'48"W

Radius=1010.39'

Arc=314.00

Thence N52°54'58"W 262.43' to a point not set;

Thence following a curve to a point not set with a long chord of 287.24', chord bearing of N48°38'12"W

Radius=1924.61'

Arc=287.51

Thence N44°21'26"W 316.11' to a point not set;

Thence following a curve to a point not set with a long chord of 450.28', chord bearing of N20°10'31"W

Radius=549.61'

Arc=463.93

Thence following a curve to a point not set with a long chord of 499.92', chord bearing of N07°11'21"W

Radius=1287.39'

Arc=503.12

Thence N18°23'05"W 614.93' to a point not set;

Thence following a curve to a point not set with a long chord of 177.40', chord bearing of N07°18'20"E

Radius=204.61'

Arc=183.49

Thence N32°59'45"E 74.06' to a point not set;

Thence S67°08'10"E 50.00' to a point not set, the True Point of Beginning.

Said parcel containing 504,031.5 square feet or 11.571 acres, which equates to 46,826.2 square meters or 11.914 cuerdas.

**LEGAL DESCRIPTION**  
**EASEMENT 10**

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'DOCK' and having a northing of 801006.9442 and an easting of 938162.6251 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 10". Thence N82°18'33"W 6368.65' to an iron rod set, the True Point of Beginning, having a northing of 801859.2585 and an easting of 931851.2678;

Thence N21°17'11"W 70.94' to a point not set;

Thence following a curve to a point not set with a long chord of 544.78', chord bearing of N62°20'51"E

Radius = 1438.79'

Arc = 548.09'

Thence N73°15'38"E 791.28' to a point not set;

Thence S16°44'22"E 9.18' to a point not set;

Thence N73°15'38"E 1381.12' to a point not set;

Thence S01°00'48"E 51.13' to an iron rod set;

Thence S73°15'38"W 1367.26' to an iron rod set;

Thence S16°44'22"E 9.18' to an iron rod set;

Thence S73°15'38"W 791.28' to an iron rod set;

Thence following a curve to an iron rod set, the True Point of Beginning with a long chord of 539.87', chord bearing of S61°54'26"W

Radius = 1371.21'

Arc = 543.42'

Said parcel containing 157,993.8 square feet or 3.627 acres, which equates to 14,678.2 square meters or 3.735 cuerdas.



## LEGAL DESCRIPTION EASEMENT 11

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'DELICIAS' and having a northing of 799143.8537 and an easting of 927504.4901 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 11". Thence S83°29'58"W 1270.45' to an iron rod set, the True Point of Beginning, having a northing of 799000.0249 and an easting of 926242.2090:

Thence following a curve to a point not set with a long chord of 206.40', chord bearing of S44°37'24"E

Radius=799.52'

Arc=206.98'

Thence S37°12'25"E 184.72' to a point not set;

Thence following a curve to a point not set with a long chord of 310.18', chord bearing of S16°02'25"E

Radius=429.52'

Arc=317.35'

Thence S05°07'35"W 113.24' to a point not set;

Thence following a curve to a point not set with a long chord of 295.16', chord bearing of S13°33'58"E

Radius=460.48'

Arc=300.46'

Thence S32°15'31"E 300.98' to a point not set;

Thence following a curve to a point not set with a long chord of 368.15', chord bearing of S16°53'22"E

Radius=694.52'

Arc=372.60'

Thence S01°31'13"E 874.38' to a point not set;

Thence following a curve to a point not set with a long chord of 478.71', chord bearing of S11°36'57"E

Radius=1365.48'

Arc=481.20'

Thence following a curve to a point not set with a long chord of 450.35', chord bearing of S85°44'10"E

Radius=250.48'

Arc=559.79'

Thence N30°14'21"E 582.72' to a point not set;

Thence N59°45'39"W 19.69' to a point not set;

Thence N30°14'21"E 467.43' to a point not set;

Thence following a curve to a point not set with a long chord of 1610.03', chord bearing of N32°20'28"E

Radius=21949.21'

Arc=1610.45'

Thence N34°26'35"E 721.41' to a point not set;

Thence following a curve to a point not set with a long chord of 1138.26', chord bearing of N39°17'54"E

Radius=6724.21'

Arc=1139.63'

Thence following a curve to a point not set with a long chord of 684.73', chord bearing of N54°49'22"E

Radius=1849.21'

Arc=688.70'

Thence N65°29'32"E 226.98' to a point not set;

Thence S24°30'28"E 15.42' to a point not set;

Thence following a curve to a point not set with a long chord of 577.17', chord bearing of N42°44'26"E

Radius=746.21'

Arc=592.63'

Thence N19°59'21"E 655.01' to a point not set;

Thence following a curve to a point not set with a long chord of 779.77', chord bearing of N35°42'42"E

Radius=1438.79'

Arc=789.65'

Thence S21°17'11"E 70.94' to an iron rod set;

Thence following a curve to a point not set with a long chord of 722.84', chord bearing of S35°16'17"W

Radius=1371.21'

Arc=731.48'

Thence S19°59'21"W 651.23' to a point not set;

Thence following a curve to a point not set with a long chord of 629.45', chord bearing of S42°44'26"W

Radius=813.79'

Arc=646.30'

Thence S24°30'28"E 15.42' to a point not set;

Thence S65°29'32"W 226.98' to a point not set;

Thence following a curve to a point not set with a long chord of 648.29', chord bearing of S54°49'22"W

Radius=1750.79'

Arc=652.05'

Thence following a curve to a point not set with a long chord of 1121.60', chord bearing of S39°17'54"W

Radius=6625.79'

Arc=1122.95'

Thence S34°26'35"W 721.41' to a point not set;

Thence following a curve to a point not set with a long chord of 1602.81', chord bearing of S32°20'28"W

Radius=21850.79'

Arc=1603.23'

Thence S30°14'21"W 467.43' to a point not set;

Thence N59°45'39"W 19.69' to a point not set;

Thence S30°14'21"W 582.72' to a point not set;

Thence following a curve to an iron rod set with a long chord of 556.51', chord bearing of N85°44'10"W

Radius=309.52'

Arc=691.74'

Thence following a curve to an iron rod set with a long chord of 499.41', chord bearing of N11°36'57"W

Radius=1424.52'

Arc=502.01'

Thence N01°31'13"W 874.38' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 336.85', chord bearing of N16°53'22"W

Radius=635.48'

Arc=340.93'

Thence N32°15'31"W 300.98' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 333.00', chord bearing of N13°33'58"W

Radius=519.52'

Arc=338.98'

Thence N05°07'35"E 113.24' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 267.55', chord bearing of N16°02'25"W

Radius=370.48'

Arc=273.73'

Thence N37°12'25"W 184.72' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 203.46', chord bearing of N45°06'13"W

Radius=740.48'

Arc=204.10'

Thence N49°48'48"E 60.44' to an iron rod set, the True Point of Beginning.

Said parcel containing 869,213.9 square feet or 19.954 acres, which equates to 80,572.9 square meters or 20.546 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 12

Beginning at a survey control point in the Ward of Guaynacan, said point being a brass disk set in concrete. Said point also known as 'DELICIAS' and having a northing of 799143.8537 and an easting of 927504.4901 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 12". Thence N86°08'59"E 2916.67' to an iron rod set, the True Point of Beginning, having a northing of 799339.7094 and an easting of 930414.5800:

Thence following a curve to an iron rod set; with a long chord of 394.07', a chord bearing of S88°16'14"E,

Radius= 694.61'

Arc=399.55°

Thence S18°12'29"W 49.22' to a point not set;

Thence following a curve to a point not set; with a long chord of 366.14', a chord bearing of N88°16'14"W,

Radius= 645.39'

Arc=371.24°

Thence S75°15'02"W 302.30' to a point not set;

Thence following a curve to a point not set; with a long chord of 433.01', a chord bearing of N79°52'10"W,

Radius= 514.61'

Arc=446.92°

Thence N54°59'22"W 22.37' to a point not set;

Thence following a curve to a point not set; with a long chord of 49.37', a chord bearing of N39°39'44"E,

Radius= 6625.79'

Arc=49.37°

Thence S54°59'22"E 18.37' to a point not set;

Thence following a curve to a point not set; with a long chord of 391.60', a chord bearing of S79°52'10"E,

Radius= 465.39'

Arc=404.18°

Thence N75°15'02"E 302.30' to an iron rod set, the True Point of Beginning.

Said parcel containing 55,798.0 square feet or 1.281 acres, which equates to 5,183.8 square meters or 1.319 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 13

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete, Said point also known as 'DELVIS' and having a northing of 796646.7678 and an easting of 927749.8902 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 13". Thence S78°52'34"E 168.01' to an iron rod set, the True Point of Beginning, having a northing of 796614.3537 and an easting of 927914.7410:

Thence N30°14'21"E 51.03' to a point not set;

Thence S75°02'51"E 919.53' to a point not set;

Thence following a curve to a point not set; with a long chord of 462.99', a chord bearing of S29°33'20"E,

Radius= 324.61'

Arc=515.47'

Thence S15°56'11"W 360.72' to a point not set;

Thence following a curve to a point not set; with a long chord of 418.08', a chord bearing of S01°33'03"W,

Radius= 841.39'

Arc=422.51'

Thence S12°50'05"E 705.02' to a point not set;

Thence following a curve to a point not set; with a long chord of 237.97', a chord bearing of S10°24'27"E,

Radius= 2809.61'

Arc=238.04'

Thence S07°58'50"E 664.13' to a point not set;

Thence following a curve to a point not set; with a long chord of 161.35', a chord bearing of S12°03'18"E,

Radius= 1135.39'

Arc=161.48'

Thence S16°07'47"E 406.15' to a point not set;

Thence following a curve to a point not set; with a long chord of 121.76', a chord bearing of S21°04'50"E,

Radius= 705.39'

Arc=121.91'

Thence S26°01'54"E 754.37' to a point not set;

Thence N63°58'06"E 29.53' to a point not set;

Thence following a curve to an iron rod set; with a long chord of 243.72', a chord bearing of S17°46'50"E,

Radius= 849.14'

Arc=244.57'

Thence S09°31'46"E 282.37' to an iron rod set;

Thence following a curve to an iron rod set; with a long chord of 294.29', a chord bearing of S40°30'35"E,

Radius= 285.86'

Arc=309.13'

Thence S18°30'36"W 29.53' to a point not set;

Thence S71°29'24"E 79.41' to a point not set;

Thence following a curve to a point not set; with a long chord of 143.96', a chord bearing of S83°20'41"E,

Radius= 350.39'

Arc=144.99'

Thence N84°48'02"E 272.81' to an iron rod set;

Thence following a curve to an iron rod set; with a long chord of 241.06', a chord bearing of S70°36'19"E,

Radius=289.61'

Arc=248.63'

Thence following a curve to an iron rod set; with a long chord of 530.38', a chord bearing of N84°01'47"E,

Radius=346.39'

Arc=604.07'

Thence S55°55'45"E 49.22' to a iron rod set;

Thence following a curve to a point not set; with a long chord of 605.74', a chord bearing of S84°01'47"W,

Radius=395.61'

Arc=689.90'

Thence following a curve to a point not set; with a long chord of 200.09', a chord bearing of N70°36'19"W,

Radius=240.39'

Arc=206.37'

Thence S84°48'02"W 272.81' to a point not set;

Thence following a curve to a point not set; with a long chord of 164.18', a chord bearing of N83°20'41"W,

Radius=399.61'

Arc=165.36'

Thence N71°29'24"W 79.41' to a point not set;

Thence following a curve to a point not set; with a long chord of 375.36', a chord bearing of N40°30'35"W,

Radius=364.61'

Arc=394.30'

Thence N09°31'46"W 282.37' to a point not set;

Thence following a curve to a point not set; with a long chord of 221.12', a chord bearing of N17°46'50"W,

Radius=770.39'

Arc=221.88'

Thence N26°01'54"W 754.37' to a point not set;

Thence following a curve to a point not set; with a long chord of 130.25', a chord bearing of N21°04'50"W,

Radius=754.61'

Arc=130.41'

Thence N16°07'47"W 406.15' to a point not set;

Thence following a curve to a point not set; with a long chord of 168.34', a chord bearing of N12°03'18"W,

Radius=1184.61'

Arc=168.49'

Thence N07°58'50"W 664.13' to a point not set;

Thence following a curve to a point not set; with a long chord of 233.80', a chord bearing of N10°24'27"W,

Radius=2760.39'

Arc=233.87'

Thence N12°50'05"W 705.02' to a point not set;

Thence following a curve to a point not set; with a long chord of 442.54', a chord bearing of N01°33'03"E,

Radius=890.61'

Arc=447.22'

Thence N15°56'11"E 360.72' to a point not set;

Thence following a curve to a point not set; with a long chord of 392.79', a chord bearing of N29°33'20"W,

Radius= 275.39'

Arc=437.31'

Thence N75°02'51"W 932.99' to an iron rod set, the True Point of Beginning.

Said parcel containing 394,968.0 square feet or 9.067 acres, which equates to 36,693.9 square meters or 9.336 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 14

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'DELVIS' and having a northing of 796646.7678 and an easting of 927749.8902 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 14". Thence S47°16'47"E 6610.93' to an iron rod set, the True Point of Beginning, having a northing of 792161.7895 and an easting of 932606.7849:

Thence S48°34'14"W 49.22' to an iron rod set;

Thence following a curve to a point not set; with a long chord of 327.40', a chord bearing of N51°48'41"W,

Radius= 908.39'

Arc=329.19'

Thence N62°11'35"W 204.46' to a point not set;

Thence following a curve to a point not set; with a long chord of 285.17', a chord bearing of N87°30'50"W,

Radius= 333.39'

Arc=294.67'

Thence S67°09'55"W 249.07' to a point not set;

Thence following a curve to a point not set; with a long chord of 273.38', a chord bearing of S50°35'54"W,

Radius= 479.39'

Arc=277.23'

Thence S34°01'53"W 112.96' to a point not set;

Thence following a curve to a point not set; with a long chord of 157.69', a chord bearing of S03°58'06"W,

Radius= 157.39'

Arc=165.17'

Thence S26°05'42"E 141.99' to a point not set;

Thence following a curve to an iron rod set; with a long chord of 275.30', a chord bearing of S03°59'17"W,

Radius= 274.61'

Arc=288.37'

Thence N55°55'45"W 49.22' to an iron rod set;

Thence following a curve to a point not set; with a long chord of 225.95', a chord bearing of N03°59'17"E,

Radius= 225.39'

Arc=236.68'

Thence N26°05'42"W 141.99' to a point not set;

Thence following a curve to a point not set; with a long chord of 207.00', a chord bearing of N03°58'06"E,

Radius= 206.61'

Arc=216.82'

Thence N34°01'53"E 112.96' to a point not set;

Thence following a curve to a point not set; with a long chord of 301.45', a chord bearing of N50°35'54"E,

Radius= 528.61'

Arc=305.69'

Thence N67°09'55"E 249.07' to a point not set;

Thence following a curve to a point not set; with a long chord of 327.27', a chord bearing of S87°30'50"E,

Radius= 382.61'

Arc=338.17'

Thence S62°11'35"E 204.46' to a point not set;



Thence following a curve to an iron rod set; the True Point of Beginning with a long chord of 345.14', a chord bearing of S51°48'41"E;

Radius= 957.61'

Arc=347.03'

Said parcel containing 103,755.2 square feet or 2.382 acres, which equates to 9,639.2 square meters or 2.452 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 15 I

Beginning at a survey control point in the Ward of Machos, said point being a brass disk set in concrete. Said point also known as 'CAMP' and having a northing of 800851.3059 and an easting of 941574.6311 noted as the Point of Beginning on the plat labeled "EASEMENT 15 I". Thence S58°15'43"W 1415.33' to an iron rod set, the True Point of Beginning, having a northing of 800106.7923 and an easting of 940370.9503;

Thence S53°34'53"E 189.86' to an iron rod set;

Thence S50°43'25"E 313.99' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 278.22', chord bearing of S52°59'29"E

Radius=3515.39'

Arc=278.30'

Thence S34°44'26"W 49.22' to a point not set;

Thence following a curve to a point not set with a long chord of 282.12', chord bearing of N52°59'29"W

Radius=3564.61'

Arc=282.19'

Thence N50°43'25"W 313.99' to a point not set;

Thence N56°37'00"W 186.32' to a point not set;

Thence N54°53'10"W 2578.10' to an iron rod set;

Thence N35°07'20"E 59.04' to an iron rod set;

Thence S54°53'10"E 2578.09' to an iron rod set, the True Point of Beginning.

Said parcel containing 191,623.6 square feet or 4.399 acres, which equates to 17,802.5 square meters or 4.529 cuerdas.

## LEGAL DESCRIPTION FOR EASEMENT 15 II

Beginning at a survey control point in the Ward of Machos, said point being a brass disk set in concrete. Said point also known as 'CAMP' and having a northing of 800851.3059 and an easting of 941574.6311 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 15 II". Thence N71°48'01"W 4473.04' to an iron rod set, the True Point of Beginning, having a northing of 802248.3777 and an easting of 937325.3615:

Thence S54°53'10"E 1145.08' to an iron rod set;

Thence S35°07'20"W 59.04' to an iron rod set;

Thence N54°53'10"W 1145.07' to a point not set;

Thence N35°06'50"E 59.04' to an iron rod set, True Point of Beginning.

Said parcel containing 67,605.1 square feet or 1.552 acres, which equates to 6,208.7 square meters or 1.598 cuerdas.

## LEGAL DESCRIPTION FOR EASEMENT 16.

Beginning at a survey control point in the Ward of Machios, said point being a brass disk set in concrete. Said point also known as 'CAMP' and having a northing of 800851.3059 and an easting of 941574.6311 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 16". Thence S25°34'47"W 1356.43' to a PK nail set, the True Point of Beginning, having a northing of 799627.8270 and an easting of 940988.9671:

Thence S55°15'34"E 1622.79' to a point not set;

Thence following a curve to a point not set with a long chord of 317.94', chord bearing of S44°08'39"E

Radius=824.61'

Arc=319.94'

Thence following a curve to a point not set with a long chord of 471.02', chord bearing of S44°53'41"E

Radius=1145.39'

Arc=474.41'

Thence S56°45'37"E 453.21' to a point not set;

Thence following a curve to a point not set with a long chord of 885.86', chord bearing of S25°20'19"E

Radius=849.61'

Arc=931.87'

Thence S06°04'59"W 307.16' to a point not set;

Thence following a curve to a point not set with a long chord of 263.68', chord bearing of S47°25'16"W

Radius=199.61'

Arc=288.03'

Thence S88°45'33"W 199.61' to a point not set;

Thence following a curve to a point not set with a long chord of 512.24', chord bearing of S54°06'07"W

Radius=450.39'

Arc=544.87'

Thence S19°26'41"W 326.67' to a point not set;

Thence following a curve to a point not set with a long chord of 80.15', chord bearing of S20°22'22"W

Radius=2474.61'

Arc=80.15'

Thence S21°18'03"W 174.42' to a point not set;

Thence following a curve to a point not set with a long chord of 181.43', chord bearing of N15°47'57"W

Radius=150.39'

Arc=194.76'

Thence S52°53'57"E 1350.91' to an iron rod set;

Thence S37°06'03"W 49.22' to an iron rod set;

Thence N52°53'57"W 1350.91' to a point not set;

Thence following a curve to a point not set with a long chord of 240.81', chord bearing of N15°47'57"W

Radius=199.61'

Arc=258.50'

Thence N21°18'03"E 174.42' to a point not set;

Thence following a curve to a point not set with a long chord of 78.56', chord bearing of N20°22'22"E

Radius=2425.39'

Arc=78.56'

Thence N19°26'41"E 326.67' to a point not set;

Thence following a curve to a point not set with a long chord of 568.22', chord bearing of N54°06'07"E

Radius=499.61'

Arc=604.41'

Thence N88°45'33"E 199.61' to a point not set;

Thence following a curve to a point not set with a long chord of 198.67', chord bearing of N47°25'16"E

Radius=150.39'

Arc=217.01'

Thence N06°04'59"E 307.16' to a point not set;

Thence following a curve to a point not set with a long chord of 834.54', chord bearing of N25°20'19"W

Radius=800.39'

Arc=877.89'

Thence N56°45'37"W 453.21' to a point not set;

Thence following a curve to a point not set with a long chord of 491.26', chord bearing of N44°53'41"W

Radius=1194.61'

Arc=494.79'

Thence following a curve to a point not set with a long chord of 298.96', chord bearing of N44°08'39"W

Radius=775.39'

Arc=300.84'

Thence N55°15'34"W 1622.79' to a point not set;

Thence N34°44'26"E 49.22' to a PK nail set, True Point of Beginning.

Said parcel containing 357719.9 square feet or 8.212 acres, which equates to 33233.4 square meters or 8.455 cuerdas.

### LEGAL DESCRIPTION EASEMENT 17

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'EMBEACH' and having a northing of 798535.1118 and an easting of 943260.8239 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 17". Thence S70°34'51"W 1062.22' to an iron rod set, the True Point of Beginning, having a northing of 798181.9491 and an easting of 942259.0304:

Thence S20°24'39"W 163.17' to an iron rod set;

Thence S35°11'24"W 90.57' to an iron rod set;

Thence S44°07'15"W 227.64' to a point not set;

Thence N45°48'06"W 38.83' to a point not set;

Thence N44°11'54"E 120.58' to a point not set;

Thence following a curve to a point not set with a long chord of 1000.12', chord bearing of N05°31'50"E

Radius=655.39'

Arc=1137.67'

Thence S55°15'34"E 344.36' to a point not set;

Thence S34°44'26"W 40.66' to a point not set;

Thence following a curve to a point not set, the True Point of Beginning with a long chord of 491.31', chord bearing of S05°35'53"E

Radius=704.61'

Arc=501.85'

Said parcel containing 54,671.6 square feet or 1.255 acres, which equates to 5,079.2 square meters or 1.292 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 18

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'DELICIAS' and having a northing of 799143.8537 and an easting of 927504.4901 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 18". Thence S82°02'45"W 1321.16' to an iron rod set, the True Point of Beginning, having a northing of 798961.0287 and an easting of 926196.0422;

Thence following a curve to a point not set with a long chord of 58.03', chord bearing of N55°14'45"W

Radius=740.48'

Arc=58.05'

Thence following a curve to a point not set with a long chord of 749.97', chord bearing of N68°57'48"W

Radius=1885.48'

Arc=755.01'

Thence N80°26'05"W 333.41' to a point not set;

Thence N02°53'40"E 59.44' to an iron rod set;

Thence S80°26'05"E 340.32' to a point not set;

Thence following a curve to a point not set with a long chord of 773.46', chord bearing of S68°57'48"E

Radius=1944.52'

Arc=778.65'

Thence following a curve to a point not set with a long chord of 76.05', chord bearing of S54°45'56"E

Radius=799.52'

Arc=76.08'

Thence S49°48'46"W 60.43' to an iron rod set, the True Point of Beginning.

Said parcel containing 69,121.9 square feet or 1.587 acres, which equates to 6,421.7 square meters or 1.634 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 19

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'DELICIAS' and having a northing of 799143.8537 and an easting of 927504.4901 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 19". Thence N84°23'00"W 2393.39' to an iron rod set, the True Point of Beginning, having a northing of 799378.0976 and an easting of 925122.5952:

Thence S02°53'40"W 59.44' to a point not set;

Thence N80°26'05"W 1000.44' to a point not set;

Thence following a curve to a point not set with a long chord of 524.92', chord bearing of N86°52'24"W

Radius=2340.48'

Arc=526.02'

Thence S86°41'17"W 956.85' to a point not set;

Thence S03°18'43"E 19.69' to a point not set;

Thence following a curve to a point not set with a long chord of 328.45', chord bearing of S73°39'55"W

Radius=728.79'

Arc=331.29'

Thence N29°21'27"W 19.69' to a point not set;

Thence S60°38'33"W 1014.42' to a point not set;

Thence following a curve to a point not set with a long chord of 440.23', chord bearing of S77°37'38"W

Radius=753.52'

Arc=446.74'

Thence N85°23'18"W 105.09' to a point not set;

Thence S06°29'05"W 565.74' to a point not set;

Thence following a curve to a point not set with a long chord of 240.83', chord bearing of S12°29'15"E

Radius=370.39'

Arc=245.29'

Thence S31°27'34"E 205.67' to a point not set;

Thence following a curve to an iron rod set with a long chord of 512.82', chord bearing of S25°12'28"E

Radius=2354.61'

Arc=513.83'

Thence S71°02'38"W 49.22' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 502.10', chord bearing of N25°12'28"W

Radius=2305.39'

Arc=503.09'

Thence N31°27'34"W 205.67' to an iron rod set;

Thence following a curve to a point not set with a long chord of 272.84', chord bearing of N12°29'15"E

Radius=419.61'

Arc=277.89'

Thence N06°29'05"E 488.65' to a point not set;

Thence N1°14'04"E 135.38' to a point not set;

Thence S85°23'18"E 141.19' to a point not set;

Thence following a curve to a point not set with a long chord of 405.74', chord bearing of N77°37'38"E

Radius=694.48'

Arc=411.74'

Thence N60°38'33"E 1014.42' to a point not set;



Thence N29°21'27"W 19.69' to a point not set;  
Thence following a curve to a point not set with a long chord of 372.80', chord bearing of  
N73°39'55"E

Radius=827.21'

Arc=376.03'

Thence S03°18'43"E 19.69' to a point not set;

Thence N86°41'17"E 956.85' to an iron rod set;

Thence following a curve to an iron rod set with a long chord of 538.16', chord bearing of  
S86°52'24"E

Radius=2399.52'

Arc=539.29'

Thence S80°26'05"E 993.54' to an iron rod set, (the True Point of Beginning).

Said parcel containing 350,976.2 square feet or 8.057 acres, which equates to 32,606.9 square  
meters or 8.296 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 20

Beginning at a survey control point in the Ward of Daguno, said point being a brass disk set in concrete. Said point also known as 'MANATI' and having a northing of 791059.1339 and an easting of 921490.5759 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 20". Thence N12°12'56"W 5380.02' to an iron rod set, the True Point of Beginning, having a northing of 796317.3385 and an easting of 920352.2213;

Thence N07°23'37"W 50.22' to a point not set;

Thence following a curve to a point not set with a long chord of 262.52', chord bearing of N60°27'55"E

Radius=735.39'

Arc=263.93'

Thence N50°11'00"E 631.48' to a point not set;

Thence following a curve to an iron rod set with a long chord of 443.02', chord bearing of N15°36'49"E

Radius=390.39'

Arc=471.09'

Thence N71°02'38"E 49.22' to an iron rod set;

Thence following a curve to a point not set with a long chord of 498.88', chord bearing of S15°36'49"W

Radius=439.61'

Arc=530.48'

Thence S50°11'00"W 631.48' to an iron rod set;

Thence following a curve to an iron rod set, the True Point of Beginning, with a long chord of 290.24', chord bearing of S60°50'32"W

Radius=784.61'

Arc=291.92'

Said parcel containing 69,409.9 square feet or 1.593 acres, which equates to 6,448.4 square meters or 1.641 cuerdas.

### LEGAL DESCRIPTION EASEMENT 21

Beginning at a survey control point in the Ward of Daguao, said point being a brass disk set in concrete. Said point also known as 'BAKER' and having a northing of 794549.6798 and an easting of 921077.9933, noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 21". Thence N13°53'46"W 1966.63' to an iron rod set, the True Point of Beginning, having a northing of 796458.7488 and an easting of 920605.6833:

Thence following a curve to a point not set with a long chord of 332.65', chord bearing of S21°45'22"W

Radius=349.39'

Arc=346.70'

Thence S06°40'17"E 707.30' to a point not set;

Thence following a curve to a point not set with a long chord of 228.51', chord bearing of S10°09'33"W

Radius=394.61'

Arc=231.83'

Thence S26°59'23"W 1182.66' to a point not set;

Thence following a curve to a point not set with a long chord of 62.33', chord bearing of S11°34'06"E

Radius=50.00'

Arc=67.30'

Thence following a curve to a point not set with a long chord of 239.96', chord bearing of S25°11'36"E

Radius=284.61'

Arc=247.71'

Thence S00°15'36"E 233.14' to a point not set;

Thence following a curve to a point not set with a long chord of 115.51', chord bearing of S27°41'13"E

Radius=125.39'

Arc=120.05'

Thence S55°06'51"E 162.71' to a point not set;

Thence following a curve to a point not set with a long chord of 156.28', chord bearing of S23°37'40"E

Radius=149.61'

Arc=164.43'

Thence S07°51'31"W 152.93' to a point not set;

Thence following a curve to a point not set with a long chord of 86.37', chord bearing of S27°05'18"E

Radius=75.39'

Arc=91.97'

Thence S62°02'07"E 305.68' to a point not set;

Thence following a curve to a point not set with a long chord of 349.05', chord bearing of S75°57'24"E

Radius=725.39'

Arc=352.51'

Thence S89°52'42"E 180.05' to a point not set;

Thence S01°18'44"E 49.24' to a point not set;

Thence N89°52'42"W 181.28' to a point not set;

Thence following a curve to a point not set with a long chord of 372.73', chord bearing of N75°57'24"W

Radius=774.61'

Arc=376.42'

Thence N62°02'07"W 305.68' to a point not set;

Thence following a curve to a point not set with a long chord of 142.76', chord bearing of N27°05'18"W

Radius=124.61'

Arc=152.01'

Thence N07°51'31"E 152.93' to a point not set;

Thence following a curve to a point not set with a long chord of 104.87', chord bearing of N23°37'40"W

Radius=110.39'

Arc=110.34'

Thence N55°06'51"W 162.71' to a point not set;

Thence following a curve to a point not set with a long chord of 160.86', chord bearing of N27°41'13"W

Radius=174.61'

Arc=167.17'

Thence N00°15'36"W 233.14' to a point not set;

Thence following a curve to a point not set with a long chord of 198.46', chord bearing of N25°11'36"W

Radius=235.39'

Arc=204.87'

Thence following a curve to a point not set with a long chord of 123.69', chord bearing of N11°34'06"W

Radius=99.22'

Arc=133.54'

Thence N26°59'23"E 1182.66' to a point not set;

Thence following a curve to a point not set with a long chord of 200.01', chord bearing of N10°09'33"E

Radius=345.39'

Arc=202.91'

Thence N06°40'17"W 707.30' to a point not set;

Thence following a curve to a point not set with a long chord of 228.97', chord bearing of N10°01'10"E

Radius=398.61'

Arc=232.24'

Thence following a curve to an iron rod set, the True Point of Beginning, with a long chord of 159.60', chord bearing of N56°01'16"E

Radius=784.61'

Arc=159.88'

Said parcel containing 221,548.7 square feet or 5.086 acres, which equates to 20,582.6 square meters or 5.237 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 22

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'DELVIS' and having a northing of 796646.7678 and an easting of 927749.8902 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 22". Thence S10°14'36"E 5702.81' to an iron rod set, the True Point of Beginning, having a northing of 791034.8502 and an easting of 928764.0234;

Thence S37°21'10"E 56.21' to a point not set;

Thence following a curve to a point not set; with a long chord of 93.66', a chord bearing of S32°30'14"W,

Radius=399.61'

Arc=93.87'

Thence S39°14'01"W 203.42' to a point not set;

Thence S31°07'00"W 298.77' to a point not set;

Thence N82°23'22"W 53.67' to a point not set;

Thence N31°07'00"E 323.67' to a point not set;

Thence N39°14'01"E 206.91' to a point not set;

Thence following a curve to an iron rod set; the True Point of Beginning with a long chord of 107.32', a chord bearing of N30°25'29"E,

Radius=350.39'

Arc=107.74'

Said parcel containing 30,374.0 square feet or 0.697 of an acre, which equates to 2,821.8 square meters or 0.718 of a cuerda.

### LEGAL DESCRIPTION EASEMENT 23

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'DELVIS' and having a northing of 796646.7678 and an easting of 927749.8902, noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 23". Thence N50°37'43"E 1415.10' to an iron rod set, the True Point of Beginning, having a northing of 797544.4326 and an easting of 928843.8370:

Thence N55°35'04"W 49.22' to a point not set;

Thence N34°24'56"E 784.00' to a point not set;

Thence following a curve to an iron rod set with a long chord of 14.71', chord bearing of N10°38'54"W

Radius=10.39'

Arc=16.34'

Thence N55°42'43"W 262.55' to an iron rod set;

Thence N34°26'35"E 49.22' to a point not set;

Thence S55°42'43"E 262.42' to a point not set;

Thence following a curve to a point not set with a long chord of 84.40', chord bearing of S10°38'54"E

Radius=59.61'

Arc=93.77'

Thence S34°24'56"W 784.00' to an iron rod set, the True Point of Beginning.

Said parcel containing 54,217.7 square feet or 1.245 acres, which equates to 5,037.0 square meters or 1.282 cuerdas.

### LEGAL DESCRIPTION FOR EASEMENT 24

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'DELYIS' and having a northing of 796646.7678 and an easting of 927749.8902 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 24". Thence S25°06'47"E 5671.51' to an iron rod set, the True Point of Beginning, having a northing of 791511.3792 and an easting of 930156.9139;

Thence S18°30'36"W 166.08' to a point not set;

Thence N71°29'24"W 87.49' to a point not set;

Thence following a curve to a point not set; with a long chord of 395.01', a chord bearing of N49°38'14"W,

Radius= 530.61'

Arc=404.75'

Thence S64°52'27"W 372.81' to a point not set;

Thence following a curve to a point not set; with a long chord of 132.18', a chord bearing of N70°06'25"W,

Radius= 724.61'

Arc=132.36'

Thence S75°20'24"W 301.47' to a point not set;

Thence following a curve to a point not set; with a long chord of 167.79', a chord bearing of S88°16'52"W,

Radius= 374.61'

Arc=169.22'

Thence N78°46'40"W 162.48' to a point not set;

Thence following a curve to a point not set; with a long chord of 157.98', a chord bearing of S37°18'43"E,

Radius= 374.39'

Arc=159.18'

Thence S49°29'31"E 57.39' to a point not set;

Thence following a curve to a point not set; with a long chord of 155.14', a chord bearing of S18°15'41"E,

Radius= 149.61'

Arc=163.10'

Thence following a curve to a point not set; with a long chord of 89.12', a chord bearing of S19°22'19"W,

Radius= 399.61'

Arc=89.31'

Thence N37°21'10"W 56.21' to a point not set;

Thence following a curve to a point not set; with a long chord of 52.83', a chord bearing of N17°17'33"E,

Radius= 350.39'

Arc=52.88'

Thence following a curve to a point not set; with a long chord of 104.10', a chord bearing of N18°15'41"W,

Radius= 100.39'

Arc=109.44'

Thence N49°29'31"W 57.39' to a point not set;

Thence following a curve to a point not set; with a long chord of 193.18', a chord bearing of N36°18'43"W,

Radius= 423.61'

Arc=194.89'

Thence N23°07'54"W 41.33' to a point not set;

Thence N11°13'20"E 32.22' to a point not set;

Thence S78°46'40"E 234.00' to a point not set;

Thence following a curve to a point not set; with a long chord of 145.74', a chord bearing of N88°16'52"E,

Radius= 325.39'

Arc=146.99'

Thence N75°20'24"E 301.47' to a point not set;

Thence following a curve to a point not set; with a long chord of 123.20', a chord bearing of N70°06'25"E,

Radius= 675.39'

Arc=123.37'

Thence N64°52'27"E 422.09' to a point not set;

Thence following a curve to a point not set; with a long chord of 401.51', a chord bearing of S46°50'34"E,

Radius= 481.39'

Arc=414.16'

Thence S71°29'24"E 38.27' to a point not set;

Thence N18°30'36"E 116.78' to a point not set;

Thence S71°29'24"E 41.15' to a point not set;

Thence following a curve to an iron rod set, the True Point of Beginning with a long chord of 8.07', a chord bearing of S72°04'08"E,

Radius= 399.61'

Arc=8.07'

Said parcel containing 112,345.5 square feet or 2.579 acres, which equates to 10,437.3 square meters or 2.656 cuerdas.



### LEGAL DESCRIPTION EASEMENT 25

Beginning at a survey control point in the Ward of Quebrada Seca, said point being a brass disk set in concrete. Said point also known as 'DELICIAS' and having a northing of 799143.8537 and an easting of 927504.4901 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 25". Thence S65°46'40"W 1154.24' to an iron rod set, the True Point of Beginning, having a northing of 798670.2992 and an easting of 926451.8698:

Thence following a curve to a point not set with a long chord of 58.23', chord bearing of S32°42'00"E

Radius=370.48'

Arc=58.29'

Thence following a curve to a point not set with a long chord of 422.66', chord bearing of S69°24'05"W

Radius=320.39'

Arc=461.54'

Thence N71°15'39"W 15.42' to an iron rod set;

Thence N21°18'51"W 43.57' to a point not set;

Thence following a curve to a point not set with a long chord of 418.41', chord bearing of N66°36'34"E

Radius=369.61'

Arc=444.76'

Thence S37°12'25"E 17.52' to an iron rod set the True Point of Beginning.

Said parcel containing 22,596.3 square feet or 0.519 of an acre, which equates to 2,099.3 square meters or 0.534 of a cuerda.

### LEGAL DESCRIPTION FOR EASEMENT 26

Beginning at a survey control point in the Ward of Dagua, said point being a brass disk set in concrete. Said point known as "COLINA" and having a northing of 797036.8324 and an easting of 916304.6005 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 26". Thence N67°51'33"E 4952.64' to POINT # 26-3A, an iron rod set, the True Point of Beginning, having a northing of 798903.4095 and an easting of 920892.0277;

Thence N07°56'34"E 730.47' to a point not set;

Thence S83°59'00"E 26.33' to a point not set;

Thence S06°01'00"W 450.00' to a point not set;

Thence N83°59'00"W 15.00' to a point not set;

Thence S06°01'00"W 341.39' to a point not set;

Thence N85°23'18"W 41.58' to a point not set;

Thence N11°14'04"E 62.61' to a POINT # 26-3A, an iron rod set the True Point of beginning.

Said parcel containing 26,373.1 square feet or 0.605 of an acre, which equates to 2450.2 square meters or 0.623 of a cuerda.

## LEGAL DESCRIPTION EASEMENT 27

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete. Said point also known as 'DELICIAS' and having a northing of 799143.8537 and an easting of 927504.4901 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 27". Thence N67°33'29"E 3925.91' to an iron rod set, the True Point of Beginning, having a northing of 800642.5529 and an easting of 931133.0789:

Thence N74°40'21"W 111.12' to a point not set;

Thence following a curve to a point not set with a long chord of 408.37', chord bearing of N65°04'28"W

Radius=1224.61'

Arc=410.28'

Thence N55°28'36"W 108.63' to a point not set;

Thence following a curve to a point not set with a long chord of 239.53', chord bearing of N32°33'46"W

Radius=307.61'

Arc=246.04'

Thence N09°38'56"W 228.13' to a point not set;

Thence N04°39'23"W 217.78' to a point not set;

Thence following a curve to a point not set with a long chord of 226.29', chord bearing of N18°40'54"E

Radius=285.61'

Arc=232.67'

Thence N42°01'11"E 105.61' to a point not set;

Thence following a curve to a point not set with a long chord of 161.10', chord bearing of N18°55'46"E

Radius=205.39'

Arc=165.55'

Thence N04°09'40"W 140.27' to a point not set;

Thence following a curve to a point not set with a long chord of 166.96', chord bearing of N14°16'29"W

Radius=475.39'

Arc=167.83'

Thence following a curve to a point not set with a long chord of 49.52', chord bearing of N04°54'08"W

Radius=74.22'

Arc=50.48'

Thence N14°35'03"E 89.02' to a point not set;

Thence following a curve to a point not set with a long chord of 61.93', chord bearing of N67°13'22"E

Radius=263.00'

Arc=62.07'

Thence S14°35'03"W 126.60' to a point not set;

Thence following a curve to a point not set with a long chord of 16.68', chord bearing of S04°54'08"E

Radius=25.00'

Arc=17.00'

Thence following a curve to a point not set with a long chord of 184.25', chord bearing of S14°16'29"E

Radius=524.61'

Arc=185.21'

Thence S04°09'40"E 140.27' to a point not set;

Thence following a curve to a point not set with a long chord of 199.71', chord bearing of S18°55'46"W

Radius=254.61'

Arc=205.22'

Thence S42°01'11"W 105.61' to a point not set;

Thence following a curve to a point not set with a long chord of 187.29', chord bearing of S18°40'54"W

Radius=236.39'

Arc=192.58'

Thence S04°39'23"E 215.64' to a point not set;

Thence S09°38'56"E 225.98' to a point not set;

Thence following a curve to a point not set with a long chord of 201.21', chord bearing of S32°33'46"E

Radius=258.39'

Arc=206.67'

Thence S55°28'36"E 108.63' to a point not set;

Thence following a curve to a point not set with a long chord of 391.95', chord bearing of S65°04'28"E

Radius=1175.39'

Arc=393.79'

Thence S74°40'21"E 116.04' to a point not set;

Thence S19°59'21"W 12.83' to a point not set;

Thence following a curve to an iron rod set, the True Point of Beginning with a long chord of 36.64', chord bearing of S21°23'45"W

Radius=746.21'

Arc=36.64'

Said parcel containing 110,992.1 square feet or 2.548 acres, which equates to 10,311.5 square meters or 2.624 cuerdas.

### LEGAL DESCRIPTION EASEMENT 28

Beginning at a survey control point in the Ward of Guayacan, said point being a brass disk set in concrete, Said point also known as 'DOO' and having a northing of 805443.8964 and an easting of 933110.4735 noted as the Point of Beginning on the plat labeled "UNITED STATES GOVERNMENT PROPERTY FORMER NAVAL STATION ROOSEVELT ROADS EASEMENT 28". Thence S80°32'06"W 1455.73' to an iron rod set, the True Point of Beginning, having a northing of 805204.5081 and an easting of 931674.5620:

Thence S02°46'27"E 399.73' to an iron rod set;  
Thence S23°35'04"W 247.75' to an iron rod set;  
Thence S19°01'22"W 388.54' to a MAG nail set;  
Thence S29°57'10"W 290.23' to an iron rod set;  
Thence S32°49'53"W 712.89' to an iron rod set;  
Thence S32°37'31"W 558.73' to a point not set;  
Thence following a curve to a point not set with a long chord of 107.57', chord bearing of N63°04'19"W

Radius=263.00'

Arc=108.33°

Thence N32°37'31"E 1500.73' to a point not set;  
Thence N21°31'21"E 641.58' to a point not set;  
Thence N02°46'27"W 368.63' to an iron rod set;  
Thence N71°08'07"E 114.48' to an iron rod set, the True Point of Beginning.

Said parcel containing 268,631.5 square feet or 6.170 acres, which equates to 24,956.8 square meters or 6,350 cuerdas.

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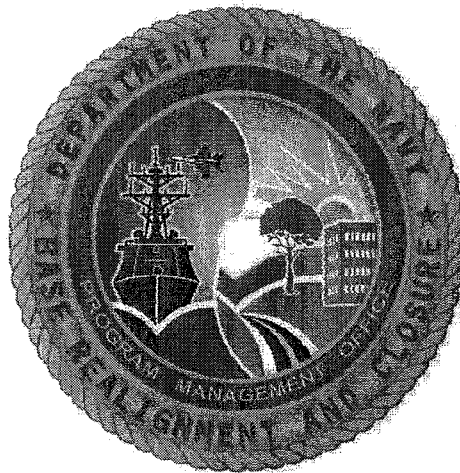
**Exhibit "D"**

**FINDING OF SUITABILITY TO TRANSFER PORT PBC PARCELS**

**FINDING OF SUITABILITY TO TRANSFER**

**PORT PARCEL**

**NAVAL ACTIVITY PUERTO RICO  
CEIBA, PUERTO RICO**



**Prepared by:**

**Department of the Navy  
Base Realignment and Closure  
Program Management Office Southeast  
4130 Faber Place Drive, Suite 202  
North Charleston, South Carolina 29405**

**December 2008**

**FINDING OF SUITABILITY TO TRANSFER  
PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO**

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**TABLE OF CONTENTS**

<b><u>SECTION</u></b>	<b><u>PAGE</u></b>
<b>1.0 PURPOSE.....</b>	<b>1</b>
<b>2.0 DESCRIPTION OF PROPERTY.....</b>	<b>1</b>
<b>3.0 PAST USE AND PROPOSED REUSE.....</b>	<b>2</b>
<b>4.0 ENVIRONMENTAL FINDINGS .....</b>	<b>2</b>
A. Hazardous Substance Contamination.....	2
B. Petroleum Contamination .....	3
C. Condition of Property Classification .....	4
D. Other Environmental Aspects .....	6
<b>5.0 REQUIREMENTS APPLICABLE TO PROPERTY TRANSFER .....</b>	<b>8</b>
A. NEPA Compliance .....	8
B. Hazardous Substance Notice .....	8
C. CERCLA Covenant .....	8
D. CERCLA Access Clause.....	9
E. Land and Groundwater Restrictions .....	9
F. Environmental Compliance Agreements / Permits / Orders .....	10
G. Notification to Regulatory Agencies / Public .....	11
<b>6.0 SUITABILITY DETERMINATION.....</b>	<b>11</b>

**EXHIBITS**

A	References
B	Vicinity Map
C	Parcel, Utility, and Fuel Line Maps
D	Survey Maps
E	Tables
F	CERFA Concurrence
G	Lead-Based Paint Hazards Advisory Statement
H	CERCLA Hazardous Substance Notice and Response Action Summary
I	Responses to EPA Comments



# FINDING OF SUITABILITY TO TRANSFER PORT PARCEL NAVAL ACTIVITY PUERTO RICO

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## 1.0 PURPOSE

This Finding of Suitability to Transfer (FOST) summarizes how the requirements and notifications for hazardous substances, petroleum products and other regulated material on the property have been satisfied, and documents my determination, as the responsible Department of Defense (DoD) component official, that certain real property and associated improvements known as the Port and Fuel Farm Parcels (Subject Property) at Naval Activity Puerto Rico (NAPR), Ceiba, Puerto Rico are environmentally suitable for deed transfer. This decision is based primarily on my review of information contained in three of the documents listed in Exhibit A (References) – the CERFA Identification of Uncontaminated Property, Former Naval Station Roosevelt Roads, Puerto Rico (the CERFA Report; Navy, 2006b), Phase I/II Environmental Condition of Property Report, Former Naval Station Roosevelt Roads, Ceiba, Puerto Rico (the ECP Report; Navy, 2005) and the Covenant Deferral Request, Former Naval Station Roosevelt Roads, Ceiba, Puerto Rico (the CDR; Navy, 2007). Factors leading to this decision and other pertinent information related to property transfer requirements are stated below.

## 2.0 DESCRIPTION OF PROPERTY

NAPR was formerly known as Naval Station Roosevelt Roads (NSRR) until it ceased operation as an active Naval Station on March 31, 2004, at which point it was designated Naval Activity Puerto Rico. NAPR is located on the east coast of Puerto Rico adjacent to the municipality of Ceiba. As shown on the Vicinity Map in Exhibit B, the Subject Property is comprised of approximately 131 acres located in the developed waterfront area along the eastern shoreline of Ensenada Honda. It includes a fueling pier, cargo pier and berthing pier, port operations buildings, various hauling and storage facilities, extensive bulkheading, and an associated fuel tank farm located north and northwest of the port facilities. The Port Parcel is comprised of Sub-Parcels 44 (Fuel Farm) and 49 (Port), as shown on the maps (Exhibit C) from the Draft Report, Parcel Map for the Disposal of Naval Activity Puerto Rico (GMI, 2005), and the boundary survey maps included as Exhibit D.

Table 1 (Exhibit E) provides the facility number, former user, name or description, area and year of construction of each of the numbered buildings, structures and facilities on the Subject Property.

## **FINDING OF SUITABILITY TO TRANSFER PORT PARCEL NAVAL ACTIVITY PUERTO RICO**

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### **3.0 PAST USE AND PROPOSED REUSE**

The Subject Property has been used for port and fuel farm activities since its acquisition and development by the Navy in the 1940s. The ECP Report states that most of the arable land on what is now NAPR was previously used for sugar cane cultivation and cattle grazing. No significant industrial facilities or environmental concerns were identified with respect to activities conducted on the former NSRR prior to Navy ownership.

The Navy established NAPR to serve as the caretaker of the real property associated with NSRR and to assist in the transfer of the property. Since the establishment of NAPR, all industrial and commercial operations on the Subject Property with a significant potential for environmental contamination have ceased.

The proposed reuse is waterfront commercial, ferry and light cargo terminal, and continued operation of the fuel tank farm. The Subject Property is expected to be transferred via a Public Benefit Conveyance to the Ports Authority of Puerto Rico (CBRE et al, 2004).

### **4.0 ENVIRONMENTAL FINDINGS**

All available information concerning the past storage, release, or disposal of hazardous substances and/or petroleum products on NAPR, as collected through record searches, aerial photographs, personnel interviews, and on-site visual inspections, is contained in the ECP Report. The following summarizes the findings as they relate to the Subject Property and the corresponding Condition of Property Classification assigned to the real property to be transferred.

#### **A. Hazardous Substance Contamination**

There are 11 Resource Conservation and Recovery Act (RCRA) Solid Waste Management Units (SWMUs) on the Subject Property. Five of these SWMUs have been designated Corrective Action Complete without Controls and require no further action, one is designated Corrective Action Complete with Controls, and five have work remaining to be completed under the Administrative Order on Consent (Consent Order; EPA, January 2007) that sets out the Navy's corrective action obligations under RCRA. Following transfer of the two parcels comprising the Subject Property to the Ports Authority, the Navy will continue to implement any remaining

**FINDING OF SUITABILITY TO TRANSFER  
PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO**

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corrective and/or remedial action required for SWMUs located within the parcels, pursuant to the Consent Order.

A RCRA Facility Investigation (RFI) was not required at three of the 11 (SWMUs 21, 22, and 36) that received No Further Action (NFA) determinations under the 1994 RCRA Part B permit, and the RFI for SWMU 24 found no evidence of a release. Under the Consent Order, the NFA determination is contingent for SWMU 38 (Sanitary and Storm Sewer Systems) based upon the Navy fully addressing any releases that may have impacted the sanitary and/or storm sewer systems as part of the corrective action(s) for releases from SWMUs 4, 12, 13 and 14 and/or any other SWMU at the NAPR facility where releases may have impacted the sewer systems. A map showing the location of the existing sewer system at NAPR is provided in Exhibit C. A land use control plan for SWMU 23 was submitted to EPA in January 2008 changing its status to Corrective Action Complete with Controls. The five SWMUs with work remaining to be completed are SWMUs 7/8, 55, 74 (aka ECP 20) and 75 (aka ECP 21).

Detailed descriptions of all 11 SWMUs are provided in the ECP Report, while summary descriptions and their current status are provided in Table 2 (Exhibit E). The approximate locations of the 11 SWMUs are shown on the maps in Exhibits B and C. In Exhibit C, SWMU 74 (aka ECP 20) is mislabeled as SWMU 20 on Parcel Map 44, SWMU 75 (aka ECP 21) is mislabeled as SWMU 21 on the eastern end of the Parcel 49 map, and SWMUs 38 and 74 are shown on separate maps.

**B. Petroleum Contamination**

According to the ECP Report, there were 11 operational underground storage tanks (USTs) on the Subject Property at the time of the ECP Inspection in March 2005, including seven that are part of SWMUs 7/8 (Tow Way Fuel Farm). All 11 USTs were empty at the time of the ECP inspection. The ECP Report also listed seven known former UST systems on the Subject Property that were removed between 1993 and 2003, including two that are also part of SWMUs 7/8. Table 3 in Exhibit E lists the known past and present USTs on the Subject Property along with their location, capacity, material stored and the year removed (or year installed if still present). The ECP Report also documented 17 operational aboveground storage tanks (ASTs) and 10 oil/water separators (OWSs) on the Subject Property. These ASTs and OWSs are also listed in Table 3.

## FINDING OF SUITABILITY TO TRANSFER PORT PARCEL NAVAL ACTIVITY PUERTO RICO

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The Navy is conducting a monitored natural attenuation (MNA) study of eight petroleum sites (7 USTs and one AST) that comprise Area of Concern (AOC) F. AST 1995, a 4,200,000-gallon diesel fuel marine tank located in Parcel 44, is the one MNA site at NAPR that is part of the Subject Property. When NSRR was an active installation, the study was conducted in accordance with monitoring protocols developed by the Underground Storage Tank Management Division of the Puerto Rico Environmental Quality Board (EQB). In accordance with requirements of the Consent Order, a Draft Final MNA Work Plan was submitted to EPA in October 2008 to address Total Petroleum Hydrocarbons contamination in groundwater associated with AST 1995. As approved by EPA, Navy is collecting additional field data to finalize the work plan.

According to the ECP Report, any contaminated soils identified during past replacement of tanks were excavated and disposed of off NSRR property, and the replaced tanks were closed in accordance with 40 CFR 280. There are no other known spills or releases associated with USTs, ASTs and OWSS on the Subject Property, other than those designated as SWMUs or AOCs.

In October 2006, an oil sheen was noticed near Pier #3. The sheen area was about 15 feet by 50 feet. The source of the leak was found to be a fuel pump-out line under the pier that had not been used for several years. The point of the leak (drip) was coming from an area covered with rust. A sausage boom was placed around the leak area and the pipe was wrapped with oil absorbent blankets. All fuel tanks and lines at NAPR had been emptied and filled with nitrogen as part of the caretaker process to have the facilities ready for reuse after property transfer. This particular line had three valves and apparently at least one was closed preventing the remaining fuel from being removed and nitrogen from filling the line. The line was found to be completely full. About 660 gallons were pumped out and the line was then permanently capped.

### **C. Condition of Property Classification**

The ECP Report divided all property at NAPR into parcels, and classified them into one of the three following categories:

- **Category 1** – Areas where no known or documented releases, or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent areas.

**FINDING OF SUITABILITY TO TRANSFER  
PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO**

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- **Category 2** – Areas where the release, disposal, or migration, or some combination thereof, of hazardous substances, or petroleum products or their derivatives has occurred, but at concentrations that do not require a removal or remedial action, or all remedial actions necessary to protect human health and the environment have been taken.
- **Category 3** – Areas where a confirmed or suspected release, disposal, or migration, or some combination thereof, of hazardous substances, or petroleum products or their derivatives has occurred, but required investigation and/or response actions have not yet been initiated or are ongoing.

These categories are derived from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Community Environmental Response Facilitation Act (CERFA) and the American Society for Testing and Materials (ASTM) Standard Practice for Conducting Environmental Baseline Surveys (ASTM Standard D 6008-96), which further incorporates ASTM D 5746-98 (2002) Standard Classification of Environmental Condition of Property Area Types for Defense Base Closure and Realignment Facilities.

CERFA stipulates that the federal government must identify "uncontaminated property" scheduled for transfer, and defines this as "...real property on which no hazardous substances and no petroleum products or their derivatives were known to have been released, or disposed of" [(Section 9620(h)(4)(A)]. In accordance with the property condition classification guidelines discussed above, the Subject Property, with the exception of SWMUs 23 and 24 (Category 2) and SWMUs 7/8, 38, 55, 74 and 75 (Category 3), was classified as Category 1 uncontaminated property (including SWMUs 21, 22, and 36) in the CERFA Report. Following its review, the Puerto Rico Environmental Quality Board (EQB) provided a concurrence statement in the Final CERFA Report on 11 August 2006 (Exhibit F).

The Category 1 and 2 areas on the Subject Property are suitable for transfer because they are either uncontaminated or all remedial actions necessary to protect human health and the environment have been taken. The Category 3 areas may also be transferred even though all required remedial actions have not yet been taken to address residual contamination because on July 30, 2008, Governor Acevedo Vilá approved the Navy's request, as contained in the aforementioned CDR, for the "early" transfer of these sites in accordance with the requirements of Section 120(h)(3)(C) of CERCLA.

**FINDING OF SUITABILITY TO TRANSFER  
PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO**

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**D. Other Environmental Aspects**

1. Munitions and Explosives of Concern

According to the ECP Report, there are no heavy (crew-served) weapon ranges, unexploded ordnance/impact areas, explosive ordnance disposal areas or open burning/open detonation activities on the Subject Property.

2. Asbestos-Containing Materials

According to the June 2005 *Final Asbestos Inspection Report for Naval Activity Puerto Rico, Ceiba, Puerto Rico* (Baker, 2005), asbestos-containing material (ACM) was identified in 5 of the 22 facilities inspected on the Subject Property, as summarized in Table 4 of Exhibit E. No friable, accessible and damaged (FAD) ACM was identified on the Subject Property. Detailed information about the materials identified and sampled during the asbestos inspection, including summary tables, location drawings, photographs and laboratory reports, is included in the report.

It is likely that undiscovered ACM associated with underground utilities and miscellaneous building materials exists at NAPR. While this potential ACM does not currently pose a hazard to site users, future demolition and/or subsurface work performed by the transferee could result in FAD ACM hazards. Thus, the transferee will be required to use best management practices during any future renovation/demolition activities or underground utility work, and to comply with all applicable laws relating to ACM management in order to ensure future protection of human health and the environment.

3. Lead-Based Paint

The NAPR facilities list (Exhibit E, Table 1) indicates 22 of the buildings, structures and facilities on the Subject Property were constructed prior to 1978, the year in which lead-based paint (LBP) was banned for consumer use. These facilities and any others built before 1978 are presumed to contain LBP. A LBP survey and risk assessment was completed at NAPR in 2005 for military family housing only, thus none of the facilities on the Subject Property were included in the survey. A Lead-Based Paint Hazards Advisory Statement (Exhibit G) will be provided to the transferee for execution at the time of transfer.

**FINDING OF SUITABILITY TO TRANSFER  
PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO**

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4. Polychlorinated Biphenyls

Only one polychlorinated biphenyl (PCB) containing transformer remains at NAPR. The transformer, located in Building 386, is not on the Subject Property. All other PCB-contaminated transformers and equipment were removed from the former NSRR prior to 1998. Due to the age of the majority of facilities and the size of the station, it is possible that PCB-contaminated fluorescent light ballasts and other minor PCB sources may be present on NAPR. There are no other records of PCBs having been stored, released or disposed of on the Subject Property.

5. Radon

According to the U.S. Geological Survey Open-File Report 93-292-K, *Preliminary Geologic Radon Potential Assessment of Puerto Rico* (USGS, 1993), the Commonwealth of Puerto Rico exhibits generally low indoor radon levels, and a survey of radon concentrations of offices, housing units, schools and other buildings was conducted by the DoD between 1989 and 1992 on federal military reservations in Puerto Rico, including the former NSRR. Indoor radon levels ranged from 0.0 to 1.9 picoCuries/Liter (pCi/L), well below the current U.S. Environmental Protection Agency (EPA) residential indoor radon screening action level of 4 pCi/L. The majority of the reservations, including NAPR, are situated on coastal plains, so the low indoor radon levels were not unexpected.

6. Threatened and Endangered Species

As shown on the individual sub-parcel maps in Exhibit C, breeding habitat for the endangered yellow-shouldered blackbird has been identified on the Subject Property. The Commonwealth of Puerto Rico has committed to zoning the property in a manner that will implement the planning, development, maintenance, mitigation and use requirements described on the parcel maps.

In accordance with the Endangered Species Act, the Navy developed a Biological Assessment for the former NSRR in 2006 to assess the potential impact on any federally protected species from the disposal of NSRR. Given the protection measures addressed in detail in the *Biological Assessment for the Disposal of Naval Station Roosevelt*

**FINDING OF SUITABILITY TO TRANSFER  
PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO**

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*Roads/Naval Activity Puerto Rico Final Report* (Navy, 2006a), the Navy has determined that the disposal of the former NSRR and transfer of the property to future owners is not likely to adversely affect federally-listed species and would not result in adverse modification of designated critical habitat within the project area. The U.S. Fish and Wildlife Service concurred with this determination in a letter dated April 7, 2006.

**5.0 REQUIREMENTS APPLICABLE TO PROPERTY TRANSFER**

**A. NEPA Compliance**

In accordance with National Environmental Policy Act (NEPA) requirements, an Environmental Assessment and Finding of No Significant Impact (FONSI) have been prepared and executed in connection with the planned disposal and reuse of NAPR. The FONSI was signed on April 10, 2007.

**B. Hazardous Substance Notice**

In accordance with Section 120(h)(3)(A)(i) of CERCLA, all deeds transferring federal property must provide notice as to those hazardous substances which it is known, based on a complete search of agency files, were stored for 1 year or more, released or disposed on the Subject Property in excess of those reportable quantities specified under 40 CFR 373 (Hazardous Substances Reporting Requirements for Selling or Transferring Federal Real Property), and all response actions taken to date to address any such releases or disposals. Hazardous materials use/storage and hazardous waste generation/management at the former NSRR are discussed in Section 5.2 of the ECP Report. The hazardous substances notice and response action summary for the Subject Property is attached to this FOST as Exhibit H.

**C. CERCLA Covenants**

In accordance with CERCLA Section 120(h)(4)(D)(i), the deed transferring the Subject Property shall contain a covenant warranting that any response action or corrective action found to be necessary after the date of transfer shall be conducted by the United States. This covenant will not apply to any remedial action required on the property to the extent that an act or omission of the transferee results in a new release of hazardous substances or where the transferee has assumed responsibility for the remedial action pursuant to a written agreement with the Navy.



**FINDING OF SUITABILITY TO TRANSFER  
PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO**

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The deed that conveys the Subject Property will not contain the covenant provided for under CERCLA Section 120(h)(3)(A)(ii)(I) (that all necessary remedial actions have been taken prior to transfer) because that particular covenant was deferred by way of Governor Vile's approval of the covenant deferral request for the early transfer of this site on July 30, 2008. In accordance with CERCLA Section 120(h)(3)(C)(iii), after the Navy completes all necessary remedial activities on the subject property, a separate warranty will be provided in recordable form to the LRA (or its successor(s) in interest) that all response actions necessary to protect human health and the environment have been taken on the Subject Property with respect to those hazardous substances which remained on the Subject Property at the date of early transfer. Alternatively, in accordance with CERCLA Section 120(h)(3)(B), the Navy may provide this warranty upon a determination by USEPA that the remedial actions at the Subject Property are "operating properly and successfully."

**D. CERCLA Access Clause**

In accordance with CERCLA Section 120(h)(4)(D)(ii), the deed transferring the Subject Property shall contain a clause granting to the United States, its officers, agents, employees, contractors, and subcontractors the right to enter upon the transferred property in any case that remedial or corrective action is found to be necessary after the date of transfer. The right to enter to be set forth shall include the right to conduct annual physical inspections, tests, investigations, long term monitoring, 5-year reviews, and surveys, including, where necessary, drilling, test pitting, boring, and other similar activities. Such right shall also include the right to construct, operate, maintain, or undertake any other response or remedial action as required or necessary, including, but not limited to, monitoring wells, pumping wells, and treatment facilities. The United States retains the authority to enter to conduct investigations on adjacent parcels as well as the parcel subject to the transfer. These access rights are in addition to those granted to Federal, state, and local authorities under applicable environmental laws and regulations.

**E. Land and Groundwater Restrictions**

With the exception of AOC F and SWMUs 7/8, 23, 55, 74 and 75, the Navy will transfer the Subject Property without restrictions. To prevent unacceptable risks to human health and the environment, the Navy will ensure the following land use controls (LUCs) are developed on the aforementioned SWMUs:

**FINDING OF SUITABILITY TO TRANSFER  
PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO**

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- A restriction on land use to non-residential uses only. (SWMUs 7/8, 23, 55, and 74, 75)
- A restriction on access and/or certain invasive activities in areas where surface soil, subsurface soil and or sediments are contaminated. (SWMUs 7/8, 74, 75)
- A restriction on use of groundwater and installation of new wells in or near areas of known groundwater contamination. (AOC F and SWMUs 7/8 and 55, 74, 75 )
- A restriction on access to the interior of Building 803. (SWMU 75; the duration of this LUC will depend on the outcome of the RFI/CMS)

These LUCs will be implemented through the Navy-EPA Consent Order and the subsequent transfer deed. The Navy transfer deed for the Subject Property will refer to LUC requirements contained in the Consent Order which will be attached to the deeds. The Consent Order requires the establishment of LUCs with detailed requirements (implementation, compliance, monitoring, enforcement, modification/termination, etc.) developed in other documents agreed to between the Navy and EPA or the new owner and EPA.

**F. Environmental Compliance Agreements / Permits / Orders**

On January 29, 2007, the U.S. Department of the Navy and EPA voluntarily entered into a Consent Order that set out the Navy's corrective action obligations under RCRA and replaced the 1994 RCRA permit as the document memorializing these obligations concerning NAPR. Of the 11 RCRA SWMUs on the Subject Property, five (SWMUs 7/8, 55, 74 and 75) have investigation and/or cleanup work remaining to be completed under the terms of the Consent Order, as does AOC F. Detailed descriptions of all 11 SWMUs and AOC F are provided in the ECP Report, while summary descriptions and their current status are provided in Table 2 (Exhibit E).

The Puerto Rico EQB issued a draft Title V Operating Permit, number TV9711-19-0397-0012, for air emissions at the former NSRR in Spring 2003. This draft permit went into public review on July 8, 2003, where NSRR presented extensive comments/changes due to the relocation of many tenant commands. A final Title V Operating Permit was issued by EQB on September 30, 2006. NSRR had a wide variety of small emission sources, which operate intermittently, with no set operation schedule. Most emissions were generated by combustion sources, which are powered by diesel, JP-5, gasoline or propane gas. VOCs and hazardous air pollutants were also

**FINDING OF SUITABILITY TO TRANSFER  
PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO**

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generated in painting activities, cleaning operations associated with aircraft and ship maintenance and repair and other day-to-day activities. Significant emission units on the Subject Property included fuel truck loading/unloading and a UST at Building 192A, and touch-up painting (ships/boats) at Building 2351. Because of station closure, air emission sources associated with the Subject Property have been discontinued with the exception of the operation of emergency generators. There is no documentation of any current, or previous Notices of Violation issued to the former NSRR as a result of a deviation from the Title V Permit.

**G. Notification to Regulatory Agencies / Public**

In accordance with DoD guidance, EPA Region 2 and Puerto Rico EQB have been advised of the proposed transfer of the Subject Property, and copies of the ECP Report, CERFA Report, CDR and Draft FOST were provided to those agencies for review and comment. Navy responses to EPA review comments on the draft version of this FOST are provided in Exhibit I. Puerto Rico EQB did not have comments following their review of the FOST. The ECP Report was made available for public review upon finalization, and the CDR was made available for public review and comment prior to finalization. Copies of all transfer documentation will be made available to EPA and EQB representatives upon request after execution of the same.

**6.0 SUITABILITY DETERMINATION**

NOW THEREFORE, based on my review of the information contained in this FOST, the notices discussed herein, and the restrictions and covenants that will be contained in the deed, the Subject Property is suitable for transfer.

Date

1/05/09

James E. Anderson  
JAMES E. ANDERSON

Director

BRAC Program Management Office Southeast  
North Charleston, South Carolina

**Exhibit A**  
**References**

**FINDING OF SUITABILITY TO TRANSFER  
PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO**

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**REFERENCES**

Baker, 2005. (Michael Baker Jr., Inc.) *Final Asbestos Inspection Report for Naval Activity Puerto Rico, Ceiba, Puerto Rico*. Moon Township, Pennsylvania. June 2005.

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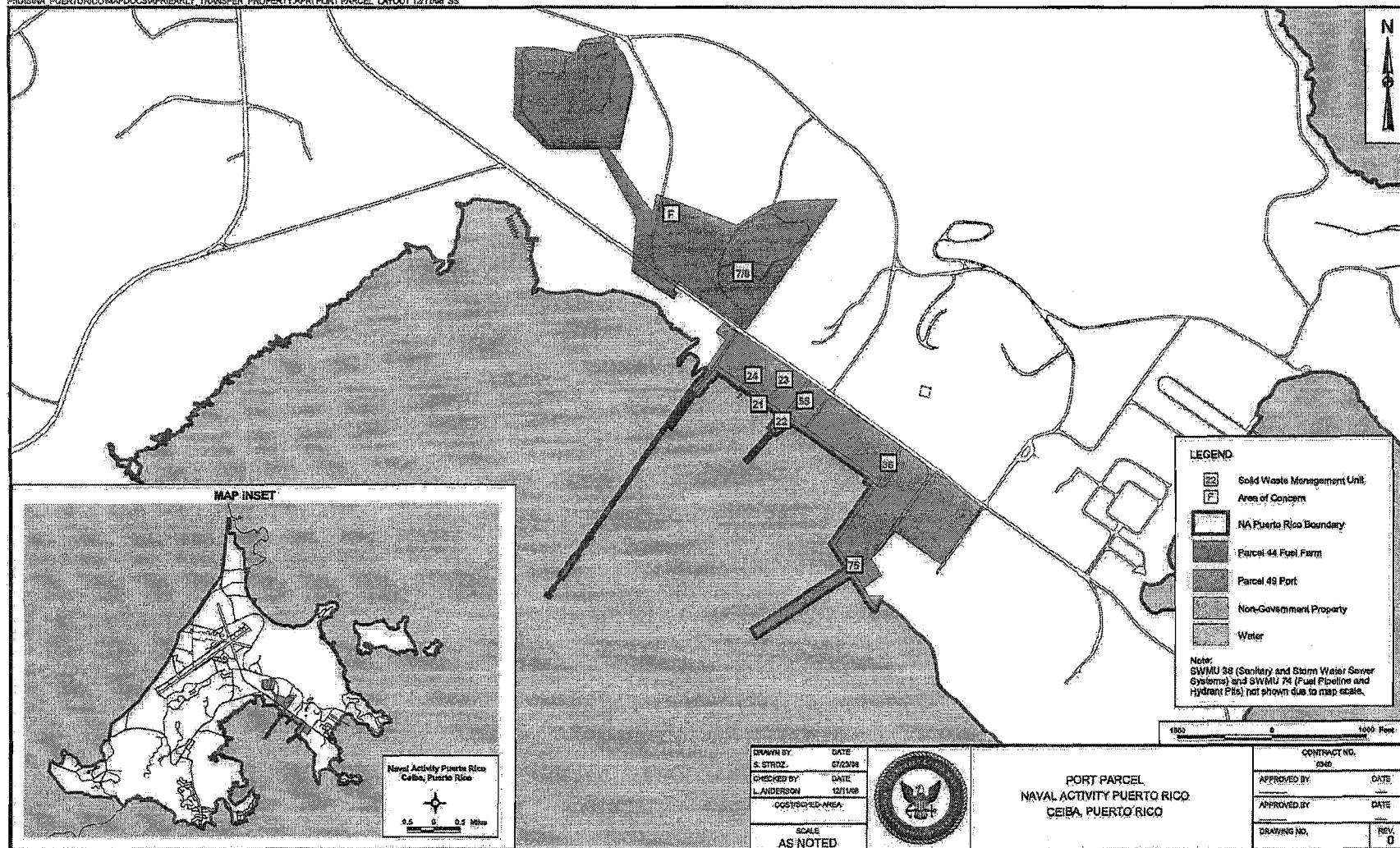
Navy, 2007. (Department of the Navy, Base Realignment and Closure Program Management Office Southeast) *Covenant Deferral Request, Former Naval Station Roosevelt Roads, Ceiba, Puerto Rico*. North Charleston, South Carolina. July 2007.

USGS, 1993. (U.S. Geological Survey) *Open File Report 93-292-K, Preliminary Geologic Radon Potential Assessment of Puerto Rico*. 1993.

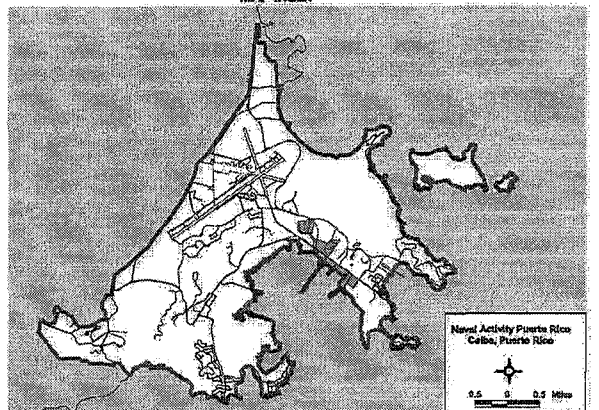
## **Exhibit B**

### **Vicinity Map**

SWMUs 38 and 74 (aka ECP 20) are not shown on the vicinity map. Separate utility (SWMU 38) and fuel line (SWMU 74) maps are included in Exhibit C.



MAP INSET



DRAWN BY: S. STROZ  
DATE: 07/23/08  
CHECKED BY: L. ANDERSON  
DATE: 12/1/08  
COST ESTIMATED AREA:

SCALE  
AS NOTED



PORT PARCEL  
NAVAL ACTIVITY PUERTO RICO  
CEIBA, PUERTO RICO

CONTRACT NO. 0940  
APPROVED BY: DATE:  
APPROVED BY: DATE:  
DRAWING NO. REV. 0

## **Exhibit C**

### **Parcel, Utility, and Fuel Line Maps**

NOTE: The parcel maps in this exhibit are from the Draft Report, Parcel Map for the Disposal of Naval Activity Puerto Rico (GMI, 2005).

The areas shown on these maps as having "Cleanup Remaining" correlate to Area of Concern (AOC) F and Solid Waste Management Units (SWMUs) 7/8, 21, 22, 23, 24, 36, 55, and 75 (shown as ECP 21). SWMUs 38 and 74 (aka ECP 20) are not shown on the parcel maps. Separate utility (SWMU 38) and fuel line (SWMU 74) maps have been included.



**THREATENED AND ENDANGERED SPECIES CONSERVATION MEASURES—PARCEL 44**

**Common Name—Port**

**Conveyance—PBC**

**Neighboring Parcel(s)—28, 40-43, 45, 46, 48**

**Yellow-shouldered Blackbird**

**GENERAL REQUIREMENTS**

- Notify USFWS if a yellow-shouldered blackbird nest is found anywhere on the property (787-851-7297).
- Pesticide and herbicide applications must follow Commonwealth of Puerto Rico regulations.

<b>Activity</b>	<b>Conservation Measures</b>
<b>Development Planning</b>	Save as many existing on site palms and trees as possible in new development plans.
<b>New Construction/Clearing</b>	If undeveloped yellow-shouldered blackbird habitat is proposed for clearing consult with USFWS a minimum of one year prior to planned project initiation
<b>Grounds Maintenance</b>	No trimming or cutting of palms and trees between March 15 and August 30 except in an emergency (i.e., downed trees and palms from storms),
<b>Property Sale/Lease</b>	Notify buyer/lessee of all mitigation requirements (see above) and include mitigation with all legal documents.

**Sea Turtle**

**GENERAL REQUIREMENTS**

- Consult with U.S. Fish and Wildlife Service (USFWS) and Puerto Rico Department of Environmental Resources (DNER) on all beach use plans and permit requirements.
- Notify USFWS if you observe an injured or dead turtle anywhere on the property (787-851-7297).
- Pesticide and herbicide applications must follow Commonwealth of Puerto Rico regulations.

<b>Activity</b>	<b>Conservation Measures</b>
<b>Beach Development/Use</b>	Implement all USFWS and Puerto Rico DNER lighting standards/requirements (includes parcels bordering the nesting area).  Implement USFWS/ Puerto Rico DNER precautionary measures for sea turtles before, during, and after development activities.  Establish a 50 m buffer zone between any developed or undeveloped site and the land edge of the sea turtle nesting beach.

**NOTICE:**

Consult with the U.S. Fish and Wildlife Service if you have any questions on the conservation measures. Property owners that cannot adhere to the conservation measures must consult with the U.S. Fish and Wildlife Service to seek a Section 10.0 permit for authorization to modify the identified critical habitat. Failure to comply with the identified conservation measures violates Section 9.0 and/or Section 10.0 of the Endangered Species Act. The U.S. Fish and Wildlife Service has the authority to prosecute violations under the Endangered Species Act.



*Parcel Map for the Disposal  
of Naval Activity Puerto Rico*



*Parcel Map for the Disposal  
of Naval Activity Puerto Rico*






**Parcel Index 44**

Common Name: Port

Conveyance: PBC

Neighboring Parcel(s): 28, 40-43,  
45, 46, 48

**Legend**

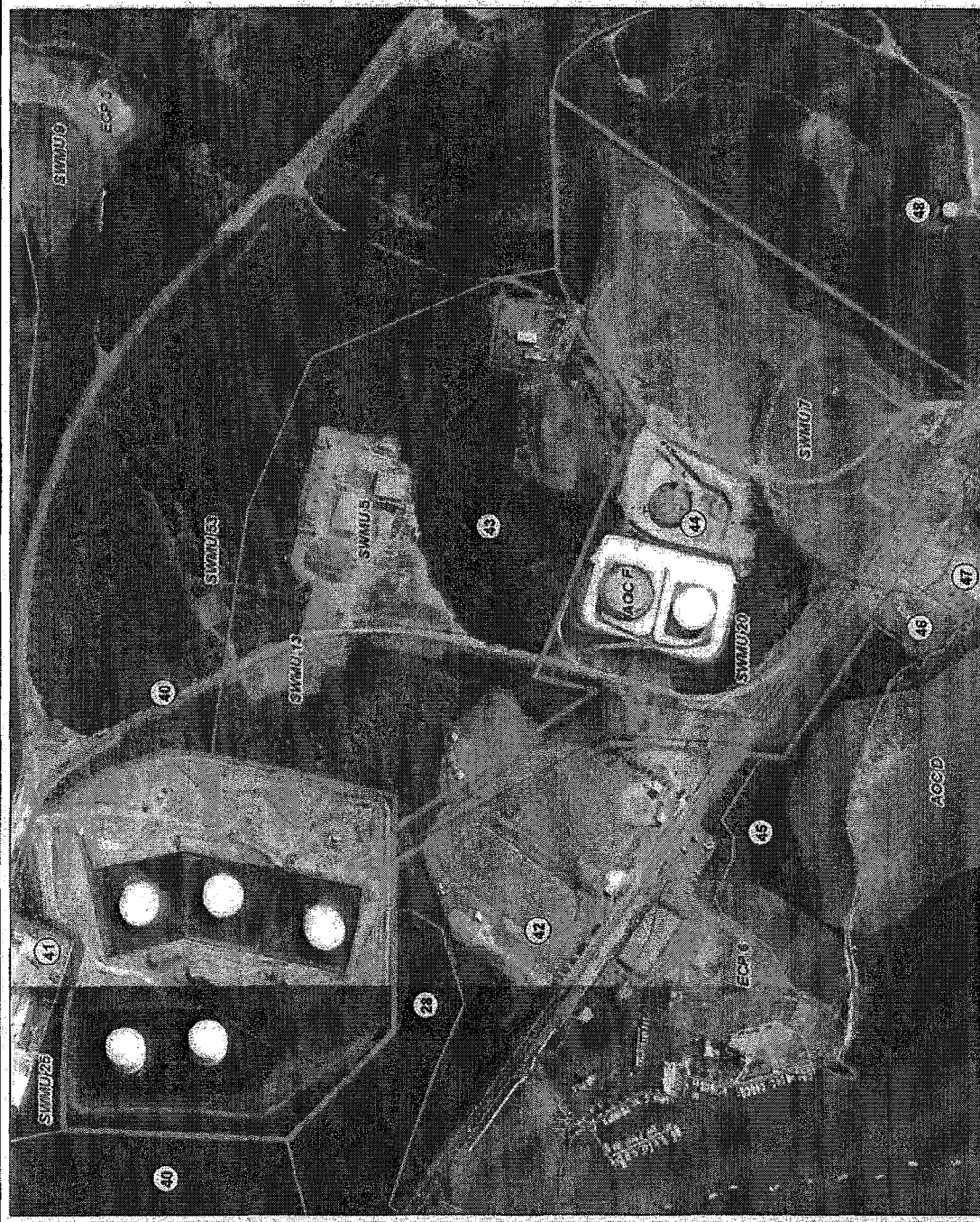
-  Parcel
-  Neighboring Parcel Boundary
- Cleanup Status**
-  Complete with Land Use Controls
-  Complete
-  Cleanup Remaining

August 18, 2006



1 inch equals 455 Feet

0 300 600 Feet





**THREATENED AND ENDANGERED SPECIES CONSERVATION MEASURES—PARCEL 49**

**Common Name—Port**

**Conveyance—PBC**

**Neighboring Parcel(s)—47, 48, 51, 53, 54, 56**

**Yellow-shouldered Blackbird**

**GENERAL REQUIREMENTS**

- Notify USFWS if a yellow-shouldered blackbird nest is found anywhere on the property (787-851-7297).
- Pesticide and herbicide applications must follow Commonwealth of Puerto Rico regulations.

<b>Activity</b>	<b>Conservation Measures</b>
<b>Development Planning</b>	Save as many existing on site palms and trees as possible in new development plans.
<b>Demolition/Remodeling</b>	Schedule activity from September 1 through March 14 or conduct outdoor survey of building(s) (ledges, etc.) and nearby trees (within 50 m of the building) for yellow-shouldered blackbird nests prior to start date if the activity is scheduled to occur between March 15 and August 30. Consult with USFWS if a yellow-shouldered blackbird nest is found.
<b>Grounds Maintenance</b>	No trimming or cutting of palms and trees between March 15 and August 30 except in an emergency (i.e., downed trees and palms from storms).
<b>Building Maintenance</b>	Check for yellow-shouldered blackbird nests prior to any outdoor building maintenance activities between March 15 and August 30. Determine identity of any bird nest found. Notify and consult with USFWS if a yellow-shouldered blackbird nest is found.
<b>General Operations</b>	Before moving parked outdoor equipment (e.g., carts, vehicles) check for yellow-shouldered blackbird nests (March 15-August 30). Notify USFWS if a yellow-shouldered blackbird nest is located.
<b>Property Sale/Lease</b>	Notify buyer/lessee of all mitigation requirements (see above) and include mitigation with all legal documents.

**Sea Turtle**

**GENERAL REQUIREMENTS**

- Consult with U.S. Fish and Wildlife Service (USFWS) and Puerto Rico Department of Environmental Resources (DNER) on all beach use plans and permit requirements.
- Notify USFWS if you observe an injured or dead turtle anywhere on the property (787-851-7297).
- Pesticide and herbicide applications must follow Commonwealth of Puerto Rico regulations.

*Parcel Map for the Disposal  
of Naval Activity Puerto Rico*

Activity	Conservation Measures
Beach Development/Use	Implement all USFWS and Puerto Rico DNER lighting standards/requirements (includes parcels bordering the nesting area). Implement USFWS/ Puerto Rico DNER precautionary measures for sea turtles before, during, and after development activities. Establish a 50 m buffer zone between any developed or undeveloped site and the land edge of the sea turtle nesting beach.

**NOTICE:**

Consult with the U.S. Fish and Wildlife Service if you have any questions on the conservation measures. Property owners that cannot adhere to the conservation measures must consult with the U.S. Fish and Wildlife Service to seek a Section 10.0 permit for authorization to modify the identified critical habitat. Failure to comply with the identified conservation measures violates Section 9.0 and/or Section 10.0 of the Endangered Species Act. The U.S. Fish and Wildlife Service has the authority to prosecute violations under the Endangered Species Act.

*Parcel Map for the Disposal  
of Naval Activity Puerto Rico*

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*Parcel Map for the Disposal  
of Naval Activity Puerto Rico*

**Parcel Index 49**

Common Name: Port

Conveyance: PBC

Neighboring Parcel(s): 47, 48, 51  
53, 54, 56

**Legend**

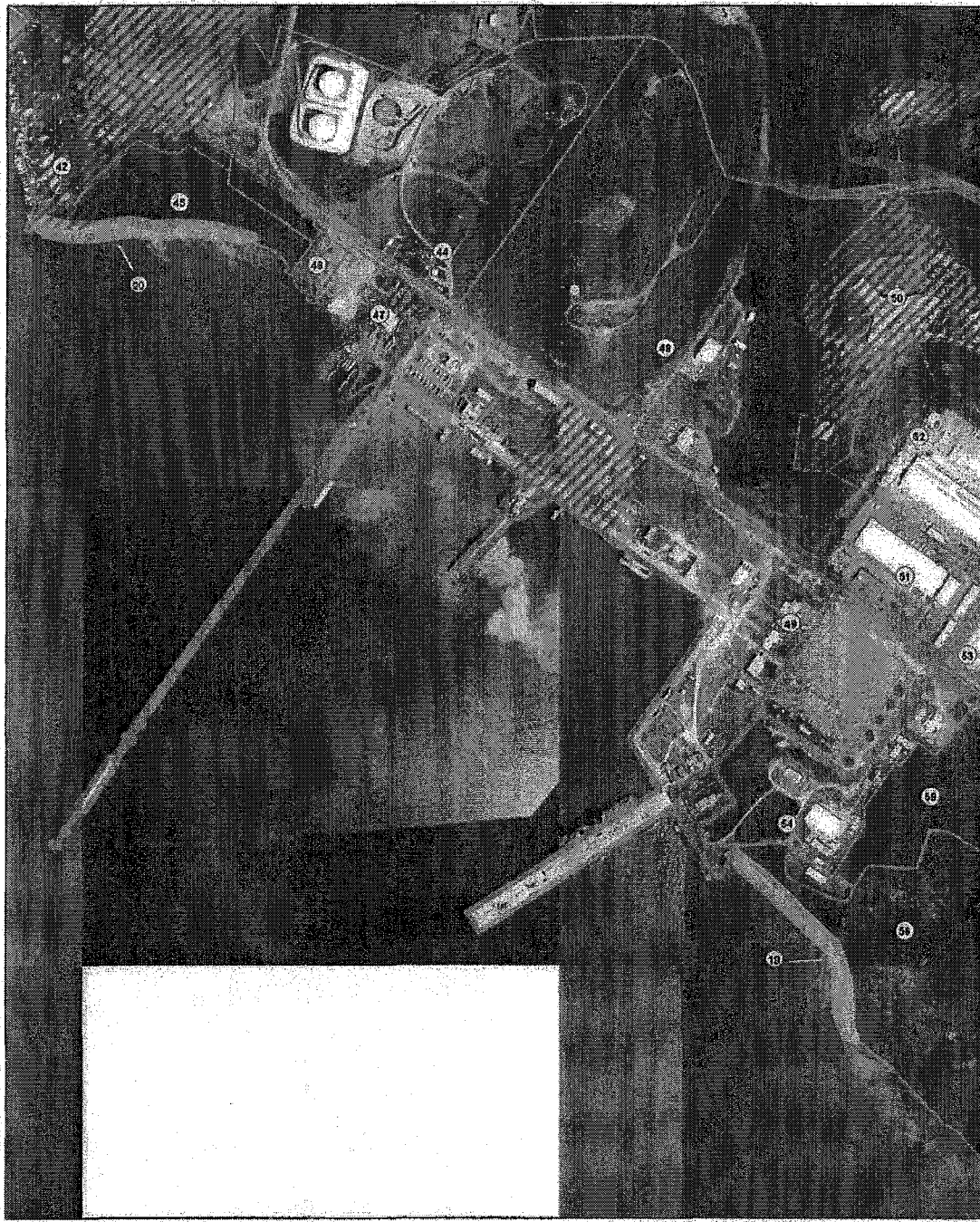
-  Parcel
-  Neighboring Parcel Boundary
-  Sea Turtle Habitat
-  Yellow-shouldered Blackbird
-  Nesting/Foraging Palms
-  Breeding Habitat

August 18, 2006



1 inch equals 723 Feet

0 500 1,000 Feet










## Parcel Index 49

Common Name: Part

Conveyance: PBC

Neighboring Parcel(s): 47, 48, 51  
53, 54, 56

### Legend

-  Parcel
-  Neighboring Parcel Boundary
- Cleanup Status:**
  -  Complete with Land Use Controls
  -  Complete
  -  Cleanup Remaining

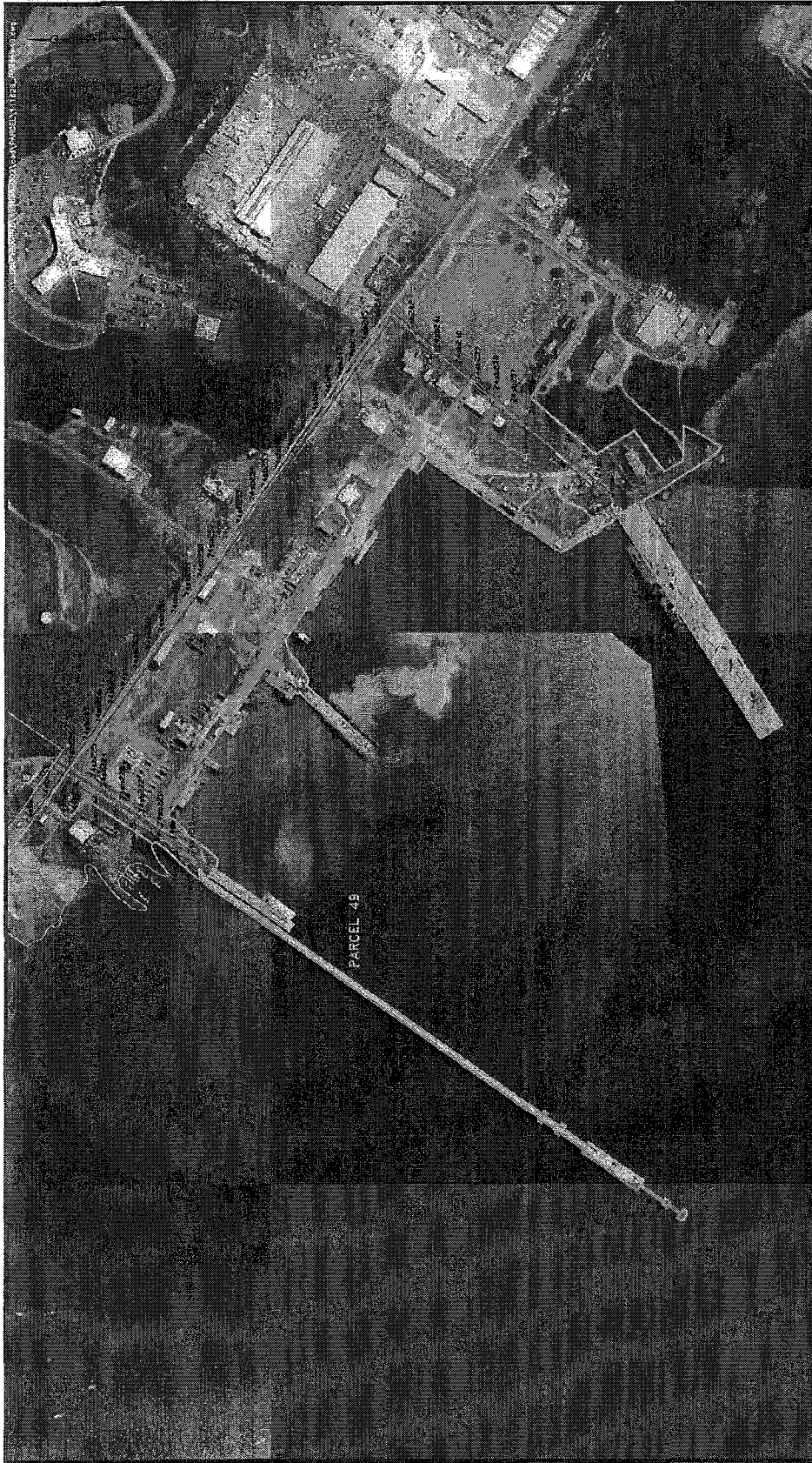


August 18, 2006

1 inch equals 723 Feet

0 500 1,000 Feet

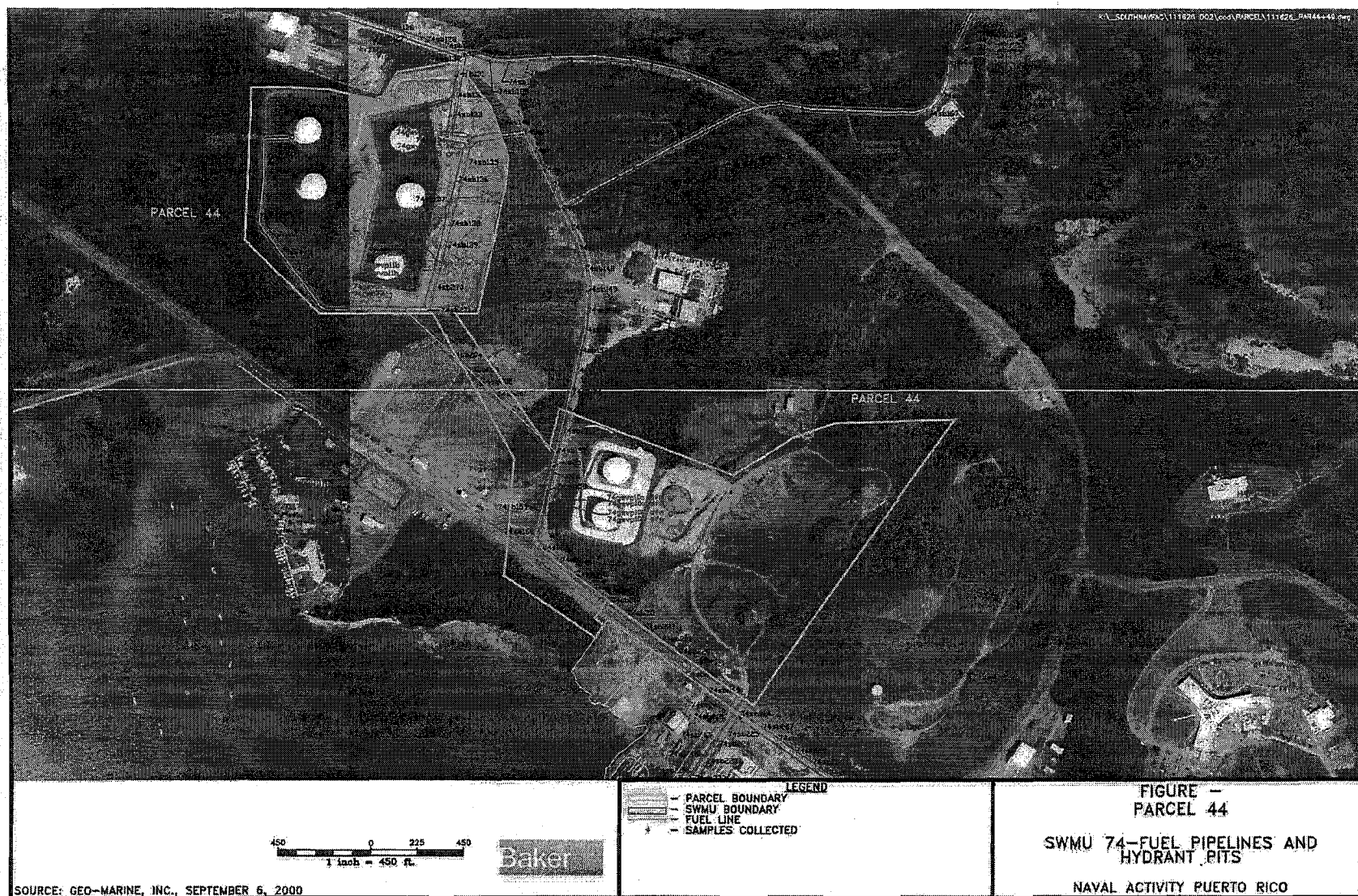


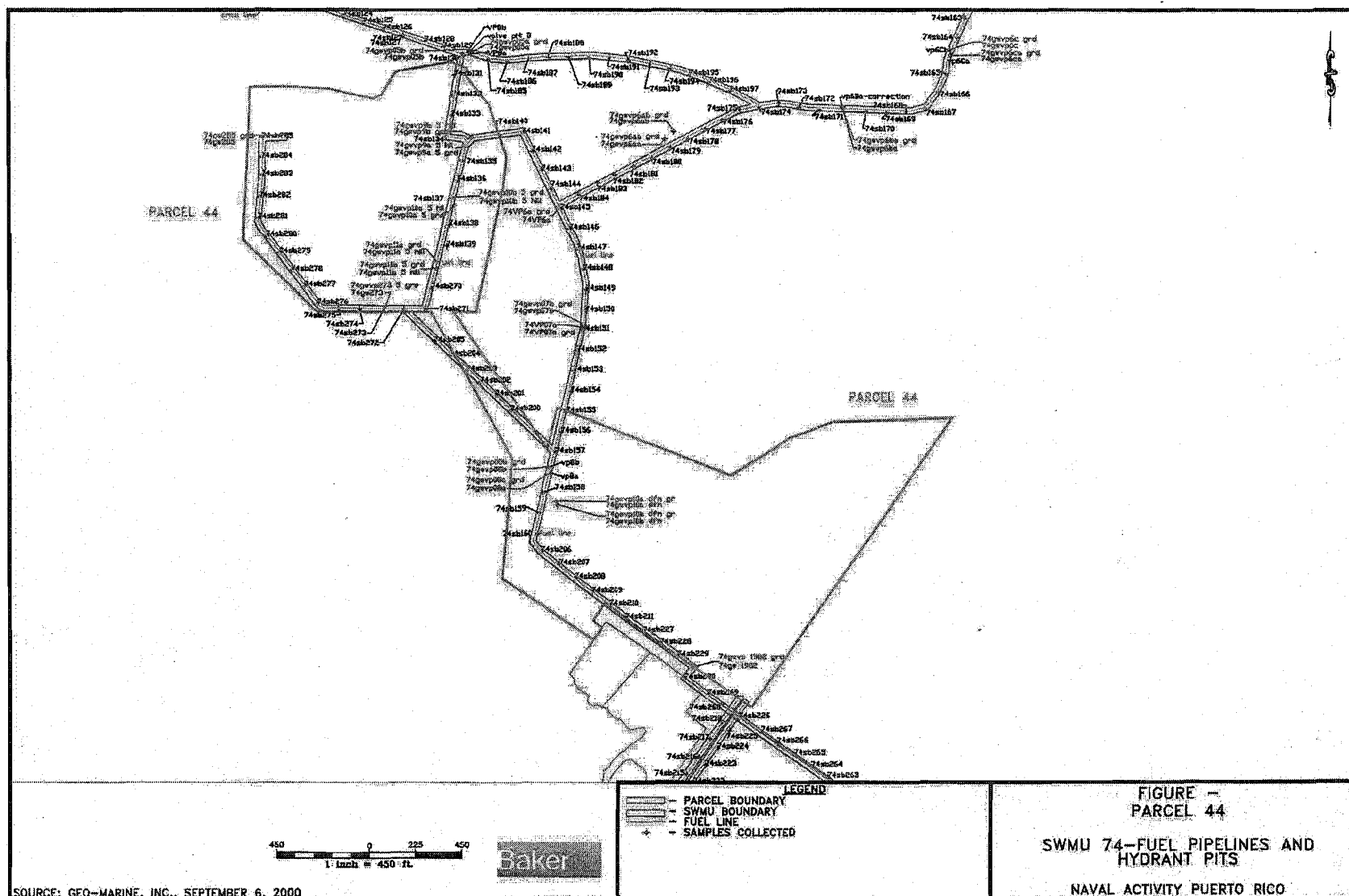


<p><b>FIGURE -</b> <b>PARCEL 49</b></p>	<p><b>SWMU 74--FUEL PIPELINES AND HYDRANT PITS</b></p>	<p><b>NAVAL ACTIVITY PUERTO RICO</b></p>
<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li>- PARCEL BOUNDARY</li> <li>- SWMU BOUNDARY</li> <li>- FUEL LINE</li> <li>- SAMPLES COLLECTED</li> </ul>		
<p>SOURCE: GEO-MARINE, INC., SEPTEMBER 6, 2000</p>		

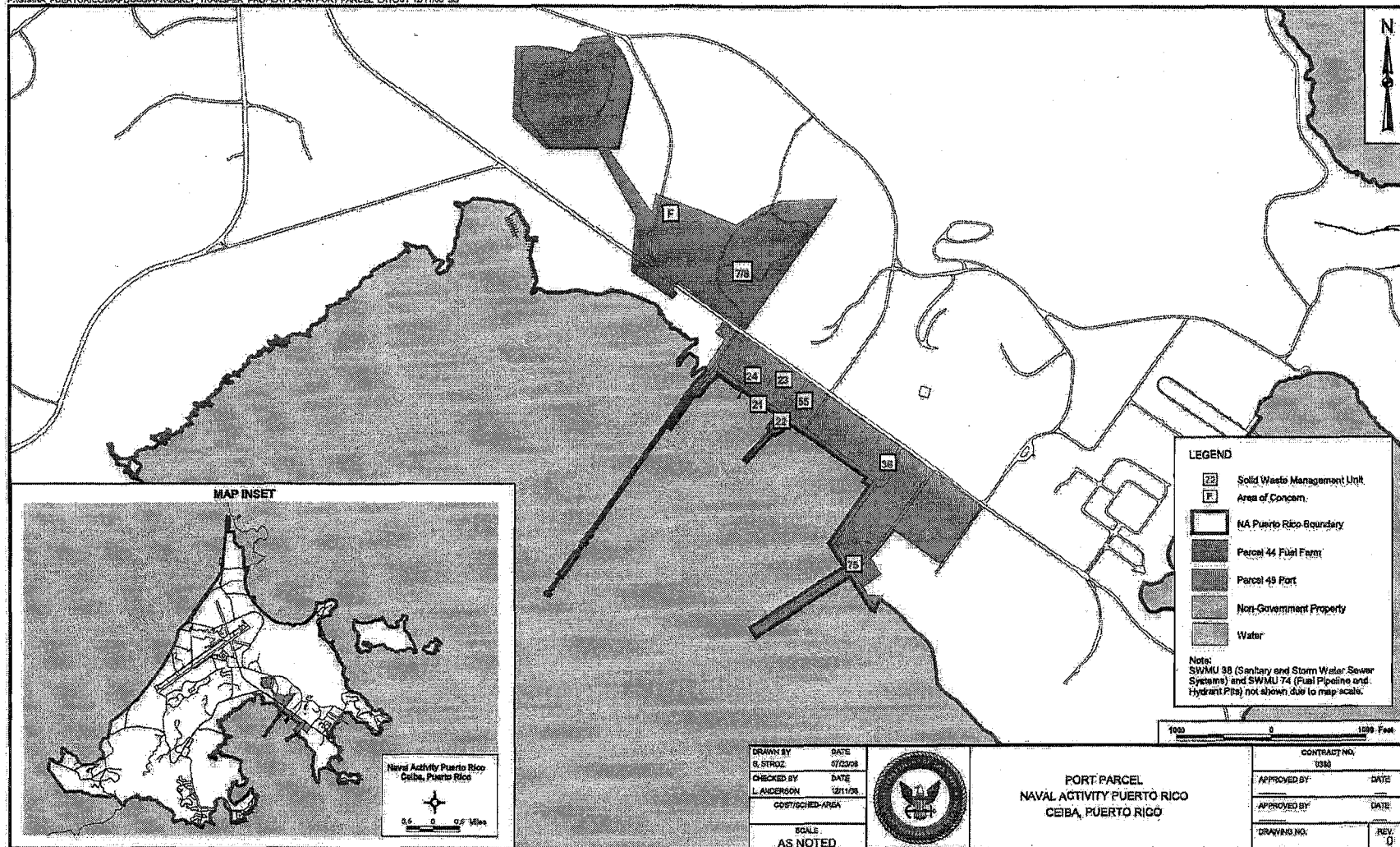








**Exhibit D**  
**Survey Maps**



## **Exhibit E**

### **Tables**



**Table 1**  
**Naval Activity Puerto Rico**  
**Port Parcel FOST**  
**Facilities List**  
**Page 1 of 2**

Facility #	Former User	Name	Area	Unit	Yr Built
VP27	-	Valve Pit	-	-	0
192	FUELS	Petroleum Test Fuel Lab	4923	SF	1956
193	MWR	Toilet (Pier 1 Area)	139	SF	1955
266	SURFOPS	Fuel Pier 1	1322	SY	1943
267	SURFOPS	Pier 2 (Cargo)	1680	SY	1954
280	SURFOPS	Small Craft Berthing	-	-	1944
371	SURFOPS	Operational Storage	4000	SF	1958
799	SURFOPS	Berthing Pier #3	16040	SY	1966
843	SURFOPS	LST Ramp Bulkhead C	-	-	1963
890	-	Bulkheads A, B, C, D	2400	-	1965
896	SURFOPS	Valve Pit Pier #3	512	-	1966
976	SURFOPS	Hose Rack Shed	400	SF	1966
978	PWD	Shore POW Submarines Pier #3	650	-	1966
1706	BOYSCOUTS	Boy Scouts Charter	960	SF	1969
1739	NRL	Naval Research Lab	4,479	SF	1969
1756	HSG	Housing Storage/Warehouse	8000	SF	1974
1759	POST OFF	Fleet Post Office Pier Area	7505	SF	1973
1795	MULTI	U.S. Customs Office/NEX Laundry	5800	SF	1974
1796	NEX	Navy Exchange Complex	82606	SF	1973
1816	PWD	Hose House	2250	SF	1977
1940	-	POL (9) Pump Hse	5494	SF	-
1985	-	Vehicle Wash Rack Waterfront	156	SF	1978
1993	-	Sewage Pump Station Post Office	-	-	1978
2024	MWR	Pier #4/ITT Travel	4000	SF	1972
2036	PWD	Shore Support Building	2606	SF	1983
2040	FUELS	Hose Rack Fuel Division	1200	SF	1983
2086	SURFOPS	Flam Liqd Stge Bldg by SUROP	550	SF	1985
2127	-	Trans Sta by Sub-Sta #1742	-	-	1986
2160	-	Transformer by USO B1795	-	-	1978
2191	SURFOPS	Metal Shed (Bulkhead A) Pier 1	144	SF	1983
2197	-	Substa Pad Pier 2 Shore Power	330		1967
2238	-	UHF Antenna Harbor Comm WASP	-	-	1985
2242	MWR	Game Room/Telephone Center by USO	1600	SF	1987
2252	SURFOPS	Waterfront Operations Building	15356	SF	1987
2264	SURFOPS	Finger Pier BTW Pier 2 & 3	-	-	1987
2310	MWR	Shelter by Pier 3 Building 799	190	SF	1990
2314	SECURITY	MWR Stage (Old B46)	3600	SF	1991
2328	AFWTF	Storage Building/Waterfront by B2036	2500	SF	1991
2330	SURFOPS	Oil Spill Storage by B2552	2500	SF	1989
2346	SURFOPS	Fuel Mooring Facility	-	-	1993
2350	AFWTF	Supply Storage Building	4000	SF	7348
2351	SECURITY	Security Boathouse by B2252	5200	SF	1995
2384	PWD	New Generator Building by B1971	143	SF	1994

List based on 2003 NAPR base map (Base map - PREnew 11-2003.pdf), July 2001 Building Utilization List, List of Buildings To Be Inspected For Asbestos from June 2005 Asbestos Inspection Report, and field verification by NAPR personnel.

**Table 1**  
**Naval Activity Puerto Rico**  
**Port Parcel FOST**  
**Facilities List**  
**Page 2 of 2**

- Information not available or unknown

AFWTF	Atlantic Fleet Weapons Training Facility
HSG	Housing
POST OFF	Post Office
PWD	Public Works Department
MULTI	Multiple Users
MWR	Morale, Welfare and Recreation
NRL	Naval Research Laboratory
SURFOPS	Surface Operations

**Table 2**  
**Naval Activity Puerto Rico**  
**Port Parcel FOST**  
**Solid Waste Management Units Summary and Status**  
**Page 1 of 3**

Parcel	SWMU No.	Description	CERFA #	RCRA Status	Investigation and Remedial Action Summary and Status	Media Affected / Key Contaminants	Site Specific Land Use Controls	Current RCRA Phase	Remaining Work Required
Port	7/8	<b>Tow Way Fuel Farm (incl. free product plumes and sludge disposal pits)</b> SWMU 7 is an area affected by releases from numerous large, partially in-ground, concrete fuel storage tanks dating from the 1940s. Constructed prior to 1957, the fuel farm originally consisted of nine underground storage tanks (USTs) containing diesel fuel marine (DFM), Bunker C fuel, and jet fuel (JP-5). That number has since been reduced to seven by the removal of two tanks. Over the years, spills have occurred and tanks have leaked. SWMU 8 is comprised of unlined earthen pits adjacent to the TWFF fuel tanks. Sludges from the tanks were buried and covered with soil when the fuel tanks were periodically cleaned. SWMU 8 has been combined with SWMU 7 because the SWMUs are next to each other and the contaminants are the same and commingled.	3	ICM/CMI	IRP Round 1 (1986) groundwater monitoring found benzene above the Maximum Contaminant Level (MCL) for drinking water and a free product layer underground. A full RFI of soil and groundwater was required by the permit. A free product recovery system is operating at the site as an Interim Corrective Measure (ICM) to stop the free product from spreading. CMS Approved 2/06; Statement of Basis (SoB) approved 1/07. Continue the ICM consisting of monthly gauging, free product removal, and development of Quarterly Progress Reports. The Consent Order requires implementation of the Revised Final CMS Work Plan.	GW, Subsurface and Surface Soil, Sediment - metals, SVOCs, VOCs	1, 2, 4	Continue operation of ICM until implementation of CMI in accordance with the CMS.	CMI Work Plan and implementation of CMI in accordance with the CMS.
Port	21	<b>Mobile Floating Tanks</b> Four mobile, floating tanks ("donuts") utilized in the clean-up of marine oil/fuel spills. The spilled oil/fuel was gathered by skimmers and then pumped into the "donuts", which transport the collected oil/fuel/water mixture to a dock or other transfer point.	1	CAC w/out Controls	These donuts were basically transport vehicles, not units in which hazardous wastes were stored. Therefore, these tanks are not SWMUs, and an RFI was not required. No Further Action determination from 1994 Part B Permit.	NA		NA	None
Port	22	<b>Mobile Barges/SWOBs</b> Ship waste offload barges (SWOBs) used to collect and transport bilge and ballast water from ships and oil/fuel from marine spills. These barges are transport vehicles, not units in which hazardous wastes are stored. Therefore, they are not SWMUs, and a RFI was not required.	1	CAC w/out Controls	These barges were transport vehicles, not units in which hazardous wastes were stored. Therefore, they are not SWMUs, and an RFI was not required. No Further Action determination from 1994 Part B Permit.	NA		NA	None
Port	23	<b>Oil Spill Separator Tanks</b> Three rectangular, steel oil/water separator tanks underlain by a curbed, concrete pad. Located approximately 100 feet inland from the Fuel Pier, and partially surrounded by asphalt pavement. These tanks acted as first stage gravitational oil/water separators for bilge and ballast water and oil/fuel/water mixtures from spills transferred from SWOBs and "donuts" (SWMUs #21 and 22). During both the 1988 VSI and the 1993 follow-up inspection, the concrete pad and adjacent areas of asphalt pavement and soil were heavily stained.	2	CAC with Controls	Benzo(a)pyrene in one soil sample exceeded its residential Risk-Based Concentration (RBC); however, the concentration did not trigger an unacceptable human health risk. Because of the location of this SWMU within an industrial zone, the RFI stated this site will never be utilized for residential development. There were no releases of hazardous waste or hazardous constituents evident at this site. The RFI did not recommend any further characterization efforts or corrective measures at this site. The Consent Order designated the SWMU Corrective Action Complete with Controls (i.e., a land use restriction to prohibit residential land use). A Land Use Control Plan was submitted to EPA in January 2008.	Soil - benzo(a)pyrene < industrial, TPH	1	NA	None
Port	24	<b>Oil Spill Oil/Water Separator and Adjoining Pad (VC-8 Bldg 1625)</b> In-ground, concrete, oil/water separator that served as the second stage separator of bilge and ballast water and marine oil/fuel spills. This SWMU is surrounded by asphalt paving on three sides, and bare ground on one side. Staining of the asphalt was observed during the 1993 follow-up inspection. Also, during the 1993 follow-up inspection, a bermed pad, with heavy oil staining, was identified as part of this SWMU.	2	CAC w/out Controls	RFI did not find any evidence of a release. The Consent Order designated this site Corrective Action Complete without Controls.	NA		NA	None

**Table 2**  
**Naval Activity Puerto Rico**  
**Port Parcel FOST**  
**Solid Waste Management Units Summary and Status**  
**Page 2 of 3**

Parcel	SWMU No.	Description	CERCLA	RCRA Status	Investigation and Remedial Action Summary and Status	Media Affected / Key Contaminants	Site Specific Land Use Controls	Current RCRA Phase	Remaining Work Required
Port	36	Vehicle Wash Rack Oil/Water Separator (Berthing Pier) Inground, concrete oil/water separator located near the Berthing Pier within the Ensenada Honda. This separator was used to collect and separate oil and washwaters generated during vehicle washdown. No evidence of releases was reported during the 1988 VSI, or 1993 follow-up inspection.	1	CAC w/out Controls	No Further Action determination from 1994 Part B Permit. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit. No evidence of release was reported during the 1988 VSI or the 1993 follow-up inspection. RFI was not required. Visual re-inspection of unit was conducted during the ECP field work; no visual evidence of release was observed.	NA	None	NA	None
Basewide	38	Sanitary and Storm Water Sewer Systems: Below ground sanitary and storm sewer systems.	3	CAC w/out Controls	No Further Action determination from 1994 Part B Permit carried over to Consent Order. No knowledge or evidence of systematic and routine releases of hazardous wastes. An RFI was not required. The "CAC w/out Controls" shown for SWMU 38 is contingent, under the 2007 RCRA Consent Order between the Navy and EPA, on the Navy fully addressing any releases that may have impacted the sanitary and/or storm sewer water sewer systems (i.e., SWMU 38) as a release(s) from either SWMUs 4, 12, 13 and 14, and/or from any other SWMU at the NAPR facility, where releases have impacted the sanitary and/or storm water sewer systems.	NA	None	NA	None
Port	55	TCE Plume near Tow Way Fuel Farm (formerly part of SWMU 7): Groundwater investigations at the Tow Way Fuel Farm (SWMU 7) detected the presence of TCE and associated compounds. These constituents were not historically detected in groundwater at SWMU 7 and were not related to historic activities at SWMU 7. For these reasons, the TCE plume was considered a separate source of contamination from SWMU 7 and thus identified as SWMU 55.	3	CMS	Final TCE Plume Delineation and Source Investigation Report recommended a CMS for SWMU 55 in August 2004. CMS Final Report was developed and recommended the performance of a pilot test injecting sodium permanganate to evaluate the oxidation technology at SWMU 55. The CMS needs to be initiated at SWMU 55.	GW - TCE	1, 4	Implementation of the CMI in accordance with the CMS.	CMI Work Plan and implementation of CMI in accordance with the CMS.
Airfield, Ports, 3	74	Fuel Pipelines and Hydrant Pits: On the Subject Property, this site consists of specific portions of the JP-5 fuel pipeline, and the aircraft hydrant refueling pits. In 1995, an evaluation of the integrity of specific portions of the base POL system identified a leak at a JP-5 fuel line valve pit between Hangar 200 and the main runway. Interviews indicated that numerous small spills and leaks of jet fuel have occurred at the aircraft hydrant refueling pits since they went into operation in the early 1960s.	3	CMS	ECP Phase I/II sample locations indicating contaminant releases associated with this SWMU on the Subject Property were Valve Pit 8 and USTs 381, 1084 and 1086. The Navy submitted a CMS Work Plan to complete site characterization and the CMS. The work plan includes additional characterization along the underground fuel lines in the Subject Property. Phase I of the CMS investigation was conducted in May 2008. Report on the findings of Phase I of the CMS investigation is underway, and will identify areas needing further study.	Soil, GW - fuel related compounds	1	CMS Investigation	CMS/SoB/CMI
Port	75	Building 803: Pump house for the former emergency fire deluge system located in the Waterfront area next to Pier 3. The floor of the building is constructed with an access area/manway that leads directly into Ensenada Honda. During inspections, releases of suspected waste oil and diesel fuel throughout the floor of the building were noted. Additionally, numerous discarded oil filters and three batteries were identified during the site inspection.	3	RFI	PCBs were the primary concern at this site and were not detected; however wipe samples collected to characterize the interior of the building indicate potential contamination resulting from past activities. Therefore, the Consent Order required an RFI for this site. The Final RFI work plan was submitted to EPA December 20, 2007.	Interior surfaces - bis(2-ethylhexyl)phthalate, di-n-butylphthalate, metals	Access to building interior restricted.	RFI	Implement RFI and follow on work

**Table 2**  
**Naval Activity Puerto Rico**  
**Port Parcel FOST**  
**Solid Waste Management Units Summary and Status**  
**Page 3 of 3**

Parcel	SWMU No.	Description	CERFA	RCRA Status	Investigation and Remedial Action Summary and Status	Media Affected / Key Contaminants	Site Specific Land Use Controls	Current RCRA Phase	Remaining Work Required
Port:	AOC F (MNA 1995)	Site of 1 current AST (inactive and empty; Bldg 1995). One of seven former UST sites and one current AST site that comprise the AOC F MNA sites at NAPR (the other six are on other parcels). After the removal of the USTs and the subsequent investigations and reports, the sites were recommended for remedial action by MNA with separate protocols for each site, including soil sampling and/or groundwater sampling on a quarterly or annual basis depending upon the site.	3	MNA	Submitted MNA Work Plan to EPA October 9, 2007. EPA contingently approved the MNA Work Plan April 10, 2008. The first round of sampling under the new work plan was conducted in May 2008. The report is presently under development and will be submitted in August 2008.	GW - TPH	4	MNA monitoring	Continuation of MNA monitoring program in accordance with MNA Work Plan
* CERFA categories:									
1 - CERFA Clean - areas where no release or disposal of hazardous substances or petroleum products or their derivatives has occurred.									
2 - All Actions Complete - areas where the release, disposal, or migration, or some combination thereof, of hazardous substances, or									
3 - Additional Action Required - Areas where a confirmed or suspected release, disposal, migration, or some combination thereof, of									
Land Use Controls									
1 - Non-Residential Use Only									
2 - Soil and/or Sediment: Access and/or Invasive Activity Restriction									
3 - Surface Water: Access and/or Use Restriction									
4 - Groundwater: Use and Well Installation Restriction									
Acronyms and Abbreviations									
AOC	Area of Concern			MCL	Maximum Contaminant Level				
AST	Aboveground Storage Tank			MNA	Monitored Natural Attenuation				
CAC	Corrective Action Complete determination			NEX	Navy Exchange				
CERFA	Community Environmental Response Facilitation Act			NPDES	National Pollutant Discharge Elimination System				
CMI	Corrective Measures Implementation			OB/OD	Open Burning/Open Detonation				
CMS	Corrective Measures Study			PAH	Polynuclear Aromatic Hydrocarbon				
COC	Chemical of Concern			PCB	Polychlorinated Biphenyl				
COPC	Chemical of Potential Concern			POL	Petroleum, Oils and Lubricants				
DFM	Diesel Fuel Marine			RBC	Risk-Based Concentration				
ECP	Environmental Condition of Property			RFI	RCRA Facility Investigation				
EPA	Environmental Protection Agency			SoB	Statement of Basis				
ICM	Interim Corrective Measure			TCE	Trichloroethene				
IRP	Installation Restoration Program			TWFF	Tow Way Fuel Farm				
JP-5	Jet Propulsion Fuel			UST	Underground Storage Tank				
GW	Groundwater			VOC	Volatile Organic Compound				

**Table 3**  
**Naval Activity Puerto Rico**  
**Port Parcel FOST**  
**OWS, AST, UST List**  
**Page 1 of 2**

Number	Type	Location or User	Capacity	Material Stored	Year Installed	Year Removed
193	OWS	Aircraft Fuel Truck Area - Hose Stg	-	NA	-	NA
266	OWS	Pier 1	-	NA	-	NA
382	OWS	Aircraft Fuel Truck Area	-	NA	-	NA
443	OWS	Aircraft Fuel Truck Area - Parking	-	NA	-	NA
799	OWS	Oil Pollution Control System - Pier 3	-	NA	-	NA
1982	OWS	Fuel Pump House Facility	-	NA	-	NA
1985	OWS	Vehicle Wash Rack - Surface Ops	-	NA	-	NA
2036	OWS	Shore Support Bldg (fiberglass repair shop)	-	NA	-	NA
2311	OWS	Temporary Wash Rack	-	NA	-	NA
2364	OWS	Heavy Equipment Wash Area	-	NA	-	NA
BOWTS 1	AST	PWD	50,000	Oily Wastewater	-	NA
BOWTS 2	AST	PWD	50,000	Oily Wastewater	-	NA
BOWTS 3	AST	PWD	1,000	Used Oil	-	NA
BOWTS 4	AST	PWD	1,000	Used Oil	-	NA
BOWTS 5	AST	PWD	1,000	Used Oil	-	NA
56C	AST	PWD	5,000	Used Oil	-	NA
803	AST	PWD	275	Used Oil	-	NA
1995	AST	Fuels Division (MNA Site)	4,200,000	DFM	-	NA
1996	AST	Fuels Division	4,200,000	DFM	-	NA
2036	AST	FRT	2,000	Used Oil	-	NA
2250	AST	FRT	12,000	Used Oil	-	NA
2270	AST	Fuels Division	4,200,000	JP-5	-	NA
2271	AST	Fuels Division	4,200,000	JP-5	-	NA
2272	AST	Fuels Division	4,200,000	JP-5	-	NA
2273	AST	Fuels Division	4,267,000	JP-5	-	NA
2274	AST	Fuels Division	4,200,000	JP-5	-	NA
2437	AST	Fuels Division	4,200,000	DFM	-	NA
82	UST	DFM Hill, Tow Way Fuel Farm (SWMU 7/8)	2,115,000	DFM/Empty	1940	NA
83	UST	DFM Hill, Tow Way Fuel Farm (SWMU 7/8)	1,157,000	DFM/Empty	1940	NA
84	UST	DFM Hill, Tow Way Fuel Farm (SWMU 7/8)	585,000	None/Empty	1944	NA
85	UST	DFM Hill, Tow Way Fuel Farm (SWMU 7/8)	1,152,000	None/Empty	1944	NA
381	UST	West of bulk fuel ASTs 2270-2274 (SWMU 74)	1,180,000	JP-5/Empty	1955	NA
1080	UST	Tow Way Fuel Farm (SWMU 7/8)	1,165,000	DFM/Empty	1968	NA
1082	UST	Tow Way Fuel Farm (SWMU 7/8)	1,165,000	DFM/Empty	1968	NA
1084	UST	By ASTs 2270-2274 (SWMU 74)	1,181,000	JP-5/Empty	1968	NA
1086	UST	By ASTs 2270-2274 (SWMU 74)	1,181,000	JP-5/Empty	1968	NA
1088	UST	Tow Way Fuel Farm (SWMU 7/8)	425,000	JP-5/Empty	1968	NA
1982	UST	Fuels Pump Station	550	Waste Oil/Empty	1996	NA

**Table 3**  
**Naval Activity Puerto Rico**  
**Port Parcel FOST**  
**OWS, AST, UST List**  
**Page 2 of 2**

Number	Type	Location or User	Capacity	Material Stored	Year Installed	Year Removed
55	Former UST	DFM Hill (SWMU/7/8)	5,000	Unknown	-	1997
56A	Former UST	Bldg 564	15,000	DFM	1996	2003
56A	Former UST	Bldg 56	10,500	DFM	-	1996
56B	Former UST	Bldg 56	15,000	DFM	1996	2003
56B	Former UST	Bldg 56	10,500	DFM	-	1996
99	Former UST	DFM Hill (SWMU/7/8)	10,000	Unknown	-	1993
382	Former UST	North of bulk fuel AST 2272	550	Waste JP-5	-	1996

AST Aboveground Storage Tank  
BOWTS Bilge and Oily Wastewater Treatment System  
DFM Diesel Fuel Marine  
FRT Facility Response Team  
JP Jet Propulsion (Fuel)  
MNA Monitored Natural Attenuation  
NA Not Applicable  
OWS Oil Water Separator  
PWD Public Works Division  
SWMU Solid Waste Management Unit  
UST Underground Storage Tank  
- Information not available or unknown

**Table 4**  
**Naval Activity Puerto Rico**  
**Port Parcel FOST**  
**Asbestos-Containing Material Inspection Results**

Facility #	Name	ACM Identified	Comments
VP27	Valve Pit	NI	
192	Petroleum Test Fuel Lab	Y	
193	Toilet (Pier 1 Area)	N	
266	Fuel Pier 1	NI	
267	Pier 2 (Cargo)	NI	
280	Small Craft Berthing	NI	
371	Operational Storage	N	
799	Berthing Pier #3	NI	
843	LST Ramp Bulkhead C	NI	
890	Bulkheads A, B, C, D	NI	
896	Valve Pit Pier #3	NI	
976	Hose Rack Shed	N	
978	Shore POW Submarines Pier #3	NI	
1706	Boy Scouts Charter	Y	
1739	Naval Research Lab	Y	
1756	Housing Storage/Warehouse	N	
1759	Fleet Post Office Pier Area	N	
1795	U.S. Customs Office/NEX Laundry	Y	
1796	Navy Exchange Complex	N	
1816	Hose House	NI	
1940	POL (9) Pump Hse	NI	
1985	Vehicle Wash Rack Waterfront	NI	
1993	Sewage Pump Station Post Office	NI	
2024	Pier #4/ITT Travel	N	
2036	Shore Support Building	N	
2040	Hose Rack Fuel Division	N	
2086	Flam Liqd Stge Bldg by SUOP	N	
2127	Trans Sta by Sub-Sta #1742	NI	
2160	Transformer by USO B1795	NI	
2191	Metal Shed (Bulkhead A) Pier 1	NI	
2197	Substa Pad Pier 2 Shore Power	NI	
2238	UHF Antenna Harbor Comm WASP	NI	
2242	Game Room/Telephone Center by USO	Y	
2252	Waterfront Operations Building	N	
2264	Finger Pier BTW Pier 2 & 3	NI	
2310	Shelter by Pier 3 Building 799	N	
2314	MWR Stage (Old B46)	NI	
2328	Storage Building/Waterfront by B2036	N	
2330	Oil Spill Storage by B2552	N	
2346	Fuel Mooring Facility	NI	
2350	Supply Storage Building	N	
2351	Security Boathouse by B2252	N	
2384	New Generator Building by B1971	N	

**Notes:** Y = Yes  
N = No  
NI = Not Inspected  
Hazard = friable, accessible and damaged asbestos (none identified)

**Source:** Final Asbestos Inspection Report for Naval Activity Puerto Rico, Ceiba, Puerto Rico  
(Baker, June 2005)



**Exhibit F**  
**CERFA Concurrence**

**CERFA Identification of Uncontaminated Property  
Former Naval Station Roosevelt Roads, Puerto Rico**


Accordingly, this CERFA Uncontaminated Property Report reflects final site categorizations that may differ from those presented in the Final ECP report.

In summary, all NAPR property not otherwise identified as sites belonging to Categories 2 or 3 are classified as "CERFA Clean" (i.e. uncontaminated) as defined in CERFA [§9620 (h)(4)(A)]. The bulk of the NAPR acreage is classified as such. Of the approximately 8,400 acres of NSRR property, about 7,000 acres have been identified as "CERFA Clean" (i.e., Category 1). Figure 1 depicts the results of this classification.

Included in the CERFA Clean classification are a total of 14 SWMUs. Ten of these SWMUs were identified by EPA in the 1994 RCRA Part B permit, and an additional four sites were identified by the ECP. All 14 of these sites were originally identified based on a suspected release or disposal activity, but subsequent investigations determined that no release or disposal activity occurred. EPA has indicated their concurrence with this determination in the draft §7003 Order on Consent by designating each of these sites as having achieved "corrective action complete without controls" designation. The SWMUs and ECP sites designated as CERFA Clean are SWMUs 5, 15, 20, 21, 22, 47, 48, 49, 50, 52, 63 (ECP 9), 64 (ECP 10), 65 (ECP 11), and 66 (ECP 12). These sites are presented in Table 1.

The remaining property has been classified as Category 2 or 3 and as such is not qualified for designation as CERFA Clean.

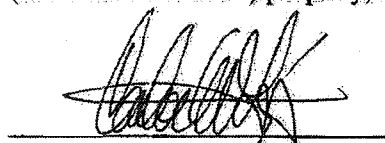
**Submitted**

  
R. DAVID CRISWELL, P. E.  
BRAC Environmental Coordinator

4/27/06  
Date

**Concurrence**

Concurrence with CERFA Identification of Uncontaminated Property is indicated by signature below. This concurrence applies only to the identification of "CERFA Clean" (i.e. uncontaminated) property, identified in this document as ECP Category 1.

  
Carlos Lopez Freytes, President  
Environmental Quality Board  
Commonwealth of Puerto Rico

8/11/06  
Date

**Exhibit G**

**Lead-Based Paint Hazard Advisory**

**LEAD-BASED PAINT HAZARD  
DISCLOSURE AND ACKNOWLEDGEMENT FORM**

**LEAD WARNING STATEMENT**

YOU ARE ADVISED THAT STRUCTURES CONSTRUCTED PRIOR TO 1978 MAY PRESENT EXPOSURE TO LEAD FROM LEAD-BASED PAINT THAT MAY PLACE YOUNG CHILDREN AT RISK OF DEVELOPING LEAD POISONING. LEAD POISONING IN YOUNG CHILDREN MAY PRODUCE PERMANENT NEUROLOGICAL DAMAGE. YOU ARE FURTHER ADVISED THAT LEAD POISONING ALSO POSES A PARTICULAR RISK TO PREGNANT WOMEN. WORKERS MAY ALSO SUFFER ADVERSE HEALTH EFFECTS FROM LEAD DUST AND FUME EXPOSURE

**ACKNOWLEDGEMENT**

I acknowledge that:

1. I have read and understand the above stated Lead Warning Statement;
2. I have received from the Federal Government the following document(s): *Phase I/II Environmental Condition of Property Report, Former Naval Station Roosevelt Roads, Ceiba, Puerto Rico and Finding of Suitability to Transfer – Port Parcel, Naval Activity Puerto Rico, Ceiba, Puerto Rico* representing the best information available to the Government as to the presence of Lead-Based Paint and Lead-Based Paint hazards for the buildings covered by this Transfer;
3. I understand that my failure to inspect, or to become fully informed as to the condition of all or any portion of the property offered will not constitute grounds for any claim or demand for adjustment or withdrawal of any bid or offer made after its opening or tender; and
4. I understand that upon execution of this Transfer, I shall assume full responsibility for preventing future lead exposure by properly managing and maintaining or, as required by applicable Federal, state, or local laws or regulations, for abating any lead-based paint hazard that may pose a risk to human health.

\_\_\_\_\_  
Transferee (or duly authorized agent)

\_\_\_\_\_  
Date

**Exhibit H**

**CERCLA Hazardous Substance Notice and Response Action Summary**

**Naval Activity Puerto Rico  
Port and Fuel Farm Parcels  
CERCLA Hazardous Substance Notice/Response Action Summary  
Page 1 of 3**

The table below identifies those hazardous substances that it is known, based upon a complete search of agency files, were stored for one year or more in quantities greater than or equal to 1,000 kg (or greater than or equal to 1 kg if designated an acutely hazardous waste under 40 CFR Part 261.30) and/or were released or disposed of on the property to be transferred in quantities greater than or equal to their respective reportable quantities under 40 CFR 302.4. The information in this notice is required under the authority of regulations promulgated under Section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA" or "Superfund"), 42 U.S.C. Section 9620(h).

Bldg or Facility ID	Description	Substance Name	CAS Registry Number	40 CFR 302.4 Regulatory Synonyms	RCRA HW No.	Quantity Stored	Date of Storage	Quantity Released	Date of Release	Response Actions Taken
2086	Surface Operations	HWAA - see SWMUs 17 & 18	---	---	---	---	---	---	---	---
SWMU 8	Tow Way Road Sludge Burial Pits	Lead	7439921	---	D008	Unknown	1972 or 1973 to Present	Unknown	1972 or 1973 to Present	---
		Bunker C Fuel Sludge	---	---	---	3,900-7,500 cubic yards	1972 or 1973 to Present	3,900-7,500 cubic yards	1972 or 1973 to Present	---
SWMU 17	DRMO HW Storage Facility (non-flammable wastes) - not on Subject Property, but received wastes from various port and/or fuel farm operations.	Various non-flammable hazardous wastes	---	---	---	Capacity = 17,400 gals	1980-2004	Unknown	Unknown	---
		Lead	7439921	---	D008	Unknown	1980-2004	Unknown	Unknown	---
		Potassium Hydroxide	1310583	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Sodium Hydroxide	1310732	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Beryllium Dust	7440417	---	P015	Unknown	1980-2004	Unknown	Unknown	---
		Lithium/Sulfur Dioxide Batteries	---	---	D003	Unknown	1980-2004	Unknown	Unknown	---
		Nickel/Cadmium Batteries	---	---	D003, D006	Unknown	1980-2004	Unknown	Unknown	---
		Mercury Batteries	---	---	D009	Unknown	1980-2004	Unknown	Unknown	---
		Mercury Batteries in Acetic Acid	---	---	D002, D009	Unknown	1980-2004	Unknown	Unknown	---
		Aid to Navigation (AtoN) Batteries	---	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Alkaline Batteries	---	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Lead/Acid Batteries	---	---	D002, D006	Unknown	1980-2004	Unknown	Unknown	---
		Lead/Acid Batteries (Drained)	---	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Battery Electrolyte	---	---	D002, D008	Unknown	1980-2004	Unknown	Unknown	---
		Acetic Acid	64197	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Chromic Acid (Alodine)	7738945	---	D002, D007	Unknown	1980-2004	Unknown	Unknown	---
		Hydrochloric Acid	7647010	Hydrogen Chloride	D002	Unknown	1980-2004	Unknown	Unknown	---
		Sulfuric Acid	7664939	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Ammonium Hydroxide	1336216	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Cleaning Compound (TURCO)	---	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Mercury	7439978	---	U151, D009	Unknown	1980-2004	Unknown	Unknown	---
		Blasting Booth Dust	---	---	D007, D008	Unknown	1980-2004	Unknown	Unknown	---
		Decontaminating Agent, STB (Super Tropical Bleach)	---	---	D003	Unknown	1980-2004	Unknown	Unknown	---
		Chlordane	57749	Chlordane, alpha & gamma isomers Chlordane (Technical Mixture and Metabolites) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-; 2,3,3a,4,7,7a-hexahydro-	U036	Unknown	1980-2004	Unknown	Unknown	---
		Photographic Developer	---	---	D002, D011	Unknown	1980-2004	Unknown	Unknown	---
		Photographic Fixer	---	---	D002, D011	Unknown	1980-2004	Unknown	Unknown	---
		Photographic Hardener	---	---	D011	Unknown	1980-2004	Unknown	Unknown	---
		Photographic Stabilizer	---	---	D011	Unknown	1980-2004	Unknown	Unknown	---

Naval Activity Puerto Rico  
Port and Fuel Farm Parcels  
CERCLA Hazardous Substance Notice/Response Action Summary  
Page 2 of 3

Bldg or Facility ID	Description	Substance Name	CAS Registry Number	40 CFR 302.4 Regulatory Synonyms	RCRA HW No.	Quantity Stored	Date of Storage	Quantity Released	Date of Release	Response Actions Taken
		Photographic Starter	---	---	D011	Unknown	1980-2004	Unknown	Unknown	---
		Photographic Replenisher	---	---	D002, D011	Unknown	1980-2004	Unknown	Unknown	---
		Photo Auto Reversal Chemical	---	---	D011	Unknown	1980-2004	Unknown	Unknown	---
		Hypo-Solution; Ammonium Thiosulfate	7783188	---	D011	Unknown	1980-2004	Unknown	Unknown	---
		Hypo-Solution; Sodium Thiosulfate	7772987	---	D011	Unknown	1980-2004	Unknown	Unknown	---
		Methylene Chloride	75092	Dichloromethane	F001, F002, U080	Unknown	1980-2004	Unknown	Unknown	---
		Perchloroethylene	127184	Ethene, tetrachloro Tetrachloroethene Tetrachloroethylene	F001, F002, U210	Unknown	1980-2004	Unknown	Unknown	---
		1,1,1-Trichloroethane	71556	Ethane, 1,1,1-trichloro Methyl Chloroform	F001, F002, U226	Unknown	1980-2004	Unknown	Unknown	---
		Trichloroethylene	79016	Trichloroethene Ethene, trichloro	F001, F002, U228	Unknown	1980-2004	Unknown	Unknown	---
		Trichlorofluoromethane	75694	Trichloromonofluoromethane	F002, U121	Unknown	1980-2004	Unknown	Unknown	---
		Trichlorotrifluoroethane	76131	---	F002	Unknown	1980-2004	Unknown	Unknown	---
		Chlorinated Fluorocarbons	---	---	F001	Unknown	1980-2004	Unknown	Unknown	---
		1,1,2-Trichloroethane	79005	Ethane, 1,1,2-trichloro	F002, U227	Unknown	1980-2004	Unknown	Unknown	---
		Paint Removers	---	---	D002, F002	Unknown	1980-2004	Unknown	Unknown	---
		Carbon Remover	---	---	F002	Unknown	1980-2004	Unknown	Unknown	---
		Miscellaneous Waste Acids	---	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Miscellaneous Waste Caustics	---	---	D002	Unknown	1980-2004	Unknown	Unknown	---
		Miscellaneous Waste Reactives	---	---	D003	Unknown	1980-2004	Unknown	Unknown	---
		Misc. Halogenated Solvents (mixed waste w/ > 10% before use)	---	---	F001, F002	Unknown	1980-2004	Unknown	Unknown	---
		Misc. Halogenated Solvents (mixed waste w/ < 10% before use)	---	---	F001, F002	Unknown	1980-2004	Unknown	Unknown	---
		Magnesium Batteries	---	---	D003	Unknown	1980-2004	Unknown	Unknown	---
		Freon-Contaminated Hydraulic Fluid	---	---	F002	Unknown	1980-2004	Unknown	Unknown	---
SWMU 18	DRMO Ignitable Storage Facility - not on Subject Property, but received wastes from various port or fuel farm operations.	Various ignitable hazardous wastes	---	---	---	Capacity = 2,600 gals	1980-2004	Unknown	Unknown	---
		Gasoline (unleaded)	8006619	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Petroleum Fuels (leaded)	8006619	---	D001, D008	Unknown	1980-2004	Unknown	Unknown	---
		Jet Fuel (JP-4 or JP-5)	8008206	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Kerosene (contaminated)	8008206	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Adhesives	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Calibration Fluid	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Cleaning Compound (Mineral Spirits)	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Isopropyl Alcohol	67630	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Sealing Compound	---	---	D001, F003	Unknown	1980-2004	Unknown	Unknown	---
		Iceing Inhibitor	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---

Naval Activity Puerto Rico  
Port and Fuel Farm Parcels  
CERCLA Hazardous Substance Notice/Response Action Summary  
Page 3 of 3

Bldg or Facility ID	Description	Substance Name	CAS Registry Number	40 CFR 302.4 Regulatory Synonyms	RCRA HW No.	Quantity Stored	Date of Storage	Quantity Released	Date of Release	Response Actions Taken
		Inspection Penetrant	---	---	D001, F003	Unknown	1980-2004	Unknown	Unknown	---
		Denatured Alcohol	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Duplicating Fluid	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Waste Paints	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Painting Wastes	---	---	D001, D002, D007, D008, F002, F003, F005	Unknown	1980-2004	Unknown	Unknown	---
		Malathion (with carrier solvent)	121755	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Photographic Toners	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Corrosion Inhibitor	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Naphtha	8030306	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Acetone	67641	2-Propanone	F003, U002	Unknown	1980-2004	Unknown	Unknown	---
		Ethyl Ether	60297	Ethane, 1,1'-oxybis-	F003, U117	Unknown	1980-2004	Unknown	Unknown	---
		Isobutanol	76831	1-Propanol, 2-methyl-	F005, U140	Unknown	1980-2004	Unknown	Unknown	---
		Methanol	67561	Methyl Alcohol	F003, U154	Unknown	1980-2004	Unknown	Unknown	---
		Methyl Ethyl Ketone	78933	2-Butanone, MEK	U159	Unknown	1980-2004	Unknown	Unknown	---
		Toluene	108883	Benzene, methyl	F005, U220	Unknown	1980-2004	Unknown	Unknown	---
		Xylene	1330207	Benzene, dimethyl Xylene (mixed) Xylene (isomers and mixture)	F003, U239	Unknown	1980-2004	Unknown	Unknown	---
		MEK and Paint	---	---	F005, D007, D008	Unknown	1980-2004	Unknown	Unknown	---
		Dye Penetrant	---	---	D001, F001, F002	Unknown	1980-2004	Unknown	Unknown	---
		Dry Cleaning Solvent (PD-680-I)	64742887	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Stoddard Solvent	8052413	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Inspection Penetrant	---	---	D001, F002	Unknown	1980-2004	Unknown	Unknown	---
		Petroleum Lubricant	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Aerosol Cans (partially full)	---	---	D001, F001, F002, F003, F005	Unknown	1980-2004	Unknown	Unknown	---
		Miscellaneous Waste Ignitables	---	---	D001	Unknown	1980-2004	Unknown	Unknown	---
		Misc. Non-Halogenated Solvents	---	---	F003, F005	Unknown	1980-2004	Unknown	Unknown	---
		Misc. Petroleum, Oils & Lubricants (POLs) potentially contaminated with ignitable wastes or F-list solvents	---	---	D001, F001, F002, F003, F005	Unknown	1980-2004	Unknown	Unknown	---
		Grease contaminated with Oils	---	---	D001, D007, D008	Unknown	1980-2004	Unknown	Unknown	---
SWMU 55	TCE Plume near Tow Way Fuel Farm	Tetrachloroethylene	127184	Ethene, tetrachloro Perchloroethylene	F001, F002, U210	Unknown	Unknown	Unknown	Unknown	---
		Trichloroethylene	79016	Trichloroethene Ethene, trichloro	F001, F002, U228	Unknown	Unknown	Unknown	Unknown	---



**Exhibit I**

**Response to EPA Comments**

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. David Criswell  
US Navy  
BRAC PMO SE  
4130 Faber Place Drive  
Suite 202  
North Charleston, SC 29405

Re: Naval Activity Puerto Rico (NAPR), formerly Naval Station Roosevelt Roads,  
EPA I.D. Number PRD2170027203,

Draft Finding of Suitability to Transfer (FOST) Port Parcels

Dear Mr. Criswell:

The United States Environmental Protection Agency (EPA) Region 2 has received the Draft Finding of Suitability to Transfer (FOST) Port Parcels, transmitted to Mr. Timothy Gordon of EPA and to Ms. Wilmarie Rivera of the Puerto Rico Environmental Quality Board (PREQB), with your letter of August 6, 2008.

The FOST covers approximately 131 acres in two parcels (Parcel 44 and 49), located in the developed waterfront area along the eastern shoreline of Ensenada Honda. These two parcels contain 11 solid waste management units (SWMUs) and portions of one Areas of Concern (AOC). Five of the SWMUs and the portion of AOC F located in the subject parcels have corrective action work remaining to be completed under the January 2007 RCRA Administrative Order on Consent (the Order). According to the FOST, on July 30, 2008, the Governor of Puerto Rico approved a Covenant Deferral Request (CDR) allowing the early transfer of the SWMUs and AOCs located in parcels 44 and 49, prior to completing the necessary remedial actions. The Navy plans to transfer these two parcels to the Ports Authority of Puerto Rico via a Public Benefit Conveyance, but will retain responsibility for completing all required corrective and remedial actions, under the Order.

EPA Region 2 has the following comments on that Draft FOST:

- 1) A statement should be added to Section 3.0 (Past Use and Proposed Reuse) indicating that, following transfer of the two parcels to the Ports Authority of Puerto Rico, the Navy will continue to implement any remaining corrective and/or remedial action required for SWMUs and AOCs located within the parcels, pursuant to the 2007 RCRA Order.

*Response: The requested statement has been added to the end of the first paragraph in*

*Section 4.A. (Hazardous Substances Contamination) following the first discussion of the 2007 RCRA Consent Order.*

- 2) The last paragraph of Section 4.0.A (Hazardous Substance Contamination) should be revised to indicate that SWMU 20 is incorrectly shown on parcel index figure 44-3, in Exhibit C, and that what is labeled as SWMU 20 on parcel index 44-3 instead corresponds to SWMU 74 (fuel pipelines and hydrant pits), which is also known as (a/k/a) ECP<sup>1</sup> site 20.

*Response: The last sentence of Section 4.0.A has been revised to read as follows - "In Exhibit C, SWMU 74 (aka ECP 20) is mislabeled as SWMU 20 on Parcel Map 44, SWMU 75 (aka ECP 21) is mislabeled as SWMU 21 on the eastern end of the Parcel 49 map, and SWMUs 38 and 74 are shown on separate maps."*

- 3) The second sentence of the first paragraph of Section 5.0.F (Environmental Compliance Agreements/Permits/Orders) needs to be revised to read "...five (SWMUs 7/8, 55, 74 and 75) have investigations and/or cleanup work remaining to be completed....", as SWMU 23 does not have remaining work to be completed.

*Response: The requested correction has been made.*

- 4) The statement on the title page of Exhibit C (Parcel, Utility, and Fuel Line Maps), indicating that "SWMUs 38 and 74 (aka SWMU 20) are not shown...." needs to be corrected, to read "...SWMU 74 (a/k/a as ECP site 20)...."

*Response: The requested correction has been made.*

- 5) Exhibit B, should be revised to either also identify SWMUs 38 and 74 on the Vicinity Map (labeled "Port Parcel"), or include a note regarding those SWMUs on the Vicinity map.

*Response: The following note has been added to the title page of Exhibit B - "SWMUs 38 and 74 (aka ECP 20) are not shown on the vicinity map. Separate utility (SWMU 38) and fuel line (SWMU 74) maps are included in Exhibit C." Also, the following note has been added to the Vicinity Map - "SWMU 38 (Sanitary and Storm Water Sewer Systems) and SWMU 74 (Fuel Pipeline and Hydrant Pits) not shown due to map scale."*

Once the FOST has been revised and finalized, please submit two copies to my office. If you have any questions, please telephone Mr. Tim Gordon of my staff at (212) 637- 4167.

<sup>1</sup> ECP = Environmental Conditions of Property, i.e., based on the the July 15, 2005 Final Phase III Environmental Conditions of Property Report.

Sincerely yours,

Dale Carpenter, Chief  
Resource Conservation and Special Projects Section  
RCRA Programs Branch

cc: Mr. Antonio J. Colorado, Puerto Rico Land Reuse Authority  
Ms. Wilmarie Rivera, P.R. Environmental Quality Board.  
Mr. Mark Kimes, Baker Environmental

bcc: Carl Soderberg, Caribbean Environmental Protection Division  
Carl Howard, 2ORC  
Timothy Gordon, 2DEPP-RPB  
RCRA File Room, 2DEPP-RPB

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**Exhibit "E"**

**GOVERNMENT'S COVENANT DEFERRAL REQUEST**

**COVENANT DEFERRAL REQUEST**

**FORMER NAVAL STATION ROOSEVELT ROADS  
CEIBA, PUERTO RICO**



**Prepared by:**

**Department of the Navy  
BRAC Program Management Office Southeast  
4130 Faber Place Drive, Suite 202  
North Charleston, S.C. 29405**

**July 2007**

**TABLE OF CONTENTS**

<u>SECTION</u>	<u>PAGE</u>
1.0 INTRODUCTION.....	1
2.0 DESCRIPTION OF PROPERTY TO BE TRANSFERRED.....	6
3.0 NATURE AND EXTENT OF HAZARDOUS SUBSTANCE CONTAMINATION.....	7
4.0 ANALYSIS OF INTENDED FUTURE LAND USE.....	8
5.0 RESPONSE/CORRECTIVE ACTION AND O&M REQUIREMENTS.....	11
6.0 CONTENTS OF TRANSFER DEEDS.....	13
7.0 RESPONSIVENESS SUMMARY.....	15
8.0 SUITABILITY DECLARATION.....	16

**EXHIBITS**

A	Environmental Condition of Property Report Conclusions
B	RCRA 7003 Administrative Order on Consent
C	Early Transfer Property Map
D	Environmental Investigation and Remedial Action Summary Table and IRP Sites Map
E	Land Use Zones Map
F	CERCLA Hazardous Substance Storage, Release or Disposal Notice and Response Action Summary
G	Public Notice Advertisement
H	Public Comments
I	Responses to Unresolved Written Comments

## **1.0 INTRODUCTION**

### **1.1 THE COVENANT DEFERRAL REQUEST**

The United States Department of the Navy (Navy) proposes to transfer title to portions of the real property comprising the former Naval Station Roosevelt Roads (NSRR), Puerto Rico by deed before all necessary remedial actions have been completed pursuant to Section 120(h)(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and Department of Defense (DoD) early transfer guidance.

When any federal agency transfers to any non-federal entity real property upon which hazardous substances have been stored for one year or more, or were known to have been released or disposed of, the transfer deed must covenant that:

- All remedial action(s) necessary to protect human health and the environment with respect to any such substance remaining on the property have been taken before the date of transfer (CERCLA Section 120(h)(3)(A)(ii)(I)), and
- Any additional remedial action(s) found to be necessary after the date of the transfer shall be conducted by the United States (CERCLA Section 120(h)(3)(A)(ii)(II)).

The Governor of the State in which federal property is located may defer the first of these two covenants, thereby authorizing the transfer of the property prior to its final cleanup if the federal facility of which it is part is not listed on the U.S. Environmental Protection Agency (EPA) National Priorities List (NPL). After any such transfer, the federal agency transferring the property is still responsible for ensuring that all remaining cleanup is completed and for providing that same covenant via an amendment to the transfer deed at that time.

In order for the Governor to defer this requirement, CERCLA Section 120(h)(3)(C)(I) requires that the Governor determine the property is suitable for transfer based upon a finding that:

- I. The property is suitable for transfer for the use intended by the transferee, and the intended use is consistent with protection of human health and the environment;
- II. The deed or other agreement proposed to govern the transfer between the United States and the transferee of the property contains the Response Action Assurances set forth in CERCLA Section 120(h)(3)(C)(ii), including:
  - Any necessary restrictions on the use of the property to ensure protection of human health and the environment;
  - Restrictions on the use necessary to ensure that required remedial investigations, response action, and oversight activities will not be disrupted;



- An assurance that all necessary response action(s) will be taken and that a schedule for investigation and completion of all necessary response action(s) as approved by the appropriate regulatory agency will be identified; and,
  - An assurance that the Federal agency responsible for the property subject to transfer will submit a budget request to the Director of the Office of Management and Budget that adequately addresses schedules for investigation and completion of all necessary response action, subject to congressional authorizations and appropriations;
- III. The Federal agency requesting deferral has provided notice, by publication in a newspaper of general circulation in the vicinity of the property, of the proposed transfer and of the opportunity for the public to submit, within a period of not less than 30 days after the date of the notice, written comments on the suitability of the property for transfer; and
- IV. The deferral and the transfer of the property will not substantially delay any necessary response action at the property.

These findings are intended to assure that there is a sound basis for the proposed "early" transfer in that the expected reuse of the property will not pose an unacceptable risk to human health or the environment during the "covenant deferral period" that begins on the date of the property transfer and ends on the date the federal agency gives the last warranty required by CERCLA Section 120(h)(3)(C)(iii). The warranty covenants that all response action necessary to protect human health and the environment with respect to hazardous substances remaining on the property as of the date of transfer has been accomplished. As stated in CERCLA Section 120(h)(3)(C)(iv), all statutory rights and obligations of the transferring federal agency remain the same, regardless of whether the property is transferred subject to such a covenant deferral.

## **1.2 BACKGROUND**

Section 8132 of Public Law 108-87, the Department of Defense Appropriations Act, 2004 (signed 30 September 2003), directed that NSRR be closed "no later than six months after enactment of this Act," and that the real estate disposal/transfer be carried out in accordance with procedures contained in the Defense Base Closure and Realignment Act of 1990. Accordingly, on March 31, 2004, NSRR ceased operations as an active naval station, and was designated Naval Activity Puerto Rico (NAPR) to protect and sustain the remaining Navy assets and property value during the disposal process.

The Navy prepared the Phase III Environmental Condition of Property Report, Former U.S. Naval Station Roosevelt Roads, Ceiba, Puerto Rico (ECP Report) dated July 15, 2005 to document the current environmental condition of NAPR and support the identification of "uncontaminated property" as defined in and required by CERCLA Section 120(h)(4). The ECP Report discloses available, factual, environmentally relevant information regarding the condition of NAPR, and is based on the results of previous investigations, interviews with persons familiar with the former NSRR, review of available

information and data on former NSRR operations related to storage, release, treatment or disposal of hazardous substances or petroleum products on the property, and certain media sampling efforts.

Although environmental investigation and cleanup activities at NSRR have been ongoing under the Navy Installation Restoration Program (IRP) since the early 1980s, certain response activities to address past hazardous substances releases remain to be completed. NSRR is not on the NPL; therefore, these response activities and releases are currently being addressed pursuant to the requirements of the Resource Conservation and Recovery Act (RCRA) permit previously issued to NSRR by EPA on November 28, 1994. The IRP team assembled to address environmental issues at NSRR consists of representatives from the Navy and its contractors, the Puerto Rico Environmental Quality Board (EQB) and EPA Region 2. Through the RCRA permitting process and the management of the corrective action program by the IRP team, a total of 55 SWMUs and four AOCs have been identified. Since base closure, the Navy and EPA have negotiated the terms of a RCRA Section 7003 Administrative Order on Consent (Consent Order) to set out the Navy's remaining corrective action obligations. Accordingly, NSRR's 1994 RCRA permit has been terminated.

The findings of the ECP Report were used by EPA to assist in determining the corrective action obligations to be included in the Consent Order. ECP Sites 1 through 23 were identified during the ECP process and added to the order as SWMUs 56 through 77 and AOCs E and F. According to Section VIII of the draft Consent Order, there are currently 38 of 77 Solid Waste Management Units (SWMUs) and four of six Areas of Concern (AOCs) with investigation, remediation and/or closure requirements still to be completed. The Conclusions section of the ECP Report, which includes a table and map identifying areas impacted by hazardous substances is attached to this CDR as Exhibit A. The RCRA Section 7003 Administrative Order on Consent is attached as Exhibit B.

### **1.3 PROPOSED EARLY TRANSFER**

Because the sites identified in Section VIII of the Consent Order (Exhibit B) require further investigation and/or remedial action that may require completion after the property is transferred, the Navy is requesting the Governor of the Commonwealth defer the requirement for the CERCLA Section 120(h)(3)(A)(ii)(I) covenant that all necessary remedial action has been taken prior to transfer.

The Early Transfer (ET) does not include SWMUs or AOCs lying within property that is being transferred from the Navy to other federal agencies. Also, the ET does not include sites with petroleum contamination only (e.g., AOC F – Monitored Natural Attenuation Sites) because deferrals in accordance with CERCLA Section 120(h)(3) apply to sites affected by hazardous substances, but not petroleum. The proposed ET Property is presented on the map in Exhibit C.

Several types of transfer mechanisms are available to transfer the former NSSR property, including:

- Public benefit conveyances (PBCs)
- Economic development conveyances (EDCs)
- Environmental remediation sales
- Public sales

The Navy will either retain the responsibility to conduct all necessary response actions on the PBC and EDC parcels consistent with CERCLA and the Navy-EPA Consent Order, or fund the privatization of all or part of their required cleanup through the use of environmental services cooperative agreements (ESCAs) between the Navy and the transferee(s). Such agreements are authorized under the provisions of 10 U.S.C. 2701 (the Defense Environmental Restoration Program). Any drafts of such agreements would be shared with EPA, and any transfer of the Navy's remaining corrective action obligations to another party would be contingent upon that party entering into a similar fully enforceable consent order with EPA.

The environmental remediation sale(s) will be conducted in accordance with Section 2905(e) of the Defense Base Closure and Realignment Act of 1990 (BRAC law), as amended by Section 2908 of the National Defense Authorization Act for Fiscal Year 1994. Section 2905(e) states that subject to Section 120(h) of CERCLA, the Secretary of Defense "may enter into an agreement to transfer by deed real property or facilities...with any person who agrees to perform all environmental restoration, waste management, and environmental compliance activities that are required for the property or facilities under Federal and State laws, administrative decisions, agreements (including schedules and milestones), and concurrences" and that if the costs of all environmental restoration, waste management, and environmental compliance activities are lower than the fair market value of the property or facilities, the recipient of the property or facilities must agree to pay the difference between the fair market value and such costs. The Navy would provide environmental "due diligence" and "all appropriate inquiry" information in invitations for bid for the Sale Property parcel(s). Bidders would propose a purchase price based on the fair market value of the property less the environmental liability costs, with the purchaser agreeing to take over the Navy's cleanup obligations via an enforceable third party consent order with EPA.

As described in Section 1.1, CERCLA Section 120(h)(3)(C) sets forth those specific conditions upon which a Governor may grant approval of early transfers of federal facilities. This CDR is intended to provide the information necessary for approval of the early transfer of certain NAPR property by the Governor of the Commonwealth of Puerto Rico, and is consistent with CERCLA Section 120(h)(3)(C) and DoD Guidance on the Environmental Review Process Required to Obtain the Finding of Suitability for

Use of Early Transfer Authority for Property Not on the National Priorities List as Provided by CERCLA Section 120(h)(3)(C) (April 24, 1998). DoD guidance allows the transferee to conduct response actions on the property, so long as certain conditions are met including providing assurance that the transferee has the technical and financial capacity to perform the cleanup. Under the proposed Consent Order with EPA, the Navy will remain legally obligated to perform all remaining response actions if the transferee(s) fails to perform such actions in a timely and competent fashion.

To comply with CERCLA's early transfer authority, the Governor's concurrence must determine that the property is suitable for transfer by making the findings set out in the statute at 42 U.S.C. Section 9620 (h)(3)(C)(i). To make these findings, the Governor must know how the transferees intend to use the property during the covenant deferral period. Because the identities of the transferees are not known at this time, Navy transfer documents will ensure post-conveyance uses of contaminated property will be restricted to uses that are the same or similar to uses in place at the time when NSRR was operational and will be consistent with protection of human health and the environment.

## **2.0 DESCRIPTION OF PROPERTY TO BE TRANSFERRED**

The property to be transferred at the former NSRR is located near Ceiba, Puerto Rico on approximately 8,459 acres of land on the eastern coast of Puerto Rico. NSRR operated as a naval facility from 1943 until its closure on March 31, 2004. According to the ECP Report, there are over 1,300 buildings at the former NSRR, as well as an 11,000-foot runway and almost 5,000 feet of waterfront piers and bulkheads.

The ET Property, as shown on the map in Exhibit C (ET Property Map) comprises approximately 4,244 acres. Survey maps and legal descriptions for the ET Property parcels will be attached to the transfer deeds.

The ET Property includes:

- All Sale/Public Auction parcels, except those in the Capehart Housing Area
- Capehart Housing Area Wastewater Treatment Plant
- EDC parcels that include IR sites requiring additional investigation or remediation
- PBC parcels that include IR sites requiring additional investigation or remediation

The ET Property does not include:

- Parcels comprising the Capehart Housing Area
- Conservation parcels including Pineros and Cabeza de Perro Islands
- EDC parcels that do not require investigation or remediation
- PBC parcels that do not require investigation or remediation
- Parcels being transferred to other Federal agencies

### **3.0 NATURE AND EXTENT OF HAZARDOUS SUBSTANCE CONTAMINATION**

As stated in the ECP Report and described in Section 1.2 of this CDR, a mature and comprehensive environmental program, focused on areas of historic environmental concern, has been in existence at NSRR since the 1980s. Considering the active, comprehensive and ongoing IRP and the recently completed ECP investigation, it may reasonably be concluded that all areas of significant environmental concern at NSRR have been identified and either have been or will be investigated. Detailed summaries of the findings to date for all SWMUs and AOCs are provided in the ECP Report. The table in Exhibit D of this CDR summarizes the environmental investigation and remedial action status of each ET Property site with work remaining to be performed under the Navy-EPA Consent Order. The table provides the Consent Order status, media affected, key site contaminants and proposed land use controls. Exhibit D also includes a map illustrating the location of IRP sites with work remaining to be performed.

Site-specific documents that provide more detailed information have been placed for public review at:

Ceiba Public Library  
Ave. Lauro Piñero, Plaza Recreo  
(al lado Casa Alcaldía) Ceiba, PR 00735

U. S. Environmental Protection Agency  
Caribbean Environmental Protection Division  
Centro Europa Building, Suite 417  
1492 Ponce de Leon Ave  
Santurce, PR 00907-4127  
Attn: Mr. Luis Negrón, phone (787) 977-5855

Puerto Rico Environmental Quality Board  
Oficina del Presidente – Piso 5  
Ave. Ponce de León #1308  
Carr Estatal 8838  
Sector El Cinco  
Rio Piedras, PR 00926  
Attn: Ms. Yariisa Martinez, phone (787) 767-8181 (ext. 6137)

U.S. Environmental Protection Agency, Region 2  
RCRA File Room  
290 Broadway, 15<sup>th</sup> floor  
New York, NY 1007-1866  
Attn: Mr. David Abrines, phone (212) 637-3043

or

Online at: <http://nsrr-ir.org/>

#### 4.0 ANALYSIS OF INTENDED FUTURE LAND USE

The Puerto Rico Department of Economic Development and Commerce (DEDC), recognized as the Local Redevelopment Authority (LRA) for NAPR, developed the December 2004 Naval Station Roosevelt Roads Reuse Plan (the Reuse Plan), for implementation by the transferees. The Reuse Plan anticipates phased development of the following nine land use zones depicted on the map in Exhibit E:

<u>Zone</u>	<u>Description</u>
1	Airport - Airport, Industrial/Manufacturing/Distribution
2	Bundy - Moderate Lodging, Residential, Learning and Training Center
3	Golf Course - Public Golf Course, with an expansion to 18 holes
4	Downtown - Mixed Use, University Campus, Public School
5	Residential - Residential, Private School, Recreation Areas
6	Port - Marina, Ferry Terminal, Hospital, Waterfront Commercial
7	Science Park - Research and Development, Industrial/Manufacturing, Conference Center, Lodging Facilities, University
8	North Gate - Open Space, Beach and Recreation
9	Conservation - Conservation Areas

IRP sites are located within the footprint of areas scheduled for redevelopment. Analytical data collected during the investigations of these sites were used to perform human health and ecological risk assessments which indicated the potential for unacceptable human exposure to the residual contaminants detected in groundwater, surface water, surface and subsurface soil, and sediment. Thus, land use controls (LUCs) will be required on the ET Property to prevent unacceptable risks to human health and the environment during the deferral period. In addition, the final remedies for some sites may include long-term LUCs to prevent certain uses or activities that could result in unacceptable exposure.

To prevent unacceptable risks to human health and the environment, the Navy will ensure the following LUCs, as appropriate for each parcel or IRP site, are developed on the ET Property:

- A restriction on land use such that post-conveyance uses must be the same or similar to uses when the former NSRR was operational and be consistent with protection of human health and the environment
- A restriction on access and/or certain invasive activities in areas where surface soil, subsurface soil and or sediments are contaminated
- A restriction on access to or use of surface water in or near areas of known surface water contamination

- A restriction on use of groundwater and installation of new wells in or near areas of known groundwater contamination

Proposed site-specific LUCs to be imposed upon the ET Property are listed in the Exhibit D site summary table. These LUCs, or negotiated variations thereof, will be implemented through a variety of mechanisms including:

- Navy-LRA ESCA and EPA-LRA Consent Order for ESCA parcels
- EPA-Transferee Consent Orders for sale parcels
- LUC Remedial Designs for parcels with Navy-retained cleanup

The Navy transfer deeds for ET Property parcels will refer to LUC requirements contained in the applicable Consent Order (Navy-EPA or EPA-Third Party) which will be attached to the deeds. These Consent Orders will either contain detailed LUC requirements (implementation, compliance, monitoring, enforcement, modification/termination, etc.) or reference other documents agreed to between the Navy and EPA or the transferee and EPA.

A zoning plan implementing the Reuse Plan is also envisioned for NAPR that will be coupled with a comprehensive enforcement scheme for the zoning provisions. Zoning authority for the NAPR property lies exclusively with the Puerto Rico Planning Board. Given the nature of this project, the Planning Board envisions the adoption of a Special Regulation consistent with the LRA-approved Reuse Plan. Some areas within the ET Property may be encumbered by LUCs that impose use restrictions beyond those in the designated zoning district. In such cases, property use within the zoning district must be consistent with the LUCs. Once the Special Regulation is in place and the NAPR lands have been zoned, any construction or development therein must be consistent with the Special Regulation in order to be able to obtain a building permit from the Regulations and Permits Administration (ARPE, from its initials in Spanish), which is the entity that issues building permits in Puerto Rico. Any variances from the Special Regulation must be approved by the Planning Board, otherwise ARPE will not be able to grant a building permit. ARPE would also be able to enforce any violations of LUCs. Just as any potentially affected party may seek to enjoin a particular activity in violation of the underlying zoning by filing a complaint before ARPE, it could be provided that a similar complaint could also be filed with ARPE for alleged violations of the LUCs. If the complaint is filed with the LRA, the LRA would refer it to ARPE. Also, the LRA itself could file a complaint before ARPE to enjoin any future transferee's activities in violation of the LUCs.



*Covenant Deferral Request*  
*Former Naval Station Roosevelt Roads, Puerto Rico*

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The Navy may consider lifting the use restrictions imposed by deed upon a request to do so by the transferee that has been endorsed by EPA, if/when EPA is satisfied that modifying/terminating the use restriction will not compromise protection of human health and the environment.

Based upon the findings of the former NSRR site investigations, there are no unacceptable risks to human health or the environment that would preclude transfer and reuse of the ET Property assuming LUCs are implemented and maintained as described above.

## **5.0 RESPONSE/CORRECTIVE ACTION AND O&M REQUIREMENTS**

Requirements for the investigation, remediation, and closure of the SWMUs and AOCs at NSRR derive from the 1994 RCRA permit for NSRR (EPA I.D. #PR2170027203). The Navy and EPA have agreed to voluntarily enter into a RCRA § 7003 Administrative Order on Consent (Exhibit B) that will set out the Navy's corrective action obligations under RCRA and replace the 1994 RCRA permit.

The Navy's obligations for addressing each of the 38 SWMUs and four AOCs with remaining investigation, remediation and/or closure requirements are defined in the Consent Order, and may consist of one or more of the following:

- Implementation of a RCRA Facility Investigation (RFI)
- Implementation of an Interim Measure
- Completion of a Corrective Measures Study (CMS)
- Submission of a work plan to complete a CMS to determine the final remedy
- Submission of a Corrective Measures Implementation (CMI) Plan for the selected final remedy
- Completion of public notice and comment on RFI, CMS or CMI Plans
- Implementation of CMI Plans as modified based on public comments
- Submission of a Closure Plan for SWMU 3 in lieu of a CMS and/or CMI Plan
- Providing documentation that acceptable institutional controls are in effect to prevent future inappropriate usage of portions of NAPR and/or groundwater in certain portions of NAPR
- Addressing newly discovered releases attributable to past DoD operations
- Undertaking all actions in accordance with all applicable local, commonwealth and federal laws, regulations, ordinances and Executive Orders.

The Consent Order allows for the transfer of Navy work responsibilities to third parties, specifically stating that "...the Navy and EPA expect that the Navy will sell and/or otherwise convey various parcels or segments of the Facility to various third parties at which time EPA expects to issue a separate order to such third parties requiring the performance of any remaining corrective action tasks related to the transferred parcel and to suspend the tasks to be performed under this Consent Order to reflect such changes."

Section VIII of the Consent Order identifies the work to be performed by the Navy and the schedules for completing the work. Requirements and schedules for work to be performed by transferees will be defined in the individual third party consent orders negotiated between EPA and the transferees. The Navy anticipates continuing investigation and cleanup activities until the transferees initiate the response actions agreed to in their transfer documents with the Navy and third party consent orders negotiated with

*Covenant Deferral Request*  
*Former Naval Station Roosevelt Roads, Puerto Rico*

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EPA. Furthermore, the Navy will remain legally obligated to perform the necessary response actions if such actions are not completed in a timely and competent fashion by the transferees as necessary to ensure protection of human health and the environment. Thus, the Navy-EPA and EPA-Transferee Consent Orders will ensure the deferral and transfer of the ET Property will not substantially delay any necessary response actions.

## **6.0 CONTENTS OF TRANSFER DEEDS**

The notice, covenants and assurances required by CERCLA Sections 120(h)(3)(A) and 120(h)(3)(C) to be included in the transfer deeds that will convey title of the ET Property to the transferees are summarized below. Prior to conveyance of the ET Property, EPA and EQB representatives will be given reasonable opportunity to review the deed language related to environmental conditions and response action assurances, as discussed below.

### **a. Notice**

In accordance with CERCLA Section 120(h)(3)(A)(i), the transfer deeds shall provide notice, to the extent such information is available based upon a complete search of agency files, as to: (i) the type and quantity of those hazardous substances that were stored for one year or more, or were known to have been released or disposed of on the applicable portion of the ET Property; (ii) the time at which such storage, release or disposal took place, and (iii) a description of all remedial actions taken to address such releases or disposals. This information that will be appended to the deeds is set forth in CDR Exhibit F.

### **b. Covenant**

In accordance with CERCLA Section 120(h)(3)(A)(ii)(II), the transfer deeds shall contain a covenant warranting that any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States. Although some or all remaining remedial actions may be performed by one or more transferees per this covenant and the terms of the contemplated Consent Order, the Navy will remain legally obligated to perform those actions if they are not completed in a timely and competent fashion by the transferee as needed ensure protection of human health and the environment.

### **c. Access**

In accordance with CERCLA Section 120(h)(3)(A)(iii), the transfer deeds shall contain a clause granting the United States access to the property in any case in which a remedial action or corrective action is found to be necessary after the date of transfer. Appropriate rights of access shall also be provided to EQB so that it may confirm the long-term effectiveness of all implemented LUCs.

d. Response Action Assurances

In accordance with CERCLA Section 120(h)(3)(C)(ii)(I) through (ii)(IV), the transfer deeds shall contain the following specific assurances:

- I. Necessary restrictions on the use of the ET Property to ensure the protection of human health and the environment.
- II. Necessary restrictions to ensure that required remedial investigations, response actions, and oversight activities will not be disrupted, including by any new owner or user of the ET Property.
- III. An assurance that all necessary response action will be taken and a schedule identified for the investigation and completion of all such actions as approved by the appropriate regulatory agency.
- IV. An assurance that the Navy will submit appropriate annual budget requests to the Director of the Office of Management and Budget that adequately address schedules for investigation and completion of all necessary response actions.

e. Warranty

In accordance with CERCLA Section 120(h)(3)(C)(iii), the transfer deeds for the ET Property shall contain assurances that when all response actions necessary to protect human health and the environment with respect to any hazardous substance remaining on the property on the date of transfer have been taken, the Navy shall execute and deliver to the transferee an appropriate document in recordable form containing a warranty that all such response actions have been taken, and the making of the warranty shall be considered to satisfy the requirements of CERCLA Section 120(h)(3)(A)(ii)(I). The Navy shall provide this warranty when all required response actions have been completed, or in accordance with CERCLA Section 120(h)(3)(B), the Navy may provide this warranty upon a determination by EPA that the remedial actions at the sites are "operating properly and successfully."

## **7.0 RESPONSIVENESS SUMMARY**

As reflected in Exhibit G, public comment was solicited on a draft of this CDR via newspaper publication of document availability notices. All comments received were considered in the preparation of this suitability finding, and all written comments are included as Exhibit H. The Navy's responses to any unresolved written comments are included as Exhibit I.

**8.0 SUITABILITY DECLARATION**

As the cognizant DoD official authorized to make such determinations, I, the undersigned, have determined that with the proposed use restrictions to be implemented, the above-described property would be suitable for the intended reuses and that to allow such uses would be consistent with protection of human health and the environment.

17 July 2007

Date

James E. Anderson

JAMES E. ANDERSON

Director

BRAC Program Management Office Southeast  
North Charleston, South Carolina

*Covenant Deferral Request*  
*Former Naval Station Roosevelt Roads, Puerto Rico*

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**EXHIBIT A**

**ENVIRONMENTAL CONDITION OF PROPERTY REPORT CONCLUSIONS**



**CONCLUSIONS**

The ECP investigation confirmed that a mature and comprehensive environmental program, focused on areas of historic environmental concern, has been in existence at NSRR for decades.

- NSRR investigative activities under the Navy's Installation Restoration Program (IRP) have been ongoing since the early 1980s.
- The entire station is currently encompassed under a U.S. Environmental Protection Agency (EPA) Corrective Action component of the station's Resource Conservation and Recovery Act (RCRA) permit.
- Under the IRP, and currently pursuant to the EPA RCRA Corrective Action permit, 59 historic sites at NSRR [Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs)] have been investigated (for some, if only to conclude that no further investigation was warranted), are currently under investigation, or are pending further corrective action measures.
- Under the UST program, seven former UST sites and one current AST site are under a Monitored Natural Attenuation (MNA) study in accordance with the monitoring protocols developed by the Underground Storage Tank Management Division (USTMD) of the Puerto Rico Environmental Quality Board (EQB).
- The Phase I/II ECP investigation identified another 23 sites, 17 of which will be further investigated and/or evaluated.

Considering the active, comprehensive, and ongoing IRP and MNA sites, in conjunction with the newly identified ECP sites, it may reasonably be concluded that all areas of significant environmental concern on NSRR have been identified; and all have been, are undergoing, or will be evaluated/investigated.

**INSTALLATION RESTORATION PROGRAM**

Until 1993, all environmental investigation and remediation activities, with the exception of USTs, were conducted under the Navy's IRP, which generally followed CERCLA guidelines. In total, 55 SWMUs and 4 AOCs were identified. In 1993, NSRR submitted a RCRA Part B Permit application for the storage of hazardous waste on the Station. On October 20, 1994, the EPA Region II issued a Final RCRA Part B permit. The corrective action provisions of the permit (addressing sites of known/suspected releases of hazardous waste) currently

contain specific requirements for investigation, and potentially, RCRA RFI activities and remediation at 28 SWMUs and 3 AOCs. The remainder of the SWMUs/AOCs identified were determined to require no further investigation, due to the fact that no release or disposal of hazardous waste or materials was identified.

Section 5.3 describes the current regulatory status and current physical and environmental condition of the SWMUs/AOCs in the IRP at NSRR. Table 5-4 provides a brief summary of each SWMU and AOC, including IRP designation (IR Site No.), type of RFI required in the RCRA Part B Permit, operable unit number, current work status, as well as comments on the current status of each unit. The locations of the IRP sites are presented in Figure 5-4.

## 7.2

### ***MNA SITES***

A MNA study of seven former UST sites and one current AST site at NSRR is being performed by the Navy. The Year 4 summary report, dated December 2004, presents the findings of the study along with recommendations based on those findings. These are discussed in Section 5.5.1.1.

## 7.3

### ***ECP SITES***

ECP Sites are areas of potential environmental concern that were identified as a result of the records review, aerial photography analysis, physical site inspections, and interviews conducted as part of the ECP investigation. The ECP Sites had not been previously identified or investigated under existing environmental programs (e.g., IRP, USTs, etc.) at NSRR, although there are a few ECP Sites that border and/or encompass existing IRP sites. The Phase I portion of the ECP investigation identified 23 ECP Sites that required further evaluation. ECP Sites are addressed in Section 5.4. Table 5-5 presents a list of the ECP Sites, and Figure 5-54 presents the overall location of each of the ECP Sites.

The newly identified ECP Sites were then evaluated under the Phase II portion of the ECP investigation (see Appendix F). The Phase II investigation was conducted to determine if a release/disposal actually occurred at newly identified ECP sites and, if so, if any potential risk to human health is present at the sites. The Phase II investigation consisted of field observations, environmental media (e.g., soil, groundwater) sample collection, laboratory analysis, review of analytical data, and a qualitative risk assessment for each site (see Section 4.6). Based on the results of the ECP Phase II Investigation, it was determined that six sites have not been environmentally impacted by past and present operations at NSRR and therefore, require no further investigation:

- ECP Site 4
- ECP Site 9
- ECP Site 10
- ECP Site 11
- ECP Site 12
- ECP Site 18

The Phase II ECP investigation also determined that 14 of the ECP Sites have been impacted by past and recent operations at NSRR and therefore, are being incorporated into the NSRR RCRA Corrective Action Program:

- ECP Site 2
- ECP Site 3
- ECP Site 5
- ECP Site 6
- ECP Site 7
- ECP Site 8
- ECP Site 13
- ECP Site 14
- ECP Site 15
- ECP Site 16
- ECP Site 17
- ECP Site 19
- ECP Site 20
- ECP Site 21

No further ECP investigations will be performed at ECP Sites 1 and 22 because they are being transferred to other federal agencies. ECP Site 23 is being addressed separately under the Navy's Munitions Response Program (MRP).

#### 7.4

#### **ENVIRONMENTAL COMPLIANCE**

The ECP investigation identified few areas of concern regarding current environmental compliance. These are discussed in Section 5.1. None is currently significant.

**Asbestos Containing Material (ACM).** The last large-scale survey to identify FAD ACM on NSRR was performed approximately 20 years ago but no follow-up documentation was located. Since then, specific areas have been surveyed but no station-wide conclusions may be drawn other than the assumption that, given the age of construction of most buildings on NSRR, the presence of some form of ACM should be presumed.

A comprehensive station-wide ACM survey is underway and targeted for completion in late Summer 2005. When published, this report can be consulted for the most up-to-date ACM information.

**Lead-Based Paint (LBP).** Eight hundred and seventy-nine buildings at NSRR were constructed prior to 1978, the year in which LBP was banned for consumer use. These buildings, and any other structures built before 1978, therefore, are presumed to contain LBP. LBP surveys have been conducted in specific areas at NSRR but no station-wide survey has been conducted at NSRR.

A LBP inspection and risk assessment of family housing is underway and targeted for completion in late Summer 2005. When published, this report can be consulted for the most up-to-date LBP information.

## 7.5

### ***PROPERTY CATEGORIZATION***

In accordance with CERFA procedures, this ECP Report divides all property at NSRR into "parcels", and classifies them into one of the three following categories (see Section 1.1 for a description and explanation as to the derivation of these categories):

- **Category 1** – Areas where no known or documented releases, or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent areas.
- **Category 2** – Areas where the release, disposal, or migration, or some combination thereof, of hazardous substances, or petroleum products or their derivatives has occurred, but at concentrations that do not require a removal or remedial action, or all remedial actions necessary to protect human health and the environment have been taken.
- **Category 3** – Areas where a confirmed or suspected release, disposal, or migration, or some combination thereof, of hazardous substances, or petroleum products or their derivatives has occurred, but required investigation and/or response actions have not yet been initiated or are ongoing.

Table 7-1 presents a listing of all Category 2 and 3 sites identified during the Phase I/II ECP investigation at NSRR, as well as a list of all IRP, MNA, and ECP sites investigated and determined to be Category 1 sites. Figure 7-1 is a map of the station with all station property divided into parcels and categorized into one of the above-referenced categories.

[Note: In addition to the designated IRP, MNA, and ECP sites, the end of Table 7-1 and Figure 7-1 depict four areas of known contamination that are not easily categorized into one of the existing environmental programs at NSRR. All four of these areas are considered Category 2 (see definition above). With the exception of the JP-4 fuel spill area, historical operations in these areas were industrial in nature, and included routine minor maintenance and storage activities that resulted in small (i.e., at concentrations that do not require a removal or remedial action) releases of POL and/or hazardous substances. Furthermore, specific areas of significant environmental contamination have been identified within these three areas through the IRP, MNA, and ECP investigations, and are being addressed under these programs. The JP-4 fuel spill area has been remediated and evaluated under the Natural Resources Damage Assessment (NRDA) program (see Section 5.2.4).]

*[Note: Figure 7-1 should be viewed as a general categorization of NSRR property. Given the available data, it is not possible to spatially identify the precise boundaries of all SWMUs, AOCs, MNA sites, and ECP sites.]*

*Figure 7-1 must be interpreted in conjunction with this ECP Report, as well as all relevant IRP documents and other documents that provide currently available data on all sites of environmental concern. The imprecision with regard to parcel boundaries is attributable to the fact that:*

- *ECP sites require further investigation under the IRP/RCRA Corrective Action program to determine their full extent of contamination.*
- *MNA sites are undergoing continuing characterization.*
- *For some historic spills, the available information provides only an estimation as to the extent of impact.*
- *Some areas are not amenable to spatial depiction (for example SWMU 38: "below ground sanitary/storm sewers").*
- *Some areas are defined not only by hard data, but also by a common knowledge of historic operations. The best example would be hangar aprons at the airfield. Specific apron areas have been previously identified for investigation but common knowledge suggests the entire apron was most likely a source of minor spills/releases/unconfined maintenance in the 1940s-50s.]*

All Category 3 sites will continue to be evaluated, investigated and, if warranted, remediated under the IRP/RCRA Corrective Action program or the MNA program.

**Table 7-1. Description and Status of all SWMUs, AOCs, MNA Sites, and ECP Sites at NSRR, PR**

Site	Site Name	Status <sup>1</sup>	Status Comments/Details	Recommended Action	Potential Site Transfer Condition	ECP Category <sup>2</sup>
SWMU 1	Former Army Cremator Disposal Site	5, 6, 7	Corrective Measures Study (CMS) initiated. An Ecological Risk Assessment (ERA) through Step 3a was completed and indicates that there will be a need to proceed to Step 3b - Baseline ERA.	Continue with ERA (Step 3b).	To be determined following completion of CMS report.	3
SWMU 2	Langley Drive Disposal Area	5, 6, 7	CMS initiated. An ERA through Step 3a was completed and indicates that there will be a need to proceed to Step 3b - Baseline ERA.	Continue with ERA (Step 3b).	To be determined following completion of CMS report.	3
SWMU 3	Station Landfill	3	Remedial Feasibility Investigation (RFI) completed. Semi-annual groundwater monitoring in accordance with Puerto Rico Environmental Quality Board (EQB) Solid Waste Management Regulations Part IV-D is required.	Prepare a Landfill Closure Plan for inactive 50 acres.	Proposed Landfill Cap Installation by future owner w/ Deed Restrictions (Residential or Industrial development; Soil and Groundwater usage)	3
SWMU 4	Drone Fuel Oil/Water Separator	1	No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from these units; RFI not required.	None	NA	1
SWMU 5	Dumpsters (basewide)	1	No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from these units; RFI not required.	None	NA	1
SWMU 6	Building 145	4, 9	CMS Final Report submitted recommending no further action (NFA). NFA proposed in RCRA Part B permit renewal.	NFA - Awaiting Part B Permit renewal / modification from EPA for final determination.	Proposed for NFA w/ No Restrictions	2
SWMU 7	Tow Way Fuel Farm	8, 12	Free product removal performed on monthly basis as an Interim Corrective Measure. CMS Final Report will determine proposed remedial action. Part B Permit modification by EPA will be required before the implementation of the proposed remedy.	Prepare a Corrective Measures Implementation (CMI) Design Package.	To be determined following completion of CMS report.	3
SWMU 8	Tow Way Road Fuel Farm Sludge Disposal Pits	8, 12	Combined with SWMU 7 into one unit.	Site is part of SWMU 7	NA	3
SWMU 9	Tanks 212-217 Sludge Burial Pits	6, 7	Potential non-carcinogenic human health risk exists at Areas A and C and a potential ecological risk exists at Areas A&B for lead. Additional Data Collection Investigation Report recommended Step 3b of ERA. Awaiting EPA review.	Continue with ERA (Step 3b)	To be determined following completion of CMS report.	3

**Table 7-1. Description and Status of all SWMUs, AOCs, MNA Sites, and ECP Sites at NSRR, PR (cont.)**

Site	Site Name	Status <sup>1</sup>	Status Comments/Details	Recommended Action	Potential Site Transfer Condition	ECP Category <sup>2</sup>
SWMU 10	Substation 2/Building 90	4, 9, 12	CMS initiated and completed. NFA recommended in RCRA Part B permit renewal, however contamination level is greater than residential risk based concentration (RBC) value requiring a deed restriction.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed NFA w/ Deed Restrictions (Residential Developments: Soil - PCBs)	2
SWMU 11	Old Power Plant/Building 38	3	Building 38 interior was recharacterized and because engineering controls have been placed on the building, there is no risk to human health or environment. NFA recommended; awaiting EPA review.	Prepare a streamlined CMS for a Land Use Control to maintain existing engineering and institutional controls	Proposed NFA w/ Deed Restrictions (Interior of Building: PCBs)	3
SWMU 12	Fire Training Pit Oil/Water Separator	4	No contaminants of concern (COCs) identified during the RFI. NFA proposed in RCRA Part B permit renewal.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed NFA w/ No Restrictions	1
SWMU 13	Old Pest Control Shop/Building 258	9, 10	CMI Work Plan Design Package submitted and EPA approved. EPA is to modify permit with the proposed CMI.	Continue Corrective Measures Implementation - Awaiting Part B Permit renewal/modification	Proposed Corrective Action w/ No Restrictions	3
SWMU 14	Fire Training Pit Area	13	Further action is deferred until site is closed.	Perform RFI (FY05).	To Be Determined	3
SWMU 15	Station Hospital Incinerator	1	No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required. Incinerator removed from this site in the fall of 1999.	None	NA	1
SWMU 16	Waste Explosives Storage Building 1666	1	No evidence of releases from this building was observed, and no knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 17	Building 1973 - Non-Flammable Hazardous Waste Storage	1	Former main non-flammable hazardous waste container storage facility for the base. No knowledge or evidence of systematic and routine releases of hazardous waste or constituents from this unit; RFI not required.	None	NA	1
SWMU 18	Building 2009 - Ignitable Hazardous Waste Storage	1	Former container storage building for ignitable hazardous wastes. No knowledge or evidence of systematic and routine releases of hazardous waste or constituents from this unit; RFI not required.	None	NA	1

**Table 7-1. Description and Status of all SWMUs, AOCs, MNA Sites, and ECP Sites at NSRR, PR (cont.)**

Site	Site Name	Status <sup>1</sup>	Status Comments/Details	Recommended Action	Potential Site Transfer Condition	ECP Category <sup>2</sup>
SWMU 19	Building 121 - Pesticide Storage	1, 11C	RCRA closure submitted in June 1994 and approved by USEPA.	None	NFA w/ No Restrictions	2
SWMU 20	Tank Truck/Concrete Storage Pad near Building 860	1	Formerly used to temporarily store waste oil, fuels, and solvents generated at the drone refurbishing area. No visual evidence of releases was observed during inspections; RFI not required.	None	NA	1
SWMU 21	Mobile Floating Tanks	1	Not a unit in which hazardous waste is stored, therefore, not considered a SWMU.	None	NA	1
SWMU 22	Mobile Barges/SWOBS	1	Not a unit in which hazardous waste is stored, therefore, not considered a SWMU.	None	NA	1
SWMU 23	Oil Spill Oil/Water Separator Tanks	4	NFA proposed in the RCRA Part B permit renewal. Contamination to be addressed through deed restrictions.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed NFA w/ Deed Restrictions (Residential Development; Soil + benzo(a) pyrene, TPH)	2
SWMU 24	Oil Spill Oil/Water Separator and Adjoining Pad (VC-8 Bldg. 1625)	4	NFA proposed in the RCRA Part B permit renewal.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed for NFA w/ No Restrictions	2
SWMU 25	DRMO Storage Yard	13	Further investigations being completed under the RCRA operating permit closure.	Closure in accordance with RCRA TSD permit.	Proposed for NFA w/ No Restrictions	3
SWMU 26	Building 544 Area	4	NFA proposed in the RCRA Part B permit renewal.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed for NFA w/ No Restrictions	2
SWMU 27	Domestic Sewage Treatment Plant (Capehart Area)	1	Unit does not manage or generate RCRA hazardous wastes or constituents. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 28	Domestic Sewage Treatment Plant (Bundy Area)	1	Unit does not manage or generate RCRA hazardous wastes or constituents. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1



**Table 7-1. Description and Status of all SWMUs, AOCs, MNA Sites, and ECP Sites at NSRR, PR (cont.)**

Site	Site Name	Status <sup>1</sup>	Status Comments/Details	Recommended Action	Potential Site Transfer Condition	ECP Category <sup>2</sup>
SWMU 29	Wastewater Treatment Plant (Industrial Area)	1	Unit does not manage or generate RCRA hazardous wastes or constituents. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 30	Former Incinerator Area (near SWMU 3)	4	NFA proposed in the RCRA Part B permit renewal. A deed restriction is necessary to prevent groundwater usage.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed NFA w/ Deed Restrictions (Groundwater usage: antimony and zinc)	2
SWMU 31	Waste Oil Collection Area/Building 31 and 2022	9, 10	Final CMI Work Plan Design Package submitted, EPA approved and awaiting public comment. A deed restriction is anticipated.	Continue CMI - Awaiting Part B Permit renewal/modification	Proposed Corrective Action w/ Deed Restrictions (Residential development; Soil - dioxin and furans)	3
SWMU 32	PWD Storage Yard/Battery Collection Area	9, 10	Final CMI Work Plan Design Package submitted, EPA approved and awaiting public comment. A deed restriction is anticipated.	Continue CMI - Awaiting Part B Permit renewal/modification	Proposed Corrective Action w/ Deed Restrictions (Residential development; Soil - dioxin and furans)	3
SWMU 33	Storage Pad Area/Building 379	1	Used for temporary storage of various wastes generated during aircraft maintenance. A new storage area was constructed to take place of the old area (SWMU 33). The new area has been designated SWMU 51. A RFI was not required at this SWMU.	None	NA	2
SWMU 34	Temporary Storage Area Fleet Squadron Eight Airfield	1	Used for temporary storage of waste fuels and paints. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 35	Oil/Water Separator Building 396	1	Unit does not manage or generate RCRA hazardous wastes or constituents. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 36	Oil/Water Separator Berthing Pier	1	Unit does not manage or generate RCRA hazardous wastes or constituents. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1

**Table 7-1. Description and Status of all SWMUs, AOCs, MNA Sites, and ECP Sites at NSRR, PR (cont.)**

Site	Site Name	Status <sup>1</sup>	Status Comments/Details	Recommended Action	Potential Site Transfer Condition	ECP Category <sup>2</sup>
SWMU 37	Waste Oil Storage Area/Hangar 200	4	Replaced by another similar facility. NFA proposed in the RCRA Part B permit renewal. A deed restriction is required due to contamination.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed NFA w/ Deed Restrictions (Residential Development; Soil - SVOCs and PCBs)	2
SWMU 38	Below Ground Sanitary/Storm Sewers	1	Below ground sanitary and storm sewer systems. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 39	Building 3158/Former Battery Drain Area	4	NFA proposed in the RCRA Part B permit renewal. A deed restriction is required to prevent unrestricted site usage.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed NFA w/ Deed Restrictions (Residential Development; Soil - arsenic (3.5mg/kg))	2
SWMU 40	Alpha Company Maintenance Yard Mobile Oil Tank	1	Mobile 300-gallon tank that was used as a temporary collection and storage point for waste oils. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 41	Building 3152 Wash Pad	1	Former open air, curbed, concrete pad used as a wash-pad to rinse off pesticide control equipment. The discharge point for the wash waters collected in the sump passes through a permitted outfall.	None	NA	2
SWMU 42	Water Purification Plant Lagoons	1	Used for disposal of sludges from the water purifications plant. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 43	Target Drone Drainage Ditch/Building 860	1	Former location of discarded fuel and oil from recovered target drones. Sampling did not identify hazardous constituents above action levels. An RFI was not required.	None	NA	2
SWMU 44	Aerial Target Systems Yard Drainage Ditch	1	Drainage ditch down-gradient from SWMU 43. As discussed in SWMU 43, the EPA is satisfied that this unit has been adequately investigated, and a RFI was not required.	None	NA	2

**Table 7-1. Description and Status of all SWMUs, AOCs, MNA Sites, and ECP Sites at NSRR, PR (cont.)**

Site	Site Name	Status <sup>1</sup>	Status Comments/Details	Recommended Action	Potential Site Transfer Condition	ECP Category <sup>2</sup>
SWMU 45	PCB Spill Area/Old Power Plant	5, 6, 7, 12C	CMS initiated. An ERA through Step 3a was completed and indicates a need for Step 3b-Baseline ERA.	Continue with Baseline ERA (Step 3b).	To be determined following completion of CMS report.	3
SWMU 46	Pole Storage Yard Covered Pad	9, 10	CMI Work Plan Design Package submitted and EPA approved. EPA is to modify permit with the proposed CMI.	Continue CMI - Awaiting Part B Permit renewal/modification	Proposed Corrective Action w/ No Restrictions	3
SWMU 47	Satellite Disposal Areas	1	Former Satellite Accumulation Points throughout the base. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 48	Mobile Container Storage Rack/Building 3102	1	Formerly utilized as a temporary (less than 90 days) storage facility for waste oils and oil contaminated soils. No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 49	500-Gallon Waste Oil Tank/Building 3188	1	No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 50	Drum Storage Area/Building 3166	1	No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 51	New AIMD Storage Pad/Building 379	4	Former hazardous substance storage pad. NFA proposed in the RCRA Part B permit renewal. A deed restriction is required to prevent unrestricted site usage.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed NFA w/ Deed Restrictions (Residential Development; Soil - SVOCs).	2
SWMU 52	Storage Pad near Building 3158	1	No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
SWMU 53	Building 64 - Malaria Control Building	9	CMS Final Report submitted and approved by the EPA. CMI is currently being developed to demolish the building and remove the soils.	Continue CMI - Awaiting Part B Permit renewal/modification	Proposed Corrective Action w/ No Restrictions	3
SWMU 54	Building 1914 - Former NEX Repair/Maintenance Shop	7	RFI Report submitted and EPA approved. CMS is pending to address TCE in groundwater.	Prepare CMS report.	To be determined following completion of CMS report.	3

**Table 7-1. Description and Status of all SWMUs, AOCs, MNA Sites, and ECP Sites at NSRR, PR (cont.)**

Site	Site Name	Status <sup>1</sup>	Status Comments/Details	Recommended Action	Potential Site Transfer Condition	ECP Category <sup>2</sup>
SWMU 55	Potential Source Area and Associated TCE Plume at Tow Way Fuel Farm	7	New SWMU added from SWMU 7 and 8. CMS needs to be performed to address TCE in groundwater.	Prepare CMS report.	To be determined following completion of CMS report.	3
AOC A	Torpedo Shop	1	No knowledge or evidence of systematic and routine releases of hazardous wastes or constituents from this unit; RFI not required.	None	NA	1
AOC B	Former Building 25 Area	4, 9	CMS Final Report submitted which recommended NFA. Awaiting EPA review.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed for NFA w/ No Restrictions	2
AOC C	Transformer Storage Pads near Building 2042	9, 10	CMI Work Plan Design Package submitted and EPA approved. Awaiting EPA to submit Part B Permit renewal/modification.	Continue CMI - Awaiting Part B Permit renewal/modification	Proposed Corrective Action w/ No Restrictions	3
AOC D	Sediments	4	NFA proposed in RCRA Part B permit renewal. Sediment investigation conducted with associated SWMUs.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed for NFA w/ No Restrictions	2
MNA 124	Four USTs at Bldg. 124	14	Soil contamination at MNA 124 has decreased to undetectable limits and one more annual soil monitoring event is scheduled to be conducted; also, due to persisting groundwater contamination, groundwater monitoring will continue to be conducted at monitoring wells MW2 and MW5.	Continue groundwater monitoring.	Proposed for NFA w/ No Restrictions	3
MNA 520	Four USTs at Bldg. 520	14	Due to persistent groundwater contamination, the original MNA 520 groundwater monitoring protocol is continuing.	Continue groundwater monitoring.	Proposed NFA w/ Deed Restrictions (Groundwater usage)	3
MNA 731	UST at Bachelor's Enlisted Quarters (BEQ) Bldg. 731	14	Due to persistent TPH soil contamination, the original MNA 731 soil and groundwater monitoring protocols are continuing for TPH only.	Continue groundwater monitoring.	Proposed NFA w/ Deed Restrictions (Groundwater usage)	3
MNA 734	UST at BEQ Bldg. 734	14	Due to persistent groundwater contamination, the original MNA 1738 groundwater monitoring protocol is continuing.	Continue groundwater monitoring.	Proposed NFA w/ Deed Restrictions (Groundwater usage)	3
MNA 735	UST at BEQ Bldg. 735	14	Due to persistent TPH groundwater contamination, the original MNA 735 annual groundwater monitoring protocols are continuing for TPH only.	Continue groundwater monitoring.	Proposed NFA w/ Deed Restrictions (Groundwater usage)	3

**Table 7-1. Description and Status of all SWMUs, AOCs, MNA Sites, and ECP Sites at NSRR, PR (cont.)**

Site	Site Name	Status <sup>1</sup>	Status Comments/Details	Recommended Action	Potential Site Transfer Condition	ECP Category <sup>2</sup>
MNA 1995	AST West of Tow Way Fuel Farm	14	Due to persistent groundwater contamination, the original MNA 1995 groundwater monitoring protocol is continuing.	Continue groundwater monitoring.	Proposed NFA w/ Deed Restrictions (Groundwater usage)	3
MNA 1738	Three USTs at Bldg. 1738	14	Due to persistent groundwater contamination, the original MNA 1738 groundwater monitoring protocol is continuing.	Continue groundwater monitoring.	Proposed NFA w/ Deed Restrictions (Groundwater usage)	3
MNA 2842B	UST at Bldg. 2842	14	Due to the existence of free product contaminating the groundwater at the site, monitoring is continuing at MW1 and MW5 on a quarterly basis.	Continue groundwater monitoring.	Proposed NFA w/ Deed Restrictions (Groundwater usage)	3
ECP 1	Active Small Arms Range	13	Further action is deferred until site is closed.	None	Proposed transfer to Federal agency	3
ECP 2	Hangar 200 Apron	7, 12A	ECP Phase 1&2 indicates that this site may pose a potential health risk for lead contamination in drainage ditch sediments.	Continue with streamlined CMS (soil removal) or Interim Corrective Measure	To be determined	3
ECP 3	Facility No. 278 POL Drum Storage Area	5	ECP Phase 1&2 indicates that site soils/GW may pose a potential risk.	Complete RCRA Facility Investigation	To be determined	3
ECP 4	Rifle Range at Punta Puerca	1	ECP Phase 1&2 did not find any indication of a release at this site.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed for NFA w/ No Restrictions	1
ECP 5	Former Vehicle Maintenance and Refueling Area	7, 12A	ECP Phase 1&2 indicates that this site may pose a potential health risk for lead contamination in site soils	Continue with streamlined CMS (soil removal) or Interim Corrective Measure	To be determined	3
ECP 6	Former Landfill at the Marina	5	ECP Phase 1&2 indicates that site soils/groundwater may pose a potential risk.	Complete RCRA Facility Investigation	To be determined	3
ECP 7	Former Bundy Area Maintenance Facility	7, 12A	ECP Phase 1&2 indicates that site soils may pose a potential risk.	Continue with streamlined CMS (soil removal) or Interim Corrective Measure	To be determined	3
ECP 8	Former Bundy Disposal Area	5	ECP Phase 1&2 indicates that site soils may pose a potential risk.	Complete RCRA Facility Investigation	To be determined	3
ECP 9	Former Pistol Range at BEQ	1	ECP Phase 1&2 did not find any indication of a release at this site.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed for NFA w/ No Restrictions	1
ECP 10	Former Skeet Range at Ofstie Airfield	1	ECP Phase 1&2 did not find any indication of a release at this site.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed for NFA w/ No Restrictions	1

**Table 7-1. Description and Status of all SWMUs, AOCs, MNA Sites, and ECP Sites at NSRR, PR (cont.)**

Site	Site Name	Status <sup>1</sup>	Status Comments/Details	Recommended Action	Potential Site Transfer Condition	ECP Category <sup>2</sup>
ECP 11	Former UST No. 208	1	ECP Phase 1&2 did not find any indication of a release at this site.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed for NFA w/ No Restrictions	1
ECP 12	Former UST No. 289	1	ECP Phase 1&2 did not find any indication of a release at this site.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed for NFA w/ No Restrictions	1
ECP 13	Former Gas Station	5	ECP Phase 1&2 indicates that site soils/groundwater may pose a potential risk.	Complete RCRA Facility Investigation	To be determined	3
ECP 14	Former Southern Fire Training Area	5	ECP Phase 1&2 indicates that site soils may pose a potential risk.	Complete RCRA Facility Investigation	To be determined	3
ECP 15	Aircraft Parking Area	7, 12A	ECP Phase 1&2 indicates that site soils may pose a potential health risk for lead contamination.	Continue with streamlined CMS (soil removal) or Interim Corrective Measure	To be determined	3
ECP 16	Disposal Area Northwest of Landfill	5	ECP Phase 1&2 indicates that site soils/groundwater may pose a potential risk.	Complete RCRA Facility Investigation	To be determined	3
ECP 17	Quarry Disposal Site	5	ECP Phase 1&2 indicates that site soils/groundwater may pose a potential risk.	Complete RCRA Facility Investigation	To be determined	3
ECP 18	Building 31 - Public Works Department	1	ECP Phase 1&2 did not find any indication of a release at this site.	NFA - Awaiting Part B Permit renewal / modification for final determination.	Proposed NFA w/ Deed Restrictions (Groundwater usage: barium and vanadium)	1
ECP 19	DRMO Scrap Metal Recycling Yard	7, 12A	ECP Phase 1&2 indicates that this site soils/groundwater may pose a potential risk.	Continue with streamlined CMS (soil removal) or Interim Corrective Measure	To be determined	3
ECP 20	Fuel Pipelines and Hydrant Pits	5	ECP Phase 1&2 indicates that site soils/groundwater may pose a potential risk.	Complete RCRA Facility Investigation	To be determined	3
ECP 21	Building 803	5	ECP Phase 1&2 indicates that this site may pose a potential risk.	Complete RCRA Facility Investigation	To be determined	3
ECP 22	Building 2300	5	Navy indicates that this site will continue to be utilized for its current function through a Fed-to-Fed transfer to the Dept. of Army.	Complete RCRA Facility Investigation	To be determined	3
ECP 23	Pineros and Cabeza de Ferro Islands	2	Potential for MEC due to historic training activities.	None	Proposed NFA w/ Deed Restrictions (wildlife refuge; no human usage)	3

**Table 7-1. Description and Status of all SWMUs, AOCs, MNA Sites, and ECP Sites at NSRR, PR (cont.)**

Site	Site Name	Status <sup>1</sup>	Status Comments/Details	Recommended Action	Potential Site Transfer Condition	ECP Category <sup>2</sup>
Apron Parcel	Ofstie Airfield Airplane Aprons	1	Miscellaneous historic minor releases of hazardous substances and petroleum products.	None	NA	2
Waterfront Parcel	Waterfront Area south of Forrestal Dr. between Pier 1 and Breton St.	1	Miscellaneous historic minor releases of hazardous substances and petroleum products.	None	NA	2
Moscrip Parcel	Camp Moscrip Area	1	Miscellaneous historic minor releases of hazardous substances and petroleum products.	None	NA	2
Spill Parcel	1999 JP-5 Fuel Spill Impact Area	1	Natural Resources Damage Assessment conducted; no long-term impacts anticipated.	NFA	NA	2

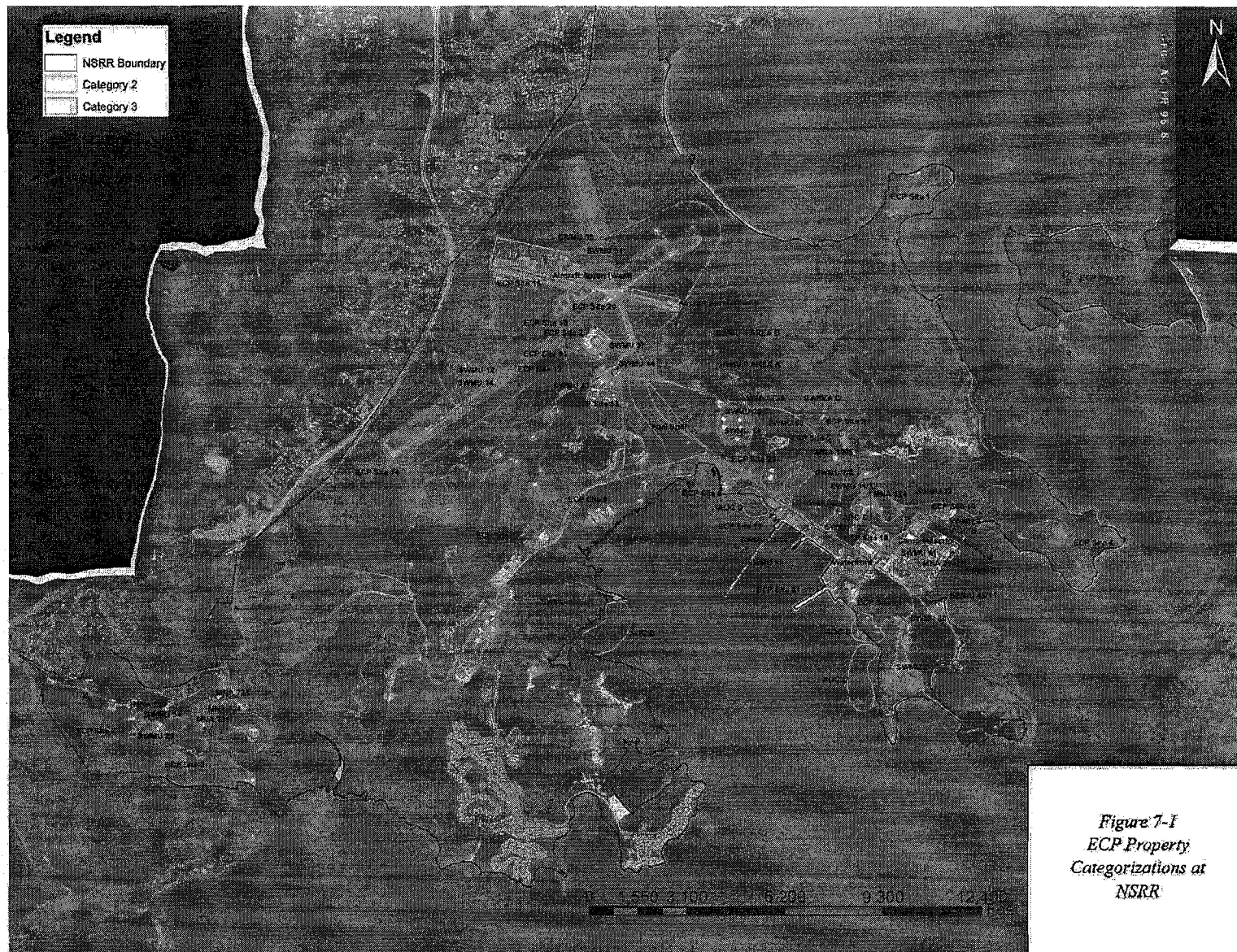
**<sup>1</sup>Status Codes**

- |                                       |  |
|---------------------------------------|--|
| 1 No work required                    | 10 Remedial Design   |
| 2 Investigations pending              | 11 Corrective Measure Implementation                         |
| 3 Under Investigation                 | 12 Interim Corrective Measure                                |
| 4 Removal from Permit pending         | A - Planned  |
| 5 Additional Investigations required  | B - Underway   |
| 6 Ecological Risk Assessment          | C - Completed  |
| 7 Corrective Measures Study pending   | 13 Further action deferred                                   |
| 8 Corrective Measures Study underway  | 14 Under Long-term Monitoring; No Further Action anticipated |
| 9 Corrective Measures Study completed |  |

**<sup>2</sup>ECP Category Codes**

- Areas where no known or documented releases, or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent areas.
- Areas where the release, disposal, or migration, or some combination thereof, of hazardous substances, or petroleum products or their derivatives has occurred, but at concentrations that do not require a removal or remedial action, or all remedial actions necessary to protect human health and the environment have been taken.
- Areas where a confirmed or suspected release, disposal, or migration, or some combination thereof, of hazardous substances, or petroleum products or their derivatives has occurred, but required investigation and/or response actions have not yet been initiated or are ongoing.







*Covenant Deferral Request*  
*Former Naval Station Roosevelt Roads, Puerto Rico*

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**EXHIBIT B**

**RCRA 7003 ADMINISTRATIVE ORDER ON CONSENT**

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:

United States

**The Department of the Navy,**

Naval Activity Puerto Rico,

formerly Naval Station Roosevelt Roads

Puerto Rico,

RESPONDENT,

Proceeding under Section 7003 of

the Solid Waste Disposal Act, as amended

42 U.S.C. Section 6973.

EPA DOCKET NO.  
RCRA-02-2007-7301

RCRA § 7003 ADMINISTRATIVE ORDER ON CONSENT

## TABLE OF CONTENTS

I. INTRODUCTION	<u>1</u>
II. JURISDICTION	<u>1</u>
III. PARTIES BOUND	<u>2</u>
IV. DEFINITIONS	<u>2</u>
V. FINDINGS OF FACT	<u>4</u>
VI. CONCLUSIONS OF LAW AND DETERMINATIONS	<u>16</u>
VII. ORDER ON CONSENT	<u>17</u>
VIII. WORK TO BE PERFORMED	<u>17</u>
IX. EPA APPROVALS AND ADDITIONAL WORK	<u>35</u>
X. SUSPENSION AND RESUMPTION OF WORK BY THE NAVY	<u>36</u>
XI. MODIFICATION OF WORK PLANS	<u>40</u>
XII. QUALITY ASSURANCE	<u>40</u>
XIII. DOCUMENT CERTIFICATION	<u>41</u>
XIV. SAMPLING, ACCESS AND DATA AVAILABILITY	<u>42</u>
XV. COMPLIANCE WITH OTHER LAWS	<u>44</u>
XVI. RECORD RETENTION	<u>44</u>
XVII. FULL TIME EMPLOYEE ASSISTANCE	<u>45</u>
XVIII. DISPUTE RESOLUTION	<u>45</u>
XIX. STIPULATED PENALTIES	<u>47</u>
XX. FORCE MAJEURE	<u>49</u>
XXI. RESERVATION OF RIGHTS	<u>50</u>
XXII. OTHER CLAIMS	<u>52</u>

XXIII. NOTICE OF NON-LIABILITY OF EPA-52-

XXIV. MODIFICATION OF THIS CONSENT ORDER-52-

XXV. ENFORCEMENT -53-

XXVI. FUNDING-53-

XXVII. TERMINATION AND SATISFACTION-54-

XXVIII. PUBLIC COMMENT ON THIS CONSENT ORDER AND DECISIONS MADE  
PURSUANT TO THIS CONSENT ORDER -54-

XXIX. SEVERABILITY-56-

XXX. EFFECTIVE DATE-56-

XXXI. CONSENT-56-

ATTACHMENTS

ATTACHMENT I Documentation of Releases at Naval Activity Puerto Rico

ATTACHMENT II Exposure Pathways and Possible Adverse Human Health and/or  
Environmental Impacts

ATTACHMENT III Scope of Work for a Full RCRA Facility Investigation (RFI)

ATTACHMENT IV Scope of Work for a Corrective Measure Study

## I. INTRODUCTION

1. This Administrative Order on Consent (Consent Order) is entered into voluntarily by the United States Environmental Protection Agency (EPA) and Respondent, The United States Department of the Navy. The Order is intended to set out the Navy's corrective action obligations under the Resource Conservation and Recovery Act ("RCRA") and replaces the 1994 RCRA permit as the document memorializing these obligations concerning the Naval Activity Puerto Rico (formerly Naval Station Roosevelt Roads) base.

2. This Consent Order provides for the performance by Respondent of the following: implementation of RCRA Facility Investigations (RFIs) at certain units, implementation of Interim Measures at certain units, completion of Corrective Measures Studies (CMSs) at certain units, submission of work plans to complete CMSs to determine the final remedy for certain units, submission of Corrective Measures Implementation (CMI) plans to implement the selected final remedy(ies), completion of public notice and comment on any CMI plans (and RFI and CMS as appropriate), implementation of those CMI Plans as modified based on public comments, submission to EPA of acceptable Closure Plans for SWMU #3 in lieu of CMS and/or CMI plans for that unit, and documentation that acceptable institutional controls are in effect to prevent future inappropriate usage of portions of the Facility and/or the groundwater in certain portions of the Facility. The Respondent had previously been implementing this work at certain of the units under its RCRA permit issued in 1994. This Consent Order also requires Respondent to perform any Additional Work that may be required by Section VIII Paragraph 22 of this Consent Order (Notification and Additional Work Requirements for Newly-discovered Releases) and/or Section IX (EPA Approvals and Additional Work). The Navy's obligations are, however, subject to the provisions of Section X which allow for the transfer of work responsibility to third parties.

3. In entering into this Consent Order, the mutual objectives of EPA and Respondent are to identify, investigate, remedy, and/or prevent the potential endangerment to human health and/or the environment from activities involving "solid waste" and "hazardous waste" and to ensure that the Work ordered by EPA be designed and implemented to protect human health and the environment. These activities are outlined below in Section VIII (Work To Be Performed). Respondent shall fund and perform the Work in accordance with plans, standards, specifications and schedules set forth in this Consent Order or developed by Respondent and approved by EPA pursuant to this Consent Order.

4. EPA has previously notified the Commonwealth of Puerto Rico of this action pursuant to Section 7003(a) of RCRA, 42 U.S.C. § 6973(a).

## II. JURISDICTION

5. This Consent Order is issued under the authority vested in the Administrator of EPA by Section 7003 of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6973, as further defined below, which authority has been delegated to the Regional Administrator of EPA Region 2.

6. Respondent agrees to undertake and complete all actions required by the terms and conditions of this Consent Order. In any action by EPA to enforce the terms of this Consent Order, Respondent consents to and agrees not to contest the authority or jurisdiction of the EPA to issue or enforce this Consent Order, and agrees not to contest the validity of this Consent Order or its terms or conditions.

### **III. PARTIES BOUND**

7. This Consent Order, and the responsibilities and obligations it imposes, shall apply to and bind Respondent and, in their official capacity, Respondent's employees, agents, successors and assigns.

8. Regardless of Respondent's employ of, or contractual agreement with, any entity, Respondent remains ultimately liable for failure to carry out, or comply with, any term or condition imposed by this Consent Order. It shall not be a defense to any violation of this Consent Order that the supervisory personnel, contractor, laboratory or consultant committing the violation was not informed of the requirements of this Consent Order.

9. All contractual agreements entered into by Respondent aimed at satisfying its responsibilities or obligations under this Consent Order shall strictly comply with the terms and conditions of this Consent Order. In addition, Respondent shall, within one week of the effective date of this Consent Order and immediately, upon hiring, provide a copy of this Consent Order, and any relevant attachments, to all Respondent project management personnel and prime contractors, retained to conduct, monitor or perform any work pursuant to this Consent Order. All Respondent personnel and prime contractors shall perform such work in accordance with the requirements of this Consent Order.

10. Respondent shall give notice, and a copy, of this Consent Order to any successor in interest prior to any transfer of ownership or operation of the Facility (as defined in Section IV below) and shall notify EPA's designated contact ninety (90) days prior to any such transfer. Nothing in this Consent Order shall be read to waive any requirements of the Community Environmental Response Facilitation Act, Public Law 102-426.

11. No change in the Navy's organizational form or in the ownership of the "Facility" (as defined in Section IV below) shall in any way alter or alleviate Navy's responsibility and obligation to carry out all the terms and conditions of this Consent Order. However, the Navy and EPA expect that the Navy will sell and/or otherwise convey various parcels or segments of the Facility to various third parties at which time EPA expects to issue a separate order to such third parties requiring the performance of any remaining corrective action tasks related to the transferred parcel and to suspend the tasks to be performed under this Consent Order to reflect such changes. This process is further detailed in Section X, below.

### **IV. DEFINITIONS**

12. Unless otherwise expressly provided herein, terms used in this Consent Order that are defined in the RCRA statute shall have the meaning assigned to them in that statute. Whenever the terms listed below are used in this Consent Order the following definitions apply:

"AOC" shall mean Area of Concern, i.e., an area being addressed pursuant to Section 3005 © of RCRA, 42 U.S.C. 6925© (Section 212 of HSWA), and its corresponding regulations published in 40 C.F.R. § 270.32 (b)(2), the "Omnibus Provisions."

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

"Day" shall mean a calendar day unless expressly stated otherwise.

"Effective Date" shall be the date on which EPA signs this Consent Order following the public comment period which is held pursuant to Section XXVIII (Public Comment on this Consent Order).

"EQB" shall mean the Environmental Quality Board of the Commonwealth of Puerto Rico.

"Facility," unless otherwise indicated, shall mean the entire Naval Activity Puerto Rico (formerly Naval Station Roosevelt Roads) base which has been operated by the United States Department of the Navy and which is approximately 8,600 acres on the east Coast of Puerto Rico in the municipality of Ceiba, and two adjacent, offshore islands (Pineros and Cabeza de Perro). A fuller description of the Facility appears in Section V.6, below.

"Navy" shall mean the United States Department of the Navy.

"RCRA" shall mean the Solid Waste Disposal Act, as amended by various statutes including the Resource Conservation and Recovery Act, 42 U.S.C. § 6901, *et seq.*

"Respondent" shall mean the United States Department of the Navy ("Navy").

"Third Party" shall mean one or more parties, and their successors and assigns, that are not parties to this Order, and may include prospective purchasers of one or more parcels of the Facility and/or other parties that may otherwise acquire one or more parcels of the Facility.

"SOW" shall mean Scope of Work that is attached to this Consent Order.

"SWMU" shall mean solid waste management unit as that term is applied in 40 CFR § 264.101.

"Work" shall mean all the activities and requirements specified in Section VIII (Work To Be Performed) of this Consent Order but does not include other obligations imposed by other paragraphs of this Consent Order.

## V. FINDINGS OF FACT

### 13. 1. Navy is an Operator of a Hazardous Waste Storage or Disposal Facility:

Navy has been a "generator" of "hazardous waste" and the "operator" of a hazardous waste "storage" "facility," which constituted an "existing Hazardous Waste Management facility" (HWMF), as those terms are defined at 40 C.F.R. § 260.10. The Navy facility that is the subject of this Consent Order is located mostly on the east end of the island of Puerto Rico near the town of Ceiba, but also includes two adjacent, offshore islands (Pineros and Cabeza de Perro) (together, hereinafter referred to as "Naval Activity Puerto Rico", "the Facility," or "Navy's Facility").

### 2. Navy is a "Person":

Navy is a "person" as defined by Section 1004(15) of the Act, 42 U.S.C. § 6903(15). Pursuant to Section 6001 of the Act, 42 U.S.C. § 6961, Navy is subject to all federal, state, interstate, and local requirements, both substantive and procedural, to the same extent as any "person," as that term is defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15), is subject to such requirements.

### 3. Notification and Interim Status:

Pursuant to Section 3010 of the Act, 42 U.S.C. § 6930, in 1980, Navy notified EPA of its hazardous waste activity, as that term is defined by Section 1004(5) of the Act, 42 U.S.C. § 6903(5) and requested the issuance of an EPA Hazardous Waste Identification number. In this notification, Navy identified itself as a generator of hazardous waste and an owner and operator of a hazardous waste treatment, storage, and disposal facility; and Navy established itself as the owner of the Facility as the term "owner" is used under RCRA.

The Navy filed its original Part A of the Hazardous Waste Permit Application on November 7, 1980, and pursuant to 40 CFR § 270.10(e) constituted an "existing Hazardous Waste Management facility" (HWMF). Pursuant to 40 CFR § 270.70 the Navy was subject to the requirement to have a RCRA permit, and pursuant to 40 CFR § 270.70 through 40 CFR § 270.73 has operated since November 7, 1980 as an HWMF.



#### 4. Hazardous Waste Permit Application:

The Navy revised its Part As on April 26, 1988, January 31, 1992, June 10, 1999, June 1, 2001, July 24, 2001, October 3, 2003, and March 30, 2004. The July 24, 2001 Part A, which is a recent Part A that has information on the full range of wastes formerly managed at the Facility, identifies the hazardous waste activity by process code S01, storage, and indicates the presence of 6 such units, with a process design capacity to store 18,645 gallons of hazardous waste. The July 24, 2001 Part A indicates that the following hazardous wastes (pursuant to 40 CFR §§ 261.23 and/or 261.24 for "D" wastes and 261.31 for "F" wastes), among others, were authorized to be stored at the Facility:

- D001 -a solid waste exhibiting the characteristic of ignitability.
- D002 -a solid waste exhibiting the characteristic of corrosivity.
- D006 -a solid waste exhibiting the toxicity characteristic for cadmium.
- D007 -a solid waste exhibiting the toxicity characteristic for chromium.
- D008 -a solid waste exhibiting the toxicity characteristic for lead.
- D009 -a solid waste exhibiting the toxicity characteristic for mercury.
- D011 -a solid waste exhibiting the toxicity characteristic for silver.
- D018 -a solid waste exhibiting the toxicity characteristic for benzene.
- D027 -a solid waste exhibiting the toxicity characteristic for 1, 4-dichlorobenzene.
- D035 -a solid waste exhibiting the toxicity characteristic for methyl ethyl ketone.
- F001- spent halogenated solvents used in degreasing.
- F002- spent halogenated solvents and still bottoms from the recovery of such spent solvents.
- F003- spent non-halogenated solvents and still bottoms from the recovery of such spent solvents.
- F005- spent non-halogenated solvents and still bottoms from the recovery of such spent solvents.

#### 5. Hazardous Waste Permit

The Navy submitted the Part B of the Hazardous Waste Permit Application on April 26, 1988. The Part B was modified by subsequent amendments dated December 1, 1988; June 15, 1990; October 29, 1991 and January 1, 1992 (hereafter referred to as the Application). Based on the Application, a RCRA permit was issued by EPA and became effective on November 28, 1994. The RCRA Permit authorized continued storage of hazardous waste in containers at designated hazardous waste storage units, all located inside the Defense Reutilization and Marketing Organization (DRMO) compound at the Facility. The RCRA Permit also imposed corrective action investigation and other requirements at solid waste management units (SWMUs) and areas of concern (AOCs) throughout the Facility, where releases of solid and/or hazardous waste and hazardous constituents were considered to have possibly occurred. On June 10, 1999 the Navy submitted a Part B application to renew its RCRA Permit. The renewal application was amended

on May 8, 2000, June 1, 2001, July 3 and July 24, 2001, November 8, 2001, March 27, 2002, May 22, 2003, October 6, 2003, March 30, 2004 and Sept. 20, 2004. Pursuant to 40 CFR § 270.51, the Navy's RCRA permit was administratively extended based on the submission of its Part B renewal application.

On February 3, 2004, the Navy submitted a letter to EPA indicating that it planned to cease using its six permitted hazardous waste container storage units (HWCSUs), and to close them pursuant to the requirements of the RCRA permit. The letter indicated that future hazardous waste generated at the Facility will be stored in an alternative "less than 90 day" storage unit, which would not require a RCRA permit. The Navy subsequently has indicated that the six HWCSUs have all been emptied of hazardous waste, and are being closed pursuant to the requirements of the closure plan in the 1994 RCRA permit.

#### 6. Facility Description:

The Facility, formerly Naval Station Roosevelt Roads, is located on the east coast of Puerto Rico in the municipality of Ceiba, approximately 33 miles southeast of San Juan. The nearest major town is Fajardo, which is 10 miles north of the station. The Facility occupies approximately 8,600 acres and, except for two adjacent, unpopulated offshore islands (Pineros and Cabeza de Perro) off the northeast coast of the Facility, is bordered on all sides but the west by the marine waters of the Atlantic Ocean, Caribbean Sea, Vieques Passage. According to information supplied by the Navy, approximately 2,900 acres of the Facility are designated wetlands. The Facility was used as a military base from 1940 until March 31, 2004. The Facility includes a port facility and a major airfield complex. According to information available to EPA, the Facility contains small arms ranges, but no bombing ranges, and no known waste munition open burning/open detonation areas (OB/OD), except for three possible abandoned areas at the peninsula on Punta Medio Mundo where the currently active small arms range is located. Groundwater has not been used as a drinking water or potable water source at the Facility. For over 30 years, the Facility has obtained drinking and potable water from a water treatment plant that receives raw water from the Rio Blanco.

The Facility ceased operation as an active Naval Station on March 31, 2004, at which point it was designated Naval Activity Puerto Rico. The Navy currently retains jurisdiction, custody and control of the Facility and maintains the Facility in preparation for sale and/or transfer of the property, which is currently targeted to begin in 2006.

#### 7. Solid Waste Management Units and Areas of Concern at the Facility

- A. Solid Waste Management Units (SWMUs): Pursuant to Section 3004(u) of RCRA, 42 U.S.C. § 6924(u) (Section 206 of HSWA), and its corresponding regulations published in 40 C.F.R. § 264.101, the following SWMUs have been identified at the Facility.

1) A total of fifty two (52) SWMUs were identified in the 1994 RCRA

permit issued to the Navy, based on the RCRA Facility Assessment (RFA), dated November 1988, supplemented by a June 1993 follow-up visual site inspection (VSI) discussed below. The RFA for Naval Station Roosevelt Roads included a Preliminary Assessment (PA) (i.e., a review of available information available to EPA in its own files and those made available by the Navy), and a VSI. The VSI was conducted in August, 1988. The follow-up VSI inspection was conducted in June, 1993 to update the data gathered during the 1988 VSI. Based on the PA, VSI, and follow-up VSI, SWMUs were characterized as to their release potential and evaluated as to which media could be affected.

2) A total of twenty five (25) additional SWMUs have been identified subsequent to issuance of the 1994 RCRA permit. Two of the new SWMUs (#53 and #54) were first identified in the May 31, 2000 "RCRA Quarterly Progress Report" submitted to EPA by the Navy. A third new SWMU (#55) was previously being addressed in conjunction with the releases from SWMUs #7 & #8 (Tow Way Fuel Farm); however, it was identified as a separate SWMU in EPA's letter of February 24, 2004. In addition, 22 SWMUs have been identified based on the "July 2005 ECP Report Environmental Condition of Property Report" (the July 2005 ECP Report), which was developed by the Navy.

3) Thus, a total of seventy seven (77) SWMUs have been identified at the Facility. They are listed below, and are described more fully in the RFA and July 2005 ECP Report, discussed above. The defined SWMUs at the Facility are:

SWMU 1 - former Army Cremator disposal site

SWMU 2 - former Langley Drive disposal site

SWMU 3 - the Facility's non-hazardous landfill

SWMU 4 - oil/water separator at Building 860

SWMU 5 - miscellaneous metal dumpsters

SWMU 6 - Building 145 - uncontrolled waste paint storage area

SWMUs 7/8 - Tow Way Fuel Farm free product plumes and sludge disposal pits

SWMU 9 - Tanks 212 through tank 217 sludge disposal pits

SWMU 10 - Transformer Substation 2

SWMU 11 - interior areas of Building 38 (Old Power Plant)

SWMU 12 - oil/water separator at Fire Training Area

SWMU 13 - Building 258 - former Pest Control Area

SWMU 14 - Fire Training Pit at Crash Crew Area

SWMU 15 - former hospital incinerator

SWMU 16 - Building 1666 - waste explosive storage building

SWMU 17 - Building 1973 - hazardous waste container storage area

SWMU 18 - Building 2009 - hazardous waste container storage area

SWMU 19 - Building 121 - closed pesticide storage area

SWMU 20 - Building 860 waste oil storage area

SWMU 21 - floating oil spill clean-up "donuts"

SWMU 22 - Ship Waste Offload Barges

SWMU 23 - "first stage" oil/water separators at Fuel Pier

SWMU 24 - "second stage" oil/water separators at Fuel Pier

SWMU 25 - Defense Reuse and Marketing Organization (DRMO) storage yard

SWMU 26 - uncontrolled storage area at Building 544

SWMU 27 - Capehart Sewage Treatment Plant

SWMU 28 - Bundy Sewage Treatment Plant

SWMU 29 - Industrial Area wastewater treatment plant

SWMU 30 - former waste oil incinerator

SWMU 31 - uncontrolled storage are near Building 31 and 2022

SWMU 32 - discarded battery storage area at Building 31

SWMU 33 - waste storage area at Building 379

SWMU 34 - waste oil and fuels storage area at Airfield

SWMU 35 - oil/water separator at Building 396

SWMU 36 - oil/water separator at Berthing Pier

SWMU 37 - waste oil and fuels storage area at hanger 200 at airfield

SWMU 38 - sanitary and storm water sewer systems

SWMU 39 - Building 3158 battery fluid drainage area

SWMU 40 - waste oil accumulation tank at Alpha Company Maintenance  
Yard

SWMU 41 - Building 3152 pesticide storage area

SWMU 42 - water purification plant lagoons

SWMU 43 - Building 860 concrete storm water drain

SWMU 44 - Aerial Target Yard storm water drainage ditch

SWMU 45 - exterior areas of Old Power Plant(Building 38)

SWMU 46 - transformer storage pad at Public Works Department

SWMU 47 - miscellaneous "satellite" disposal areas

SWMU 48 - waste oil storage rack near building 3102

SWMU 49 - waste oil accumulation tank near building 3188

SWMU 50 - uncontrolled storage area near building 3166

SWMU 51 - waste storage pad at Building 379

SWMU 52 - waste storage pad at Building 3158

SWMU 53 - Building 64 - former malaria control shop

SWMU 54 - Building 1914 - former automobile repair shop

SWMU 55 - Trichloroethene (TCE) Groundwater Plume at Tow Way Fuel Farm.

SWMU 56 (a/k/a ECP 2)- Hanger 200 Apron

SWMU 57 (a/k/a ECP 3) - Facility No. 278 POL Drum Storage Area.

SWMU 58 (a/k/a ECP 4) - Rifle Range at Punta Puerca

SWMU 59 (a/k/a ECP 5) - Former Vehicle Maintenance and Refueling Area

SWMU 60 (a/k/a ECP 6) - Former Landfill at the Marina

SWMU 61 (a/k/a ECP 7) - Former Bundy Area Maintenance Facilities

SWMU 62 (a/k/a ECP 8) - Former Bundy Disposal Area

SWMU 63 (a/k/a ECP 9) - Former Pistol Range at BEQ

SWMU 64 (a/k/a ECP 10) - Former Skeet Range at Offsite Field

SWMU 65 (a/k/a ECP 11) - Former UST No. 208

SWMU 66 (a/k/a ECP 12) - Former UST No. 289

SWMU 67(a/k/a ECP 13) - Former Gas Station

SWMU 68 (a/k/a ECP 14) - Former Southern Fire Training Area

SWMU 69 (a/k/a ECP 15) - Aircraft Parking Area

SWMU 70 (a/k/a ECP 16) - Disposal Area Northwest of Landfill

SWMU 71 (a/k/a ECP 17) - Quarry Disposal Site

SWMU 72 (a/k/a ECP 18) - Building 31 -Public Works Dept.

SWMU 73 (a/k/a ECP 19) - DRMO Scrap Metal Recycling Yard

SWMU 74 (a/k/a ECP 20) - Fuel Pipelines and Hydrant Pits

SWMU 75 (a/k/a ECP 21) - Building 803

SWMU 76 (a/k/a ECP 22) - Building 2300

SWMU 77 (a/k/a ECP 1) - small arms range and possible former open burning/open detonation (OB/OD) areas located on peninsula on Punta Medio Mundo

- B. Areas of Concern (AOC): Pursuant to Section 3005 © of RCRA, 42 U.S.C. 6925© (Section 212 of HSWA), and its corresponding regulations published in 40 C.F.R. § 270.32 (b)(2), the Director of the Division of Environmental Planning and Protection ("the Director") may impose other terms and conditions in a RCRA permit as the Director determines necessary to protect human health and the environment. Under that authority, AOCs requiring corrective action work may be identified. The AOCs that have been identified at the Facility are listed below and described more fully in the RFA and July 2005 ECP Report discussed above.

AOC A - Torpedo Shop

AOC B - uncontrolled waste storage area at former Building 25

AOC C - transformer storage pads near building 2042

AOC D - Ensenada Honda sediments

AOC E (a/k/a ECP 23) - offshore islands Pineros and Cabeza de Perro

AOC F - Monitored Natural Attenuation Sites 124, 731, 734, 2842B, 1738, and 520<sup>1</sup>, and 735 and 1995<sup>2</sup>.

- C. Determination Of Corrective Action Complete

- 1) Corrective Action Complete determinations are made pursuant to the February 13, 2003 EPA guidance document "*Guidance on Completion of Corrective Action Activities at RCRA Facilities*", notice of which was published in the Federal Register Volume 68, No 37, February 25, 2003. Two types of Completion Determinations are recognized:

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<sup>1</sup> As described in the December 2003 "Year 3 Summary Report for Monitored Natural Attenuation Sites 124, 731, 734, 2842B, 1738, and 520" prepared for the Navy by CH2MHILL.

<sup>2</sup> As indicated in the April 2004 "Year 2003 Summary Report and Groundwater Test Results for UST Sites 735 and 1995" prepared for Naval Activity Puerto Rico by BoksoMoni Environmental, under contract with Cape Environmental.

- a) Corrective Action Complete without Controls, and
- b) Corrective Action Complete with Controls.

- 2) A determination of Corrective Action Complete with Controls does not preclude the Director from requiring the Respondent to perform continued or periodic monitoring of air, soil, groundwater, surface water or subsurface gas, if necessary to protect human health and the environment, when site-specific circumstances indicate that release(s) of hazardous waste or hazardous constituents are likely to occur from a SWMU or AOC at the Facility.
- 3) A determination of Corrective Action Complete without Controls, or with Controls, does not preclude the Director from requiring the Respondent to perform further investigations, studies, or corrective measures at a later date after a unit or units constituting all or part of a SWMU or AOC is taken out of service and/or if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU or AOC at the Facility that is likely to pose a threat to human health or the environment.
- 4) Subject to completion of public notice and possible changes in response to public comment, Corrective Action Complete without Controls determinations are approved for the following 5 SWMUs and 2 AOCs:

SWMUs #6, #12, #24, #25, #26, and AOC B and AOC D. The Corrective Action Complete without Controls determination for SWMU #25 (DRMO Storage Yard) is contingent on the Respondent completing acceptable closure of all hazardous waste container storage units located inside the DRMO compound, as specified in the Navy's 1994 RCRA permit, 40 CFR § 264.178.

- 5) An additional twenty one<sup>3</sup> (21) SWMUs had no further actions required under the November 1994 RCRA permit. The 21 SWMUs which had no further action determinations in the 1994 RCRA permit include the following SWMUs: 4, 5, 15, 17, 20; 21, 22, 33, 34, 35, 36, 38, 40, 41, 43, 44, 47, 48, 49, 50, and 52. These are also now

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<sup>3</sup> Several SWMUs which had no further actions required under the November 1994 RCRA permit have been determined to now warrant Phase I RFIs, as the Respondent is closing the NAPR facility and plans to sell or transfer all lands to other, mostly non-federal entities. This includes: SWMU 16 (Building 1666 - waste explosive storage building), SWMU 42 (water purification plant lagoons), and AOC A (Torpedo Shop).



considered to have Corrective Action Completed without Controls determinations. However, this determination is subject to Paragraph C.3., above. In addition, this determination for SWMU 38 (sanitary and storm water sewer systems) is contingent on Respondent fully addressing any releases from SWMUs 4, 12, 13, and 14 that have impacted the sanitary and/or storm water sewer systems at the facility, and/or releases from any other SWMU at the facility that has impacted the sanitary and/or storm water sewer systems at the facility.

- 6) SWMU 19 (pesticide storage area at Building 121) has been clean closed pursuant to 40 CFR Part 265 Subpart G and requirements of the 1994 RCRA Permit. Therefore, SWMU 19 is considered to have achieved the equivalent of a Corrective Action Completed without Controls determination.
- 7) Subject to completion of public notice and possible changes in response to public comment, Corrective Action Complete with Controls determinations are approved for the following 6 SWMUs: #10, #23, #30, #37, #39, and #51.

a) The Corrective Action Complete with Controls determination for the above SWMUs would be contingent on a demonstration to EPA's satisfaction that acceptable deed restrictions or other institutional and/or engineering controls have been implemented to preclude unacceptable future usages of the lands and/or groundwater impacted by releases from these SWMUs. This demonstration would have to include such detailed information on the restrictions and controls as may be required by EPA to allow EPA to evaluate the adequacy of these restrictions and controls.

- 8) Based on the July 15, 2005 *ECP Report* determination that six (6) ECP sites have not been impacted by past and present operations at the Facility (i.e., the Navy has found no evidence of a release relating to these SWMUs), EPA is proposing Corrective Action Complete without Controls determinations for the following SWMUs/ECP sites:

SWMU 58 (a/k/a ECP 4) - Rifle Range at Punta Puerca

SWMU 63 (a/k/a ECP 9) - Former Pistol Range at BEQ

SWMU 64 (a/k/a ECP 10) - Former Skeet Range at Ofstie Field

SWMU 65 (a/k/a ECP 11) - Former UST No. 208

SWMU 66 (a/k/a ECP 12) - Former UST No. 289

SWMU 72 (a/k/a ECP 18) - Building 31 -Public Works Dept.

- 9) Public notice and comment on these proposed Corrective Action Complete determinations is being implemented as part of the public notice and comment on this Consent Order.

8. Documentation of Release:

A. Extensive environmental sampling has occurred at the Facility, and numerous releases of hazardous waste and/or hazardous constituents to the environment have been documented. Details of the past waste management activities and the evidence for releases at those SWMUs and AOCs where releases have been documented are described in Attachment I to this Consent Order.

B. Based on the July 15, 2005 *Phase I/II Environmental Conditions of Property Report* the following 18 ECP sites, which are now identified as SWMUs or AOCs, have documented releases of solid and/or hazardous waste and hazardous constituents:

SWMU 56 (a/k/a ECP 2)- Hanger 200 Apron

SWMU 57 (a/k/a ECP 3) - Facility No. 278 POL Drum Storage Area

SWMU 59 (a/k/a ECP 5) - Former Vehicle Maintenance and Refueling Area

SWMU 60 (a/k/a ECP 6) - Former Landfill at the Marina

SWMU 61 (a/k/a ECP 7) - Former Bundy Area Maintenance Facilities

SWMU 62 (a/k/a ECP 8) - Former Bundy Disposal Area

SWMU 67(a/k/a ECP 13) - Former Gas Station

SWMU 68 (a/k/a ECP 14) - Former Southern Fire Training Area

SWMU 69 (a/k/a ECP 15) - Aircraft Parking Area

SWMU 70 (a/k/a ECP 16) - Disposal Area Northwest of Landfill

SWMU 71 (a/k/a ECP 17) - Quarry Disposal Site

SWMU 73 (a/k/a ECP 19) - DRMO Scrap Metal Recycling Yard

SWMU 74 (a/k/a ECP 20) - Fuel Pipelines and Hydrant Pits

SWMU 75 (a/k/a ECP 21) - Building 803

SWMU 76 (a/k/a ECP 22) - Building 2300

SWMU 77 (a/k/a ECP 1) - Small Arms Range (and former open burning/open detonation (OB/OD) areas located on peninsula on Punta Medio Mundo)

AOC E (a/k/a ECP 23) - offshore islands Pineros and Cabeza de Perro

AOC F - Monitored Natural Attenuation Sites

C. As further detailed in Attachment I, there have been numerous releases of hazardous wastes at the Facility which pose an exposure risk to onsite workers/employees and visitors to the Facility and which pose a risk to environmental receptors as well including both resident and local endangered birds as well as other fauna and flora.

9. Exposure Pathways and Possible Adverse Human Health or Environmental Impacts:

Potentially complete exposure pathways are present at the Facility that could result in both unacceptable adverse human health and environmental impacts (e.g., exposure pathways are present creating a potential hazard of imminent and substantial endangerment). The potentially complete exposure pathways at the Facility that could result in unacceptable adverse human health impacts are discussed in Attachment II of this Consent Order. The complete exposure pathways described in Attachment II are based on expected future land usage being similar to the land usage patterns currently in place. However, changes in future land usage from the present pattern of development/land usage at the Facility could result in additional receptors (such as on-site residents, if new housing areas are established; or on-site child-care or school populations, if new child-care or school facilities are established on-site) being impacted via complete exposure pathways that currently are not considered complete (e.g., such receptors are either not present or exposure pathways have been interrupted either by man-made conditions or by temporary natural conditions). Potentially complete exposure pathways are present at the Facility that could also result in unacceptable adverse environmental impacts to biota at the Facility which have been listed by either the federal or Commonwealth governments as threatened, endangered, or vulnerable (Commonwealth only), and/or to critical habitat. According to the July 2005 ECP Report, the Facility supports a variety of biota that have been listed by either the federal or Commonwealth governments as threatened, endangered, or vulnerable (Commonwealth only),

including 5 sea turtle species (Green, Loggerhead, Hawksbill, Leatherback, and Olive Ridley), 1 snake (Puerto Rican Boa), 12 birds (including the yellow-shouldered blackbird), 1 mammal (the West Indian Manatee), and 1 plant (Cobana negra). The species observed at the Facility that are classified as endangered under Federal law include: Hawksbill and Leatherback sea turtles, the Puerto Rican Boa, the yellow-shouldered blackbird, the Brown pelican, and the West Indian Manatee. Table 2-2 of the July 2005 ECP Report lists the threatened, endangered, or vulnerable species at the Facility. According to the July 2005 ECP Report, the only designated critical habitat at the Facility is for the yellow-shouldered blackbird. That habitat is the subject of a 1980 agreement between the Navy and the United States Fish and Wildlife Service (USFWS). A 1996 study performed for the Navy by GMI determined that the mangrove habitats constitute the most important habitats for the yellow-shouldered blackbird at the Facility. Three species of mangroves occur at the Facility: the red, black, and white mangrove. Approximately 2,900 acres of the Facility are designated wetlands. Of the designated wetland areas, approximately 60% are mangrove habitats. The mangroves themselves are not considered endangered, though the black mangrove is classified as threatened, under Federal law. Since the mangrove areas are considered wetland areas, those areas are protected under Federal law. All the wetland areas at the Facility, including the mangrove areas, are depicted in Figure 2-8 of the July 2005 ECP Report. The waters surrounding the offshore islands Pineros and Cabeza de Perro contain habitat for sea turtles (five species at the Facility are endangered or threatened) and manatees (an endangered species). The beaches on Pineros and Cabeza de Perro provide potential habitat for nesting sea turtles.

## **VI. CONCLUSIONS OF LAW AND DETERMINATIONS**

14. This Section is based on the Findings of Fact set forth above, and the administrative record supporting this Consent Order:
  - a. The Navy is a Department of the Executive Branch of the Federal government and is subject to the requirements of Section 6001 of RCRA, 42 U.S.C. § 6961.
  - b. Respondent is a "person" as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).
  - c. The "D" and "F" wastes listed in the above Findings section are each a "solid waste" as defined in Section 1004(27) of RCRA, 42 U.S.C. § 6903(27). Each such solid waste is also a "hazardous waste" as defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5).
  - d. The past storage and other handling of the above-listed hazardous wastes may present an imminent and substantial endangerment to human health and/or the environment within the meaning of Section 7003(a) of RCRA, 42 U.S.C. § 6973(a).
  - e. Respondent's storage and/or disposal and other handling of the above-listed hazardous wastes have contributed to the potential endangerment of human health and the environment via the releases detailed in Attachments I and II to this Consent Order.

- f. The actions required by this Consent Order are necessary to protect human health and/or the environment.

## **VII. ORDER ON CONSENT**

15. Based upon the administrative record for the Facility and the Findings of Fact (Section V) and Conclusions of Law and Determinations (Section VI) set forth above, the following is hereby agreed to by the parties and ordered by EPA. Respondent shall comply with all provisions of this Consent Order, including, but not limited to, all Attachments to this Consent Order and all documents incorporated by reference into this Consent Order. (If there is any conflict between the language in the main text of this Order and the language in the text of the Attachments, the text of the Order shall be followed, unless otherwise agreed by the parties.)

16. Respondent shall fund and perform the Work in accordance with this Consent Order (subject to the limitations specified in Section XXVI, Funding, below), plans, standards, specifications and schedules set forth in this Consent Order or developed by Respondent and approved by EPA pursuant to this Consent Order.

## **VIII. WORK TO BE PERFORMED**

17. Respondent shall undertake and complete all of the Work to the satisfaction of EPA, pursuant to RCRA § 7003, 42 U.S.C. § 6973.

18. Respondent's obligation to perform the Work will begin on the Effective Date of this Consent Order.

19. The Work undertaken pursuant to this Consent Order shall be conducted in compliance with all applicable EPA guidances, policies and procedures, and with this Consent Order, and is subject to EPA approval.

20. Any Work Plan shall include a schedule of the Work to be performed. The Work Plan shall be submitted to EPA for approval. Following EPA's approval or modification of the Work Plan pursuant to Section IX of this Order, Respondent shall implement the Work Plan in accordance with the schedule and provisions approved by EPA.

21. RCRA FACILITY INVESTIGATIONS ("RFIs"):

A) For all SWMUs and/or AOCs required to have either a Phase One or Full RFA under the 1994 RCRA Permit, acceptable RCRA Facility Investigations have been completed, except for SWMU #14 (Fire Training Pit area adjacent to the Crash Crew training adjoining the base's airfield). The Respondent has submitted a draft work plan to complete the RFI for SWMU 14.

a) Within sixty (60) days of the Respondent's receipt of EPA's written approval of that work plan, Respondent shall commence its implementation, unless an alternative date is approved in writing by EPA.

b) If based on the results of the RFI investigations, a Corrective Measures Study (CMS) is determined to be required for SWMU #14, Respondent shall submit a work plan for a CMS for that SWMU that meets the requirements of the Scope of Work for a Corrective Measures Study set forth in Attachment IV of this Order. This submittal shall be made within ninety (90) days of the Respondent's receipt of EPA's written notification that a CMS is required, unless an alternative date is approved in writing by EPA.

B) Under the November 1994 RCRA permit, SWMU 16 (Building 1666 - waste explosive storage building), and AOC A (Torpedo Shop) had no further actions required as both sites were restricted access sites at an active military Facility. The Facility is now closed. And, based on the nature of the past operations conducted at SWMU 16 and AOC A, there was a clear potential for releases of hazardous waste or constituents to have occurred at those two sites. Therefore, within forty five (45) days of the effective date of this Consent Order, the Respondent shall submit to EPA for approval an acceptable work plan to implement Phase I RFI investigations at SWMU 16 and AOC A, to determine whether or not releases of hazardous waste or hazardous constituents are present at those two sites.

a) If based on the results of those Phase I RFI investigations, a Full RFI is determined to be required for either SWMU 16 or AOC A, Respondent shall submit a work plan for a Full RFI for that SWMU or AOC that meets the requirements of the Scope of Work for a Full RCRA Facility Investigation set forth in Attachment III of this Order. This submittal shall be made within sixty (60) days of the Respondent's receipt of EPA's written notification that a Full RFI is required, unless an alternative date is approved in writing by EPA.

b) If based on the results of the Full RFI investigations, a Corrective Measures Study (CMS) is determined to be required for either SWMU 16 or AOC A, Respondent shall submit a work plan for a CMS for that SWMU or AOC that meets the requirements of the Scope of Work for a Corrective Measures Study set forth in Attachment IV of this Order. This submittal shall be made within ninety (90) days of the Respondent's receipt of EPA's written notification that a CMS is required, unless an alternative date is approved in writing by EPA.

C) In addition, within forty five (45) days of the effective date of this Consent Order, the

Respondent shall submit to EPA for approval an acceptable work plan to implement a Phase I RFI at SWMU 42 (water purification plant lagoons), to determine whether releases of hazardous waste or constituents have occurred at this unit.

a) If based on the results of that Phase I RFI investigation, a Full RFI is determined to be required for SWMU 42, Respondent shall submit a work plan for a Full RFI for SWMU 42 that meets the requirements of the Scope of Work for a Full RCRA Facility Investigation set forth in Attachment III of this Order. This submittal shall be made within sixty (60) days of the Respondent's receipt of EPA's written notification that a Full RFI is required, unless an alternative date is approved in writing by EPA.

b) If based on the results of the Full RFI investigations, a Corrective Measures Study (CMS) is determined to be required for SWMU 42, Respondent shall submit a work plan for a CMS for that SWMU that meets the requirements of the Scope of Work for a Corrective Measures Study set forth in Attachment IV of this Order. This submittal shall be made within ninety (90) days of the Respondent's receipt of EPA's written notification that a CMS is required, unless an alternative date is approved in writing by EPA.

D) Based on the July 2005 ECP Report, 10 ECP sites which are identified as SWMUs and/or AOCs under this Consent Order require additional investigation. Therefore, within forty five (45) days of the effective date of this Consent Order, the Respondent shall submit to EPA for approval an acceptable work plan to complete the equivalent of Phase I RFI investigations at the following SWMUs and/or AOCs:

SWMU 57 (a/k/a ECP 3) - Facility No. 278 POL Drum Storage Area

SWMU 60 (a/k/a ECP 6) - Former Landfill at the Marina

SWMU 62 (a/k/a ECP 8) - Former Bundy Disposal Area

SWMU 67(a/k/a ECP 13) - Former Gas Station

SWMU 68 (a/k/a ECP 14) - Former Southern Fire Training Area

SWMU 70 (a/k/a ECP 16) - Disposal Area Northwest of Landfill

SWMU 71 (a/k/a ECP 17) - Quarry Disposal Site

SWMU 75 (a/k/a ECP 21) - Building 803

SWMU 76 (a/k/a ECP 22) - Building 2300

AOC E (a/k/a ECP 23) - offshore islands Pineros and Cabeza de Perro

a) If based on the results of those Phase I RFI investigations, a Full RFI is determined to be required for any of those SWMUs or AOC, Respondent shall submit a work plan for a Full RFI for those SWMUs or AOC that meets the requirements of the Scope of Work for a Full RCRA Facility Investigation set forth in Attachment III of this Order. This submittal shall be made within sixty (60) days of the Respondent's receipt of EPA's written notification that a Full RFI is required, unless an alternative date is approved in writing by EPA.

b) If based on the results of the Full RFI investigations, a Corrective Measures Study (CMS) is determined to be required for one or more of those SWMUs or AOC, Respondent shall submit a work plan for a CMS for that SWMU or SWMUs or AOC that meets the requirements of the Scope of Work for a Corrective Measures Study set forth in Attachment IV of this Order. This submittal shall be made within ninety (90) days of the Respondent's receipt of EPA's written notification that a CMS is required, unless an alternative date is approved in writing by EPA.

E) Within sixty (60) days of the effective date of this Consent Order, the Respondent shall submit to EPA for approval a work plan to address the contamination at all sites constituting AOC F. This work plan shall conform with EPA's April 21, 1999 Directive on "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites" (OSWER Directive Number 0200.4-17P); or other applicable guidance. The work plan shall include proposals to complete additional site characterization at sites 520, 1738, and 2842, as required. In addition, the work plan shall include: clearly defined clean-up levels/objectives, estimates of the time required to achieve such clean-up levels at each of the sites constituting AOC F, the monitoring points and analytical parameters, and implementation and reporting schedules.

## 22. INTERIM MEASURES

A) For SWMU #3 (Facility's Non-hazardous Landfill): Respondent shall implement a semi-annual groundwater monitoring and analysis program at SWMU #3, pursuant to the "Groundwater Sampling and Analysis Plan, Solid Waste Landfill Facility, U.S. Naval Station Roosevelt Roads", prepared for the Navy by Burns & McDonnell Waste Consultants Inc., dated April 1999, until such time as the Respondent submits written notification to EPA that SWMU #3 has been closed in a manner that is substantively equivalent to requirements set forth at 40 CFR § 264.310, and



EPA concurs in writing with such a determination.

(a) Following each semi-annual groundwater sampling event, within 60 days of the Respondent's receipt of the validated analytical results from that event, Respondent shall submit to all EPA offices indicated in Paragraph 23, below, a complete report of the results of that groundwater sampling event, including validated analytical results.

(b) If based on the results of the semi-annual groundwater sampling event a release of hazardous waste and/or hazardous constituents from SWMU #3 is indicated, the Respondent shall:

i) notify EPA, in writing, within seven days of such determination, and

ii) within thirty (30) days of that notification, submit a proposal for any further actions that are needed to address that release, as warranted.

B) For SWMU 11 (interior areas of Building 38 (Old Power Plant)),

a) Respondent shall submit, within sixty (60) calendar days of the effective date of this Consent Order, acceptable documentation that access controls to SWMU #11 are in place and maintained and that an acceptable institutional control has been developed and become effective so as to preclude future usage of the site unless acceptable clean-up is implemented.

b) Thereafter, on an annual basis, Respondent shall submit, or cause to be submitted, acceptable certification that acceptable deed restrictions or other institutional and/or engineering controls have been implemented and are being maintained to preclude access to the interior areas of Building 38 (Old Power Plant) and any usage of Building 38 and the lands and/or groundwater potentially impacted by releases from Building 38.

23.

CORRECTIVE MEASURES STUDY ("CMS")

A) For the following SWMUs a CMS has previously been determined to be required, and a CMS work plan has been approved by EPA; however, implementation has not been fully completed: SWMU 1; SWMU 2; SWMUs 7/8 (Tow Way Fuel Farm); SWMU 9; SWMU 45, SWMU 54 and SWMU 55. Therefore, the Respondent shall complete implementation of

the CMSs for those 8 SWMUs, and within sixty days of completion of all activities required under the CMS Work Plan for that SWMU, shall submit a draft CMS Final Report meeting the requirements of Paragraph (H) below. Any unacceptable impacts to AOC D (Ensenada Honda sediments) which have been caused by releases from SWMUs shall be evaluated as part of the respective CMSs for SWMUs #1 and #2 (the two former littoral landfills) and have previously been evaluated for at SWMUs #7 and #8 (Tow Way Fuel Farm).

B) In lieu of a CMS plan to determine the final remedy for SWMU #3, as well as a CMI plan to implement any selected remedy for that SWMU, Respondent has submitted draft Closure Plans to close SWMU #3. Pursuant to the requirements of this Consent Order, Respondent shall close SWMU #3 in a manner that is substantively equivalent to requirements set forth at 40 CFR § 264.310. Upon written notification by EPA that the draft closure plan(s) for SWMU #3 is (are) acceptable, Respondent shall arrange for public review of that draft closure plan(s) in a manner that is substantively equivalent to requirements set forth at Section XXVIII of this Consent Order. If based on that public review, substantive revisions of the closure plan(s) for SWMU #3 appear warranted, Respondent shall revise the draft closure plan(s) to address relevant comments received. Respondent shall submit the draft Closure Plan(s) and any revised closure plan(s) for SWMU #3 to EPA for its approval pursuant to Section IX of this Consent Order, prior to its implementation.

C) Based on the July 15, 2005 *Phase I/II Environmental Conditions of Property Report*, 6 ECP sites require remediation. Therefore, within forty five (45) days of the effective date of this Consent Order, Respondent shall submit to EPA an acceptable work plan to complete site characterization for each of the below SWMUs and a CMS to determine the final remedy for the following SWMUs/ECP sites;

SWMU 56 (a/k/a ECP 2)- Hanger 200 Apron

SWMU 59 (a/k/a ECP 5) - Former Vehicle Maintenance and Refueling Area

SWMU 61 (a/k/a ECP 7) - Former Bundy Area Maintenance Facilities

SWMU 69 (a/k/a ECP 15).- Aircraft Parking Area

SWMU 73 (a/k/a ECP 19) - DRMO Scrap Metal Recycling Yard

**SWMU 74 (a/k/a ECP 20) - Fuel Pipelines and Hydrant Pits**

Once a work plan is approved by EPA, Respondent shall complete a CMS for these SWMUs.

D) Should EPA determine that a CMS is required for any other of the SWMUs or AOCs, EPA shall notify Respondent in writing. This notice shall identify the hazardous constituent(s) which have exceeded action levels as well as those which have been determined to pose a potential threat to human health and the environment given site specific exposure conditions, due to additive exposure risk, or for other reasons.

E) EPA may require a CMS under the following conditions:

(a) If the concentrations of hazardous constituents in groundwater, surface water/sediment, soil, or air exceed their corresponding individual action levels or generic risk-based concentration (RBC) levels for human health and/or ecological screening values;

(b) If the concentrations of hazardous constituents in groundwater, surface water/sediment, soil, or air do not exceed their corresponding individual action levels or generic risk-based concentration (RBC) levels for human health and/or ecological screening values, but additive exposure risk due to the presence of multiple constituents makes the individual action levels or RBC levels insufficiently protective of human health or the environment, given site-specific exposure conditions; or

(c) If the concentrations of hazardous constituents in groundwater, surface water/sediment, soil, or air do not exceed individual action levels or generic risk-based concentration (RBC) levels for human health and/or ecological screening values, but still pose a potential threat to human health or the environment, given site-specific exposure conditions.

F) The Respondent shall submit a CMS Work Plan to EPA within sixty (60) calendar days after receiving written notification from EPA that a CMS is required.

(a) The CMS Work Plan shall provide:

(I) A description of the general approach to investigating and evaluating potential corrective measures;

- (ii) A definition of the overall objectives of the study;
- (iii) The specific plans for evaluating corrective measures to ensure compliance with corrective measure standards;
- (iv) The schedule for conducting the study; and
- (v) The proposed format for the presentation of information.

(b) The CMS Work Plan must address, at a minimum, all necessary activities to complete Tasks II and III of the Statement of Work for a Corrective Measures Study set forth in Attachment IV, or alternatively a "Streamlined CMS" may be developed if usage of a "Streamlined CMS" is considered appropriate by EPA. "Streamlined CMS" are discussed in the Proposed Corrective Action Rule set forth in the May 1, 1996 Federal Register, vol. 61 No. 85.

G) No later than thirty (30) calendar days after the Respondent has received written approval from EPA for the CMS Work Plan, the Respondent shall begin to implement the CMS according to the schedules specified in the CMS Work Plan.

H) Within sixty (60) calendar days after the completion of the CMS, the Respondent shall submit a CMS Final Report. The CMS Final Report shall:

- (a) Summarize the results of the investigations and, if applicable, of any bench-scale or pilot tests conducted;
- (b) Provide a detailed description of the corrective measures evaluated and include an evaluation of how each corrective measure alternative meet the standards set forth in paragraph 24(A) of this Order;
- ( c ) Present all information gathered under the approved CMS Plan; and,
- (d) Contain any additional information to support EPA in the corrective measure selection decision-making process, described in paragraph 24(B) of this Order.

I) Based on a review of the CMS Final Report, EPA, by written notification to the Respondent, may require the Respondent to evaluate additional

corrective measures or to evaluate further particular elements of one or more proposed corrective measures, prior to approval of the CMS Final Report or to modify the CMS Final Report.

J) EPA shall either approve or disapprove the CMS Final Report in writing. If the CMS Final Report is not approved, EPA shall provide written comments giving the basis for such disapproval.

24. CRITERIA FOR CORRECTIVE MEASURES SELECTION:

A. For any SWMUS and/or AOCs where the final corrective measures have not yet been selected, and which are determined to require corrective measures, the Director shall select, based on the results of the RFI, the CMS, and any further evaluations, the corrective measure(s) that will:

(a) Be protective of human health and the environment;

(b) Control the source(s) of release(s) so as to reduce or eliminate, to the maximum extent practicable, further releases of hazardous waste, including hazardous constituents, that might pose a threat to human health and the environment; and

(c) Meet all applicable waste management requirements.

B. In selecting the corrective measure(s), the Director shall consider the following evaluation factors, as appropriate:

(a) Long-term reliability and effectiveness. Any potential corrective measure(s) may be assessed for the long-term reliability and effectiveness it affords, along with the degree of certainty that the corrective measure(s) will prove successful. Factors that shall be considered in this evaluation include:

(i) Magnitude of residual risks in terms of amounts and concentrations of hazardous waste, including hazardous constituents, remaining following implementation of the corrective measure(s), considering the persistence, toxicity, mobility and potential to bioaccumulate of such hazardous wastes, including hazardous constituents;

(ii) The type and degree of long-term management required, including monitoring, operation and maintenance;

(iii) Potential for exposure of humans and environmental receptors to remaining hazardous wastes, including hazardous constituents, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal or containment;

(iv) Long-term reliability of the engineering and institutional controls, including uncertainties associated with land disposal of untreated hazardous wastes, including hazardous constituents, and residuals; and

(v) Potential need for replacement of the corrective measure(s).

(b) Reduction of toxicity, mobility and volume. A potential remedy(ies) may be assessed as to the degree to which it employs treatment that reduces toxicity, mobility or volume of hazardous wastes and/or hazardous constituents. Factors that shall be considered in such assessments include:

(I) The treatment processes that the corrective measure(s) employs and materials it would treat;

(ii) The amount of hazardous wastes, including hazardous constituents, that would be destroyed or treated;

(iii) The degree to which the treatment is irreversible;

(iv) The residuals that will remain following treatment, considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituents; and

(v) All concentration levels of hazardous wastes, including hazardous constituents in each medium that corrective measure(s) must achieve to be protective of human health and the environment.

(c) The short-term effectiveness of a potential corrective measure(s). This may be assessed by considering the following:

(I) Magnitude of reduction of existing risks;

(ii) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a corrective measure(s), including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment; and

(iii) Time until full protection is achieved.

(d) Implementability. The ease or difficulty of implementing a potential corrective measure(s) may be assessed by considering the following types of factors:

- (i) Degree of difficulty associated with constructing the technology;
  - (ii) Expected operational reliability of the technologies;
  - (iii) Need to coordinate with and obtain necessary approvals and permits from other agencies;
  - (iv) Availability of necessary equipment and specialists;
  - (v) Available capacity and location of needed treatment, storage, disposal services; and
  - (vi) Requirements for removal, decontamination, closure, or post-closure of units, equipment, devices or structures that will be used to implement the corrective measure(s).
- (e) Cost. The types of costs that may be assessed include the following:
- (i) Capital costs;
  - (ii) Operational and maintenance costs;
  - (iii) Net present value of capital, and operation and maintenance costs; and
  - (iv) Potential future corrective action costs.
- (f) Clean-up Preferences. The degree to which the remedy satisfies the public's and Commonwealth clean-up preferences.

25. CORRECTIVE MEASURE IMPLEMENTATION (CMI), INSTITUTIONAL CONTROLS, CLOSURE OF BUILDINGS 2009 AND 2009 A-D, AND CONTINGENT CORRECTIVE ACTION REQUIREMENTS

A) CMI Plans have been previously developed for five SWMUs and one AOC, but these have not yet undergone public review, been fully approved by EPA, or been implemented:

SWMU #13 "Final CMI Work Plan Design Package" dated January 25, 2001;

SWMU #31 "Final CMI Work Plan Design Package" dated January 25, 2001;

SWMU #32 "Final CMI Work Plan Design Package" dated January 25, 2001;

SWMU #46 "Final CMI Work Plan Design Package" dated January 25, 2001;

SWMU #53 "Final CMI Design Package for Soil Remediation" dated September 20, 2004.

AOC C "Final CMI Work Plan Design Package" dated January 25, 2001;

Public notice and comment on those proposed CMI plans shall be implemented as part of the public notice and comment on this Consent Order, pursuant to Section XXVIII of this Consent Order.

B) Upon completion of public notice and comment on the above CMI plans for SWMUs #13, SWMU #31, SWMU #32, SWMU #46, SWMU #53, and AOC C, pursuant to Section XXVIII of this Consent Order, the Respondent shall implement those CMI Plans, as modified based on public comments if required by EPA pursuant to Section XXVIII of this Consent Order, according to the schedules set forth in those respective CMI plans.

C) Corrective Measures involving institutional controls (such as Land Use or other controls) have been conditionally selected as the remedies for SWMU #30 and SWMU #37, and as part of the remedies for SWMUs #31 and #32. However, acceptable documentation that institutional controls are established for SWMUs #30, #31, #32 and SWMU #37 has not yet been provided. Therefore, within 60 days of completion of public notice and comment on this Consent Order, Respondent shall:

(a) submit to EPA documentation that acceptable institutional controls are in effect which prevent future usage of the sites of the former SWMUs #31, #32, and #37 for residential purposes or other non-industrial usages such as for a school or a child care facility.

(b) submit to EPA documentation that acceptable institutional controls are in effect which will prevent future usage of any groundwater impacted by releases from SWMU #30 for potable water supply.

D) Should EPA determine that a CMI is required for any other of the SWMUs or AOCs, EPA will notify Respondent in writing.

E) No later than ninety (90) calendar days after the Respondent has received written notification from EPA that a CMI is required for any other of the SWMUs or AOCs, the Navy shall submit to EPA for its review and approval, a Work Plan for implementing the CMI. Once the work plan has been approved by EPA Respondent shall implement the approved work plan.



F) Land Use, Institutional, and Engineering Controls. For all SWMUs and/or AOCs where either a Corrective Action Complete Determination or a clean-up action has been based on a site usage scenario other than an unrestricted (residential) usage scenario, the Respondent shall ensure that acceptable Land Use Controls or other institutional and/or engineering controls are established and maintained so as to preclude future site usage that is incompatible with the site usage and exposure scenarios upon which the Corrective Action Complete Determination for that SWMU or AOC was made, and, for all SWMUs and/or AOCs where no Corrective Action Complete Determination has been made, Respondent shall ensure that acceptable Land Use Controls are established and maintained until either a Corrective Action Complete Without Controls Determination has been approved or a clean-up action based on unrestricted site usage has been completed and approved by EPA. Respondent shall also submit the required reports as provided in Paragraph 27 (Reporting), below.

G) Completion of Closure of Buildings 2009 and 2009 A-D.

a) If, at the time of issuance of this Order, Respondent has not completed closure of the permitted hazardous waste container storage units, Respondent shall complete closure of the former permitted hazardous waste container storage units located at Buildings 2009, 2009-A, 2009-B, 2009-C, and 2009 D. Unless otherwise agreed, closure shall comply with requirements set forth at 40 CFR § 264.178, the Closure Plan included as Attachment E of the Facility's 1994 RCRA Permit, the December 2004 "Final Site-Specific Sampling and Analysis Plans for Buildings 2009, 2009 A, and 2009 B-D", and the October 27, 2005 and November 17, 2005 letters from Lieutenant Commander A. Ferguson to Mr. Timothy Gordon of EPA, and any other conditions imposed by EPA for such Closure.

H) Contingent Investigation and Corrective Action Requirements for SWMUs 27, 28, and 29.

a) Respondent shall submit to EPA for review and approval a work plan for a Phase I RFI for all sludge drying beds at each of the following units. The work plan for each unit will be submitted within ninety (90) days of the date when usage of that unit ceases.

SWMU 27 - Capehart Sewage Treatment Unit

SWMU 28 - Bundy Sewage Treatment Plant

SWMU 29 - Industrial Area wastewater treatment plant

b) If based on the results of those Phase I RFI investigations, a Full RFI is

determined to be required for any of those SWMUs, Respondent shall submit a work plan for a Full RFI for that SWMU or SWMUs that meets the requirements of the Scope of Work for a Full RCRA Facility Investigation set forth in Attachment III of this Order. This submittal shall be made within sixty (60) days of the Respondent's receipt of EPA's written notification that a Full RFI is required, unless an alternative date is approved in writing by EPA.

c) If based on the results of the Full RFI investigations, a Corrective Measures Study (CMS) is determined to be required for any of those SWMUs, Respondent shall submit a work plan for a CMS for that SWMU or SWMUs that meets the requirements of the Scope of Work for a Corrective Measures Study set forth in Attachment IV of this Order. This submittal shall be made within ninety (90) days of the Respondent's receipt of EPA's written notification that a CMS is required, unless an alternative date is approved in writing by EPA.

D) Contingent Investigation and Corrective Action Requirements for SWMU 77.

a) The Navy has informed EPA that it will likely convey the area comprising SWMU 77 to the Federal Department of Homeland Security (DHS) for continued usage as a small arms training range.

b) Within 90 days of DHS' cessation of usage of the area of SWMU 77 as a small arms training range, the Respondent shall cause DHS to submit to EPA for review and approval a work plan for a Phase I RFI work plan to determine whether releases of hazardous waste or solid waste and/or hazardous constituents are present at SWMU 77.

c) If based on the results of the Phase I RFI investigations, a Full RFI is determined to be required for some or all of the area comprising SWMU 77, Respondent shall submit a work plan for a Full RFI for that SWMU that meets the requirements of the Scope of Work for a Full RCRA Facility Investigation set forth in Attachment III of this Order. This submittal shall be made within sixty (60) days of the Respondent's receipt of EPA's written notification that a Full RFI is required, unless an alternative date is approved in writing by EPA.

d) If based on the results of the Full RFI investigations, a Corrective Measures Study (CMS) is determined to be required for some or all of the area comprising SWMU 77, Respondent shall submit a work plan for a CMS that meets the requirements of the Scope of Work for a Corrective Measures Study set forth in Attachment IV of this Order. This submittal shall be made within ninety (90) days of the Respondent's receipt of EPA's written notification that a CMS is required, unless an alternative date is approved in writing by EPA.

**26. NOTIFICATION and ADDITIONAL WORK REQUIREMENTS FOR NEWLY-  
DISCOVERED RELEASES**

(A) No later than fifteen (15) days after discovery, The Respondent shall notify EPA, in writing, of any release(s) of hazardous waste and/or solid waste, and/or hazardous constituents discovered after the effective date of this Consent Order. The notification shall, at the minimum, identify the location of the release, the basis for determining that a release has occurred, the media impacted by the release, and the specific hazardous and/or solid wastes and/or hazardous constituents indicated or suspected to have been released.

(B) If such a release is indicated to have originated from a unit or area not identified as a SWMU and/or AOC under this Consent Order, the Respondent's notification shall advise whether the unit or area indicated to be the source of the release constitutes a newly identified SWMU and/or AOC, and if not, the Respondent's notification shall advise as to the basis for such a determination. The Respondent's determination of whether the unit or area indicated to be the source of the release constitutes a newly identified SWMU and/or AOC shall be subject to review and final determination by EPA. If EPA determines that the unit or area constitutes a newly identified SWMU and/or AOC, EPA shall notify the Respondent in writing, and the newly identified SWMU and/or AOC shall be subject to the terms and conditions of this Consent Order.

(C) Based on the information provided in the notification, EPA shall determine the need for further investigation of the release(s) and/or other actions, including remedial measures, for such release(s). If EPA determines that such investigations and/or other actions, including remedial measures are needed, EPA shall notify the Respondent to prepare a Sampling and Analysis Work Plan and/or a work plan for any other necessary actions, including remedial measures. The Respondent shall submit to EPA a Sampling and Analysis Work Plan and/or a work plan for any other necessary actions, including remedial measures for such releases within ninety (90) days of written notification by EPA.

**27. REPORTING.**

(A) Respondent shall submit copies of all correspondence, including but not limited to, work plans, and reports, generated pursuant to the provisions of this Consent Order to the following:

(a) Chief, Caribbean Section, RCRA Programs Branch (1 paper copy and 1 Compact Disc in .pdf format)  
EPA Region 2  
290 Broadway, 22<sup>nd</sup> Floor

New York, NY 10007-1866

(b) Project Coordinator (Mr. Timothy Gordon)  
(1 paper copy and 1 Compact Disc in .pdf format)  
RCRA Programs Branch  
EPA Region 2  
290 Broadway, 22<sup>nd</sup> Floor.  
New York, NY 10007-1866

(c) Director (Mr. Carl Soderberg)  
(1 paper copy and 1 Compact Disc in .pdf format)  
U. S. Environmental Protection Agency  
Caribbean Environmental Protection Division  
Centro Europa Building, Suite 417  
1492 Ponce de Leon Ave  
Santurce, PR 00907-4127

(d) Puerto Rico Environmental Quality Board  
Director, Land Pollution Regulation Program  
(1 paper copy and 1 Compact Disc in .pdf format)  
National Plaza Building  
431 Ponce de Leon Ave  
Hato Rey, PR 00917

(B) Unless an alternative date is specified in an existing work plan approved in writing by EPA prior to the effective date of this Consent Order, within 60 days of completion of all tasks in an EPA approved RFI, Interim Measures, Closure Plan, CMS, or CMI work plan, the Respondent shall submit a draft Final Report on that RFI, Interim Measures, Closure Plan, CMS, or CMI to the above parties, in the quantities specified above.

(c) Respondent shall also submit to the parties noted immediately above, the above-specified number of copies of signed quarterly progress reports of all activities (i.e., SWMU Assessment, Interim Measures, Closure Plan, RCRA Facility Investigation, Corrective Measures Study) conducted pursuant to the provisions of this Consent Order, beginning no later than ninety (90) calendar days after its effective date. These reports shall, unless otherwise agreed in writing, contain:

- (a) A description of the work completed;
- (b) Summaries of all findings made during the reporting period, including summaries of laboratory data;

- (c) Summaries of all changes made during the reporting period;
  - (d) Summaries of all contacts made with representatives of the local community and public interest groups during the reporting period;
  - (e) Summaries of problems or potential problems encountered during the reporting period and actions taken to rectify problems;
  - (f) Changes in personnel conducting or managing the corrective action activities during the reporting period;
  - (g) Projected work for the next reporting period; and
  - (h) Copies of daily reports, inspection reports, validated laboratory/monitoring data, etc. generated during the reporting period
- (D) Upon request, Respondent shall submit copies of other reports (e.g., inspection reports, drilling logs and laboratory data) as requested by EPA.
- (E) EPA may require the Respondent to conduct new or more extensive assessments, investigations, or studies, based upon information provided in the progress reports referred to above, or upon other supporting information.
- (F) All plans and schedules required by the conditions of this Consent Order are, upon approval of EPA, incorporated into this Consent Order by reference and become an enforceable part of this Consent Order. Any noncompliance with such approved plans and schedules shall be termed noncompliance with this Consent Order. Extensions of the due dates for submittals may be granted by EPA in writing.
- G) Annual Reports. (a) For all SWMUs and/or AOCs where either a Corrective Action Complete Determination or a clean-up action has been based on a site usage scenario other than an unrestricted (residential) usage scenario, commencing sixty (60) days following the effective date of this Order, Respondent shall submit, or cause to be submitted, on an annual basis, acceptable certification that acceptable Land Use Controls or other institutional and/or engineering controls have been implemented and are being maintained to preclude unacceptable future usages of the lands and/or groundwater potentially impacted by releases from these SWMUs and AOCs; and (b) Annual Status Report on Transferred Parcels. Each year on the anniversary of the execution of this Order, Respondent shall submit, or

cause to be submitted, to EPA a Report addressing the status of each parcel that is subject to a third party order and that has been previously transferred to an owner or operator other than Respondent, noting the following: the name and address of the new owner and operator; the address of the parcel and information describing the parcel and its boundaries including, if available, a map and, if known, Global Position System locational data; a statement whether or not all corrective action at the parcel is complete or on-going, and whether any institutional controls are in place or are pending; and the name and phone number of the contact person(s) for the parcel. This report will be updated each year to incorporate the then current information.

- H) Imminent and Substantial Endangerment due to Solid Waste or Hazardous Waste. Upon receipt of information that there is newly identified solid waste or hazardous waste at the Facility which may present an imminent and substantial endangerment to human health or the environment, Respondent shall immediately provide notice to EPA and EQB. Respondent shall also comply with statutory requirements for the posting of a notice of the endangerment at the Facility.

28. Project Coordinator. On or before the Effective Date of this Consent Order, Respondent shall designate its Project Coordinator. Respondent shall notify EPA in writing within five (5) days of the Effective Date of this Consent Order of the name, address, phone number, electronic mail address and qualifications of its Project Coordinator. The EPA Project Coordinator will be Timothy Gordon, 212-637-4167, 290 Broadway, New York, NY 10007-1866. EPA may also designate an Alternate Project Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of this Consent Order. EPA and Respondent have the right to change their respective Project Coordinators. The other party must be notified in writing at least 10 days prior to the change.

29. The EPA Project Coordinator shall be EPA's designated representative for the Facility. Unless otherwise provided in this Consent Order, all reports, correspondence, notices, or other submittals relating to or required under this Consent Order shall be in writing and shall be sent to the EPA Project Coordinator at the address specified in Paragraph 23A, above, unless notice is given in writing to Respondent of a change in address. Reports, correspondence, notices or other submittals shall be delivered by U.S. Postal Service, private courier service or electronic mail. All correspondence shall include a reference to the case caption EPA Docket No. RCRA- 02-2007-7301, and the Facility's EPA Identification Number.

30. Within 25 days of the Effective Date of this Consent Order, Respondent shall notify EPA in writing of the names, titles and qualifications of the personnel, including agents, contractors, subcontractors, consultants and laboratories, to be used in carrying out the work. EPA's Project Coordinator will provide Respondent with the necessary qualification standards and Respondent's

Project Coordinator shall ensure that Respondent's contractors, subcontractors, consultants and laboratories meet such requirements. All persons under the direction and supervision of Respondent's Project Coordinator must possess all necessary professional licenses required by federal and Commonwealth law. In addition, all agents, contractors, subcontractors, consultants, and laboratories must implement any work done under this Order pursuant to an EPA approved Quality Management Plan (QMP), developed in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/241/B-01/002, March 2001), or equivalent documentation as determined by EPA. EPA's approval of the QMP(s) shall be pursuant to procedures set forth in Section IX of this Order.

31. Health and Safety Plan. Respondent shall develop a Health and Safety Plan and it shall be implemented during the Work performed under this Consent Order. The Health and Safety plan shall comply with applicable Occupational Safety and Health Administration (OSHA) regulations.

#### **IX. EPA APPROVALS AND ADDITIONAL WORK**

32. Unless otherwise specified, EPA will review any plan, report, specification, program, documentation, notification, proposal or schedule submitted pursuant to, or required by this Consent Order, and agrees to endeavor to provide within 90 calendar days of receipt of that document by EPA, EPA's written request for modification, approval, or disapproval, with comments and/or modifications ("EPA's response"), to Respondent. Respondent may request, in the cover letters to its submittals, that EPA provide Respondent with EPA's response, with comments and/or modifications, within an alternative specified period of time. Unless EPA either: (1) provides Respondent with EPA's acceptance of the alternative specified time period for completing its response; or (2) notifies Respondent in writing of a revised alternative time when EPA expects to provide its response, the normal time period for EPA to provide its response will be within 90 calendar days of receipt of that document by EPA. EPA will notify Respondent whenever additional time is needed to provide its response to any submittals required pursuant to this Consent Order. The Parties agree that if during EPA's review of any submittals by Navy required by this Consent Order, Navy's funding expires for work related to that submittal, then such expiration may constitute a delay as provided in Section XXVI of this Consent Order until such time as funding is secured, provided that Navy pursues all necessary funding at all times with due diligence.

33. Within fifteen (15) days of Navy's receipt of EPA's response, Respondent may request a meeting with EPA to discuss EPA's response. Within thirty (30) days of such meeting, or if no meeting is requested, within forty-five (45) days of receipt of EPA's response, Respondent shall either: (1) notify EPA of its intention to amend or modify the submission to incorporate all of EPA's comments and proposed modifications and to submit the amended submittal to EPA within thirty (30) days thereafter or according to a mutually agreed schedule; or (2) provide EPA with a written notice of dispute, setting forth Respondent's position, any actions which Respondent considers necessary to resolve the dispute, and the basis for Respondent's position. Any such

written notice of dispute shall be subject to the dispute resolution procedures as set forth in Section XVIII of this Consent Order.

34. As part of the review of any plan, report, specification, program, documentation, notification, proposal or schedule submitted pursuant to, or required by this Consent Order, EPA or Navy may determine that certain tasks and deliverables required pursuant to Section VIII (Work to be Performed) of this Consent Order may require additional work.

(A) If EPA determines that such additional work is necessary, EPA shall identify, in writing, the additional work required and shall specify the reasons for that determination, and the time period during which the additional work shall be performed.

(B) Within thirty (30) calendar days after the receipt of such request, Navy shall have the opportunity to meet or confer with EPA to discuss the additional work required, and if it deems it necessary it shall within thirty (30) calendar days invoke the Dispute Resolution provisions of this Consent Order.

(C) If the Navy does not invoke Dispute Resolution, such additional work shall be performed in accordance with the terms of this Consent Order.

(D) Any additional work performed by Navy, whether at the request of EPA under (A) above, or at the initiative of the Navy, shall be subject to review and approval by EPA under the terms of this Consent Order.

35. Any noncompliance with an EPA approved document or an EPA determination under the Dispute Resolution provision of this Consent Order constitutes noncompliance with this Consent Order.

#### **X. SUSPENSION AND RESUMPTION OF WORK BY THE NAVY**

36. A. The Navy has informed EPA that it intends to sell or otherwise transfer parcel(s) and/or parts of the Facility to one or more Third Party(s) who will assume responsibility for corrective action on the real property it acquires. The Navy has informed EPA that before such transfer the Navy will screen prospective purchasers for their financial and technical capability to perform any required corrective action and once the Navy has approved a potential bidder the Navy will require the potential bidder to enter into an administrative order on consent with EPA and comply with its terms.

B. Except as provided herein below, once an order on consent has been executed between EPA and the Third Party for work on a specified part of the Facility, the work requirements of this Consent Order with the Navy which are being assumed by the Third Party for that specified part of the Facility are suspended. Any suspension in the Navy's responsibility for work related to the transferred parcel will be conditioned on the



satisfactory and timely performance by the Third Party, and will take effect following the effective date of the order to the Third Party. The Navy shall continue to abide by the provisions of this Order which are not suspended. EPA will suspend all of the Navy's obligations under this Order with respect to any given parcel, with the following exceptions:

- Section VIII (Work To Be Performed), unless otherwise agreed in writing by the parties to this Order, the Navy shall complete any Work for which EPA has approved a work plan (or similar documents such as groundwater monitoring plan or monitored natural attenuation plan) and all Work which Navy has initiated;
- Section VIII (Work To Be Performed), the Navy shall retain responsibility for the maintenance of institutional (excluding zoning) and engineering controls unless otherwise agreed in writing by the Navy and the Third Party and approved by EPA, and shall provide EPA with an annual certification of the Land Use Controls or other institutional and engineering controls, and an annual report on the transferred parcels, as required in paragraph 27(G).
- Section X (Suspension and Resumption of Work by the Navy);
- Paragraphs 48, 51-54 in Section XIV (Sampling, Access and Data Availability);
- Section XVI (Record Retention);
- Section XXVI (Funding); and,
- Paragraph 122 in Section XXVIII (Public Comment on this Consent Order and Decisions Made Pursuant to this Consent Order).

C. a. Should EPA later determine that the Third Party has failed to satisfy its corrective action responsibility and is not likely to be able to satisfy its responsibility to perform the work in a timely and satisfactory manner, then EPA may find the Third Party to be in "Default." Before making any Default finding, EPA will undertake the following actions outlined in sub-paragraphs D through and including M, below.

b. EPA expects to use its available enforcement authorities in the event of third party noncompliance with a consent order. However, EPA's decision on whether and when to initiate any enforcement action against a Third Party for noncompliance with such an order shall be within EPA's, and/or the United States Department of Justice's, sole enforcement discretion, and shall not be subject to dispute resolution under this Order.

D. Initial Notice of Noncompliance and Stop Work. Following EPA's preliminary finding that a Third Party has failed to comply with a requirement of another order issued to that party for work at some or all of the Facility, EPA may give that Third Party written notification of the same, and describe the noncompliance ("Initial Notice of Noncompliance"). EPA may also give the Third Party written notification that it should stop work on all or any portion of its corrective action activities at the Facility until EPA determines that the Third Party has remedied such noncompliance ("Notice to Stop Work") or until receipt of written notification from EPA that the Third Party may proceed with such activities as specified in the notification. If requested by the Third Party within

ten calendar days of its receipt of the Initial Notice of Noncompliance, EPA and the Third Party will meet within 30 days of that request, or an alternative time period approved by EPA, to discuss the situation.

E. Second Notice of Noncompliance. If EPA later determines that the Third Party has not adequately addressed the issues identified in EPA's Initial Notice of Noncompliance, EPA may then issue a written Second Notice of Noncompliance and will copy the Navy on such Second Notice. EPA's determination may be based on its finding that the Third Party is not performing the work, not performing the work adequately despite EPA's guidance, not performing the work in a timely manner, or for any other reason which causes EPA to conclude that the Third Party is not willing or able to satisfy its obligations under the applicable order. If requested by the Third Party within ten calendar days of its receipt of the Second Notice, EPA and the Third Party will meet to discuss the finding by EPA within 30 business days after receiving from EPA the Second Notice, or an alternative time period approved by EPA. EPA may in its discretion invite the Navy to the meeting.

F. Following the conclusion of the meeting referenced immediately above, if EPA still believes the noncompliance has not been remedied and believes the noncompliance jeopardizes the successful completion of work required under the Order issued to the Third Party, EPA will promptly notify the Navy and allow the Navy a short period to investigate and to attempt to resolve the issues outlined by EPA.

G. Initial Finding of Default and Dispute Resolution. Assuming the situation is not promptly resolved to EPA's satisfaction during the above-noted time period, the matter will be elevated to the EPA Region 2, RCRA Programs Branch Chief and the NAPR Base Closure Manager. If the matter is not resolved to the EPA Branch Chief's and the NAPR Base Closure Manager's mutual satisfaction within thirty (30) days or such other time as mutually agreed, EPA may issue its Initial Finding of Default.

H. Dispute Resolution. Within ten (10) business days of the Navy's and the Third Party's respective receipt of EPA's issuance of its Initial Finding of Default, both the Navy and the Third Party may trigger the Dispute Resolution procedures provided in their respective consent orders. (With regard to the Third Party, the Dispute Resolution procedures of the Order issued to that party shall apply.) With regard to the Navy, it shall elevate the matter to the EPA Regional Administrator and the Deputy Assistant Secretary of the Navy (Environment) by serving upon EPA a written Statement of Dispute setting forth the basis for the Navy's position and the information upon which it is relying to support its position. EPA may provide the Regional Administrator with a written Response to the Statement of Dispute. If EPA deems it efficient, EPA may take such steps as it deems appropriate to integrate any dispute process invoked by the Navy with any invoked by any Third Party.

I. After review of the Statement of Dispute and the Response to the Statement of Dispute, if any, the EPA Regional Administrator, or his or her designated representative, shall

confer with the Deputy Assistant Secretary of the Navy (Environment), or his or her designated representative, and shall provide the Navy with a written Final Decision setting forth resolution of this matter.

J. Resolution of a dispute in accordance with these provisions constitutes a final resolution of that dispute. The Final Decision of the Regional Administrator will be based on his/her sole and unreviewable discretion, and the Parties shall seek no further review of that resolution. The Navy and EPA shall abide by all terms and conditions of any final resolution of dispute obtained in accordance with these provisions and the Navy shall have no further opportunity to invoke dispute resolution on the issues addressed in the dispute pursuant to this Paragraph after EPA issues the Third Party a Final Finding of Default.

K. Final Finding of Default. In the event of an EPA determination (following any dispute resolution process, if invoked) that a Default has occurred, EPA will issue the Third Party a written Final Finding of Default, with a copy to the Navy. The Final Finding of Default will provide the basis for EPA's determination and will specify whether the Third Party may continue to perform the Work, or any portion of the Work, while the Navy prepares to resume the required corrective action activities under this Order.

L. Resumption of Corrective Action Work by the Navy. Subject to Section XXVI (Funding) and Section XX (Force Majeure), within thirty (30) days of receipt of the Final Finding of Default, or such other time period as is agreed to by EPA following consultation with the Navy, the Navy shall resume work under this Order concerning the required corrective action activities that were previously being performed by the Third Party found to be in Default. EPA and the Navy shall endeavor to meet within sixty days of receipt of the Final Finding of Default to discuss the Navy's resumption of work.

M. In the event that the Navy reassumes corrective action responsibility, it will not challenge or dispute any remedial decisions made by EPA prior to EPA's Final Finding of Default, and it will continue to perform all corrective actions selected by EPA prior to that Final Finding of Default in accordance with the pertinent EPA decision document; provided however, that for any corrective action workplans for investigations or for the implementation of any selected remedy that were approved prior to EPA's Final Finding of Default, the Navy may, within six months of its receipt of EPA's written Final Finding of Default, propose to EPA, for its review and approval, modifications to the relevant work plan(s). The Navy may not, however, initiate Dispute Resolution pursuant to Section XVIII of this Order on the previously approved workplans or EPA's decision with respect to its proposed modifications to them.

N. Notwithstanding any other provision of this Order, EPA reserves its right not to negotiate with and/or issue an administrative order(s) to a new party (or parties) for work at the Facility should EPA determine in its sole discretion that it cannot be reasonably assured that it will have adequate resources to negotiate additional order(s), review new

or revised workplans under such order(s), and/or perform the tasks required to implement and oversee the work by such additional party (parties) under such order(s).

## **XI. MODIFICATION OF WORK PLANS**

37. If at any time during the implementation of Work, Respondent identifies a need for a compliance date modification or revision of an existing EPA approved Work Plan, Respondent shall document in a written request to EPA the exact modification or revision requested and the basis for that modification or revision. EPA will determine if the modification or revision is warranted and will provide written approval or disapproval. Any approved modified compliance date or Work Plan modification will be incorporated by reference into this Consent Order.

38. Emergency Response. In the event of any action or occurrence during the performance of Work that constitutes an emergency situation or may present an immediate threat to human health and the environment, Respondent shall immediately take all appropriate action to minimize such emergency or threat, and shall immediately notify the EPA's Project Coordinator. Respondent shall take such immediate and appropriate actions in consultation with EPA's Project Coordinator. Respondent shall submit to EPA written notification of such emergency or threat at the Facility within three (3) calendar days of such discovery. Respondent shall thereafter submit to EPA for approval, within 20 days, a plan to mitigate this threat. EPA will approve or modify this plan, and Respondent shall implement this plan as approved or modified by EPA. In the case of an extreme emergency, Respondent may act as it deems appropriate to protect human health or the environment. However, Respondent's actions are subject to EPA review and approval and EPA may require Respondent to take additional response actions.

## **XII. QUALITY ASSURANCE**

39. As part of each new Work Plan, unless otherwise agreed, or unless a Master Quality Assurance Project Plan (QAPP) has been previously approved by EPA for usage under this Consent Order and it is appropriately cited in the new Work Plan, Respondent shall include a Quality Assurance Project Plan (QAPP) for EPA review and approval. The QAPP shall address quality assurance, quality control, and chain of custody procedures for all sampling, monitoring and analytical activities. Respondent shall follow "EPA Requirements for Quality Assurance Project Plans" (QA/R5)" (EPA/240/B-01/003, March 2001), "Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/600/R-98/018, February 1998), and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/b-01/002, March 2001) (or later versions of these documents) as well as other applicable documents identified by EPA. The QAPP shall be incorporated into this Consent Order by reference.

40. As part of the Work Plan, Respondent shall include Data Quality Objectives for any data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended use as required by this Consent Order.

41. Respondent shall ensure that laboratories used by Respondent for analysis perform such analysis according to the latest approved edition of "Test Methods for Evaluating Solid Waste (SW-846)" or other methods approved by EPA. If methods other than EPA methods are to be used, Respondent shall specify all such protocols in the applicable Work Plan. EPA may reject any data that does not meet the requirements of the approved Work Plan and EPA analytical methods and may require resampling and additional analysis.

42. Respondent shall ensure that all laboratories it uses for analyses participate in a quality assurance/quality control (QA/QC) program equivalent to the program that EPA follows. Respondent shall, upon EPA's request, make arrangements for EPA to conduct a performance and QA/QC audit of the laboratories chosen by Respondent, whether before, during, or after sample analyses. Upon EPA's request, Respondent shall have its laboratories perform analyses of samples provided by EPA to demonstrate laboratory QA/QC and performance. If the audit reveals deficiencies in a laboratory's performance or QA/QC, Respondent shall submit a plan to address the deficiencies and EPA may require resampling and additional analysis.

43. Any laboratory used by Navy to perform chemical analysis pursuant to this Order must be certified under EPA's National Contract Laboratory Program ("CLP"), or the Navy must obtain prior written approval from EPA for usage of a non-CLP laboratory by Navy to perform chemical analysis pursuant to this Order. Navy shall ensure that EPA personnel and authorized representatives have access to the laboratories and personnel performing any analyses. In the event that EPA or its representatives cannot satisfactorily obtain access to the laboratories for any reason for the purposes of auditing protocols and technical proficiency, then EPA shall so inform the Navy and the Navy shall, as soon as practicable thereafter, substitute another CLP certified, or EPA approved, laboratory which provides access in a manner deemed satisfactory to EPA.

### **XIII. DOCUMENT CERTIFICATION**

44. Any report or plan or other document submitted by Respondent pursuant to this Consent Order which addresses work plans, or makes recommendations as to whether or not further actions are necessary, or makes any representation concerning Respondent's compliance or noncompliance with any requirement of this Consent Order shall be certified by a responsible civilian official or military officer of Respondent with authority to make such a certification.

45. The certification required by Paragraph 44, above, shall be in the following form:

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that this document and its attachments were prepared either by me personally or under my direction or supervision in a manner designed to ensure that qualified and knowledgeable personnel properly gather and present the information contained therein. I further certify, based on my personal knowledge or on my inquiry of those individuals immediately responsible for obtaining the information, that the information is true,

accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowingly and willfully submitting a materially false statement.

Signature: \_\_\_\_\_

Name:

Title:

Date:

This certification requirement does not apply to emergency or similar notifications if compliance with this requirement would be impractical.

#### **XIV. SAMPLING, ACCESS AND DATA AVAILABILITY**

46. All results of sampling, testing, modeling or other data generated (including raw data if requested) by Respondent, or on Respondent's behalf, during implementation of this Consent Order shall be validated by Respondent and submitted to EPA within 30 days of Respondent's receipt of the data (unless a different schedule is agreed to in writing). Respondent shall submit all data in a format consistent with EPA Region 2's *Electronic Data Deliverable (EDD) Specification Manual*, Version 2.1, dated December 2003, or the most recent version, if such exists. EPA will make available to Respondent data generated by EPA for the purposes of oversight of the Work unless it is exempt from disclosure by any federal or Commonwealth law or regulation.

47. Respondent shall orally notify EPA at least 20 days prior to conducting field sampling. At EPA's request, Respondent shall allow split or duplicate samples to be taken by EPA or EPA's representative.

48. Facility Access. Pursuant to RCRA § 3007(a), 42 U.S.C. § 6927(a) and other authority, Respondent shall provide access to the Facility during regular business hours (and at other times if reasonable under the circumstances) to both EQB and EPA, and EQB's and EPA's contractors and oversight officials. Respondent shall also provide the above-noted entities with access at reasonable times, as noted above, to all records and documentation in its possession or control, including those records and documents in the possession or control of Respondent's contractors and employees, related to the conditions at the Facility and the actions conducted pursuant to this Consent Order. Respondent shall use its best efforts to gain access to areas owned by or in the possession of someone other than Respondent, as necessary to implement this Consent Order, as described in Paragraph 50. The above-noted entities shall be permitted to move freely about the Facility and appropriate off-site areas in order to conduct actions that EPA and EQB determine to be necessary. The above-noted entities shall notify Respondent of their presence at the Facility by presenting their credentials. All entities with access to the Facility under this Paragraph shall comply with all approved health and safety plans and regulations.

49. Pursuant to this Section, any denial of access at reasonable times to any portion of the

Facility property where a request for access was made shall be construed as a violation of the terms of this Consent Order subject to the penalty provisions outlined in Section XIX (Stipulated Penalties) of this Consent Order.

50. Access Agreements. Where action under this Consent Order is to be performed in areas owned by, or in possession of, someone other than Respondent, and that other party is not responsible for the work, Respondent shall use its best efforts to obtain all necessary access agreements within 45 days of approval of any Work Plan for which access is necessary or as otherwise specified, in writing, by the EPA Project Coordinator. Any such access agreement shall provide for access by EQB and EPA and their representatives to move freely in order to conduct actions that EQB and EPA determine to be necessary. The access agreement shall specify that Respondent is not EQB's or EPA's representative with respect to any liabilities associated with activities to be performed. Respondent shall provide EQB's and EPA's Project Coordinators with copies of any access agreements. Respondent shall immediately notify EQB and EPA if after using Respondent's best efforts it is unable to obtain such agreements within the time required. Best efforts as used in this Paragraph shall include, at a minimum, a letter sent by certified mail from Respondent to the present owner of such property requesting access agreements to permit Respondent, EQB, EPA, and their authorized representatives to enter such property, and the offer of payment of sums of money (if reasonable under the circumstances) in consideration of granting access. Respondent shall, within 10 days of its receipt of a denial of access, submit in writing, a description of its efforts to obtain access. EQB and EPA may, at their discretion, assist Respondent in obtaining access. In the event EQB and/or EPA obtains access, Respondent shall undertake the Work on such property and EPA reserves any right it may have to seek reimbursement from Respondent for all costs and attorney fees incurred by the EPA and the United States Department of Justice acting on EPA's behalf in connection with obtaining such access.

51. Confidential Information. Respondent may assert, pursuant to 40 C.F.R. §2.203(b), a confidentiality claim, if appropriate, covering part or all of the information required by this Consent Order. Such an assertion shall be adequately substantiated (e.g., data or other information related to Facility production methods or processes). Any assertion of confidentiality shall be accompanied by sufficient documentation to satisfy the requirements of 40 C.F.R. § 2.204(e)(4). Information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies this information when it is submitted to EPA, it may be made available to the public by EPA, without further notice to Respondent. No confidentiality claim shall be made with regard to any analytical data.

52. Privileged Documents. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege in lieu of providing documents, Respondent shall provide EPA with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the author's name and title; (4) the name and title of each addressee and recipient; (5) a description of the contents; and (6) the privilege

asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Consent Order shall be withheld on the grounds that they are privileged.

53. All data, information, and records created or maintained relating to any solid or hazardous waste found at the Facility shall be made available to EQB and EPA upon request unless Respondent asserts a claim that such documents are legally privileged from disclosure. Respondent shall have the burden of demonstrating to EPA by clear and convincing evidence that such privilege exists.

54. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Facility.

55. Nothing in this Consent Order shall be construed to limit EQB's and EPA's right of access, entry, inspection, and information gathering pursuant to applicable law, including but not limited to RCRA and CERCLA.

#### **XV. COMPLIANCE WITH OTHER LAWS**

56. All actions undertaken pursuant to this Consent Order by Respondent shall be done in accordance with all applicable local, commonwealth and federal laws, regulations, ordinances and Executive Orders. Respondent retains the obligation and agrees to obtain all permits or approvals necessary to perform the work required by this Consent Order.

#### **XVI. RECORD RETENTION**

57. Respondent shall preserve, during the pendency of this Consent Order and for at least seven (7) years after its termination, all data, records and documents in its possession or in the possession of its divisions, employees, agents or consultants or contractors, which data, records and documents relate in any way to this Consent Order, or to hazardous waste management practices and/or disposal at the Facility.

58. Except where Respondent, and EPA otherwise agree, subsequent to the termination of the aforementioned seven (7) year period, Respondent shall provide written notification to EPA sixty (60) days prior to the destruction of any data, records or documents that relate in any way to this Consent Order, its implementation, or to hazardous waste management practices and/or disposal at its Facility. At EPA's request, Respondent shall then make such records available to EPA for inspection and/or EPA's retention or shall provide copies of any such records to EPA prior to discarding.

59. Respondent shall make a good faith effort to preserve all documents pertaining to this Consent Order in a centralized location to afford ease of access by EPA or its representatives.



Where Respondent finds such a requirement impossible, Respondent shall minimize the number of locations used and shall maintain in a central location a list detailing the location of such documents.

60. All data, information, and records concerning, created for, or maintained by the Respondent, in connection with this Consent Order, shall be made available to EPA upon request in accordance with the provisions of Section XIV. All employees of the Respondent and all persons, including contractors and subcontractors who engage in activity under this Consent Order, shall be made available to and shall cooperate with EPA if information is sought.

61. Nothing in this Section shall be read to shorten any document retention requirement otherwise applicable to the Navy or other entity.

62. Administrative Record. EPA will maintain an administrative record file. The administrative record supporting issuance of this Consent Order and the work being required under it shall be available for public review at EPA's Region 2 offices, 290 Broadway, New York, NY. The Navy shall maintain a public repository in Puerto Rico, where copies of all documents regarding the work performed pursuant to this Consent Order shall be available for public inspection. The requirements for this public repository are discussed in Section XXVIII, Paragraph 122, of this Order.

#### **XVII. FULL TIME EMPLOYEE ASSISTANCE**

63. EPA and the Navy are in the process of negotiating Full Time Employee (FTE) assistance for EPA. At this time, the Navy has agreed that for Fiscal Year 2006 it will provide EPA, pursuant to the Navy's Base Realignment and Closure (BRAC) authority, two Full Time Equivalent (FTE) positions. The parties agree to negotiate in good faith concerning arrangements for future years.

#### **XVIII. DISPUTE RESOLUTION PROCEDURES**

64. Except as specifically set forth elsewhere in this Consent Order, if a dispute arises under this Consent Order the procedures of this part shall apply. In addition, during the pendency of any dispute, Navy agrees that it shall continue to implement those portions of this Consent Order which are not in dispute and which EPA determines can be reasonably implemented pending final resolution of the issue(s) in dispute. If EPA determines in writing that all or part of those portions of work which are affected by the dispute should stop during the pendency of the dispute, Navy shall discontinue implementing those portions of the work.

65. EPA and Navy shall make reasonable efforts to informally resolve disputes at the Project Coordinator or immediate supervisor level. If resolution cannot be achieved informally, the procedures of this part shall be implemented to resolve the dispute.

66. Within thirty (30) days of the date when Navy is informed of an action by EPA that leads

to or generates a dispute, Navy shall submit to EPA a written statement of dispute setting forth the nature of the dispute including any elements of work, submittals, or actions affected by the dispute, Navy's position with respect to the dispute, and the information Navy is relying upon to support its position, and any impact such dispute may have on specified schedules, elements of work, submittals, or actions required by this Consent Order. If Navy does not provide such written statement to EPA within this thirty (30) day period, Navy shall be deemed to have agreed with the action taken by EPA which led to or generated the dispute.

67. Upon receipt of the written statement of dispute, EPA and Navy shall engage in dispute resolution among the Project Coordinators and/or their immediate supervisors. EPA and Navy shall have twenty (20) days from the receipt by EPA of the written statement of dispute to resolve the dispute. During this period the Project Coordinators shall meet as many times as are necessary to discuss and attempt resolution of the dispute. Any agreed resolution shall be in writing, signed by EPA and Navy. If agreement cannot be reached on any issue within this twenty (20) day period, Navy may, within ten (10) days of the conclusion of the twenty (20) day dispute resolution period, submit a written notice to EPA escalating the dispute to the Dispute Resolution Committee ("DRC") for resolution. If Navy does not elevate the dispute to the DRC within this ten (10) day escalation period, Navy shall be deemed to have agreed with EPA's position with respect to the dispute.

68. The EPA representative on the DRC is the Director, Division of Environmental Planning and Protection, EPA Region II. The Navy representative on the DRC is the Director, BRAC Program Management Office. These representatives may be changed and they may designate other individuals to act for them. Notice of any change in the representative and delegation of authority from a party's designated representative on the DRC shall be provided to the other parties.

69. The DRC will serve as a forum for resolution of disputes for which agreement has not been reached informally. EPA and Navy shall each designate one individual and an alternate to serve on the DRC. Following escalation of a dispute to the DRC, the DRC shall have twenty (20) days to resolve the dispute. Any agreed resolution shall be in writing and signed by EPA and Navy. If the DRC is unable to resolve the dispute within this twenty (20) day period, Navy may, within ten (10) days of the conclusion of the twenty (20) day dispute resolution period, submit a written Notice of Dispute to the Senior Executive Committee (SEC) for resolution. In the event that the dispute is not escalated to the SEC within the designated ten (10) day escalation period, Navy shall be deemed to have agreed with EPA's position with respect to the dispute.

70. The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the DRC. The EPA's representative on the SEC is the Regional Administrator of the EPA Region II. The Navy's representative on the SEC is the Deputy Assistant Secretary of the Navy (Environment). The members shall as appropriate confer, meet and exert their best efforts to resolve the dispute and issue a unanimous written decision signed by the parties. If unanimous resolution of the dispute is not reached within twenty-one (21) days, the EPA Regional

Administrator shall issue a written position on the dispute. The Secretary of the Navy may, within ten (10) days of the Regional Administrator's issuance of EPA's position, issue a written notice elevating the dispute to the Administrator of the U.S. EPA for resolution in accordance with all applicable laws and procedures. In the event that Navy elects not to elevate the dispute to the Administrator within the designated ten day escalation period, the Regional Administrator's decision will become final and the work will proceed in accordance with the Regional Administrator's written position with respect to the dispute.

71. Upon escalation of a dispute to the Administrator of the EPA pursuant to Paragraph 70, above, the Administrator will review and resolve the dispute within twenty-one (21) days. Upon request, and prior to resolving the dispute, the EPA Administrator shall meet and confer with the Secretary of the Navy to discuss the issues under dispute. Upon resolution, the Administrator shall provide the Navy with a written final decision setting forth the resolution of the dispute. The duties of the Administrator and the Secretary set forth in this Section shall not be delegated.

72. The pendency of any dispute under this part shall not affect Navy's responsibility for timely performance of the work required by this Consent Order, except that the time period for completion of work affected by such dispute shall be extended for a period of time not to exceed the actual delay caused by the resolution of any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this Consent Order which are not affected by the dispute shall continue and be completed in accordance with the applicable schedule.

73. Within fourteen (14) days of resolution of a dispute pursuant to the procedures specified in this part, Navy shall incorporate the resolution and final determination into the appropriate plan, schedule or procedures and proceed to implement this Consent Order according to the amended plan, schedule or procedure.

74. Resolution of a dispute pursuant to this part of the Consent Order constitutes a final resolution of that dispute arising under this Consent Order. The Parties shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this part of this Consent Order.

75. The procedures of this section shall not apply to disputes about EPA's designation of its project coordinator or any EPA enforcement actions.

#### **XIX. STIPULATED PENALTIES**

76. In the event that the Navy fails to comply with the requirements of this Consent Order EPA may assess a stipulated penalty against the Navy as set forth below. A stipulated penalty may be assessed in an amount not to exceed \$3,000.00 for the first week (or part thereof), and \$6,000.00 for each additional week (or part thereof) for which a failure occurs.

77. Upon determining that the Navy is liable for stipulated penalties, EPA shall so notify the Navy in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, the Navy shall have fifteen (15) days after receipt of the notice to invoke dispute resolution on the question of whether the failure did in fact occur. The Navy shall not be liable for the stipulated penalty assessed by EPA if the failure is determined, through the dispute resolution process, not to have occurred. Penalties shall accrue but need not be paid during the dispute resolution period. No assessment of a stipulated penalty shall be final until the conclusion of the dispute resolution procedures related to the assessment of the stipulated penalty.

78. Stipulated penalties assessed pursuant to this Part shall be payable to the U.S. Treasury only in the manner and to the extent allowed by law. Should dispute resolution not be invoked or should the Navy be found liable for the penalty pursuant to the dispute resolution process, the Navy shall pay the stipulated penalty following the procedures in Paragraph 79, below. If funds to pay the penalty are not available to the Navy at the time any such penalty becomes due, the Navy shall request the appropriate funding to pay the penalty in the next available budget request. Upon Congressional authorization, and, if necessary, appropriation of the funding the Navy shall be obligated to pay the stipulated penalty, and such payment shall be made in accordance with Paragraph 79, below.

79. Subject to Congressional authorization and if necessary, appropriation, Respondent shall make payments by money order, certified check, electronic funds transfer, or cashier's check payable to the Treasurer of the United States within thirty (30) days of the EPA's notice under paragraph 77, above, or if dispute resolution is invoked within thirty (30) days of the resolution of the dispute. In the event funds to pay the stipulated penalty are not immediately available, the Navy shall pay the stipulated penalty within sixty (60) days after Congressional authorization of and if necessary, appropriation for the payment of the stipulated penalty. Such payment shall be submitted to the following address:

Regional Hearing Clerk  
U.S. EPA, Region 2  
P.O. Box 360188M  
Pittsburgh, PA 15251

80. The caption information (In the Matter of The Department of the Navy) on this Consent Order and the Docket No. RCRA-02-2007-7301 should be clearly typed on the check and any cover letter to ensure proper credit. Respondent shall send simultaneous notices of such payments, including copies of the money order, certified check, company check, electronic funds transfer, or cashier's check to the following:

Carl R. Howard  
Assistant Regional Counsel  
U.S. EPA, Region 2  
290 Broadway  
New York, NY 10007-1866

81. Neither the invocation of dispute resolution nor the payment of penalties shall alter in any way Respondent's obligation to comply with the terms and conditions of this Consent Order. The stipulated penalties set forth in this Section do not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the terms and conditions of this Consent Order.

## **XX. FORCE MAJEURE**

82. "Force majeure" for purposes of this Consent Order is defined as any event arising from circumstances beyond the control of Respondent that delays or prevents the performance of any obligation arising under Section VIII (Work to be Performed) and/or the reporting requirements of that section. "Force majeure" specifically does not include increased costs or expenses of complying with the requirements of this Consent Decree.

83. When circumstances are occurring or have occurred that may reasonably be expected to cause a delay in the performance or completion of any requirement of Sections VIII and IX (EPA Approvals and Additional Work) of this Consent Order, Respondent shall notify EPA by telephone of said circumstances within four (4) working days. Such telephone call shall be made to the Chief of the EPA's (Region II) RCRA Program's Branch, whose telephone number at EPA Region II's current office location is (212) 637-4109. EPA will attempt to advise Respondent in writing if this number changes.

84. Within ten (10) working days of the events or events that Respondent contends are responsible for the delay, for which event Respondent is asserting "force majeure", Respondent shall deliver to EPA in writing the: (1) reasons for, and anticipated duration of such delay, (2) the measures taken and to be taken by Respondent to prevent or minimize the delay, (3) the deadlines in the Order and the accompanying work plan that will be affected by the "force majeure", and (4) the timetable for implementation of the measures taken and to be taken by Respondent to prevent or minimize the delay. Such written notification is to be sent to EPA's Project Coordinator noted in Section VIII.

85. Respondent's failure to give oral notice to EPA and/or to give written explanation to EPA as specified by this Section shall constitute a waiver by Respondent of any claim of "force majeure."

86. If EPA and Respondent are unable to agree on whether the reason for the delay or noncompliance was caused by a "force majeure" event, or whether the duration of the adjournment proposed by Respondent is warranted under the circumstances, the parties shall resolve the dispute according to the provisions of this Section XX (Force Majeure). Respondent shall have the burden of proving, by a preponderance of the evidence, "force majeure" as an explanation of any delay in or noncompliance with a requirement of Section VIII (Work to be Performed) and/or Section IX (EPA Approvals and Additional Work) of this Consent Order.

87. Any failure or delay by Respondent in complying with the terms of Sections VIII and/or

Section IX of this Consent Order which delay or failure results from a "force majeure" event, shall not be deemed to be a violation of Respondent's obligations and responsibilities under those Sections. To the extent a delay is caused by a "force majeure" event, the schedule affected by the delay shall be extended, if necessary, for a period equal to only the number of days of actual delay resulting from such circumstances, and Respondent shall not be liable for the number of days of actual delay caused by a "force majeure" event. Respondent, however, shall exercise due diligence in taking all necessary measures to mitigate the period of any such delay.

88. If EPA agrees that a delay or noncompliance is or was attributable to a "force majeure" event and that defense has not been waived, the deadline at issue shall be extended by a length of time not to exceed the duration of the "force majeure" event.

## **XXI. RESERVATION OF RIGHTS**

89. Notwithstanding any other provisions of this Consent Order, EPA retains all of its authority to take, direct, or order any and all actions necessary to protect public health or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste or constituents of such wastes, on, at, or from the Facility, including but not limited to the right to bring enforcement actions under RCRA, CERCLA, and any other applicable statutes or regulations.

90. EPA reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to Respondent's failure to comply with any of the requirements of this Consent Order, including without limitation the assessment of penalties under Section 7003 of RCRA, 42 U.S.C. § 6973, and including the right to both disapprove of work performed by the Respondent and to request that the Respondent perform tasks in addition to those stated in the workplans.

91. This Consent Order shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, claims, and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory, or common law authority of the United States.

92. This Consent Order is not intended to be nor shall it be construed to be a permit. Respondent acknowledges and agrees that EPA's approval of the Work and/or Work Plan does not constitute a warranty or representation that the Work and/or Work Plans will achieve the required cleanup or performance standards. Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.

93. Notwithstanding any other provision of this Consent Order, no action or decision by EPA pursuant to this Consent Order, including without limitation, decisions of the Regional Administrator, the Director of the Division of Environmental Planning & Protection, or any authorized representative of EPA, shall constitute final agency action giving rise to any right of

judicial review prior to EPA's initiation of an action to enforce this Consent Order, including an action for penalties or an action to compel Respondent's compliance with the terms and conditions of this Consent Order.

94. This Consent Order and Respondent's consent to its issuance shall not limit or otherwise preclude EPA from taking any additional legal action against Respondent should EPA determine that any such additional legal action is necessary or warranted.

95. This Consent Order shall not relieve Respondent of its obligation to obtain and comply with any federal, commonwealth or local permit nor is this Consent Order intended to be, nor shall it be construed to be, a ruling or determination on, or of, any issue related to any federal, commonwealth or local permit. However, to the extent provided in CERCLA Section 121(e)(1), the Navy shall not be required to obtain permits for any CERCLA removal or remedial action conducted entirely at the Facility; any CERCLA response actions undertaken at the Facility, including the off-shore islands, shall comply with CERCLA, 42 U.S.C. § 9601, et seq. and the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. Part 300. Nothing in this Agreement shall alter the Navy's authority with respect to removal actions conducted pursuant to CERCLA Section 104(a)(2), 42 U.S.C. § 9604(a)(2).

96. EPA reserves the right to perform any and all work required by this Consent Order including, but not limited to, any additional site characterization, feasibility study, and/or response or corrective action deemed necessary to investigate and remediate the Facility thoroughly, or to protect human health or the environment.

97. Notwithstanding compliance with the terms of this Consent Order, Respondent is not released from liability for the costs of any response actions taken by EPA. EPA reserves any rights it may have to seek reimbursement from the Respondent for any such costs incurred by the EPA. Respondent reserves any rights it may have to challenge such an action.

98. Respondent does not waive any defenses Respondent may have or wish to pursue in any action involving third parties.

99. Nothing in this Consent Order and no determination made or action taken (including any failure to act) pursuant to the Consent Order, including, without limitation, any determination or resolution resulting from Dispute Resolution under Section XVIII, shall constitute an admission or evidence of an admission by Respondent or otherwise constitute an adjudication of any fact or conclusion of law, except in an action or proceeding by EPA to enforce the terms of this Consent Order.

100. Nothing herein shall preclude any actions by EPA to enforce the terms of this Consent Order, or to address or bring any available legal or equitable claim for: (1) any pre-existing or current violations or conditions at the Facility; (2) any emergency conditions or imminent hazard which may exist or arise at the Facility; (3) any corrective action pursuant to the Act or Commonwealth law; or (4) any response action pursuant to CERCLA as amended.

101. The Parties recognize that EPA may issue a hazardous waste management permit under the Act or commonwealth law to one or more owner or operator of part or all of the Facility which includes corrective action requirements and which may cover one or more of the same SWMUs or AOCs addressed in this Consent Order. EPA reserves the right to enforce the requirements of such permits, including corrective action, as against the permittee.

102. Although this Consent Order is issued under the Act (RCRA), Navy reserves any right it may have to utilize its own authority, or exercise any other available right as provided by law (including CERCLA, as amended, DERA, or Executive Order 12580) to implement the provisions of this Consent Order and nothing in this Consent Order shall alter Navy's inherent authority with respect to removal actions it may independently conduct pursuant to its own legal authorities. Any such action by the Navy shall, however, be consistent with the provisions of and work required by this Consent Order.

103. Except as otherwise specifically provided herein, the Parties reserve all rights and defenses they may have under any applicable law, executive orders, regulations, and this Consent Order with respect to any person.

## **XXII. OTHER CLAIMS**

104. Respondent waives all claims against the United States relating to or arising out of conduct of this Consent Order, including, but not limited to, contribution and counterclaims.

105. Respondent shall bear its own litigation costs and attorney fees.

106. In any subsequent proceeding initiated by EPA or on behalf of EPA for injunctive or other appropriate relief relating to the Facility, Respondent shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by EPA or on behalf of EPA in the subsequent proceeding were or should have been raised in the present matter.

## **XXIII. NOTICE OF NON-LIABILITY OF EPA**

107. By issuance of this Consent Order, EPA assumes no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. EPA shall not be deemed a party to any contract involving the Navy and relating to activities at the Facility and shall not be liable for any claim or cause of action arising from or on account of any act, or the omission of the Navy, its officers, employees, contractors, receivers, trustees, agents or assigns, in carrying out the activities required by this Order.

## **XXIV. MODIFICATION OF THIS CONSENT ORDER**

108. This Consent Order may be modified by the parties. Any such modification, proposed by



the parties, must be approved by EPA. Such modification(s) shall be in writing and shall have as its effective date the date on which it is signed by the Regional Administrator. Any modification is, on its effective date, hereby incorporated into this Consent Order.

109. Notwithstanding the above, the EPA Project Coordinator and Respondent may agree to changes in the scheduling of events. Any such changes must be requested in writing by Respondent and be approved in writing by EPA. In addition, the parties may also agree to amend the work requirements under this Consent Order as Respondent sells and/or otherwise conveys various parcels of the Facility to various third parties. As noted in Section IX (EPA Approvals and Additional Work), above, amendment of work requirements under this Consent Order is expected to follow the issuance of an order(s) to one or more third parties assuming responsibility for corrective action work.

## **XXV. ENFORCEMENT**

110. Navy recognizes its obligations to comply with the applicable federal and commonwealth laws and regulations, including the Act, as set forth in Section 6001 of the Act, 42 U.S.C. § 6961, and Section 102 of the Federal Facility Compliance Act, and to faithfully discharge the requirements of this Consent Order.

## **XXVI. FUNDING**

111. It is the expectation of the Parties to this Agreement that all obligations of the Navy arising under this Agreement will be fully funded. The Navy agrees to seek sufficient funding through its budgetary process to fulfill its obligations under this Agreement. Failure to obtain adequate funds or appropriations from Congress does not, in any way, release Navy from its obligation under this Consent Order to comply with RCRA, or any applicable law or regulation. If sufficient funds are not appropriated by the Congress as requested and existing funds are not available to achieve compliance with the schedules provided in this Consent Order, EPA reserves its right to initiate any other action which would be appropriate absent this Consent Order.

112. Any requirement for the payment or obligation of funds, including penalties, by the Navy established by the terms of this Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligation of such funds shall be appropriately adjusted. In the event of the Navy reassuming responsibility for work pursuant to Section X of this Consent Order, Navy's obligations are suspended in the event of insufficient availability of appropriated funds, if the Navy, upon resumption of its responsibilities, makes a timely request to Congress for such funds.

113. Navy has informed EPA that funding authorized and appropriated annually by Congress under the BRAC appropriation in the Department of Defense Appropriations Act and proceeds made available to the BRAC account will be the sources of funds for activities required by this

Agreement. However, should these sources be inadequate in any year to meet the total Navy's implementation requirements under this Agreement, the Navy will prioritize and allocate that year's appropriation or funds available. In the event of the Navy reassuming responsibility for work pursuant to Section X of this Order, the Navy will use best efforts to find funding to allow the work to proceed without delay and if complete funding cannot be obtained immediately, to proceed with work that can be funded. The Navy's obligations are suspended in the event of insufficient availability of funds, provided that the Navy, upon resumption of its responsibilities, makes a timely request to Congress for such funds. Navy has informed EPA that the Navy plans to treat its activities implementing this Order as Installation Restoration matters consistent with Title 10 Chapter 160, which requires that those activities be consistent with CERCLA and the NCP.

114. If appropriated funds are not available to fulfill the Navy's obligations under this Agreement, EPA reserves the right to initiate an action against any other person, or to take any action, which would be appropriate absent this Agreement.

#### **XXVII. TERMINATION AND SATISFACTION**

115. The provisions of this Consent Order shall be deemed satisfied and the obligations of Respondent under this Consent Order shall terminate upon Respondent's receipt of a written statement from EPA stating that Respondent has completed, to EPA's satisfaction, as noted in Paragraph 116, below, the terms of this Consent Order. Termination of this Consent Order will be subject, unless otherwise agreed, to Respondent's on-going obligations to comply with provisions within Sections VIII (Work To Be Performed), the annual reports on Land Use Controls or other institutional and engineering controls, and transferred parcels (Paragraph 27(G)); XIV (Sampling, Access and Data Availability)(Paragraphs 48, 51-54); XVI (Record Retention); XXI (Reservation of Rights); XXVI (Funding); and XXVIII (Public Comment on this Consent Order and Decisions Made Pursuant to this Consent Order)(Paragraph 122) of this Consent Order, and to maintain institutional and engineering controls and to satisfy any other on-going obligations. So long as Respondent is performing work pursuant to, or required by this Consent Order, this Consent Order shall not be deemed terminated or satisfied.

116. Upon the satisfactory completion of all required actions, including all corrective action for which the Navy and all Third Parties are responsible, and upon written request by Respondent, EPA shall endeavor to send to Respondent a written notice of satisfaction of the terms of this Consent Order as soon as practicable. The notice will state that EPA considers Respondent to have satisfied the terms of this Consent Order.

#### **XXVIII. PUBLIC COMMENT ON THIS CONSENT ORDER AND DECISIONS MADE PURSUANT TO THIS CONSENT ORDER**

117. EPA shall provide public notice, a public meeting (or the equivalent) and a reasonable opportunity for public comment on the Consent Order. After consideration of any comments submitted during a public comment period, EPA may not issue this Consent Order or may seek to

amend all or part of this Consent Order if EPA determines that comments received disclose facts or considerations which indicate that this Consent Order is inappropriate, improper, or inadequate in whole or in part.

118. Public Participation procedures will conform with guidance, set forth in the September 1996 RCRA Public Participation Manual, and EPA's Office of Solid Waste and Emergency Response Directives 9901.3 "Guidance for Public Involvement In RCRA Section 3008(h) Actions" (May 5, 1987), and 9902.6 "RCRA Corrective Action Decision Documents: The Statement of Basis and Response to Comments" (April 29, 1991), or other current EPA regulation or guidance, as appropriate.

119. As requested by EPA, Respondent will make any relevant documents, including any RCRA Facility Investigation (RFI), Corrective Measures Study (CMS), and/or Corrective Measures Implementation (CMI) Work Plan(s) and/or Final Report(s), and any other documents developed pursuant to the requirements of this Order available for public review and comment.

120. Following EPA's tentative decision to approve, subject to public review and comment, a draft Final CMS Report and the recommended final corrective measure(s)/remedy(ies), including no further action, EPA may issue a public notice on the proposed final corrective measure(s), including any no further action determination(s), and make available to the public for review and comment for at least thirty (30) days, both the RCRA Facility Investigation Final Report (or summary of report) and the Corrective Measure Study draft Final Report (or summary of report), and any Statement of Basis that may exist for the final corrective measure/remedy decision, and if appropriate, any draft Final Corrective Measures Implementation (CMI) Work Plan that may exist for the proposed corrective measure(s)/remedy(ies).

121. Following the public review and comment on the draft Final CMS Report and, as warranted the draft Final CMI Work Plan, EPA shall notify Respondent in writing of the corrective measures selected by EPA, and, if acceptable EPA's approval of the CMS Report and the CMI Work Plan. The EPA approved CMS Report and the CMI Work Plan shall be incorporated into this Order by reference. Respondent shall then implement the corrective measure/final remedy pursuant to schedules set forth in the approved CMI Work Plan. If the corrective measure(s) recommended in the draft Final Corrective Measure Study Report is (are) not the corrective measure(s)/final remedy selected by EPA after consideration of comments received during the public comment period, EPA shall inform Respondent in writing of the reasons for such decision, and if EPA so directs, Respondent shall modify the draft Final CMS Report and/or any CMI Work Plan that may exist based upon public comments, and EPA direction.

122. Respondent shall establish and maintain a Public Repository, located within 5 miles of the Facility, where the public may inspect all documents developed pursuant to this Consent Order or referenced in this Consent Order. Within ten (10) days of the effective date of this Consent Order Respondent shall place at least one (1) paper copy of all documents developed pursuant to this Consent Order or referenced in this Consent Order in the Public Repository, or for documents developed following the effective date of this Consent Order, within twenty one (21) days of EPA's request that

such document be placed in the Public Repository. Respondent shall continue to maintain this Public Repository until this Consent Order is terminated pursuant to Paragraph 116 of Section XXVII, above. Respondent shall provide Spanish translations of the documents noted below (following EPA's conditional approval of the English version of the document), and as directed by EPA: Public Notices; Fact Sheets and other descriptive summaries of important documents to assist in public outreach; and summary sections of important reports and/or of work plans (but not the full report/work plan). The intention of the parties is to provide translations consistent with EPA, Region 2's Policy on Translations and Interpretations, dated December 10, 1997. EPA reserves its right to ask Respondent to translate additional materials consistent with this Policy, where EPA deems such translation to be important. If EPA requests that the Navy translate additional materials, this, upon the Navy's request, will be subject to approval by the EPA Deputy Regional Administrator and if approved, the Navy will be provided with a writing confirming the Deputy's approval of EPA's request.

#### **XXIX. SEVERABILITY**

123. If any provision or authority of this Consent Order or the application of this Consent Order to any party or circumstance is found to be invalid, or is temporarily stayed, the remainder of this Consent Order shall remain in force and shall not be affected thereby.

#### **XXX. EFFECTIVE DATE**

124. This Consent Order shall be effective five days after the date EPA signs this Consent Order after the public comment period as specified in Section XXVIII (Public Comment on This Consent Order) above.

#### **XXXI. CONSENT**


125. Respondent consents to the issuance of this Consent Order, and agrees to undertake all actions required by the terms and conditions of this Consent Order, including any portions of the Consent Order incorporated by reference. Respondent consents to the issuance of this Consent Order, as an Order, pursuant to Section 7003 of RCRA, 42 U.S.C. § 6973, and explicitly waives its right to request a hearing on this matter. In addition, Respondent consents to and agrees not to contest either EPA's jurisdiction to enforce or compel compliance with any term of this Consent Order or the validity of this Consent Order and all of its provisions. The parties, however, acknowledge that disputes between units of the executive branch are not resolved in federal court.

126. Each undersigned signatory to this Consent Order certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Order.

In The Matter of:

United States Department of the Navy  
Naval Activity Puerto Rico,  
formerly Naval Station Roosevelt Roads  
Puerto Rico

Agreed this 12 day of January, ~~2006~~ 2007.

By: Signature: 

Print Name: B. J. Penn: \_\_\_\_\_

Title: Assistant Secretary of the Navy for Installations and Environment (ASN (I & E))

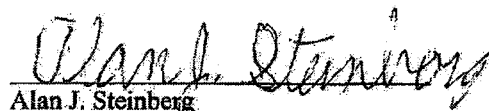
Respondent's name and address: United States, The Department of the Navy

In The Matter of:

United States Department of the Navy  
Naval Activity Puerto Rico,  
formerly Naval Station Roosevelt Roads,  
Puerto Rico

It is so ORDERED and Agreed this 24<sup>th</sup> day of January, 2007.

By:



Alan J. Steinberg

Regional Administrator

Region 2, U.S. Environmental Protection Agency

## ATTACHMENT I

### Naval Activity Puerto Rico (NAPR)

#### Documentation of Releases:

A. Based on the July 15, 2005 "*Phase I/II Environmental Condition of Property Report*" (the ECP Report), the following 18 areas, which are now identified as SWMUs or AOCs, are stipulated to have releases:

SWMU 56 (a/k/a ECP 2)- Hanger 200 Apron

SWMU 57 (a/k/a ECP 3) - Facility No. 278 POL Drum Storage Area

SWMU 59 (a/k/a ECP 5) - Former Vehicle Maintenance and Refueling Area

SWMU 60 (a/k/a ECP 6) - Former Landfill at the Marina

SWMU 61 (a/k/a ECP 7) - Former Bundy Area Maintenance Facilities

SWMU 62 (a/k/a ECP 8) - Former Bundy Disposal Area

SWMU 67(a/k/a ECP 13) - Former Gas Station

SWMU 68 (a/k/a ECP 14) - Former Southern Fire Training Area

SWMU 69 (a/k/a ECP 15) - Aircraft Parking Area

SWMU 70 (a/k/a ECP 16) - Disposal Area Northwest of Landfill

SWMU 71 (a/k/a ECP 17) - Quarry Disposal Site

SWMU 73 (a/k/a ECP 19) - DRMO Scrap Metal Recycling Yard

SWMU 74 (a/k/a ECP 20) - Fuel Pipelines and Hydrant Pits

SWMU 75 (a/k/a ECP 21) - Building 803

SWMU 76 (a/k/a ECP 22) - Building 2300

SWMU 77 (a/k/a ECP 1) - small arms range and possible former open

burning/open detonation (OB/OD) areas located on peninsula on Punta Medio Mundo

AOC E (a/k/a ECP 23) - offshore islands Pineros and Cabeza de Perro

AOC F - Monitored Natural Attenuation Sites 124, 731, 734, 2842B, 1738, and 520<sup>1</sup>, and 735 and 1995<sup>2</sup>.

B. Extensive environmental sampling has occurred at the Facility pursuant to the 1994 RCRA permit issued to Naval Station Roosevelt Roads. Details of the evidence of releases at those SWMUs and AOCs identified pursuant to that 1994 RCRA permit where releases have been documented are discussed below:

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**SWMU 1, Army Cremator Disposal Site:** SWMU 1 is located east of the Navy Lodge and is bounded to the north by Kearsage Road, mangroves and Ensenada Honda to the east and south, and the Navy Lodge and Bowling Alley to the west. SWMU 1 was in operation from the 1940s to the 1960s and consists of an abandoned, unlined landfill. An estimated 100,000 tons of waste including scrap metal, inert ordnance, batteries, tires, appliances, cars, cables, dry cleaning solvent cans, paint cans, gas cylinders, construction debris, dead animals, and residential waste were disposed of at this unit (Ref. 5). Prior to the Phase I RFI, a Supplemental Investigation (SI) was performed and consisted of a geophysical investigation (electromagnetic terrain profiling and magnetometry) and collection of 17 soil samples and one groundwater sample. Phase I RFI activities were conducted in 1996 through 1997 and included collecting 15 surface soil samples, 16 subsurface soil samples, nine groundwater samples, three surface water samples, and three sediment samples. No contaminants were detected in surface soil or subsurface soil above the EPA Region 3 industrial risk-based concentrations (RBCs). Arsenic was detected in sediment collected from mangroves and Ensenada Honda at SWMU 1 exceeding the EPA Region 3 industrial RBCs. Semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), herbicides, dioxins/furans, and metals were detected in groundwater above Federal Maximum Contaminant Levels (MCLs) or Region 3 tap water RBCs. Metals were detected in surface water collected from mangroves at SWMU 1 above Federal MCLs and/or Federal Ambient Water Quality Criteria (FAWQC).

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**SWMU 2, Langley Drive Disposal Site:** SWMU 2 is located along Langley Drive approximately 2,000 feet northeast of the Navy Exchange and adjacent to mangroves. This SWMU consists of an abandoned, unlined landfill that was operational from 1939 to 1959. SWMU 2 is believed to have been used for the disposal of hazardous and nonhazardous wastes. Prior to the Phase I RFI, an SI was performed and 16 soil samples and one groundwater

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<sup>1</sup> As described in the December 2003 "Year 3 Summary Report for Monitored Natural Attenuation Sites 124, 731, 734, 2842B, 1738, and 520" prepared for the Navy by CH2MHILL.

<sup>2</sup> As indicated in the April 2004 "Year 2003 Summary Report and Groundwater Test Results for UST Sites 735 and 1995" prepared for Naval Activity Puerto Rico by BoksoMoni Environmental, under contract with Cape Environmental.



sample were collected. Phase I RFI activities were conducted in 1996 and included collecting eight surface soil samples, four subsurface soil samples, three groundwater samples, and three sediment samples. Metals were detected in surface soil and subsurface soil above EPA Region 3 industrial RBCs. In addition, benzo(a)pyrene and arsenic were detected in sediment collected from mangroves or Ensenada Honda adjacent to SWMU 2 above the EPA Region 3 industrial RBC. VOCs, pesticides, and metals were detected in groundwater above Federal MCLs or Region 3 tap water RBCs. SVOCs and metals were detected in surface water collected from mangroves at SWMU 2 above Federal MCLs and/or FAWQC (Ref. 5).

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**SWMU 3, Base Landfill:** This SWMU is located south of the Forrestal Wastewater Treatment Plant (Building 1758) and Former Incinerator Area (SWMU 30) and is currently an active landfill that has been in operation since the 1960s. The landfill covers approximately 85 acres and was separated into several disposal areas. A new vertical cell of two acres was finished in March 1999 at the Base Landfill, and was placed into operation in June 2000 in accordance with the PREQB Solid Waste Management regulations. The design of the new cell included a two-foot clay liner, and a run-on/runoff collection pond. RFI activities were conducted at SWMU 3 in 2002 and included collecting 17 sediment samples from Puerca Bay or Ensenada Honda and nine groundwater samples. It should be noted that because this is an active landfill, soil investigations were not conducted during the RFI and are expected to be delayed until closure of the landfill. Although the nature and extent of soil contamination at SWMU 3 has not been currently defined, institutional and engineering controls (e.g., use of personal protective equipment) have been implemented at this unit to mitigate or minimize exposure to potentially contaminated soil. Therefore, exposure to potentially contaminated soil is not currently expected to be of concern. SVOCs and metals were detected in groundwater above Federal MCLs or EPA Region 3 tap water RBCs (Ref. 20). Dioxins/furans and metals were detected in sediment above EPA Region 3 industrial and residential RBCs.

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**SWMU 6, Building 145 and AOC B, Building 25:** SWMU 6 and AOC B are adjacent to each other in a limited access area of NAPR at the northeast section of Ensenada Honda. SWMU 6 consists of Building 145, which is a partially subterranean concrete bunker, and AOC B primarily consists of remnants of former Building 25. Drums and other containers were formerly stored in Building 145 since 1957. Phase I and Phase II RFI activities were conducted in 1996 and 1997, respectively, and 14 surface soil samples, 16 subsurface soil samples, three groundwater samples, and one standing surface water sample were collected. Dioxins/furans, metals, pesticides, and SVOCs were detected in surface soil above EPA Region 3 industrial RBCs. Metals were detected in groundwater above Federal MCLs or EPA Region 3 tap water RBCs. Metals, pesticides, and SVOCs were detected in surface water above Federal MCLs and/or EPA Region 3 tap water RBCs (Refs. 3, 4). Risks to on-site workers were evaluated and shown to be within acceptable limits.

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**SWMU 7/8, Tow Way Fuel Farm (TWFF):** SWMU 7/8 is located along Forrestal Road north of the Ensenada Honda. SWMU 7 currently consists of seven underground storage tanks (USTs) for storage of diesel fuel marine (DFM) and jet fuel (JP-5). SWMU 8 consists of suspected excavated sludge pits adjacent to the tanks formerly used during tank cleaning operations (a common industry practice). Numerous environmental investigations have been performed at TWFF since the 1980s and investigations post-permit include: a Multi-Stage Product Recovery

Test Report (1996), Closure Report for Tank 56A/B (1996), Project Close-Out Report Interim Corrective Measure Free Product Recovery System (1997), Corrective Measures Study Investigation (1998). Both soil and groundwater at SWMU 7 have been impacted by release from underground storage tanks (USTs) and free product is also present in the subsurface. A free product recovery system was installed in 1997 as an interim corrective measure (ICM) and approximately 1,722 gallons of free product was recovered from March 1997 through April 2002 (Ref. 21). Metals, semi-volatile organic constituents (SVOCs), and volatile organic constituents (VOCs) were detected in groundwater above Federal MCLs or EPA Region 3 tap water RBCs. Metals and SVOCs were detected in surface soil at SWMU 7/8 and sediment collected from Ensenada Honda (adjacent to SWMU 7/8) above EPA Region 3 industrial RBCs. In addition, metals and SVOCs were detected in surface water collected from Ensenada Honda (adjacent to SWMU 7/8) above EPA Region 3 tap water RBCs and/or FAWQC.

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**SWMU 9, Tanks 212-217 Sludge Disposal Pits:** SWMU 9 consists of six USTs (Tanks 212 - 217), installed in 1948, and associated unlined earthen pits with sludges from the tank bottoms. The SWMU was divided into three areas (A, B, and C): Area A includes Tanks 212 and 213, Area B includes Tanks 214 and 215, and Area C includes Tanks 216 and 217. Areas A and B are located north of Forrestal Drive along Manila Bay Street. Area C is approximately 4,000 feet southeast of Area A and B. Tanks 212 and 213 are still in service for diesel fuel and unleaded gasoline, respectively, but the remaining tanks are not currently utilized. The RFI at SWMU 9 was conducted in three phases of investigation: Phase I was conducted in 1996, Phase II in 1997, and Phase III in 1999 (Refs. 3, 4, and 9). A total of ten surface soil, 54 subsurface soil, 51 groundwater (31 of which 31 samples analyzed at on-site laboratory), six sediment, and six surface water samples were collected during the RFI. Additional data was collected in 2000 as part of the CMS investigation and included 16 sediment samples, 3 surface soil samples, and 16 surface water samples. Metals, SVOCs, and VOCs were detected in groundwater above Federal MCLs or EPA Region 3 tap water RBCs. Metals were detected in surface and subsurface soil above EPA Region 3 industrial RBCs. Metals and SVOCs were detected in sediment collected from mangroves at SWMU 9 above EPA Region 3 industrial RBCs. Metals were detected in surface water collected from mangroves or Ensenada Honda SWMU 9 above Federal MCLs and/or FAWQC.

**SWMU 10, Substation 2/Building 90:** SWMU 10 is located near the intersection of Forrestal Drive and Valley Forge Road. This area was formerly used to repair electrical transformers and PCB-containing transformer oil may have been poured on the ground. A Remedial Investigation/Feasibility Study (RI/FS) was conducted in 1992 and indicated that surface soil was contaminated with PCBs. Soil at SWMU 10 was remediated during the ICM implemented in 1995. Approximately 235 cubic yards of surface soil (excavated to one foot below ground surface (bgs)) and subsurface soil (excavated from hot spot locations) were removed during excavation activities. Confirmation sampling indicated that the residual concentrations are below the Toxic Substance and Control Act (TSCA) cleanup level (10 ppm) (Refs. 3, 18).

Phase I and Phase II RFI activities were conducted for groundwater at SWMU 10 due the potential of PCBs migrating from soil to groundwater (Refs. 3, 4). A total of six groundwater samples were collected during Phase I and Phase II RFI activities. No PCBs were detected in groundwater at SWMU 10. However, methylene chloride, chloroform, and acetophenone were detected in groundwater above the Federal MCLs and/or tap water RBC during Phase I RFI. No SVOCs or VOCs were detected in groundwater during the Phase II RFI. Since SVOCs and

VOCs were not associated with a release or waste management activities at SWMU 10, no further action was recommended for groundwater at this SWMU in the Draft CMS Investigation Report (Ref. 18).

**SWMU 11/45, Building 38:** SWMU 11 is located along a dirt access road south of Forrestal Road and north of SWMU 3. SWMU 11 consists of the interior of Building 38, the "Old Power Plant," which was operational in the 1940s, and was previously a TSCA-regulated PCB storage area. SWMU 45 includes the area surrounding Building 38 as well as a cooling water tunnel extending from Building 38 to Puerca Bay. Two former 50,000-gallon Bunker C Fuel underground storage tanks (USTs) were located adjacent to the building. An RI/FS was performed in 1992 and determined that concrete surfaces and soil surrounding Building 38 as well as sediments from Puerca Bay were contaminated with PCBs. An ICM for impacted soil was performed in 1994 and included excavation of the contaminated soil and confirmation sampling to ensure that the cleanup goals (TSCA level of 10 ppm) were achieved. In 1996, the cooling water tunnel was decommissioned and sealed as an ICM to address the reported discharges from the cooling water tunnels to the bay. Phase I RFI activities (Ref. 3), initiated in 1996, included collecting four surface soil samples, eight subsurface soil samples, nine sediment samples, eight groundwater samples, and 125 wipe samples from Building 38's floors and walls. Metals were detected in subsurface soil above EPA Region 3 industrial RBCs. SVOCs were detected in sediment above EPA Region 3 industrial and residential RBCs (Ref. 5). PCBs, SVOCs, and metals were detected in groundwater above Federal MCLs or EPA Region 3 tap water RBCs. Aroclor-1260 was detected in wipe samples at concentrations ranging from 0.22 µg/l (11WS091) to 330,000 µg/l (11WS041). However, subsequent to sample collection, a fire occurred within Building 38. Due to the fire, the wipe sampling results were deemed unusable. Thus, SWMU 11 requires recharacterization for PCBs and dioxins/furans, which are combustion products of PCBs. A Final Recharacterization Work Plan was submitted to EPA on July 21, 2003 (Ref. 23).

**SWMU 12, Fire Training Area Oil/Water Separator:** SWMU 12 is located north of the base airfield and adjacent to SWMU 14. SWMU consists of a oil/water separator that is utilized for recycling oil used during fire training activities. Four surface soil samples were collected and analyzed at this SWMU during Phase I RFI activities conducted in 1996 (Ref. 3). No contaminants were detected in surface soil above industrial RBCs. Gasoline range organics (GRO) were detected in two soil samples; however, the GRO concentrations fell below the PREQB guideline standard of 100 mg/kg.

**SWMU 13, Old Pest Control Shop:** SWMU 13 is located adjacent to Forrestal Drive and includes the former Old Pest Control Shop (Building 258), surrounding area, and drainage ditch behind Building 258. Building 258 was used from the 1950s through 1983 for storage of pesticides and was demolished in 1988 subsequent to major hurricane damage. Phase I and Phase II RFI activities (Refs. 3, 4) were conducted in 1996 and 1997, respectively, and a total of nine surface soil samples and 16 sediment samples were collected during the RFI. No contaminants were detected in surface soil above EPA Region 3 industrial RBCs. Pesticides were detected in sediment collected from the drainage ditch above EPA Region 3 RBCs. A CMS report was submitted to EPA on August 4, 2000 (Ref. 12), and was approved by EPA on September 15, 2000. The proposed remedy for SWMU 13 is excavation of drainage ditch sediments and implementation is pending public comment.

**SWMU 14, Fire Training Pit Area:** SWMU 14 is located adjacent to the NAPR airfield and currently consists of a lined pit used for fire training activities. Prior to construction of the lined pit in 1983, two unlined pits were used for fire training activities. These two pits were operational from the 1960s until 1983. Five surface soil samples were collected from SWMU 14 during Phase I RFI activities conducted in 1996 (Ref. 3). SVOCs were detected in surface soil above industrial RBCs. NAPR requested that additional investigation be suspended until the SWMU is ready for closure (Ref. 13). Thus, no subsurface soil or groundwater data is available for this SWMU. EPA approved this request in a letter dated May 4, 2001 (Ref. 16); thus, an RFI will be required once fire training activities have ceased.

**SWMU 23, Oil Spill Separator Tanks:** SWMU 23 is located approximately 100 feet inshore from the fuel pier and consists of three oil spill separator tanks for processing waste pumped from the Ships Waste Off-Load Barges (SWOBs). The separated oil subsequently is transferred to the Oil Spill Oil/Water Separator (SWMU 24). Two surface soil samples were collected during Phase I RFI activities conducted in 1996 (Ref. 3). No contaminants were detected above EPA Region 3 industrial RBCs.

**SWMU 24, Oil Spill Oil/Water Separator:** SWMU 24 is located just west of SWMU 23 and consists of an oil/water separator with a concrete structure built below ground with a steel grating covering the top at ground level. The oil/water separator receives discharge from SWMU 23 and has approximately a 1,500 gallon capacity. One surface soil sample was collected during Phase I RFI activities in 1996 and no contaminants were detected above EPA Region 3 industrial RBCs (Ref. 3).

**SWMU 25, DRMO Storage Yard:** SWMU 25 is located adjacent to the flammable materials storage building (Building 2009). SWMU 25 includes the Defense Reutilization and Marketing Office (DRMO) facility, which consists of an administrative/hazardous waste storage building, a large metal building used for waste storage, a flammable material storage building, some storage racks, and a large fenced area where surplus material is stored. Nine surface soil samples at SWMU 25 and one sediment sample from a surface drainage ditch at SWMU 25 were collected during Phase I RFI activities conducted in 1996 (Ref. 3). No contaminants were detected above EPA Region 3 industrial RBCs and no further action was recommended in the RFI report.

**SWMU 30, Former Incinerator:** SWMU 30 is located adjacent to the Sanitary Sewage Treatment Plant and consists of former incinerator which was original installed in 1973. In 1983, this incinerator was dismantled and replaced. Reportedly, the new incinerator has not been utilized. Classified material, contaminated diesel oil, JP-5 fuel (usually mixed with some lube oil), solvents, and sludge residue were reportedly burned in the original incinerator. A former 550-gallon diesel fuel UST was associated with the original incinerator. No free product was encountered during decommissioning of the UST in 1993. However, residual petroleum contamination was subsequently detected in subsurface soil during an investigation performed in 1994. Nineteen subsurface soil samples and five groundwater samples were collected during the 1994 investigation and no contaminants were detected above relevant screening criteria (EPA Region 3 industrial soil RBCs, Federal MCLs and/or EPA Region 3 tap water RBCs). Phase I and Phase II RFI activities were conducted in 1995 and 1999, respectively, and included 11 surface soil samples, 19 subsurface soil samples, and two groundwater samples. PCBs were detected in subsurface soil above EPA Region 3 industrial RBCs and metals were detected in groundwater above Federal MCLs or EPA Region 3 tap water RBCs during the RFI (Ref. 8).

**SWMU 31/32, Waste Oil Collection Area and Battery Collection Area:** SWMU 31/32 is located in the Public Works Department Operation Yard, near the Transportation Shop (Building 31). SWMU 31 consists of an outdoor area, with a curbed concrete storage pad used for temporary storage of waste oil. SWMU 32 is an outdoor area where discarded batteries were formerly stored but is currently used to store heavy equipment. Phase I and Phase II RFI activities and CMS investigation were conducted at SWMU 31/32 in 1995, 1997, and 1999, respectively (Refs. 3, 4, and 10). A total of 30 surface soil samples were collected during the RFI and CMS investigation. Dioxins and furans were detected in surface soil during the RFI and CMS investigation. The 1999 congener-specific data were converted to 2,3,7,8-tetrachlorodibenzodioxin (TCDD) toxicity equivalent (TEQ) concentrations and screened against Agency for Toxic Substance and Disease Registry (ASTDR) interim criteria of 50 parts per trillion (ppt) in the final CMS report. TEQ concentrations were detected above the ASTDR interim criteria and industrial RBC for TCDD. A Final Basis of Design Corrective Measures Implementation (CMI) Work Plan for SWMU 31/32 was submitted to EPA on January 25, 2001 (Ref. 15) and approved by EPA on May 4, 2001 (Ref. 16). The planned remedy for these SWMUs are to install an asphalt cap and implement institutional controls; however, execution of this remedy is pending public comment.

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**SWMU 37, Waste Oil Storage Area/Building 200:** SWMU 37 is located north of Building 200 and consists of a covered concrete pad used for drum storage. Phase I RFI activities were conducted in 1995 and included collecting four surface soil samples. SVOCs were detected in surface soil above EPA Region 3 industrial RBCs (Ref. 3). Risks to on-site workers were evaluated and shown to be within acceptable limits.

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**SWMU 39, Former Battery Drain Area/Building 3158:** SWMU 39 is located adjacent to Building 3158, formerly used for battery storage, and consisted of a covered battery drainage area. Battery contents were poured into the drain tank and the battery acid was caught below in a container. Two surface soil samples were collected during Phase I RFI activities conducted in 1995. No contaminants were detected in surface soil above EPA Region 3 industrial RBCs (Ref. 3).

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**SWMU 46, Pole Storage Yard Covered Pad:** SWMU 46 is located adjacent to AOC C behind Buildings 2326 and 2042 and was historically used as a storage area for transformers and 55-gallon drums of PCB-contaminated material. SWMU 46 consists of two covered concrete pads surrounded by a chain link fence, presently used for less than 90 day hazardous waste storage/accumulating facilities for base operations. Phase I and Phase II RFI activities (Refs. 3, 4) conducted in 1995 and 1997, respectively, included collecting 27 surface soil samples and 13 subsurface soil samples. SVOCs, PCBs, and metals were detected in surface soil above EPA Region 3 industrial RBCs. No contaminants were detected in subsurface soil above EPA Region 3 industrial RBCs. A 100 Percent Basis of Design CMI Work Plan for SWMU 46 was submitted to EPA on January 25, 2001 (Ref. 15), and approved by EPA on May 5, 2001 (Ref. 16). The planned remedy for this SWMUs is to excavate contaminated surface soil; however, execution of this remedy is pending public comment.

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**SWMU 51, New AIMD Storage Pad/Building 379:** SWMU 51 is located adjacent to Building 379. This SWMU was utilized by Aircraft Intermediate Maintenance Detachment (AIMD) facilities and consists of a concrete storage pad and a 200-gallon aboveground storage tank

(AST). The storage pad is covered, enclosed with a cyclone fence, and surrounded by asphalt. Phase I RFI activities were conducted in 1995 and included collecting five surface soil samples (Ref. 3). No contaminants were detected in surface soil samples above EPA Region 3 industrial RBCs. No further action was recommended in the RFI report (Ref. 3).

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**SWMU 53, Building 64 (Malaria Control Building):** SWMU 53 is located approximately 200 feet from Forrestal Drive and consists of Building 64 (Malaria Control Building). This building was built in 1942 and condemned in 1980. The building remains intact but is currently unoccupied. Phase I and Phase II RFI activities were conducted in 2000 and 2002 and included collecting 15 surface soil and 14 subsurface soil samples. Metals were detected in surface soil above EPA Region 3 industrial RBCs. No contaminants were detected in subsurface soil above EPA Region 3 industrial RBCs. A Final CMS Work Plan for SWMUs 53 and 54 (Ref. 19) was submitted to EPA on March 7, 2003, and approved on June 3, 2003 (Ref. 24).

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**SWMU 54, Building 1914 (Former NEX Repair/Maintenance Shop):** SWMU 54 is located north-northeast across Bairoko Street from SWMU 26 and west across Bairoko Street from Building 1686 (Former Base Laundromat) and consists of Building 1914. Building 1914 was built in 1979 and is currently unoccupied. The building was used to perform maintenance on vehicles (e.g., oil changes, lubrications). Site 510 is also included in this SWMU and was the location of a former 4,000-gallon UST, south of Building 1914. The date of installation and the type of fuel stored is unknown (assumed to be gasoline), but it was decommissioned in 1992. Phase I and Phase II RFI activities were conducted in 2000 and 2002 and included collecting 26 groundwater samples, three surface soil, and four subsurface soil samples. No contaminants were detected in surface soil or subsurface soil above EPA Region 3 industrial RBCs. However, 1,1-dichloroethene, 1,2-dichloroethane, benzene, chloroform, ethylbenzene, isobutanol, toluene, trichloroethene, xylene, 2-methylnaphthalene, and naphthalene were detected in groundwater above Federal MCLs or EPA Region 3 tap water RBCs.

**SWMU 55, Trichloroethene (TCE) Groundwater Plume at Tow Way Fuel Farm:** This SWMU was previously considered associated with releases at SWMU 7/8, but was identified as a separate SWMU in February 2004. Environmental sampling at this SWMU was implemented under the Additional Data Collection Investigation (2002), and the Trichloroethene (TCE) Plume Delineation and Source Investigation Work Plan (2003), and summarized in the Draft Corrective Measures Study Final Report for SWMUs 54 and 55 (2004). The volatile organic constituent (VOC) TCE has been detected in groundwater above Federal MCLs or EPA Region 3 tap water RBCs.

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**AOC C, Discarded transformer and electrical equipment accumulation area:** AOC C is south of SWMU 46 behind Buildings 2326 and 2042. AOC C currently consists of three raised concrete pads with curbing, which formerly stored transformers and other miscellaneous electric equipment. RFI activities conducted in 1997 included collecting 27 surface soil samples and 14 subsurface soil samples (Ref. 4). SVOCs, PCBs, and metals were detected in surface soil above EPA Region 3 industrial RBCs. A 100 Percent Basis of Design CMI Work Plan for AOC C was submitted to EPA on January 25, 2001 (Ref. 15), and approved by EPA on May 5, 2001 (Ref. 16). The planned remedy for this AOC is to excavate contaminated surface soil.

**AOC D, Ensenada Honda Sediments:** AOC D consists of Ensenada Honda sediment that are believed to have been impacted due to releases from SWMU 1, SWMU 2, SWMU 3, and SWMU

7/8, which are along the shoreline of Ensenada Honda. The exact contaminant transport pathway has not been defined; however, evidence suggests that contaminated surface runoff from SWMU 1, SWMU 2, SWMU 3, and SWMU 7/8 is the most likely contaminant transport pathway, versus discharge of contaminated groundwater from those SWMUs to the surface.

**C. GROUNDWATER:** Contaminant concentrations detected in the groundwater at 11 SWMUs and one AOC identified pursuant to the 1994 RCRA permit (SWMUs 1 through 3, SWMU 6, SWMU 7/8, SWMU 9, SWMU 11/45, SWMU 30 and SWMU 54, and AOC B) exceeded Federal MCLs and/or EPA Region 3 tap water RBCs. The maximum detected concentrations and the identification number of the sample containing that maximum detected concentration are presented below. Also, the relevant screening criteria are provided below and include the April 2003 EPA Region 3 tap water RBCs, Federal MCLs, National Primary Drinking Water Regulation (NPDWR) Action Level for Lead (tap water RBC not available), or site-specific corrective action objectives (CAOs).

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**SWMU 1, Army Cremator Disposal Site:** The maximum detected concentrations in groundwater exceeding EPA Region 3 tap water RBCs and/or Federal MCLs are as follows: 2 µg/l of chloroform (1MW04) [RBC = 0.15 µg/l], 1.1 µg/l of 1,1,2,2-tetrachloroethane (5GW1) [RBC = 0.053 µg/l], 25 µg/l of pentachlorophenol (5GW4) [RBC = 0.56 µg/l, MCL = 1 µg/l], 22 µg/l of bis(2-ethylhexyl)phthalate (5GW05) [RBC = 4.8 µg/l, MCL = 6 µg/l], 0.0032 µg/l of heptachlor (05GW101A) [RBC = 0.015 µg/l], 0.1 µg/l of aldrin (1MW02) [RBC = 0.0039 µg/l], 0.00005 µg/l of total HxCDD (5GW02) [RBC = 0.000015 µg/l], 86.7 µg/l of total antimony (1MW01D) [RBC = 15 µg/l, MCL = 6 µg/l], 93.4 µg/l of total arsenic (5GW3) [RBC = 0.045 µg/l], 4.8 µg/l of total beryllium (1MW04) [MCL = 4 µg/l], 30.9 µg/l of total cadmium (1MW01) [RBC = 18 µg/l, MCL = 5 µg/l], 259 µg/l of total chromium (1MW04) [RBC = 110 µg/l, MCL = 100 µg/l], 2,950 µg/l of total copper (1MW04) [RBC = 1,500 µg/l, MCL = 1,300 µg/l], 6.5 µg/l of total mercury (1MW04) [MCL = 2 µg/l], 188 µg/l of nickel (1MW04) [MCL = 100 µg/l], 359 µg/l of total selenium (5GW03) [RBC = 180 µg/l, MCL = 50 µg/l], 4,310 µg/l of total thallium (5GW03) [RBC = 2.6 µg/l, MCL = 2 µg/l], 913 µg/l of total vanadium [RBC = 260 µg/l], 42.1 µg/l of dissolved cadmium (1MW01) [RBC = 18 µg/l, MCL = 5 µg/l], 1,680 µg/l of dissolved copper (5GW02) [RBC = 1,500 µg/l, MCL = 1,300 µg/l], and 16.5 µg/l of dissolved thallium (05GW101B) [RBC = 2.6 µg/l, MCL = 2 µg/l] (Ref. 2).

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**SWMU 2, Langley Drive Disposal Site:** The maximum detected contaminant concentrations in groundwater exceeding EPA Region 3 tap water RBCs and/or Federal MCLs are as follows: 7 µg/l of chloroform (2MW02) [RBC = 0.15 µg/l], 7 µg/l of trichloroethene (6GW01) [RBC = 0.026 µg/l, MCL = 5 µg/l], 11 µg/l of pentachlorophenol (R6GW01) [RBC = 0.56 µg/l, MCL = 1 µg/l], 0.13 µg/l of aldrin (2MW01) [RBC = 0.0039 µg/l], 0.04 µg/l of heptachlor epoxide (2MW01) [RBC = 0.0074 µg/l, MCL = 0.2 µg/l], 19.6 µg/l of total antimony (2MW03) [RBC = 15 µg/l, MCL = 6 µg/l], 2.8 µg/l of total arsenic (2MW03) [RBC = 0.045 µg/l], and 631 µg/l of total vanadium (2MW02) [RBC = 260 µg/l]. In addition, the maximum detected concentration of lead (121 µg/l of total lead [R6GW01]) exceeds the National Primary Drinking Water Regulation (NPDWR) Action Level of 15 µg/l (Ref. 2).

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**SWMU 3, Base Landfill:** The maximum detected contaminant concentrations in groundwater exceeding EPA Region 3 tap water RBCs and/or Federal MCLs are as follows: 3 µg/l of chloroform (R7GW11) [RBC = 0.15 µg/l], 0.5 µg/l of benzo(a)pyrene (R7GW01R) [RBC = 0.0092 µg/l, MCL = 0.2 µg/l], 38 µg/l of 1,4-dioxane (R7GW02R) [RBC = 6.1 µg/l], 0.36 µg/l of



benzo(b)fluoranthene (R7GW01R) [RBC = 0.092 µg/l], 0.79 µg/l of indeno(1,2,3-cd)pyrene (R7GW01R) [RBC = 0.092 µg/l], 0.012 mg/l of total arsenic (R7GW04R) [RBC = 0.045 µg/l], 0.027 mg/l of dissolved thallium (R7GW04R) [RBC = 2.6 µg/l, MCL = 2 µg/l], and 0.034 mg/l of total thallium (R7GW04R) [RBC = 2.6 µg/l, MCL = 2 µg/l] (Ref. 10).

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**SWMU 6/AOC B:** The maximum detected contaminant concentrations in groundwater above EPA Region 3 tap water RBCs and/or Federal MCLs are as follows: 5.8 µg/l of total arsenic (ACBMW01) [RBC = 0.045 µg/l], 2,210 µg/l of total barium (ACBMW01) [MCL = 2,000 µg/l], 5.9 µg/l of total beryllium (ACBMW01) [MCL = 4 µg/l], 168 µg/l of total chromium (ACBMW01) [RBC = 110 µg/l, MCL = 100 µg/l], 2,480 µg/l of total copper (ACBMW01) [RBC = 1,500 µg/l, MCL = 1,300 µg/l], 199 µg/l of total nickel (ACBMW01) [RBC = 730 µg/l, MCL = 0.1 µg/l], and 790 µg/l of total vanadium (ACBMW01) [RBC = 260 µg/l]. In addition, the maximum detected concentration of total and dissolved lead (19.1 µg/l of total lead and 17.5 µg/l of dissolved lead [ACBMW03]) exceeds the NPDWR Action Level of 15 µg/l (Ref. 7).

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**SWMU 7/8, Tow Way Fuel Farm (TWFF):** Site-specific human health risk-based corrective action objects (CAOs), based on an industrial worker and construction worker scenarios, were developed for groundwater contaminants which exceeded Region 3 tap water RBCs at SWMU 7/8. The maximum detected contaminant concentrations in groundwater above the lower of the industrial worker and construction worker CAOs are as follows: 4,600 µg/l of 1,2,4-trimethylbenzene (470MW03) [CAO = 3,300 µg/l], 19,000 µg/l of benzene (470MW01) [CAO = 550 µg/l], 1,400 µg/l of ethylbenzene (470MW03) [CAO = 1,000 µg/l], 28,000 µg/l of trichloroethene (7MW07) [CAO = 22 µg/l], 22 µg/l of dissolved lead (470MW01) [CAO = 15 µg/l], and 52 µg/l of total lead (470MW01) [CAO = 15 µg/l] (Refs. 11, 12).

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**SWMU 9, Tank 212 - 217 Sludge Disposal Pits:**

**Area A (Tanks 212 and 213)**

The maximum detected contaminant concentrations in groundwater above EPA Region 3 tap water RBCs and/or Federal MCLs are as follows: 29.2 µg/l of total arsenic (9GW02R) [RBC = 0.045 µg/l], 12.8 µg/l of dissolved arsenic (9GW02S) [RBC = 0.045 µg/l], 29 µg/l of total cadmium (9MW02) [RBC = 18 µg/l, MCL = 4 µg/l], 30.4 µg/l of dissolved cadmium (9MW02) [RBC = 18 µg/l, MCL = 4 µg/l], 193 µg/l of total chromium (9MW02S) [RBC = 110 µg/l, MCL = 100 µg/l], 1,600 µg/l of benzene (9MW02) [RBC = 0.34 µg/l, MCL = 5 µg/l], 7 µg/l of methylene chloride (9MW02) [RBC = 4.1 µg/l, MCL = 5 µg/l], 26 µg/l of naphthalene (13GW02) [RBC = 6.5 µg/l], 1 µg/l of acetophenone (9MW01) [RBC = 0.042 µg/l], 5 µg/l of bis(2-ethylhexyl)phthalate (9MW01/9MW02) [RBC = 4.8 µg/l] (Ref. 14).

**Area B (Tanks 214 and 215)**

The maximum detected contaminant concentrations in groundwater above EPA Region 3 tap water RBCs and/or Federal MCLs are as follows: 26.4 µg/l of total cadmium (9MW03) [RBC = 18 µg/l, MCL = 4 µg/l], 25.1 µg/l of dissolved cadmium (9MW03) [RBC = 18 µg/l, MCL = 4 µg/l], 140 µg/l of benzene (13GW05) [RBC = 0.34 µg/l, MCL = 5 µg/l], 460 µg/l of bromodichloromethane (13GW06) [RBC = 0.17 µg/l], 360 µg/l of bromoform (13GW06) [RBC = 8.5 µg/l], 1,100 µg/l of chloroform (13GW06) [RBC = 0.15 µg/l], 300 µg/l of dibromochloromethane (13GW06) [RBC = 0.13 µg/l], 11 µg/l of methylene chloride (13GW06) [RBC = 4.1 µg/l, MCL = 5 µg/l], and 7 µg/l of bis(2-



ethylhexyl)phthalate (13GW04) [RBC = 4.8 µg/l, MCL = 6 µg/l] (Ref. 14).

**Area C (Tanks 216 and 217)**

The maximum detected contaminant concentrations in groundwater above EPA Region 3 tap water RBCs and/or Federal MCLs include the following: 12.1 µg/l of total cadmium (9MW04) [RBC = 18 µg/l, MCL = 5 µg/l], 24.7 µg/l of dissolved cadmium (9MW04) [RBC = 18 µg/l, MCL = 5 µg/l], 2 µg/l of 1,2-dichloropropane (13GW11) [RBC = 0.16 µg/l], and 38 µg/l of bis(2-ethylhexyl)phthalate (13GW10) [RBC = 4.8 µg/l] (Ref. 14).

**SWMU 11/45, Building 38:** The maximum detected contaminant concentrations in groundwater above EPA Region 3 tap water RBCs and/or Federal MCLs are as follows: 6 µg/l of benzo(a)anthracene (11-SB05) [RBC = 0.092 µg/l], 7 µg/l of benzo(a)pyrene (11-SB05) [RBC = 0.0092 µg/l, MCL = 0.2 µg/l], 64 µg/l of bis(2-ethylhexyl)phthalate (45MW02) [RBC = 4.8 µg/l, MCL = 6 µg/l], 0.035 µg/l of Aroclor-1260 (45HP02) [RBC = 0.032 µg/l], 103 µg/l of total arsenic (45HP01) [RBC = 0.045 µg/l], 16.1 µg/l of dissolved arsenic (45HP01) [RBC = 0.045 µg/l], 5.6 µg/l of dissolved cadmium (45HP01) [RBC = 18 µg/l, MCL = 4 µg/l], 27.8 µg/l of total cadmium (45MW04) [RBC = 18 µg/l, MCL = 4 µg/l], 182 µg/l of total chromium (45MW01) [RBC = 110 µg/l, MCL = 100 µg/l], and 2.6 µg/l of dissolved mercury (11-SB16) [MCL = 2 µg/l] (Ref. 2). In addition, the maximum detected concentration of total lead (30 µg/l) [45HP02] exceeds the NPDWR Action Level of 15 µg/l (Ref. 2).

**SWMU 30, Former Incinerator:** The maximum detected contaminant concentrations in groundwater detected above EPA Region 3 tap water RBCs and/or Federal MCLs are as follows: 4.4 µg/l of dissolved arsenic [RBC = 0.045 µg/l], 23.3 µg/l of dissolved antimony (1983-DW1) [RBC = 15 µg/l, MCL = 4 µg/l], 3 µg/l of total arsenic [RBC = 0.045 µg/l], 31.5 µg/l of total antimony (1983-MW3) [RBC = 15 µg/l, MCL = 4 µg/l], and 72,000 µg/l of total zinc (1983-DW1) [RBC = 11,000 µg/l] (Ref. 3).

**SWMU 54, Building 1914 (Former NEX Repair/Maintenance Shop):** The maximum detected contaminant concentrations in groundwater above EPA Region 3 tap water RBCs and/or Federal MCLs are as follows: 2.8 µg/l 1,2-dichloroethane (54TW07) [RBC = 0.12 µg/l, MCL = 7 µg/l], 3,000 µg/l of benzene (54TW15) [RBC = 0.34 µg/l, MCL = 5 µg/l], 8 µg/l of chloroform (54TW08) [RBC = 0.15 µg/l], 2,400 µg/l of ethylbenzene (54TW15) [RBC = 1,300 µg/l, MCL = 700 µg/l], 2,600 µg/l of isobutanol (54TW15) [RBC = 1,800 µg/l], 190 µg/l of trichloroethene (510MW5) [RBC = 0.026 µg/l, MCL = 5 µg/l], 190 µg/l of naphthalene (54TW15) [RBC = 6.5 µg/l] (Ref. 9), and 8,000 µg/l of xylenes (54TW15) [RBC = 210 µg/l].

**SWMU 55, Trichloroethene (TCE) Groundwater Plume at Tow Way Fuel Farm:** The maximum detected contaminant concentrations in groundwater above EPA Region 3 tap water RBCs and/or Federal MCLs are as follows: 28,000 µg/l TCE (7MW07). [MCL = 5 µg/l].

**D. Surface/Subsurface Soil**

Contaminants are detected in surface soil and/or subsurface soil above EPA Region 3 industrial RBCs or site-specific CAOs at the following SWMUs and AOCs identified pursuant to the 1994 RCRA permit: SWMU 1, SWMU 2, SWMU 6/AOC B, SWMU 7/8, SWMU 30, SWMU 31/32, SWMU 11/45, SWMU 14, SWMU 37, SWMU 46, SWMU 55, and AOC C. The maximum

detected contaminant concentrations in surface soil and/or subsurface soil for these SWMUs and AOCs are provided below.

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**SWMU 1, Army Cremator Disposal Site:** No contaminants were detected in surface soil or subsurface soil above EPA Region 3 industrial RBCs; however, the total hazard indices (HIs) for on-site worker and construction worker scenarios for exposure to soil are above the target HI of one in the risk assessment. Thus, although there are no contaminants above EPA Region 3 industrial RBCs in surface and subsurface soil, the impact of contamination in surface and subsurface soil will be discussed further in Questions 3, 4, and 5 given the calculated hazard (Ref. 2).

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**SWMU 2, Langley Drive Disposal Site:** Arsenic was detected in surface and subsurface soil above EPA Region 3 industrial RBCs. The maximum detected concentrations of arsenic in surface soil and subsurface soil exceeding EPA Region 3 industrial RBCs are 134 mg/kg (R6S7A) and 21.4 mg/kg (06SS101) [RBC = 1.9 mg/kg], respectively. In addition, the maximum detected concentration of lead in surface soil and subsurface soil are 4,760 mg/kg of lead (06SS103) and 5,850 mg/kg of lead (06SS103), which exceeded the site-specific screening criterion of 1,000 mg/kg (Ref. 2).

**SWMU 6, Building 145 and AOC B, Building 25:** Arsenic, benzo(a)pyrene, 4,4'-DDE, and total HxCDD were detected in surface soil above EPA Region 3 industrial RBCs. The maximum detected concentrations of these contaminants are as follows: 10 mg/kg of arsenic [RBC = 1.9 mg/kg], 1,800 µg/kg of benzo(a)pyrene [RBC = 390 µg/kg], 0.76 µg/kg of total HxCDD [RBC = 0.46 µg/kg], and 22 mg/kg of 4,4'-DDE [RBC = 8.4 mg/kg] (Ref. 7). No contaminants were detected in subsurface soil exceeding EPA Region 3 industrial RBCs.

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**SWMU 7/8, Tow Way Fuel Farm (TWFF):** SVOCs and metals were detected in surface soil above industrial RBCs. Human health-based CAOs were developed for surface/subsurface soil at SWMU 7/8 during the CMS. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, indeno(1,2,3-cd)pyrene, and arsenic were detected in surface soil above the CAOs calculated for an industrial worker scenario (all 2,900 µg/kg). The maximum detected contaminant concentrations above CAOs are as follows: 17,000 µg/kg of benzo(a)anthracene, 23,000 µg/kg of benzo(a)pyrene, 5,900 µg/kg of benzo(b)fluoranthene, 5,300 µg/kg of indeno(1,2,3-cd)pyrene, and 3.7 mg/kg of arsenic (Refs. 11, 12). In addition, benzo(a)pyrene was also detected in soil, at depths from 0 to 10 feet bgs, above the CAO calculated for a construction worker scenario (7,300 µg/kg).

**SWMU 9, Tank 212 - 217 Sludge Disposal Pits:**

***Area A***

Arsenic was detected in surface soil and subsurface above EPA Region 3 industrial RBC [RBC = 1.9 mg/kg] at Area A. The maximum detected concentrations of arsenic in surface soil and subsurface soil were 3.7 mg/kg (9MW02-00) and 5 mg/kg (9TP08-04), respectively. The maximum detected concentration of GRO in subsurface soil was 130 mg/kg (9-02R-HP01), which was slightly above the PREBQ guideline standard of 100 mg/kg. No petroleum constituents were detected in subsurface soil above industrial RBCs; thus, petroleum contamination is not currently expected to be of concern for human health and will not be discussed further in this CA725 EI determination (Ref. 14).

#### **Area B**

The maximum detected concentration of arsenic in surface soil was 23 mg/kg (9SS07) and exceeded the EPA Region 3 industrial RBC [RBC = 1.9 mg/kg].

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**SWMU 10, Substation 2/Building 90:** Approximately 235 cubic yards of PCB (Aroclor-1260) impacted soil was removed as an ICM at SWMU 10. However, residual soil contamination (less than ten parts per million [ppm]) was left in place at SWMU 10. The residual soil contamination may exceed the EPA Region 3 industrial RBC of 1.4 mg/kg (Ref. 8).

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**SWMU 11/45, Building 38:** The maximum detected concentration of arsenic in subsurface soil (3.9 mg/kg [45MW04-01]) exceeds the EPA Region 3 industrial RBC [RBC = 1.9 mg/kg] (Ref. 2).

**SWMU 14, Fire Training Pit Area:** SVOCs were detected in surface soil above EPA Region 3 industrial RBCs. The maximum detected contaminant concentrations in surface soil exceeding EPA Region 3 industrial RBCs are as follows: 7.6 mg/kg of benzo(b)fluoranthene (14SS07) [RBC = 3.9 mg/kg], 5 mg/kg of benzo(a)pyrene (14SS07) [RBC = 0.39 mg/kg], and 0.92 mg/kg of dibenzo(a,h)anthracene (14SS07) [RBC = 0.39 mg/kg] (Ref. 6).

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**SWMU 30, Former Incinerator:** Aroclor-1260 was detected in subsurface soil above the EPA Region 3 industrial RBC. The maximum detected concentration of Aroclor-1260 is 2,000 µg/kg (30-HP05-03) [RBC = 1,400 µg/kg]. The maximum detected concentration of diesel range organics (DRO) in subsurface is 1,800 mg/kg (30-HP04-03) which exceeds the PREQB guideline standard of 100 mg/kg.

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**SWMU 31/32, Waste Oil Collection Area and Battery Collection Area:** Dioxins and furans were detected in surface and subsurface soil above EPA Region 3 industrial RBCs (adjusted based on TEQs). The maximum detected contaminant concentrations in surface soil were as follows: 12 µg/kg of total HxCDD (31SS04) [RBC = 0.19 µg/kg], 43 µg/kg of HxCDF (31SS04) [RBC = 0.19 µg/kg], 0.74 µg/kg of total PeCDD (31SS04) [RBC = 0.038 µg/kg], and 3.10 µg/kg of total PeCDF (31SS04) [RBC = 0.038 µg/kg]. The maximum detected contaminant concentrations in subsurface soil were the following: 0.11 µg/kg of total TCDD (31-SSDD) [RBC = 0.019 µg/kg], 0.44 µg/kg of total TCDF (31-SS07A) [RBC = 0.19 µg/kg], 0.061 µg/kg of total PeCDD (31-SS05A) [RBC = 0.038 µg/kg], 0.7 µg/kg of total PeCDF (31-SS05A) [RBC = 0.038 µg/kg], 1.1 µg/kg of total HxCDD (31-SS05A) [RBC = 0.19 µg/kg], 2.8 µg/kg of total HxCDF (31-SS05A) [RBC = 0.19 µg/kg], 17 µg/kg of total HPCDD (31-SS05A) [RBC = 1.9 µg/kg], 12 µg/kg of total HPCDF (31-2205A) [RBC = 1.9 µg/kg], and 130 µg/kg of OCDD (31-SS05A) [RBC = 19 µg/kg]. The maximum calculated 2,3,7,8-TCDD TEQ from the subsurface soil sample set was 0.34984 µg/kg (31-SS05A). A 2,3,7,8-TCDD TEQ was not calculated for surface soil since the surface soil samples were not analyzed for specific congeners. Four subsurface soil samples had TEQs greater than the screening level of 50 ppt but were below the ATSDR interim action level of 1 ppb. These samples included 31-SS07A (68.3 ppt), 31-SS08A (50.4 ppt), 31-SSDD (184 ppt), and 31-SS05A (349 ppt) (Ref. 4).

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**SWMU 37, Waste Oil Storage Area/Building 200:** The maximum detected concentration of benzo(a)pyrene in surface soil (0.73 mg/kg [37SS03]) exceeded the EPA Region 3 industrial RBC [RBC = 0.39 mg/kg] (Ref. 1).

**SWMU 46, Pole Storage Yard Covered Pad:** The maximum detected contaminant concentrations in surface soil above EPA Region 3 industrial RBCs are as follows: 880 µg/kg of benzo(a)anthracene (46SS01) [RBC = 3,900 µg/kg], 2,400 µg/kg of benzo(a)pyrene (46SS11) [RBC = 390 µg/kg], 5,400 µg/kg of benzo(b)fluoranthene (46SS11) [RBC = 3.9 µg/kg], 820 µg/kg of dibenzo(a,h)anthracene (46SS11) [RBC = 390 µg/kg], 2,700 µg/kg of indeno(1,2,3-cd)pyrene (46SS11) [RBC = 3,900 µg/kg], 35,000 µg/kg of Aroclor-1260 (46SS21) [RBC = 1,400 µg/kg], and 5.3 mg/kg of arsenic (ACSS40) [RBC = 1.9 mg/kg] (Ref. 5).

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**SWMU 53, Building 64 (Malaria Control Building):** The maximum detected concentration of arsenic in surface soil exceeding the EPA Region 3 industrial RBC is 5.6 mg/kg (53SS01 and 53SB05) [RBC = 1.9 mg/kg]. The maximum detected concentration of lead in surface soil is 3,900 mg/kg (53SS06), which exceeds the site-specific screening criteria of 1,000 mg/kg (Ref. 9).

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**AOC C, Discarded Transformer and Electrical Equipment Accumulation Areas:** The maximum detected contaminant concentrations in surface soil above EPA Region 3 industrial RBCs are as follows: 2,100 µg/kg of benzo(a)anthracene (ACSS32) [RBC = 3,900 µg/kg], 2,600 µg/kg of benzo(a)pyrene (ACSS32) [RBC = 390 µg/kg], 5,500 µg/kg of benzo(b)fluoranthene (ACSS32) [RBC = 3,900 µg/kg], 440 µg/kg of dibenzo(a,h)anthracene (ACSS32) [RBC = 390 µg/kg], 1,900 µg/kg of indeno(1,2,3-cd)pyrene (ACSS32) [RBC = 3,900 µg/kg], 30,000 µg/kg of Aroclor-1260 (ACSS13) [RBC = 1,400 µg/kg], and 40.5 mg/kg of arsenic (ACSS21) [RBC = 1.9 mg/kg] (Ref. 5).

#### **E. Surface Water**

Surface water bodies located at NAPR include mangrove swamps (mangroves), Ensenada Honda, and Puerca Bay. Surface water sample results were screened against the FAWQC for Human Health (Water + Organism) or Federal MCLs if FAWQC was unavailable. Standing surface water sample results from SWMU 6/AOC B were screened against EPA Region 3 tap water RBCs. The contaminant concentrations in surface water collected from mangroves at SWMU 1, SWMU 2, and SWMU 9 exceeded FAWQC (Refs. 2, 14). In addition, surface water sample results from Ensenada Honda at SWMU 7/8 exceeded FAWQC (Refs. 11, 12). Standing surface water from SWMU 6/AOC B exceeded the EPA Region 3 tap water RBCs (Ref. 7). The maximum detected contaminant concentrations in surface water impacted by releases from SWMUs and AOCs identified pursuant to the 1994 RCRA permit are presented below.

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**SWMU 1, Army Cremator Disposal Site:** The maximum detected contaminant concentrations of contaminants in surface water exceeding FAWQC are as follows: 105 µg/l of total arsenic (5SW2) [FAWQC = 0.018 µg/l], 108 µg/l of total chromium (5SW01) [MCL = 100 µg/l], 221 µg/l of total selenium (5SW05) [FAWQC = 170 µg/l], and 116 µg/l of total thallium (5SW4) [FAWQC = 1.7 µg/l] (Ref. 2).

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**SWMU 2, Langley Drive Disposal Site:** The maximum detected contaminant concentrations in surface water exceeding FAWQC are as follows: 2.4 µg/l of bis(2-ethylhexyl)phthalate (6SW2) [FAWQC = 1.2 µg/l], 50.6 µg/l of total beryllium (6SW2) [MCL = 4 µg/l], 611 µg/l of total chromium (6SW2) [MCL = 100 µg/l], 549 µg/l of total selenium (6SW3) [FAWQC = 170 µg/l], and 29.3 µg/l of total thallium (6SW1) [FAWQC = 1.7 µg/l] (Ref. 2).

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**SWMU 6, Building 145 and AOC B, Building 25:** The maximum detected contaminant concentrations in surface water exceeding tap water RBCs are as follows: 2 µg/l of acetophenone (6SW01) [RBC = 0.042 µg/l], 1 µg/l of benzo(b)fluoranthene (6SW01) [RBC = 0.092 µg/l], 0.52 µg/l of 4,4'-DDD (6SW01) [RBC = 0.28 µg/l], and 5 µg/l of total arsenic (6SW01) [RBC = 0.045 µg/l] (Ref. 7).

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**SWMU 7/8, Tow Way Fuel Farm (TWFF):** The maximum detected contaminant concentrations exceeding FAWQC are as follows: 12 µg/l of bis(2-ethylhexyl)phthalate (7SW3) [FAWQC = 1.2 µg/l], 5.7 µg/l of total antimony (7SW4) [FAWQC = 5.6 µg/l], 7 µg/l of total arsenic (7SW5) [FAWQC = 0.018 µg/l], 4.9 µg/l of dissolved thallium (7SW6) [FAWQC = 1.7 µg/l], and 7.7 µg/l of dissolved arsenic (7SW9) [FAWQC = 0.018 µg/l] (Refs. 11, 12).

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**SWMU 9, Tank 212 - 217 Sludge Disposal Pits:**

***Areas A and B***

The maximum detected concentrations of metals in surface water exceeding FAWQC are as follows: 4.3 µg/l of dissolved arsenic (9SW23) [FAWQC = 0.018 µg/l], 6.5 µg/l of total antimony (9SW17) [FAWQC = 5.6 µg/l], 110 µg/l of total arsenic (9SW18) [FAWQC = 0.018 µg/l], 6.6 µg/l of total beryllium (9SW18) [MCL = 4 µg/l], 38 µg/l of cadmium (9SW18) [MCL = 5 µg/l], 540 µg/l of total chromium (9SW18) [MCL = 100 µg/l], and 3,100 µg/l of total copper (9SW18) [FAWQC = 1,300 µg/l] (Ref. 14).

***Area C***

The maximum detected concentrations of metals in surface water above FAWQC are as follows: 60.8 µg/l of total arsenic (9SW06) [FAWQC = 0.018 µg/l], 8.1 µg/l of dissolved antimony (9SW27) [FAWQC = 5.6 µg/l], and 155 µg/l of total chromium (9SW06) [MCL = 100 µg/l] (Ref. 14).

**F. Sediment**

Surface water bodies located at NAPR include mangrove swamps (mangroves), Ensenada Honda, and Puerca Bay. The majority of the sediment sample results were screened against EPA Region 3 industrial RBCs because exposure to sediment contamination in mangroves and Ensenada Honda is expected to be limited to on-site workers. However, the sediment sample results from SWMUs 3 and 11/45 were compared against EPA Region 3 residential RBCs because sediments were collected from Puerca Bay, which is considered a potential recreational area. The contaminant concentrations in sediment collected from mangroves at SWMU 1, SWMU 2, and SWMU 9 exceeded industrial RBCs (Refs. 2, 14). Sediment sample results from Ensenada Honda at SWMU 3 and SWMU 7/8 exceeded industrial RBCs (Refs. 10, 11, 12). Also, sediment sample results from Puerca Bay at SWMU 3 and SWMU 11/45 exceeded residential RBCs (Refs. 2, 10). Sediment sample results from drainage ditch at SWMU 13 exceeded industrial RBCs (Ref. 5). The maximum detected contaminant concentrations in sediment are presented below.

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**SWMU 1, Army Cremator Disposal Site:** The maximum detected concentration of arsenic in sediment (32 mg/kg [5SE4]) exceeds the EPA Region 3 industrial RBCs [RBC = 1.9 mg/kg] (Ref. 2).

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**SWMU 2, Langley Drive Disposal Site:** The maximum detected concentrations in sediment exceeding EPA Region 3 industrial RBCs are 920 µg/kg benzo(a)pyrene (2SD03) [RBC = 390 µg/kg] and 16.4 mg/kg arsenic (6SE3) [RBC = 1.9 mg/kg] (Ref. 2).

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**SWMU 3, Base Landfill:** The maximum detected contaminant concentrations in sediment exceeding EPA Region 3 residential RBCs are 1 µg/kg of total HxCDD (3SD15) [RBC = 0.1 µg/kg] and 4.3 mg/kg of arsenic (3SD02) [RBC = 0.43 mg/kg] (Ref. 10).

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**SWMU 7/8, Tow Way Fuel Farm (TWFF):** The maximum detected contaminant concentrations in sediment exceeding EPA Region 3 industrial RBCs are as follows: 2,200 µg/kg of benzo(a)pyrene (7SD12) [RBC = 390 µg/kg], 530 µg/kg of dibenzo(a,h)anthracene (7SD12) [RBC = 390 µg/kg], and 46 mg/kg of arsenic (7SD3) [RBC = 1.9 mg/kg] (Refs. 11, 12).

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**SWMU 9, Tank 212 - 217 Sludge Disposal Pits:**

**Areas A and B (tanks 212, 213, 214, & 215)**

The maximum detected concentrations in sediment exceeding EPA Region 3 industrial RBCs are 2.9 mg/kg of arsenic (9SD16) [RBC = 1.9 mg/kg] and 1,300 µg/kg of benzo(a)pyrene (9SD20) [RBC = 390 µg/kg] (Ref. 14).

**Area C (tanks 216 & 217)**

The maximum detected concentrations of arsenic in sediment (15 mg/kg [9SD26]) exceeds the EPA Region 3 industrial RBC [RBC = 1.9 mg/kg] (Ref. 14).

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**SWMU 11/45, Building 38:** The maximum detected contaminant concentrations detected in sediment exceeding EPA Region 3 residential RBCs are as follows: 12 mg/kg of arsenic (11SD01D) [RBC = 0.43 mg/kg], 3,200 µg/kg of benzo(a)pyrene (SD03D) [RBC = 87 µg/kg], and 5,000 µg/kg of benzo(b)fluoranthene [RBC = 870 µg/kg] (Ref. 2).

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**SWMU 13, Old Pest Control Shop:** The maximum detected contaminant concentrations detected in sediment exceeding EPA Region 3 industrial RBCs are as follows: 50,000 µg/kg of 4,4'-DDD (13SD06) [RBC = 12,000 µg/kg], 21,000 µg/kg of 4,4'-DDE (13SD07) [RBC = 8,400 µg/kg], 34 µg/kg of 4,4'-DDT (13SD13) [RBC = 8,400 µg/kg], 1,800 µg/kg of dieldrin (13SD08) [RBC = 1,800 µg/kg] (Ref. 5).

**References:**

- 1) RCRA Facility Investigation Report for Operable Unit 3/5. Prepared by EPA. Dated October 20, 1994.
- 2) RCRA Facility Investigation Workplan. Prepared by Baker Environmental, Inc. Dated September 14, 1995.
- 3) Draft RCRA Facility Investigation Report for Phase I Investigations at Operable Units 1, 6, and 7. Prepared by Baker Environmental, Inc. Dated July 1, 1996.
- 4) Draft Additional Investigations Report for Operable Units 1, 6, and 7. Prepared by Baker Environmental, Inc. Dated May 6, 1998.
- 5) Revised Draft RCRA Facility Investigation Report for Operable Unit 3/5. Prepared by Baker Environmental, Inc. Dated April 1, 1999.

- 6) Letter from Nicoletta DiForté, USEPA, to Paul Rakowski, Navy, re: Revised Draft RCRA Facility Investigation Report for Operable Unit 3/5. Dated September 28, 1999.
- 7) Letter from Nicoletta DiForté, USEPA, to Paul Rakowski, Navy, re: SWMU 26 Revised Risk Assessment. Dated October 27, 1999.
- 8) Final Phase II RCRA Facility Investigation Report for SWMU 30. Prepared by Baker Environmental, Inc. Dated February 15, 2000.
- 9) Revised Draft RCRA Facility Investigation Report for SWMU 9. Prepared by Baker Environmental, Inc. Dated March 10, 2000.
- 10) Final Corrective Measure Study Report for SWMU 31/32. Prepared by Baker Environmental, Inc. Dated April 17, 2000.
- 11) Revised Final II CMS Work Plan for SWMUs 1 and 2. Prepared by Baker Environmental, Inc. Dated July 14, 2000.
- 12) Revised Final II CMS Final Report for SWMU 13 and SWMU 46/AOC C. Prepared by Baker Environmental, Inc. Dated August 4, 2000.
- 13) Draft Interim Decision Document for SWMU 14. Prepared by Baker Environmental, Inc. Dated November 22, 2000.
- 14) Final Basis of Design Corrective Measures Implementation Work Plan for SWMU 31/32. Prepared by Baker Environmental, Inc. Dated January 25, 2001.
- 15) 100% Basis of Design Corrective Measures Implementation Work Plan for SWMUs 13 and 46/AOC C. Prepared by Baker Environmental, Inc. Dated January 25, 2001.
- 16) Letter from Raymond Basso, USEPA, to Christopher Penny, Navy, re: Naval Station Roosevelt Roads - EPA I.D. PRD2170027203. Dated May 4, 2001.
- 17) Final Corrective Measures Study Final Report SWMU 6/AOC B. Prepared by Baker Environmental, Inc. Dated June 21, 2001.
- 18) Draft Corrective Measures Study Investigation Report for SWMU 10. Prepared by Baker Environmental, Inc. Dated July 6, 2001.
- 19) Final CMS Work Plan for SWMUs 53 and 54. Prepared by Baker Environmental, Inc. Dated March 7, 2003.
- 20) Revised Final RCRA Facility Investigation for SWMU 3. Prepared by Baker Environmental, Inc. Dated March 18, 2003.
- 21) Final Corrective Measure Study Task 1 Report for Tow Way Fuel Farm. Prepared by Baker Environmental, Inc. Dated April 22, 2003.
- 22) Final Corrective Measure Study Investigation Report for SWMU 9. Prepared by Baker Environmental, Inc. Dated April 25, 2003.
- 23) Final Recharacterization Work Plan for SWMU 11. Prepared by Baker Environmental, Inc. Dated July 21, 2003.
- 24) Draft CMS Investigation Report for SWMUs 53 and 54. Prepared by Baker Environmental, Inc. Dated July 23, 2003.
- 25) Final CMS Report for SWMUs 53 and 54. Prepared by Baker Environmental, Inc. Dated July 23, 2003.
- 26) Draft Corrective Measures Study Final Report for SWMUs 54 and 55. Prepared by Baker Environmental, Inc. Dated October 28, 2004.

## Naval Activity Puerto Rico (NAPR)

### Exposure Pathways and Possible Adverse Human Health and/or Environmental Impacts

Groundwater at NAPR is not used for drinking water or other potable uses. Therefore, no receptors, including on-site receptors, are expected to be exposed to contaminated groundwater via drinking and/or potable water consumption, though construction workers could be exposed as a result of excavation activities. Impacts to in-door air is a possible exposure pathway; however, in 2003 EPA evaluated that pathway and determined there were no likely unacceptable impacts at that time. Currently children's day-care facilities are not present at NAPR; thus, day-care receptors are not expected to come in direct contact with contaminated media.

The following table summarizes the indicated potential complete exposure pathways between "contamination" and human receptors, based on expected future land usage being similar to the land usage patterns currently in place:

**Summary Exposure Pathway Evaluation Table**  
***Potential Human Receptors (Under Expected Future Usage Conditions)***

"Contaminated" Media	Residents	Workers	Day-Care/ School	Construction	Trespasser	Recreation	Food <sup>1</sup>
Groundwater	No	No	No	Yes	—	—	No
Surface Soil (e.g. < 2 ft)	No	Yes	No	Yes	Yes	No	No
Surface Water	No	Yes	No	—	Yes	No	No
Sediment	No	Yes	No	—	No	Yes	Yes
Subsurface Soil (e.g. > 2 ft)	—	—	No	Yes	—	—	No
Indoor Air	No	Yes	No	No	No	No	No

The specific SWMUs/AOCs identified pursuant to the 1994 RCRA permit where potentially complete exposure pathways are present are as follows:

**SWMU 1, Army Cremator Disposal Site:** Contaminants were detected in groundwater, sediment, and surface water exceeding relevant screening criteria at SWMU 1. No contaminants were detected in surface soil or subsurface soil above the EPA Region 3 industrial risk-based concentrations (RBCs). However, the total hazard indices (HI) for on-site worker and construction worker scenarios were above the target HI of one in the risk assessment. Thus, surface soil and subsurface soil are considered contaminated media at SWMU 1 and on-site workers and construction workers may be exposed to contaminated surface soil and/or subsurface soil. In addition, on-site workers may potentially be exposed to contaminated surface

<sup>1</sup> Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish)



water and sediment. Although groundwater at SWMU 1 is not currently used for drinking water or other potable uses, shallow groundwater occurs at approximately 5 to 26 feet bgs (Ref. 1); thus, construction workers may potentially come in direct contact with contaminated groundwater during intrusive activities.

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**SWMU 2, Langley Drive Disposal Site:** Contaminants were detected in groundwater, surface soil, subsurface soil, sediment, and surface water exceeding relevant screening criteria at SWMU 2. On-site workers may potentially be exposed to contaminated surface soil, sediment, and surface water. Although groundwater at SWMU 2 is not currently used for drinking water or other potable uses, shallow groundwater occurs at approximately 3 to 10 feet bgs (Ref. 1); thus, construction workers may potentially come in direct contact with contaminated groundwater during intrusive activities. In addition, construction workers may be exposed to contaminated surface and subsurface soil.

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**SWMU 3, Base Landfill:** Contaminants were detected in groundwater exceeding relevant screening criteria at SWMU 3. Shallow groundwater occurs at approximately 8 to 25 feet bgs (Ref. 5). However, construction workers are not expected to conduct intrusive activities and come in direct contact with contaminated groundwater. Contaminants were also detected in sediment collected from Ensenada Honda and Puerca Bay at SWMU 3. On-site workers may potentially be exposed to contaminated sediment at SWMU 3. Recreators may be present in the marine waters adjacent to SWMU 3; thus, recreators were considered potential receptors at SWMU 3 that may potentially be exposed to contaminated sediments. In addition, recreator activities may potentially include fishing. Since the contaminants detected in sediment are considered to be persistent, bioaccumulative, and toxic (PBT) and bottom-dwelling shellfish (i.e., shrimp) may be fished, recreators may potentially be exposed to contamination via food exposure pathway.

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**SWMU 6, Building 145 and AOC B, Building 25:** Contaminants were detected in groundwater, surface soil, surface water, and sediment exceeding relevant screening criteria at SWMU 6/AOC B. On-site workers may be exposed to contaminated surface soil, surface water, and sediment. Although groundwater at SWMU 6/AOC B is not currently used for drinking water or other potable uses, shallow groundwater occurs at approximately 9 to 10 feet bgs (Ref. 3); thus, construction workers may potentially come in direct contact with contaminated groundwater during intrusive activities. In addition, construction workers may potentially be exposed to contaminated surface soil.

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**SWMU 7/8, Tow Way Fuel Farm (TWFF):** Contaminants were detected in groundwater, surface soil, subsurface soil, surface water, and sediment exceeding relevant screening criteria at SWMU 7/8. Since groundwater occurs at a depth of 12 to 54 feet bgs (Ref. 6), construction workers are not expected to come in direct contact with contaminated groundwater. However, construction workers may be exposed to contaminated subsurface soil at SWMU 7/8. On-site workers may potentially be exposed to contaminated surface soil, surface water, and sediment.

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**SWMU 9, Tank 212-217 Sludge Disposal Pits:** Contaminants were detected in groundwater, surface soil, subsurface soil, surface water, and sediment exceeding relevant screening criteria at SWMU 9. Although groundwater at SWMU 9 is not currently used for drinking water or other potable uses, shallow groundwater occurs at approximately 6 to 19 feet bgs (Ref. 7); thus,

construction workers may potentially come direct contact with contaminated groundwater during intrusive activities. In addition, construction workers may be exposed to contaminated subsurface soil. On-site workers may potentially be exposed to contaminated surface soil, surface water, and sediment.

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**SWMU 10, Substation 2/Building 90:** PCBs are present in residual soil contamination exceeding relevant screening criteria at SWMU 10. On-site workers may potentially be exposed to contaminated surface soil and construction workers may potentially be exposed to contaminated subsurface soil.

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**SWMU 11/45, Building 38:** Building 38 has two doors that are chained and padlocked, it is fully secure, and signs are posted to restrict access to the building (Ref. 8). Building 38 is not currently being used, and access to the building by Naval personnel is strictly prohibited by the facility without prior authorization to enter. The facility has a building permit process that monitors all work and construction activities at SWMU 11. However if a building permit is approved, on-site workers and construction workers are expected to adhere to the appropriate Occupational Safety and Health Administration (OSHA) regulations (e.g., donning personal protective equipment [PPE]). Thus, on-site workers are not expected to be exposed to contamination.

Contaminants were detected in groundwater, subsurface soil, and sediment exceeding relevant screening criteria at SWMU 45. Because groundwater occurs at depth of 11 feet bgs, construction workers are not expected to come in direct contact with contaminated groundwater. However, construction workers may be exposed to contaminated subsurface soil. On-site workers and recreators may be exposed to contaminated sediments. In addition, recreator activities at Puerca Bay may potentially include fishing. Since the contaminants detected in sediment are considered to be persistent, bioaccumulative, and toxic (PBT), and bottom-dwelling shellfish (i.e., shrimp) may be fished from Puerca Bay, recreators may potentially be exposed to contamination via food exposure pathway.

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**SWMU 13, Old Pest Control Shop:** Contaminants were detected in sediment exceeding relevant screening criteria at SWMU 13. On-site workers may potentially be exposed to contaminated sediment.

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**SWMU 14, Fire Training Pit Area:** Contaminants were detected in surface soil exceeding relevant screening criteria at SWMU 14. On-site workers and construction workers may potentially be exposed to contaminated surface soil.

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**SWMU 30, Former Incinerator:** Contaminants were detected in groundwater and subsurface soil exceeding relevant screening criteria at SWMU 30. Although groundwater at SWMU 30 is not currently used for drinking water or other potable uses, shallow groundwater occurs at approximately 6 to 19 feet bgs (Ref. 2); thus, construction workers may potentially come in direct contact with contaminated groundwater during intrusive activities. In addition, construction workers may be exposed to contamination in subsurface soil.

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**SWMU 31/32, Waste Oil Collection Area and Battery Collection Area:** Contaminants were detected in surface soil and subsurface soil exceeding relevant screening criteria. On-site

workers may be exposed to contaminated surface soil. Construction workers may be exposed to contaminated surface soil and subsurface soil.

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**SWMU 37, Waste Oil Storage Area/Building 200:** Contaminants were detected in surface soil exceeding relevant screening criteria at SWMU 37. Thus, on-site workers and construction workers may be exposed to contaminated surface soil.

**SWMU 46, Pole Storage Yard Covered Pad:** Contaminants were detected in surface soil exceeding relevant screening criteria at SWMU 46. Thus, on-site workers and construction workers may be exposed to contaminated surface soil.

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**SWMU 53, Building 64 (Malaria Control Building):** Contaminants were detected in surface soil exceeding relevant screening criteria at SWMU 53. Thus, on-site workers and construction workers may be exposed to contaminated surface soil.

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**SWMU 54, Building 1914 (Former NEX Repair/Maintenance Shop):** Contaminants were detected in groundwater exceeding relevant screening criteria at SWMU 54. Although groundwater at SWMU 54 is not currently used for drinking water or other potable uses, shallow groundwater occurs at approximately five to 13 feet bgs (Ref. 4); thus, construction workers may potentially come in direct contact with contaminated groundwater during intrusive activities.

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**SWMU 55, Trichloroethene (TCE) Groundwater Plume at Tow Way Fuel Farm:** This SWMU was previously considered associated with releases at SWMU 7/8, but was identified as a separate SWMU in February 2004. Contaminants were detected in groundwater exceeding relevant screening criteria at SWMU 55. Although groundwater at SWMU 55 is not currently used for drinking water or other potable uses, shallow groundwater occurs at approximately 10 feet bgs (Ref. 9); thus, construction workers may potentially come in direct contact with contaminated groundwater during intrusive activities.

**AOC C, Discarded Transformer and Electrical Equipment Accumulation Area:** Contaminants were detected in surface soil exceeding relevant screening criteria at AOC C. Thus, on-site workers and construction workers may be exposed to contaminated surface soil.

#### **References:**

1. Revised Draft RCRA Facility Investigation Report for Operable Unit 3/5. Prepared by Baker Environmental, Inc. Dated April 19, 1999.
2. Final Phase II RFI report for SWMU 30. Prepared by Baker Environmental, Inc. Dated February 15, 2000.
3. Final Corrective Measures Study Report for SWMU 6/AOC B. Prepared by Baker Environmental, Inc. Dated June 21, 2001.
4. Final RCRA Facility Investigation Report for SWMU 53 and 54. Prepared by Baker Environmental, Inc. Dated September 30, 2002.
5. Revised Final RCRA Facility Investigation Report for SWMU 3. Prepared by Baker Environmental, Inc. Dated March 18, 2003.
6. Final Corrective Measures Study Task I Report for Tow Way Fuel Farm. Prepared by Baker Environmental, Inc. Dated April 22, 2003.

7. Final Corrective Measures Study Investigation Report for SWMU 9. Prepared by Baker Environmental, Inc. Dated April 25, 2003.
8. Interim Measures Plan for SWMU 11. Prepared by Baker Environmental, Inc. Dated July 21, 2003.
9. Draft Corrective Measures Study Final Report for SWMUs 54 and 55. Prepared by Baker Environmental, Inc. Dated October 28, 2004.

The basis for the above conclusions are as follows:

### **Groundwater**

Groundwater underlying the Facility is not used as a drinking water source or for other usages. For over 30 years, the Facility has obtained its drinking water and water for other usages from a water treatment plant that receives raw water from the Rio Blanco. In addition, pump tests conducted in 1999 on two wells in the aquifers underlying the Facility indicated an aggregate yield of approximately 99 gallons per day, which is below the yield of aquifers considered usable for potable water supply. Groundwater is not used as a drinking water or potable water source downgradient of the site, since the marine waters of the Atlantic Ocean, Caribbean Sea, and Vieques Passage border the Facility on all downgradient sides. Although groundwater is not currently used for drinking water or other uses at the Facility, at some SWMUs and AOCs, groundwater occurs at relatively shallow depths at several SWMUs and AOCs; thus, construction workers may potentially come in direct contact with contaminated groundwater during intrusive activities.

### **Air (Indoors)**

Based on the volatile nature of the contaminants detected at SWMUs 1, 2, 7/8, 9, 54 and 55, migration of contaminants in groundwater to indoor air may be a concern. The maximum detected VOC concentrations in the uppermost groundwater unit were compared to the State of Connecticut Groundwater Standards for the Protection of Indoor Air under the Industrial/Commercial Scenario (CT I/C VC) to determine whether migration of VOCs to indoor air may be of concern. Table I identifies those contaminants that exceed the CT I/C VC.

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**Table 1. Groundwater Exceedences of the CT I/C VC ( $\mu\text{g/L}$ )**

Contaminant	CT I/C VC	Maximum Detection
<b>SWMU 7/8</b>		
Benzene	530	19,000 (470MW01)
<b>SWMU 9</b>		
Chloroform	710	1,100 (13GW06)
<b>SWMU 54</b>		
Benzene	530	3,000 (54TW15)
<b>SWMU 55</b>		
Trichloroethene	540	28,000 (7MW07)

Although VOCs exceeded the CT I/C VC at SWMU 9 (Refs. 14), there are no buildings present at SWMU 9; so contaminated groundwater is not presently beneath any buildings. Thus, indoor air is not currently considered a concern at SWMU 9. Trichloroethene (TCE) is present beneath the former Building 46 at SWMU 55.

### **Surface/Subsurface Soil**

Contaminants are detected in surface soil and/or subsurface soil above EPA Region 3 industrial RBCs or site-specific CAOs at SWMU 1, SWMU 2, SWMU 6/AOC B, SWMU 7/8, SWMU 30, SWMU 31/32, SWMU 11/45, SWMU 14, SWMU 37, SWMU 46, SWMU 55, and AOC C. The maximum detected contaminant concentrations in surface soil and/or subsurface soil for these SWMUs and AOCs are provided below.

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**SWMU 1, Army Cremator Disposal Site:** No contaminants were detected in surface soil or subsurface soil above EPA Region 3 industrial RBCs; however, the total hazard indices (HIs) for on-site worker and construction worker scenarios for exposure to soil are above the target HI of one in the risk assessment.

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**SWMU 2, Langley Drive Disposal Site:** Arsenic was detected in surface and subsurface soil above EPA Region 3 industrial RBCs. The maximum detected concentrations of arsenic in surface soil and subsurface soil exceeding EPA Region 3 industrial RBCs are 134 mg/kg (R6S7A) and 21.4 mg/kg (06SS101) [RBC = 1.9 mg/kg], respectively. In addition, the maximum detected concentration of lead in surface soil and subsurface soil are 4,760 mg/kg of lead (06SS103) and 5,850 mg/kg of lead (06SS103), which exceeded the site-specific screening criterion of 1,000 mg/kg (Ref. 2).

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**SWMU 6, Building 145 and AOC B, Building 25:** Arsenic, benzo(a)pyrene, 4,4'-DDE, and total HxCDD were detected in surface soil above EPA Region 3 industrial RBCs. The maximum detected concentrations of these contaminants are as follows: 10 mg/kg of arsenic [RBC = 1.9

mg/kg], 1,800 µg/kg of benzo(a)pyrene [RBC = 390 µg/kg], 0.76 µg/kg of total HxCDD [RBC = 0.46 µg/kg], and 22 mg/kg of 4,4'-DDE [RBC = 8.4 mg/kg] (Ref. 7). No contaminants were detected in subsurface soil exceeding EPA Region 3 industrial RBCs.

**SWMU 7/8, Tow Way Fuel Farm (TWFF):** SVOCs and metals were detected in surface soil above industrial RBCs. Human health-based CAOs were developed for surface/subsurface soil at SWMU 7/8 during the CMS. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, indeno(1,2,3-cd)pyrene, and arsenic were detected in surface soil above the CAOs calculated for an industrial worker scenario (all 2,900 µg/kg). The maximum detected contaminant concentrations above CAOs are as follows: 17,000 µg/kg of benzo(a)anthracene, 23,000 µg/kg of benzo(a)pyrene, 5,900 µg/kg of benzo(b)fluoranthene, 5,300 µg/kg of indeno(1,2,3-cd)pyrene, and 3.7 mg/kg of arsenic (Refs. 11, 12). In addition, benzo(a)pyrene was also detected in soil, at depths from 0 to 10 feet bgs, above the CAO calculated for a construction worker scenario (7,300 µg/kg).

**SWMU 9, Tank 212 - 217 Sludge Disposal Pits:**

**Area A (Tanks 212 and 213)**

Arsenic was detected in surface soil and subsurface above EPA Region 3 industrial RBC [RBC = 1.9 mg/kg] at Area A. The maximum detected concentrations of arsenic in surface soil and subsurface soil were 3.7 mg/kg (9MW02-00) and 5 mg/kg (9TP08-04), respectively. The maximum detected concentration of gasoline range organic constituents (GRO) in subsurface soil was 130 mg/kg (9-02R-HP01), which was slightly above the PREBQ guideline standard of 100 mg/kg. No petroleum constituents were detected in subsurface soil above industrial RBCs; thus, petroleum contamination is not currently expected to be of concern for human health and will not be discussed further in this CA725 EI determination (Ref. 14).

**Area B of SWMU 9 (Tanks 214 and 215)**

The maximum detected concentration of arsenic in surface soil was 23 mg/kg (9SS07) which exceeds the EPA Region 3 industrial RBC [RBC = 1.9 mg/kg].

**SWMU 10, Substation 2/Building 90:** Approximately 235 cubic yards of PCB (Aroclor-1260) impacted soil was removed as an ICM at SWMU 10. However, residual soil contamination (less than ten parts per million [ppm]) was left in place at SWMU 10. The residual soil contamination may exceed the EPA Region 3 industrial RBC of 1.4 mg/kg (Ref. 8).

**SWMU 11/45, Building 38:** The maximum detected concentration of arsenic in subsurface soil (3.9 mg/kg [45MW04-01]) exceeds the EPA Region 3 industrial RBC [RBC = 1.9 mg/kg] (Ref. 2).

**SWMU 14, Fire Training Pit Area:** SVOCs were detected in surface soil above EPA Region 3 industrial RBCs. The maximum detected contaminant concentrations in surface soil exceeding EPA Region 3 industrial RBCs are as follows: 7.6 mg/kg of benzo(b)fluoranthene (14SS07) [RBC = 3.9 mg/kg], 5 mg/kg of benzo(a)pyrene (14SS07) [RBC = 0.39 mg/kg], and 0.92 mg/kg of dibenzo(a,h)anthracene (14SS07) [RBC = 0.39 mg/kg] (Ref. 6).

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**SWMU 30, Former Incinerator:** Aroclor-1260 was detected in subsurface soil above the EPA Region 3 industrial RBC. The maximum detected concentration of Aroclor-1260 is 2,000 µg/kg (30-HP05-03) [RBC = 1,400 µg/kg]. The maximum detected concentration of diesel range organics (DRO) in subsurface is 1,800 mg/kg (30-HP04-03) which exceeds the PREQB guideline standard of 100 mg/kg. No petroleum constituents were detected in subsurface soil above EPA Region 3 industrial RBCs.

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**SWMU 31/32, Waste Oil Collection Area and Battery Collection Area:** Dioxins and furans were detected in surface and subsurface soil above EPA Region 3 industrial RBCs (adjusted based on TEQs). The maximum detected contaminant concentrations in surface soil were as follows: 12 µg/kg of total HxCDD (31SS04) [RBC = 0.19 µg/kg], 43 µg/kg of HxCDF (31SS04) [RBC = 0.19 µg/kg], 0.74 µg/kg of total PeCDD (31SS04) [RBC = 0.038 µg/kg], and 3.10 µg/kg of total PeCDF (31SS04) [RBC = 0.038 µg/kg]. The maximum detected contaminant concentrations in subsurface soil were the following: 0.11 µg/kg of total TCDD (31-SSDD) [RBC = 0.019 µg/kg], 0.44 µg/kg of total TCDF (31-SS07A) [RBC = 0.19 µg/kg], 0.061 µg/kg of total PeCDD (31-SS05A) [RBC = 0.038 µg/kg], 0.7 µg/kg of total PeCDF (31-SS05A) [RBC = 0.038 µg/kg], 1.1 µg/kg of total HxCDD (31-SS05A) [RBC = 0.19 µg/kg], 2.8 µg/kg of total HxCDF (31-SS05A) [RBC = 0.19 µg/kg], 17 µg/kg of total HPCDD (31-SS05A) [RBC = 1.9 µg/kg], 12 µg/kg of total HPCDF (31-2205A) [RBC = 1.9 µg/kg], and 130 µg/kg of OCDD (31-SS05A) [RBC = 19 µg/kg]. The maximum calculated 2,3,7,8-TCDD TEQ from the subsurface soil sample set was 0.34984 µg/kg (31-SS05A). A 2,3,7,8-TCDD TEQ was not calculated for surface soil since the surface soil samples were not analyzed for specific congeners. Four subsurface soil samples had TEQs greater than the screening level of 50 ppt but were below the ATSDR interim action level of 1 ppb. These samples included 31-SS07A (68.3 ppt), 31-SS08A (50.4 ppt), 31-SSDD (184 ppt), and 31-SS05A (349 ppt) (Ref. 4).

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**SWMU 37, Waste Oil Storage Area/Building 200:** The maximum detected concentration of benzo(a)pyrene in surface soil (0.73 mg/kg [37SS03]) exceeded the EPA Region 3 industrial RBC [RBC = 0.39 mg/kg] (Ref. 1).

**SWMU 46, Pole Storage Yard Covered Pad:** The maximum detected contaminant concentrations in surface soil above EPA Region 3 industrial RBCs are as follows: 880 µg/kg of benzo(a)anthracene (46SS01) [RBC = 3,900 µg/kg], 2,400 µg/kg of benzo(a)pyrene (46SS11) [RBC = 390 µg/kg], 5,400 µg/kg of benzo(b)fluoranthene (46SS11) [RBC = 3.9 µg/kg], 820 µg/kg of dibenzo(a,h)anthracene (46SS11) [RBC = 390 µg/kg], 2,700 µg/kg of indeno(1,2,3-cd)pyrene (46SS11) [RBC = 3,900 µg/kg], 35,000 µg/kg of Aroclor-1260 (46SS21) [RBC = 1,400 µg/kg], and 5.3 mg/kg of arsenic (ACSS40) [RBC = 1.9 mg/kg] (Ref. 5).

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**SWMU 53, Building 64 (Malaria Control Building):** The maximum detected concentration of arsenic in surface soil exceeding the EPA Region 3 industrial RBC is 5.6 mg/kg (53SS01 and 53SB05) [RBC = 1.9 mg/kg]. The maximum detected concentration of lead in surface soil is 3,900 mg/kg (53SS06), which exceeds the site-specific screening criteria of 1,000 mg/kg (Ref. 9).

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**AOC C, Discarded Transformer and Electrical Equipment Accumulation Areas:** The maximum detected contaminant concentrations in surface soil above EPA Region 3 industrial RBCs are as follows: 2,100 µg/kg of benzo(a)anthracene (ACSS32) [RBC = 3,900 µg/kg], 2,600

µg/kg of benzo(a)pyrene (ACSS32) [RBC = 390 µg/kg], 5,500 µg/kg of benzo(b)fluoranthene (ACSS32) [RBC = 3,900 µg/kg], 440 µg/kg of dibenzo(a,h)anthracene (ACSS32) [RBC = 390 µg/kg], 1,900 µg/kg of indeno(1,2,3-cd)pyrene (ACSS32) [RBC = 3,900 µg/kg], 30,000 µg/kg of Aroclor-1260 (ACSS13) [RBC = 1,400 µg/kg], and 40.5 mg/kg of arsenic (ACSS21) [RBC = 1.9 mg/kg] (Ref. 5).

### **Surface Water**

Surface water bodies located at NAPR include mangrove swamps (mangroves), Ensenada Honda, and Puerca Bay. The most recent surface water sample results were screened against the Federal Ambient Water Quality Criteria (FAWQC) for Human Health (Water + Organism) or Federal Maximum Contaminant Levels (MCLs) if FAWQC was unavailable. Standing surface water sample results from SWMU 6/AOC B were screened against EPA Region 3 tap water RBCs. The contaminant concentrations in surface water collected from mangroves at SWMU 1, SWMU 2, and SWMU 9 exceeded FAWQC (Refs. 2, 14). In addition, surface water sample results from Ensenada Honda at SWMU 7/8 exceeded FAWQC (Refs. 11, 12). Standing surface water from SWMU 6/AOC B exceeded the EPA Region 3 tap water RBCs (Ref. 7). The maximum detected contaminant concentrations in surface water are presented below.

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**SWMU 1, Army Cremator Disposal Site:** The maximum detected contaminant concentrations of contaminants in surface water exceeding FAWQC are as follows: 105 µg/l of total arsenic (5SW2) [FAWQC = 0.018 µg/l], 108 µg/l of total chromium (5SW01) [MCL = 100 µg/l], 221 µg/l of total selenium (5SW05) [FAWQC = 170 µg/l], and 116 µg/l of total thallium (5SW4) [FAWQC = 1.7 µg/l] (Ref. 2).

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**SWMU 2, Langley Drive Disposal Site:** The maximum detected contaminant concentrations in surface water exceeding FAWQC are as follows: 2.4 µg/l of bis(2-ethylhexyl)phthalate (6SW2) [FAWQC = 1.2 µg/l], 50.6 µg/l of total beryllium (6SW2) [MCL = 4 µg/l], 611 µg/l of total chromium (6SW2) [MCL = 100 µg/l], 549 µg/l of total selenium (6SW3) [FAWQC = 170 µg/l], and 29.3 µg/l of total thallium (6SW1) [FAWQC = 1.7 µg/l] (Ref. 2).

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**SWMU 6, Building 145 and AOC B, Building 25:** The maximum detected contaminant concentrations in surface water exceeding tap water RBCs are as follows: 2 µg/l of acetophenone (6SW01) [RBC = 0.042 µg/l], 1 µg/l of benzo(b)fluoranthene (6SW01) [RBC = 0.092 µg/l], 0.52 µg/l of 4,4'-DDD (6SW01) [RBC = 0.28 µg/l], and 5 µg/l of total arsenic (6SW01) [RBC = 0.045 µg/l] (Ref. 7).

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**SWMU 7/8, Tow Way Fuel Farm (TWFF):** The maximum detected contaminant concentrations exceeding FAWQC are as follows: 12 µg/l of bis(2-ethylhexyl)phthalate (7SW3) [FAWQC = 1.2 µg/l], 5.7 µg/l of total antimony (7SW4) [FAWQC = 5.6 µg/l], 7 µg/l of total arsenic (7SW5) [FAWQC = 0.018 µg/l], 4.9 µg/l of dissolved thallium (7SW6) [FAWQC = 1.7 µg/l], and 7.7 µg/l of dissolved arsenic (7SW9) [FAWQC = 0.018 µg/l] (Refs. 11, 12).

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**SWMU 9, Tank 212 - 217 Sludge Disposal Pits:**

***Areas A and B (Tanks 212, 213, 214 and 215)***

The maximum detected concentrations of metals in surface water exceeding FAWQC are



as follows: 4.3 µg/l of dissolved arsenic (9SW23) [FAWQC = 0.018 µg/l], 6.5 µg/l of total antimony (9SW17) [FAWQC = 5.6 µg/l], 110 µg/l of total arsenic (9SW18) [FAWQC = 0.018 µg/l], 6.6 µg/l of total beryllium (9SW18) [MCL = 4 µg/l], 38 µg/l of cadmium (9SW18) [MCL = 5 µg/l], 540 µg/l of total chromium (9SW18) [MCL = 100 µg/l], and 3,100 µg/l of total copper (9SW18) [FAWQC = 1,300 µg/l] (Ref. 14).

**Area C (Tanks 216 and 217)**

The maximum detected concentrations of metals in surface water above FAWQC are as follows: 60.8 µg/l of total arsenic (9SW06) [FAWQC = 0.018 µg/l], 8.1 µg/l of dissolved antimony (9SW27) [FAWQC = 5.6 µg/l], and 155 µg/l of total chromium (9SW06) [MCL = 100 µg/l] (Ref. 14).

**Sediment**

Surface water bodies located at NAPR include mangrove swamps (mangroves), Ensenada Honda, and Puerca Bay. The majority of the sediment sample results were screened against EPA Region 3 industrial RBCs because exposure to sediment contamination in mangroves and Ensenada Honda is expected to be limited to on-site workers. However, the sediment sample results from SWMUs 3 and 11/45 were compared against EPA Region 3 residential RBCs because sediments were collected from Puerca Bay, which is considered a potential recreational area. The contaminant concentrations in sediment collected from mangroves at SWMU 1, SWMU 2, and SWMU 9 exceeded industrial RBCs (Refs. 2, 14). Sediment sample results from Ensenada Honda at SWMU 3 and SWMU 7/8 exceeded industrial RBCs (Refs. 10, 11, 12). Also, sediment sample results from Puerca Bay at SWMU 3 and SWMU 11/45 exceeded residential RBCs (Refs. 2, 10). Sediment sample results from drainage ditch at SWMU 13 exceeded industrial RBCs (Ref. 5). The maximum detected contaminant concentrations in sediment are presented below.

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**SWMU 1, Army Cremator Disposal Site:** The maximum detected concentration of arsenic in sediment (32 mg/kg [5SE4]) exceeds the EPA Region 3 industrial RBCs [RBC = 1.9 mg/kg] (Ref. 2).

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**SWMU 2, Langley Drive Disposal Site:** The maximum detected concentrations in sediment exceeding EPA Region 3 industrial RBCs are 920 µg/kg benzo(a)pyrene (2SD03) [RBC = 390 µg/kg] and 16.4 mg/kg arsenic (6SE3) [RBC = 1.9 mg/kg] (Ref. 2).

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**SWMU 3, Base Landfill:** The maximum detected contaminant concentrations in sediment exceeding EPA Region 3 residential RBCs are 1 µg/kg of total HxCDD (3SD15) [RBC = 0.1 µg/kg] and 4.3 mg/kg of arsenic (3SD02) [RBC = 0.43 mg/kg] (Ref. 10).

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**SWMU 7/8, Tow Way Fuel Farm (TWFF):** The maximum detected contaminant concentrations in sediment exceeding EPA Region 3 industrial RBCs are as follows: 2,200 µg/kg of benzo(a)pyrene (7SD12) [RBC = 390 µg/kg], 530 µg/kg of dibenzo(a,h)anthracene (7SD12) [RBC = 390 µg/kg], and 46 mg/kg of arsenic (7SD3) [RBC = 1.9 mg/kg] (Refs. 11, 12).

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**SWMU 9, Tank 212 - 217 Sludge Disposal Pits:**

**Areas A and B (Tanks 212, 213, 214 and 215)**

The maximum detected concentrations in sediment exceeding EPA Region 3 industrial RBCs are 2.9 mg/kg of arsenic (9SD16) [RBC = 1.9 mg/kg] and 1,300 µg/kg of benzo(a)pyrene (9SD20) [RBC = 390 µg/kg] (Ref. 14).

**Area C** (Tanks 216 and 217)

The maximum detected concentrations of arsenic in sediment (15 mg/kg [9SD26]) exceeds the EPA Region 3 industrial RBC [RBC = 1.9 mg/kg] (Ref. 14).

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**SWMU 11/45, Building 38:** The maximum detected contaminant concentrations detected in sediment exceeding EPA Region 3 residential RBCs are as follows: 12 mg/kg of arsenic (11SD01D) [RBC = 0.43 mg/kg], 3,200 µg/kg of benzo(a)pyrene (SD03D) [RBC = 87 µg/kg], and 5,000 µg/kg of benzo(b)fluoranthene [RBC = 870 µg/kg] (Ref. 2).

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**SWMU 13, Old Pest Control Shop:** The maximum detected contaminant concentrations detected in sediment exceeding EPA Region 3 industrial RBCs are as follows: 50,000 µg/kg of 4,4'-DDD (13SD07) [RBC = 12,000 µg/kg], 21,000 µg/kg of 4,4'-DDE (13SD07) [RBC = 8,400 µg/kg], 34,000 µg/kg of 4,4'-DDT (13SD13) [RBC = 8,400 µg/kg], 1,800 µg/kg of dieldrin (13SD09-00) [RBC = 180 µg/kg] (Ref. 5).

**References:**

1. Draft RCRA Facility Investigation Report for Phase I Investigations at Operable Units 1, 6, and 7. Prepared by Baker Environmental, Inc. Dated July 1, 1996.
2. Revised Draft RCRA Facility Investigation Report for Operable Unit 3/5. Prepared by Baker Environmental, Inc. Dated April 19, 1999.
3. Final Phase II RFI report for SWMU 30. Prepared by Baker Environmental, Inc. Dated February 15, 2000.
4. Final Corrective Measures Study Report for SWMU 31/32. Prepared by Baker Environmental, Inc. Dated April 17, 2000.
5. Revised Final II Corrective Measures Study Final Report, Prepared by Baker Environmental, Inc. Dated August 4, 2000.
6. Draft Interim Decision Document for SWMU 14. Prepared by Baker Environmental, Inc. Dated November 11, 2000.
7. Final Corrective Measures Study Final Report for SWMU 6/AOC B. Prepared by Baker Environmental, Inc. Dated June 21, 2001.
8. Draft Corrective Measures Study Report for SWMU 10. Prepared by Baker Environmental, Inc. Dated July 6, 2001.
9. Final RCRA Facility Investigation Report for SWMU 53 and 54. Prepared by Baker Environmental, Inc. Dated September 30, 2002.
10. Revised Final RCRA Facility Investigation Report for SWMU 3. Prepared by Baker Environmental, Inc. Dated March 18, 2003.
11. Final Additional Data Collection Investigation Report for Tow Way Fuel Farm. Prepared by Baker Environmental, Inc. Dated April 22, 2003.

12. Final Corrective Measures Study Task I Report for Tow Way Fuel Farm. Prepared by Baker Environmental, Inc. Dated April 22, 2003.
13. Final Groundwater Model Report for Tow Way Fuel Farm. Prepared by Baker Environmental, Inc. Dated April 22, 2003.
14. Final Corrective Measures Study Investigation Report for SWMU 9. Prepared by Baker Environmental, Inc. Dated April 25, 2003.

### **Attachment III**

#### **SCOPE OF WORK FOR A FULL RCRA FACILITY INVESTIGATION (RFI)**

##### **I. PURPOSE**

The purpose of the RCRA Facility Investigation is to determine the nature, rate, direction and extent of releases of hazardous waste, including hazardous constituents, from solid waste management units and other source areas at the facility including areas off-site impacted by the release(s) from the facility, and to gather all necessary data to support the Corrective Measures Study. The Respondent shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RCRA corrective measure.

##### **II. SCOPE**

The RCRA Facility Investigation consists of seven tasks:

Task I: Description of Current Conditions

- A. Facility Background
- B. Nature and Extent of Contamination
- C. Implementation of Interim Measures

Task II: Pre-Investigation Evaluation of Corrective Measure Technologies

Task III: RFI Management Plans

- A. Project Management Plan
- B. Data Collection Quality Assurance Plan
- C. Data Management Plan
- D. Health and Safety Plan
- E. Community Relations Plan

Task IV: Facility Investigation

- A. Environmental Setting
- B. Source Characterization
- C. Contamination Characterization
- D. Potential Receptor Identification

Task V: Investigation Analysis

- A. Data Analysis
- B. Protection Standards

Task VI: Laboratory and Bench-Scale Studies

Task VII: Reports

- A. Progress
- B. Draft and Final

### III. TASK I: DESCRIPTION OF CURRENT CONDITIONS

The Respondent shall submit for EPA approval a report providing the background information pertinent to the facility, contamination and interim measures as set forth below. The data gathered during any previous investigations or inspections and other relevant data shall be included. The report must include, at a minimum, the following information:

#### A. Facility Background

The Respondent's report shall summarize the regional location, pertinent boundary features, general facility physiography, hydrogeology, and historical use of the facility for the treatment, storage or disposal of solid and hazardous waste. The Respondent's report shall include:

1. Map(s) depicting the following:

- (a) General geographic location;
- (b) Property lines, with the owners of all adjacent property clearly indicated;
- (c) Topography and surface drainage (with a contour interval of two (2) feet and a scale of 1 inch = 100 feet) depicting all waterways, wetlands, floodplains, water features, drainage patterns, and surface-water containment areas;
- (d) All tanks, buildings, utilities, paved areas, easements, rights-of-way, and other features;

- (e) All solid or hazardous waste treatment, storage or disposal areas active after November 19, 1980;
- (f) All known past solid or hazardous waste treatment, storage or disposal areas regardless of whether they were active on or after November 19, 1980;
- (g) All known past and present product and waste underground tanks or piping;
- (h) Surrounding land uses (residential, commercial, agricultural, recreational); and
- (i) The location of all production and groundwater monitoring wells. These wells shall be clearly labeled and ground and top of casing elevations and construction details included (these elevations and details may be included as an attachment).

All maps shall be consistent with the requirements set forth in 40 CFR 270.14 and be of sufficient detail and accuracy to locate and report all current and future work performed at the site;

- 2. A history and description of ownership and operation, solid and hazardous waste generation, treatment, storage and disposal activities at the facility;
- 3. Approximate dates or periods of past product and waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, state, or federal response units or private parties), including any inspection reports or technical reports generated as a result of the response; and
- 4. A summary of past permits requested and/or received, any enforcement actions and their subsequent responses and a list of documents and studies prepared for the facility.

B. Nature and Extent of Contamination

1. The Respondent's report shall summarize all possible source areas of contamination. This, at a minimum, should include all regulated units, solid waste management units, spill areas, and other suspected source areas of contamination. For each area, the Respondent shall identify the following:
  - (a) Location of unit/area (which shall be depicted on a facility map);
  - (b) Quantities of solid and hazardous wastes;
  - (c) Hazardous waste or constituents, to the extent known; and
  - (d) Identification of areas where additional information is necessary.
2. The Respondent shall prepare an assessment and description of the existing degree and extent of contamination. This should include:
  - (a) Available monitoring data and qualitative information on locations and levels of contamination at the facility;
  - (b) All potential migration pathways including information on geology, petrology, hydrogeology, physiography, hydrology, water quality, meteorology, and air quality; and
  - (c) The potential impact(s) on human health and the environment, including demography, groundwater and surface-water use, and land use.

C. Implementation of Interim Corrective Measures

The Respondent's report shall document interim corrective measures which were or are being undertaken at the facility. This shall include:

1. Objectives of the interim corrective measures: how the measure is mitigating a potential threat to human health and the environment and/or is consistent with

and integrated into any long term solution at the facility;

2. Design, construction, operation, and maintenance requirements;
3. Schedules for design, construction and monitoring; and
4. Schedule for progress reports.

#### IV. TASK II: PRE-INVESTIGATION EVALUATION OF CORRECTIVE MEASURE TECHNOLOGIES

The Respondent shall submit a report that identifies the potential corrective measure technologies that may be used on-site or off-site for the containment, treatment, remediation, and/or disposal of contamination. This report shall also identify any field data that needs to be collected in the facility investigation to facilitate the evaluation and selection of the final corrective measure or measures (e.g., compatibility of waste and construction materials, information to evaluate effectiveness, treatability of wastes, etc.).

#### V. TASK III: RFI MANAGEMENT PLANS

The Respondent shall submit RFI Management Plans. These Plans shall be followed during the implementation of RFI, and will be part of the RFI Workplan. During the RFI, these Management Plans may be necessary for revisions depending on the detail of information collected to accommodate the facility specific situation. The RFI Management Plans include the following:

##### A. Project Management Plan

The Respondent shall prepare a Project Management Plan which will include a discussion of the technical approach, schedules, budget, and personnel. The Project Management Plan will also include a description of qualifications of personnel performing or directing the RFI, including contractor personnel. This plan shall



also document the overall management approach to the RCRA Facility Investigation.

B. Data Collection Quality Assurance Plan

The Respondent shall prepare a plan to document all monitoring procedures: sampling, field measurements, and sample analysis performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data and resulting decisions are technically sound, statistically valid, and properly documented.

1. Data Collection Strategy

The strategy section of the Data Collection Quality Assurance Plan shall include but not be limited to the following:

- (a) Description of the intended uses for the data, and the necessary level of precision and accuracy for these intended uses;
- (b) Description of methods and procedures to be used to assess the precision, accuracy and completeness of the measurement data;
- (c) Description of the rationale used to assure that the data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition or an environmental condition. Examples of factors which shall be considered and discussed include:
  - (i) Environmental conditions at the time of sampling;
  - (ii) Number of sampling points;
  - (iii) Representativeness of selected media; and
  - (iv) Representativeness of selected analytical parameters.

- (d) Description of the measures to be taken to assure that the following data sets can be compared to each other:
  - (i) RFI data generated by the Respondent over some time period;
  - (ii) RFI data generated by an outside laboratory or consultant versus data generated by the Respondent;
  - (iii) Data generated by separate consultants or laboratories; and
  - (iv) Data generated by an outside consultant or laboratory over some time period.
- (e) Details relating to the schedule and information to be provided in quality assurance reports. The reports should include but not be limited to:
  - (i) Periodic assessment of measurement data accuracy, precision, and completeness;
  - (ii) Results of performance audits;
  - (iii) Results of system audits;
  - (iv) Significant quality assurance problems and recommended solutions; and
  - (v) Resolutions of previously stated problems.

## 2. Sampling

The Sampling section of the Data Collection Quality Assurance Plan shall discuss:

- (a) Selecting appropriate sampling locations, depths, etc.;
- (b) Providing a statistically sufficient number of sampling sites;
- (c) Measuring all necessary ancillary data;

- (d) Determining conditions under which sampling should be conducted;
- (e) Determining which media are to be sampled (e.g., groundwater, air, soil, sediment, etc.);
- (f) Determining which parameters are to be measured and where;
- (g) Selecting the frequency of sampling and length of sampling period;
- (h) Selecting the types of sample (e.g., composites vs. grabs) and number of samples to be collected;
- (i) Measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points;
- (j) Documenting field sampling operations and procedures, including;
  - (i) Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, and adsorbing reagents);
  - (ii) Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;
  - (iii) Documentation of specific sample preservation method;
  - (iv) Calibration of field devices;
  - (v) Collection of replicate samples;
  - (vi) Submission of field-biased blanks, where appropriate;
  - (vii) Potential interferences present at the facility;

- (viii) Construction materials and techniques, associated with monitoring wells and piezometers;
- (ix) Field equipment listing and sample containers;
- (x) Sampling order; and
- (xi) Decontamination procedures.
- (k) Selecting appropriate sample containers;
- (l) Sample preservation; and
- (m) Chain-of-custody, including:
  - (i) Standardized field tracking reporting forms to establish sample custody in the field prior to and during shipment; and
  - (ii) Pre-prepared sample labels containing all information necessary for effective sample tracking.

### 3. Field Measurements

The Field Measurements section of the Data Collection Quality Assurance Plan shall discuss:

- (a) Selecting appropriate field measurement locations, depths, etc.;
- (b) Providing a statistically sufficient number of field measurements;
- (c) Measuring all necessary ancillary data;
- (d) Determining conditions under which field measurements should be conducted;
- (e) Determining which media are to be addressed by appropriate field measurements (e.g., groundwater, air, soil, sediment, etc.);

- (f) Determining which parameters are to be measured and where;
- (g) Selecting the frequency of field measurement and length of field measurements period; and
- (h) Documenting field measurement operations and procedures, including:
  - (i) Procedures and forms for recording raw data and the exact location, time, and facility-specific considerations associated with the data acquisition;
  - (ii) Calibration of field devices;
  - (iii) Collection of replicate measurements;
  - (iv) Submission of field-biased blanks, where appropriate;
  - (v) Potential interferences present at the facility;
  - (vi) Construction materials and techniques associated with monitoring wells and piezometers used to collect field data;
  - (vii) Field equipment listing;
  - (viii) Order in which field measurements were made; and
  - (ix) Decontamination procedures.

#### 4. Sample Analysis

The Sample Analysis section of the Data Collection Quality Assurance Plan shall specify the following:

- (a) Chain-of-custody procedures, including:
  - (i) Identification of a responsible party to act as sample custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipment,

and verify the data entered onto the sample custody records;

- (ii) Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and
  - (iii) Specification of laboratory sample custody procedures for sample handling, storage, and dispersement for analysis.
- (b) Sample storage procedures and storage times;
- (c) Sample preparation methods;
- (d) Analytical procedures, including:
- (i) Scope and application of the procedure;
  - (ii) Sample matrix;
  - (iii) Potential interferences;
  - (iv) Precision and accuracy of the methodology; and
  - (v) Method detection limits.
- (e) Calibration procedures and frequency;
- ion, validation and reporting;
- quality control checks, laboratory
- performance and systems audits and frequency, including:
- (i) Method blank(s);
  - (ii) Laboratory control sample(s);
  - (iii) Calibration check sample(s);
  - (iv) Replicate sample(s);
  - (v) Matrix-spiked sample(s);

- (vi) "Blind" quality control sample(s);
  - (vii) Control charts;
  - (viii) Surrogate samples;
  - (ix) Zero and span gases; and
  - (x) Reagent quality control checks.
- (h) Preventive maintenance procedures and schedules;
  - (i) Corrective action (for laboratory problems); and
  - (j) Turnaround time.

#### C. Data Management Plan

The Respondent shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

##### 1. Data Record

The data record shall include the following:

- (a) Unique sample or field measurement code;
- (b) Sampling or field measurement location and sample or measurement type;
- (c) Sampling or field measurement raw data;
- (d) Laboratory analysis ID number;
- (e) Property or component measured; and
- (f) Result of analysis (e.g., concentration).

## 2. Tabular Displays

The following data shall be presented in tabular displays:

- (a) Unsorted (raw) data;
- (b) Results for each medium, or for each constituent monitored;
- (c) Data reduction for statistical analysis;
- (d) Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and
- (e) Summary data.

## 3. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transacts, three dimensional graphs, etc.):

- (a) Display sampling location and sampling grid;
- (b) Indicate boundaries of sampling area, and areas where more data are required;
- (c) Display levels of contamination at each sampling location;
- (d) Display geographical extent of contamination;
- (e) Display contamination levels, averages, and maxima;
- (f) Illustrate changes in concentration in relation to distance from the source, time, depth or other parameters; and
- (g) Indicate features affecting intramedia transport and show potential receptors.

## D. Health and Safety Plan



The Respondent shall prepare a facility Health and Safety Plan.

1. Major elements of the Health and Safety Plan shall include:
  - (a) Facility description including availability of resources such as roads, water supply, electricity and telephone service;
  - (b) Describe the known hazards and evaluate the risks associated with the incident and with each activity conducted;
  - (c) List key personnel and alternates responsible for site safety, response operations, and for protection of public health;
  - (d) Delineate work areas;
  - (e) Describe levels of protection to be worn by personnel in work areas;
  - (f) Establish procedures to control site access;
  - (g) Describe decontamination procedures for personnel and equipment;
  - (h) Establish site emergency procedures;
  - (i) Address emergency medical care for injuries and toxicological problems;
  - (j) Describe requirements for an environmental surveillance program;
  - (k) Specify any routine and special training required for responders; and
  - (l) Establish procedures for protecting workers from weather-related problems.
2. The Facility Health and Safety Plan shall be consistent with:

- (a) NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);
- (b) EPA Order 1440.1 - Respiratory Protection;
- (c) EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;
- (d) Facility Contingency Plan;
- (e) EPA Standard Operating Safety Guide (1984);
- (f) OSHA regulations particularly in 29 CFR 1910 and 1926;
- (g) State, local, and other federal agency (e.g., DOD, DOE) regulations; and
- (h) Other EPA guidance as provided.

E. Community Relations Plan

The Respondent shall prepare a plan, for the dissemination of information to the public regarding investigation activities and results.

VI. TASK IV: RCRA FACILITY INVESTIGATION (RFI)

The Respondent shall conduct those investigations necessary to: characterize the facility (Environmental Setting); define the source (Source Characterization); define the degree and extent of contamination (Contamination Characterization); and identify actual or potential receptors.

The RFI should result in data of adequate technical quality to support the development and evaluation of the corrective measure alternative or alternatives during the Corrective Measures Study ("CMS").

The RFI activities shall follow the plans set forth in Task III. All sampling and analyses shall be conducted in accordance with the Data Collection Quality Assurance Plan. All sampling locations shall be documented in a log and identified on a detailed site map.

## A. Environmental Setting

The Respondent shall collect information to supplement and verify existing information on the environmental setting at the facility. The Respondent shall characterize the following:

### 1. Hydrogeology

The Respondent shall conduct a program to evaluate hydrogeologic conditions at the facility. This program shall provide the following information:

- (a) A description of the regional and facility specific geologic and hydrogeologic characteristics affecting groundwater flow beneath the facility, including:
  - (i) Regional and facility specific stratigraphy: description of strata including strike and dip, identification of stratigraphic contacts;
  - (ii) Structural geology: description of local and regional structural features (e.g., folding, faulting, tilting, jointing, etc.);
  - (iii) Depositional history;
  - (iv) Identification and characterization of areas and amounts of recharge and discharge;
  - (v) Regional and facility specific groundwater flow patterns; and
  - (vi) Characterize seasonal variations in the groundwater flow regime.
- (b) An analysis of any topographic features that might influence the groundwater flow system. (Note: Stereographic analysis of aerial photographs may aid in this analysis).
- (c) Based on field data, test, and cores, a representative and accurate classification and description of the hydrogeologic units which

may be part of the migration pathways at the facility (i.e., the aquifers and any intervening saturated and unsaturated units), including:

- (i) Hydraulic conductivity and porosity (total and effective);
  - (ii) Lithology, grain size, sorting, degree of cementation;
  - (iii) An interpretation of hydraulic interconnections between saturated zones; and
  - (iv) The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content etc.).
- (d) Based on field studies and cores, structural geology, and hydrogeologic cross sections showing the extent (depth, thickness, lateral extent) of hydrogeologic units which may be part of the migration pathways identifying:
- (i) Sand and gravel deposits in unconsolidated deposits;
  - (ii) Zones of fracturing or channeling in consolidated or unconsolidated deposits;
  - (iii) Zones of higher permeability or low permeability that might direct and restrict the flow of contaminants;
  - (iv) The uppermost aquifer: geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs; and
  - (v) Water-bearing zones above the first confining layer that may serve as a pathway for contaminant migration including perched zones of saturation.

- (e) Based on data obtained from groundwater monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:
  - (i) Water-level contour and/or potentiometric maps;
  - (ii) Hydrologic cross sections showing vertical gradients;
  - (iii) The flow system, including the vertical and horizontal components of flow; and
  - (iv) Any temporal changes in hydraulic gradients, for example, due to tidal or seasonal influences.
- (f) A description of manmade influences that may affect the hydrogeology of the site, identifying:
  - (i) Active and inactive local water-supply and production wells with an approximate schedule of pumping; and
  - (ii) Manmade hydraulic structures (pipelines, french drains, ditches, unlined ponds, septic tanks, NPDES outfalls, retention areas, etc.).

## 2. Soils

The Respondent shall conduct a program to characterize the soil and rock units above the water table in the vicinity of the contaminant release(s). Such characterization shall include but not be limited to, the following information:

- (a) SCS soil classification;
- (b) Surface soil distribution;

- (c) Soil profile, including ASTM classification of soils;
- (d) Transacts of soil stratigraphy;
- (e) Hydraulic conductivity (saturated and unsaturated);
- (f) Relative permeability;
- Bulk density;
- Porosity;
- Water absorptive capacity;
- (j) Exchange capacity (CEC);
- (1) Soil pH;
- Particle size distribution;
- Depth of
- (o) Moisture content;
- Effect of stratification on unsaturated flow;
- Infiltration
- Evaporation;
- (p) Storage capacity;
- (t) Vertical flow
- (u) Mineral content

and Sediment

shall conduct a program to characterize the surface water bodies within 5 mi of the facility. Such characterization shall

include, but not be limited to, the following activities and information:

- (a) Description of the temporal and permanent surface-water bodies including:
  - (i) For lakes and estuaries: location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume;
  - (ii) For impoundments: location, elevation, surface area, depth, volume, freeboard, and purpose of impoundment;
  - (iii) For streams, ditches, drains, swamps and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, and flooding tendencies (i.e., 100 year event);
  - (iv) Drainage patterns; and
  - (v) Evapotranspiration.
- (b) Description of the chemistry of the natural surface water and sediments. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients ( $\text{NH}_3$ ,  $\text{NO}_3^-/\text{NO}_2^-$ ,  $\text{PO}_4^{3-}$ ), chemical oxygen demand, total organic carbon, specific contaminant concentrations, etc.
- (c) Description of sediment characteristics including:
  - (i) Deposition area;
  - (ii) Thickness profile; and
  - (iii) Physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange capacity, pH, etc.)

#### B. Source Characterization

The Respondent shall collect analytical data to completely characterize the wastes and the areas where wastes have been placed, collected or removed including: type; quantity; physical form; disposition (containment or nature of deposits); and facility characteristics affecting release (e.g., facility security, and engineered barriers). This shall include quantification of the following specific characteristics at each source area:

1. Unit/Disposal Area characteristics:

- (a) Location of unit/disposal area;
- (b) Type of unit/disposal area;
- (c) Design features;
- (d) Operating practices (past and present);
- (e) Period of operation;
- (f) Age of unit/disposal area;
- (g) General physical conditions; and
- (h) Method used to close the unit/disposal area.

2. Waste Characteristics:

- (a) Type of waste placed in the unit;
  - (i) Hazardous classification (e.g., flammable, reactive, corrosive, oxidizing, or reducing agent);
  - (ii) Quantity; and
  - (iii) Chemical composition.
- (b) Physical and chemical characteristics;
  - (i) Physical form (solid, liquid, gas);
  - (ii) Physical description (e.g., powder, oily sludge);



- (iii) Temperature;
  - (iv) pH;
  - (v) General chemical class (e.g., acid, base, solvent);
  - (vi) Molecular weight;
  - (vii) Density;
  - (viii) Boiling point;
  - (ix) Viscosity;
  - (x) Solubility in water;
  - (xi) Cohesiveness of the waste;
  - (xii) Vapor pressure.
  - (xiii) Flash point
- (c) Migration and dispersal characteristics of the waste;
- (i) Sorption;
  - (ii) Biodegradability, bioconcentration, biotransformation;
  - (iii) Photodegradation rates;
  - (iv) Hydrolysis rates; and
  - (v) Chemical transformations.

The Respondent shall document the procedures used in making the above determinations.

C. Contamination Characterization

The Respondent shall collect analytical data on groundwater, soils, and/or surface water/sediment contamination in the vicinity of the facility. This data shall be sufficient to define the extent, origin,

direction, and rate of movement of contaminant plumes. Data shall include time and location of sampling, media sampled, concentrations found, and conditions during sampling, and the identity of the individuals performing the sampling and analysis. The Respondent shall address the following types of contamination at the facility:

#### 1. Groundwater Contamination

The Respondent shall conduct a groundwater investigation to characterize any plumes of contamination at the facility. This investigation shall, at a minimum, provide the following information:

- (a) A description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the facility;
- (b) The horizontal and vertical direction of contamination movement;
- (c) The velocity of contaminant movement;
- (d) The horizontal and vertical concentration profiles of chemical contaminants;
- (e) An evaluation of factors influencing the plume movement; and
- (f) An extrapolation of future contaminant movement.

The Respondent shall document the procedures used in making the above determinations (e.g., well design, well construction, geophysics, modeling, etc.).

#### 2. Soil Contamination

The Respondent shall conduct an investigation to characterize the contamination of the soil above the water table in the vicinity of the contaminant release(s). The investigation shall include the following information:

- (a) A description of the vertical and horizontal extent of contamination.
- (b) A description of contaminant and soil chemical properties within the contaminant source area and plume. This includes contaminant solubility, specification, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation, and other factors that might affect contaminant migration and transformation.
- (c) Specific contaminant concentrations.
- (d) The velocity and direction of contaminant movement.
- (e) An extrapolation of future contaminant movement.

The Respondent shall document the procedures used in making the above determinations.

### 3. Surface-Water and Sediment Contamination

The Respondent shall conduct a surface-water and sediment investigation to characterize potential contamination in surface-water bodies and sediments resulting from the contaminant release(s) by the facility. The investigation shall include, but not be limited to, the following information:

- (a) A description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the facility, and the extent of contamination in underlying sediments;
- (b) The horizontal and vertical direction of contaminant movement;
- (c) The contaminant velocity;
- (d) An evaluation of the physical, biological and chemical factors influencing contaminant movement;

- (e) An extrapolation of future contaminant movement; and
- (f) A description of the chemistry of the contaminated surface waters and sediments. This includes determining the pH, total dissolved solids, specific contaminant concentrations, etc.;

The Respondent shall document the procedures used in making the above determinations.

D. Potential Receptors

The Respondent shall collect data describing the human populations and environmental systems that are susceptible to contaminant exposure from the facility. Chemical analysis of biological samples may be needed. Data on observable effects in ecosystems may also be obtained. The following characteristics shall be identified:

1. Local uses and possible future uses of groundwater:
  - (a) Type of use (e.g., drinking water source: municipal or residential, agricultural, domestic/non-potable, and industrial); and
  - (b) Location of groundwater users including wells and discharge areas.
2. Local uses and possible future uses of surface waters draining the facility:
  - (a) Domestic and municipal (e.g., potable and lawn/gardening watering);
  - (b) Recreational (e.g., swimming, fishing);
  - (c) Agricultural;
  - (d) Industrial; and
  - (e) Environmental (e.g., fish and wildlife propagation).

3. Human use of or access to the facility and adjacent lands, including but not limited to:
  - (a) Recreation;
  - (b) Hunting;
  - (c) Residential;
  - (d) Commercial;
  - (e) Zoning; and
  - (f) Relationship between population locations and prevailing wind direction.
4. A description of the biota in surface water bodies on, adjacent to, or affected by the facility.
5. A description of the ecology overlying and adjacent to the facility.
6. A demographic profile of the people who use or have access to the facility and adjacent land, including, but not limited to: age; sex; and sensitive subgroups.
7. A description of any endangered or threatened species near the facility.

#### VII. TASK V: RCRA FACILITY INVESTIGATION ANALYSIS

The Respondent shall prepare an analysis and summary of all facility investigations and their results. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, potential threat to human health and/ or the environment, and to support the Corrective Measures Study.

##### A. Data Analysis

The Respondent shall analyze all facility investigation data outlined in Task IV and prepare a report on the type and extent of contamination at the facility including

sources and migration pathways. The report shall describe the extent of contamination (qualitative/quantitative) in relation to background levels indicative for the area.

B. Protection Standards

The Respondent shall identify all relevant and applicable standards for the protection of human health and the environment (e.g., National Ambient Air Quality Standards, federally-approved water quality standards, etc.).

VIII. TASK VI: LABORATORY AND BENCH-SCALE STUDIES

The Respondent shall conduct laboratory and/or bench scale studies to determine the applicability of a corrective measure technology or technologies to facility conditions. The Respondent shall analyze the technologies, based on literature review, vendor contracts, and past experience to determine the testing requirements.

The Respondent shall develop a testing plan identifying the types(s) and goal(s) of the study(s), the level of effort needed, and the procedures to be used for data management and interpretation.

Upon completion of the testing, the Respondent shall evaluate the testing results to assess the technology or technologies with respect to the site-specific questions identified in the test plan.

The Respondent shall prepare a report summarizing the testing program and its results, both positive and negative.

IX. TASK VII: REPORTS

A. Progress

The Respondent shall provide the EPA with signed, quarterly progress reports.

B. Draft and Final

The Respondent shall prepare and submit a RCRA Facility Investigation ("RFI") Report. The RFI Report shall

present all information gathered under the approved RFI  
Workplan.

## ATTACHMENT IV

### SCOPE OF WORK FOR A CORRECTIVE MEASURE STUDY

#### I. PURPOSE

The purpose of the Corrective Measure Study (CMS) is to develop and evaluate the corrective action alternative or alternatives and to recommend the corrective measure or measures to be taken. The Respondent will furnish the personnel, materials, and services necessary to prepare the corrective measure study, except as otherwise specified.

#### II. SCOPE

The Corrective Measure Study consists of four tasks:

Task I: Identification and Development of the Corrective Measure Alternative or Alternatives

- A. Description of Current Situation
- B. Establishment of Corrective Action Objectives
- C. Screening of Corrective Measures Technologies
- D. Identification of the Corrective Measure Alternative or Alternatives

Task II: Evaluation of the Corrective Measure Alternative or Alternatives

- A. Technical/Environmental/Human Health/Institutional
- B. Cost Estimate

Task III: Justification and Recommendation of the Corrective Measure or Measures

- A. Technical
- B. Environmental
- C. Human Health

Task IV: Reports

- A. Progress
- B. Final

#### III. TASK I: IDENTIFICATION AND DEVELOPMENT OF THE CORRECTIVE ACTION ALTERNATIVE OR ALTERNATIVES



Based on the results of the RCRA Facility Investigation and consideration of the identified Preliminary Corrective Measure Technologies (Task II of Appendix A of this Permit), the Respondent shall identify, screen, and develop the alternative or alternatives for removal, containment, treatment and/or other remediation of the contamination based on the objectives established for the corrective action.

A. Description of Current Situation

The Respondent shall submit an update to the information describing the current situation at the facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation Report. The Respondent shall provide an update to information presented in Task I of the RFI to the Agency regarding previous response activities and any interim measures which have or are being implemented at the facility. The Respondent shall also make a facility-specific statement of the purpose for the response, based on the results of the RCRA Facility Investigation ("RFI"). The statement of purpose should identify the actual or potential exposure pathways that should be addressed by corrective measures.

B. Establishment of Corrective Action Objectives

The Respondent, in conjunction with EPA, shall establish site specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RFI, EPA guidance, and the requirements of any applicable federal statutes. At a minimum, all corrective actions concerning groundwater releases from regulated units must be consistent with, and as stringent as, those required under 40 CFR §264.100.

C. Screening of Corrective Measure Technologies

The Respondent shall review the results of the RFI and reassess the technologies specified in Task II and identify additional technologies which are applicable at the facility. The Respondent shall screen the preliminary corrective measure technologies identified

in Task II of the RFI and any supplemental technologies to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective measure objective within a reasonable time period. This screening process focuses on eliminating those technologies which have severe limitations for a given set of waste and site-specific conditions. The screening step may also eliminate technologies based on inherent technology limitations. Site, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

1. Site Characteristics

Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration;

2. Waste Characteristics

Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these waste characteristics should be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site); and

3. Technology Limitations

During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field

without extensive technology transfer or development.

D. Identification of the Corrective Measure Alternative or Alternatives

The Respondent shall develop the corrective measure alternative or alternatives based on the corrective action objectives and analysis of the Preliminary Corrective Measure Technologies, as presented in Task II of the RFI and as supplemented following the preparation of the RFI Final Report. The Respondent shall rely on engineering practice to determine which of the previously identified technologies appear most suitable for the site. Technologies can be combined to form the overall corrective action alternative or alternatives. The alternative or alternatives developed should represent a workable number of option(s) that each appear to adequately address all site problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Respondent shall document the reasons for excluding technologies, identified in Task II, as supplemented in the development of the alternative or alternatives.

IV. TASK II: EVALUATION OF THE CORRECTIVE MEASURE ALTERNATIVE OR ALTERNATIVES

The Respondent shall describe each corrective measure alternative that passes through the Initial Screening in Task I of this appendix and evaluate each corrective measure alternative and its components. The evaluation shall be based on technical, environmental, human health and institutional concerns. The Respondent shall also develop cost estimates of each corrective measure.

A. Technical/Environmental/Human Health/Institutional

The Respondent shall provide a description of each corrective measure alternative which includes but is not limited to the following: preliminary process flow sheets; preliminary sizing and type of construction for buildings and structures; and rough quantities of utilities required. The Respondent shall evaluate each alternative in the four following areas:

## 1. Technical

The Respondent shall evaluate each corrective measure alternative based on performance, reliability, implementability and safety.

(a) The Respondent shall evaluate performance based on the effectiveness and useful life of the corrective measure:

(i) Effectiveness shall be evaluated in terms of the ability to perform intended functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. Any specific waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies; and

(ii) Useful life is defined as the length of time the level of effectiveness can be maintained. Most corrective measure technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.

(b) The Respondent shall provide information on the liability of each corrective measure including their operation and maintenance requirements and their demonstrated reliability:

- (i) Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. Technologies requiring frequent or complex operation and maintenance activities should be regarded as less reliable than technologies requiring little or straight forward operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered; and
  - (ii) Demonstrated and expected reliability is a way of measuring the risk and effect of failure. The Respondent should evaluate whether the technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes at the site.
- (c) The Respondent shall describe the implementability of each corrective measure including the relative ease of installation (constructability) and the time required to achieve a given level of response:
- (i) Constructability is determined by conditions both internal and external to the facility conditions and include such items as location of underground utilities, depth to water table, heterogeneity of subsurface materials, and location of the facility (i.e., remote location vs. a congested urban area). The Respondent shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities; and

(ii) Time has two components that shall be addressed: (1) the time it takes to implement a corrective measure and (2) the time it takes to actually see beneficial results. Beneficial results are defined as the reduction of contaminants to some acceptable, pre-established level.

(d) The Respondent shall evaluate each corrective measure alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those to workers during implementation. Among the factors to consider are fire, explosion, and exposure to hazardous substances.

## 2. Environmental

The Respondent shall perform an Environmental Assessment for each alternative. The Environmental Assessment shall focus on the facility conditions and pathways of contamination actually addressed by each alternative. The Environmental Assessment for each alternative will include, at a minimum, an evaluation of: the short and long term beneficial and adverse effects of the response alternative; any adverse effects on environmentally sensitive areas; and an analysis of measures to mitigate adverse effects.

## 3. Human Health

The Respondent shall assess each alternative in terms of the extent to which it mitigates short and long term potential exposure to any residual contamination and protects human health both during and after implementation the corrective measure. The assessment will describe the levels and characterizations of contaminants on-site, potential exposure routes, and potentially affected populations. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. For management of mitigation measures, the relative reduction of impact will be determined by comparing residual

levels of each alternative with existing criteria, standards, or guidelines acceptable to EPA.

4. Institutional

The Respondent shall assess relevant institutional needs for each alternative. Specifically, the effects of Federal, State, and local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative.

B. Cost Estimate

The Respondent shall develop an estimate of the cost of each corrective measure alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital, operation and maintenance costs.

1. Capital costs consist of direct (construction) and indirect (nonconstruction and overhead) costs.

(a) Direct capital costs include:

- (i) Construction costs: Costs of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measure.
- (ii) Equipment costs: Costs of treatment, containment, disposal and/or service equipment necessary to implement the action; these materials remain until the corrective action is complete;

(b) Indirect capital costs include:

- (i) Engineering expenses: Costs of administration, design, construction supervision, drafting, and testing of corrective measure alternatives;
- (ii) Legal fees and license or permit costs: Administrative and technical costs necessary

to obtain licenses and permits for installation and operation;

- (iii) Startup and shakedown costs: Costs incurred during corrective measure startup; and
- (iv) Contingency allowances: Funds to cover costs resulting from unforeseen circumstances, such as adverse weather conditions, strikes, and inadequate facility characterization.

2. Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. The Respondent shall consider the following operation and maintenance cost components:

- (a) Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;
- (b) Maintenance materials and labor costs: Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;
- (c) Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;
- (d) Purchased services: Sampling costs, laboratory fees, and professional fees for which the need can be predicted;
- (e) Disposal and treatment costs: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operations;
- (f) Administrative costs: Costs associated with administration of corrective measure operation and maintenance not included under other categories;



- (g) Insurance, taxes, and licensing costs: Costs of such items as liability and sudden accidental insurance; real estate taxes on purchased land or rights-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;
- (h) Maintenance reserve and contingency funds: Annual payments into escrow funds to cover (1) costs of anticipated replacement or rebuilding of equipment and (2) any large unanticipated operation and maintenance costs; and
- (i) Other costs: Items that do not fit any of the above categories.

V. TASK III: JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURE OR MEASURES

The Respondent shall justify and recommend a corrective measure alternative using technical, human health, and environmental criteria. This recommendation shall include summary tables which allow the alternative or alternatives to be understood easily. Tradeoffs among health risks, environmental effects, and other pertinent factors shall be highlighted. The EPA will select the corrective measure alternative or alternatives to be implemented based on the results of Tasks II and III of this appendix. At a minimum, the following criteria will be used to justify the final corrective measure or measures.

A. Technical

1. Performance - corrective measure or measures which are most effective at performing their intended functions and maintaining the performance over extended periods of time will be given preference;
2. Reliability - corrective measure or measures which do not require frequent or complex operation and maintenance activities and that have proven effective under waste and facility conditions similar to those anticipated will be given preference;

3. Implementability - corrective measure or measures which can be constructed and operated to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time will be preferred; and
4. Safety - corrective measure or measures which pose the least threat to the safety of nearby residents and environments as well as workers during implementation will be preferred.

B. Human Health

The corrective measure or measures must comply with existing EPA criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

C. Environmental

The corrective measure or measures posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment will be favored.

VI. TASK IV:REPORTS

A. Progress

The Respondent shall provide the EPA with signed, quarterly progress reports.

B. Corrective Measures Study ("CMS") Final Report

The Respondent shall prepare a CMS Final Report. The CMS Final Report shall include all information gathered under the approved CMS Workplan. The CMS Final Report shall at a minimum include:

1. A description of the facility;
  - (a) Site topographic map & preliminary layouts.
2. A summary of the corrective measure or measures;

- (a) Description of the corrective measure or measures and rationale for selection;
  - (b) Performance expectations;
  - (c) Preliminary design criteria and rationale;
  - (d) General operation and maintenance requirements; and
  - (e) Long-term monitoring requirements.
3. A summary of the RCRA Facility Investigation and impact on the selected corrective measure or measures;
- (a) Field studies (groundwater, surface-water, soil, air); and
  - (b) Laboratory studies (bench scale, pick scale).
4. Design and Implementation Precautions;
- (a) Special technical problems;
  - (b) Additional engineering data required;
  - (c) Permits and regulatory requirements;
  - (d) Access, easements, right-of-way;
  - (e) Health and safety requirements; and
  - (f) Community relations activities.

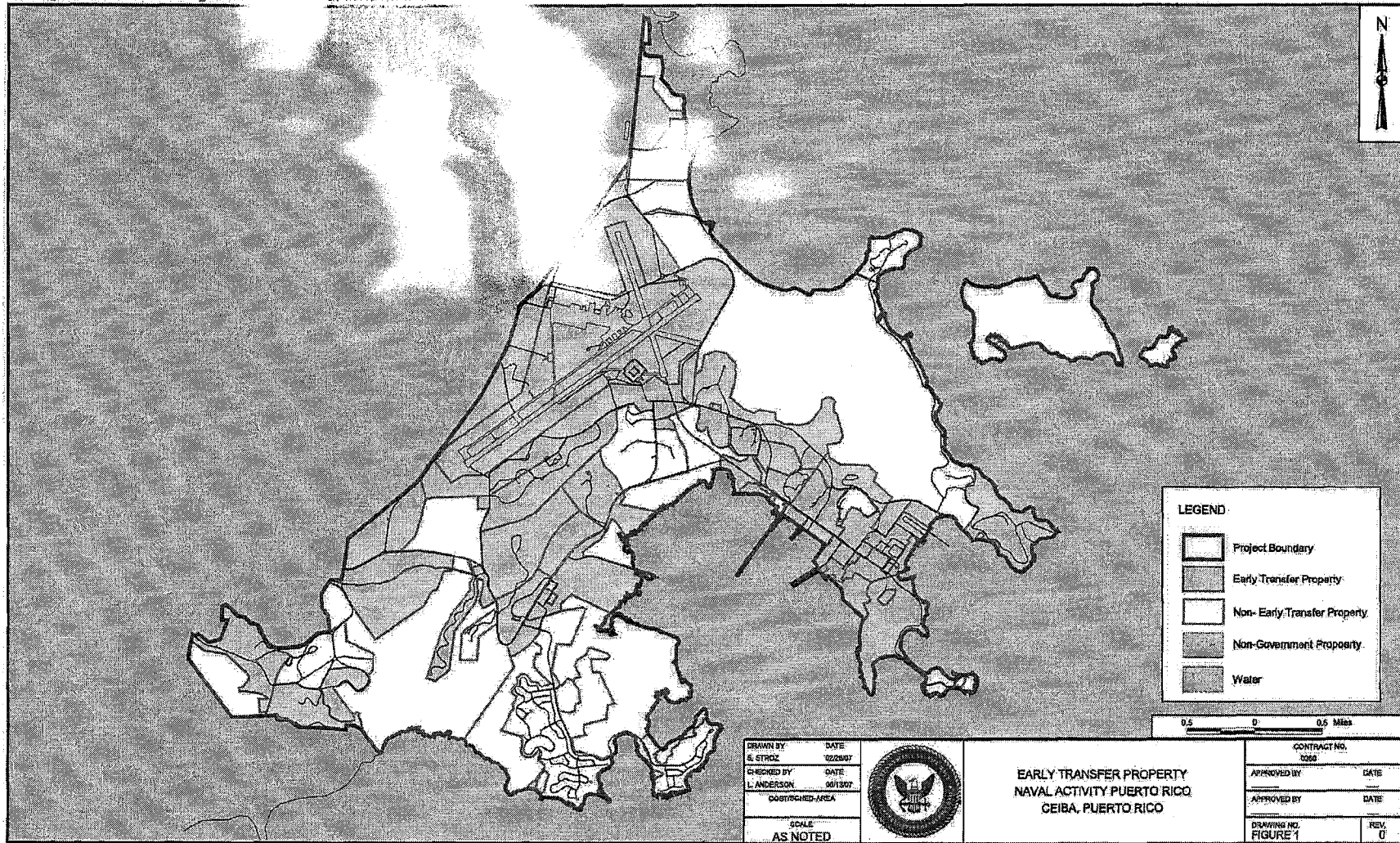
5. Cost Estimates and Schedules;

- (a) Capital cost estimate;
- (b) Operation and maintenance cost estimate; and
- (c) Project schedule (design, construction, operation).

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**EXHIBIT C**  
**EARLY TRANSFER PROPERTY MAP**



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**EXHIBIT D**  
**ENVIRONMENTAL INVESTIGATION AND REMEDIAL ACTION SUMMARY**  
**AND**  
**IRP SITES MAP**

**Naval Activity Puerto Rico  
Early Transfer Property  
Site Investigation and Remedial Action Summary**

SWMU #	AKA	Description	Status in 7003 Order	Investigation and Remedial Action Requirements and Status	Media Affected / Key Contaminants	Proposed Site Specific Land Use Controls
1	IR Site 5	Former Army Cremator Disposal Site	Corrective Measures Study	Draft CMS Final Report due w/in 60 days of all work under the CMS Work Plan. Submitted Final Steps 3b/4 of Baseline Ecological Risk Assessment (BERA) 1/10/07. Initiated Baseline ERA field investigation.	GW, Surface and Subsurface Soil, Sediment - dioxins, metals, pesticides, SVOCs, VOC (RFI-1999)	1, 2, 4
2	IR Site 6	Langley Drive Disposal Area	Corrective Measures Study	Draft CMS Final Report due w/in 60 days of all work under the CMS Work Plan. Submitted Final Steps 3b/4 of BERA 1/10/07. Initiated Baseline ERA field investigation.	GW, Surface and Subsurface Soil, Sediment - metals, pesticides, VOCs, SVOCs (RFI-1999)	1, 2, 4
3	IR Site 7	Base Landfill	Interim Measures/Closure	Landfill Closed and Implementation of Closure Plan Underway. Submit semi-annual rpts w/in 60-days of receiving validated lab data until closure completion notification approved.	GW, Sediment - metals, SVOCs, VOCs	1, 2, 4 and No Development Allowed
7/8	IR Site 12	Tow Way Fuel Farm (incl. free product plumes and sludge disposal pits)	Corrective Measures Study	CMS Approved 2/06; Statement of Basis submitted 4/06; Draft CMS Final Report due w/in 60 days of all work under the CMS Work Plan.	GW, Subsurface and Surface Soil, Sediment - metals, SVOCs, VOCs (Task 1 CMS -2003)	1, 2, 4
9	IR Site 13	Tank 212-217 Sludge Burial Pits	Corrective Measures Study	Submitted Final Phase I RFI WP for Area B Tank 214 Area 1/17/07. Draft CMS Final Report due w/in 60 days of all work under the CMS Work Plan.	GW, Subsurface and Surface Soil, Sediment - metals, SVOCs, VOCs	1, 2, 4
11	IR Site 16	Old Power Plant (Bldg. 38)	Interim Measures	Need to develop documentation that access controls are in place and conduct annual inspection/reports. Controls must prohibit building access and preclude future use of the site unless acceptable clean-up is implemented.	Building Interior - PCBs and ACM	1 and No Access to Building Interior
13	IR Site 18	Old Pest Control Shop (Bldg. 258)	Corrective Measures Implementation	Implement CMI work plan at completion of public comment period. Remediation initiated Spring 2006.	Soil - Pesticides	1, 4
14	IR Site 17	Fire Training Pit Area	RCRA Facility Investigation	Implement RFI WP w/in 60 days of EPA's approval. Draft RFI Report submitted 12/18/06.	Soil, GW - metals, dioxins, vocs, PAHs	1, 2, 4
16		Waste Explosives Storage (Bldg. 1666)	Phase 1 RCRA Facility Investigation	Previously identified as No Further Action in 1994 Permit. Now determined to warrant additional investigation in form of Phase 1 RFI. Phase I RFI work plan approved by the EPA. Draft RFI Report being developed.	Unknown	Interim - No Access
27		Domestic Sewage Treatment Plant (Capehart Area)	Phase 1 RCRA Facility Investigation	Previously identified as No Further Action in 1994 Permit. Now determined to warrant additional investigation in form of a Phase 1 RFI for the sludge drying beds. RFI work plan approved by the EPA. Draft RFI Report being developed.	GW, Soil - metals	1, 2, 4
28		Domestic Sewage Treatment Plant (Bundy Area)	Phase 1 RCRA Facility Investigation	Previously identified as No Further Action in 1994 Permit. Now determined to warrant additional investigation in form of a Phase 1 RFI for the sludge drying beds. RFI work plan approved by the EPA. Draft RFI Report being developed.	GW, Soil - PCBs, metals	1, 2, 4
29		Waste Water Treatment Plant (Industrial Area)	Phase 1 RCRA Facility Investigation	Previously identified as No Further Action in 1994 Permit. Now determined to warrant additional investigation in form of a Phase 1 RFI for the sludge drying beds. RFI work plan approved by the EPA. Draft RFI Report being developed.	Unknown - to be determined during the Phase 1 RFI	1, 2, 4
31	IR Site 26	Waste Oil Collection Area (Bldgs. 31 and 2022)	Corrective Measures Implementation	LRA to implement CMI WP; documentation that acceptable institutional controls are in effect to prevent residential or non-industrial usage	Soil - dioxin, furans	1
32	IR Site 27	PWD Storage Yard/Battery Collection Area	Corrective Measures Implementation	LRA to implement CMI WP; documentation that acceptable institutional controls are in effect to prevent residential or non-industrial usage	Soil - dioxin, furans	1
42		Water Treatment Plant Filter Backwash Lagoons	Phase 1 RCRA Facility Investigation	Previously identified as No Further Action in 1994 Permit. Now determined to warrant additional investigation in form of Phase 1 RFI. Phase I RFI work plan approved by the EPA. Draft RFI Report being developed.	Unknown	Interim - No Access



**Naval Activity Puerto Rico  
Early Transfer Property  
Site Investigation and Remedial Action Summary**

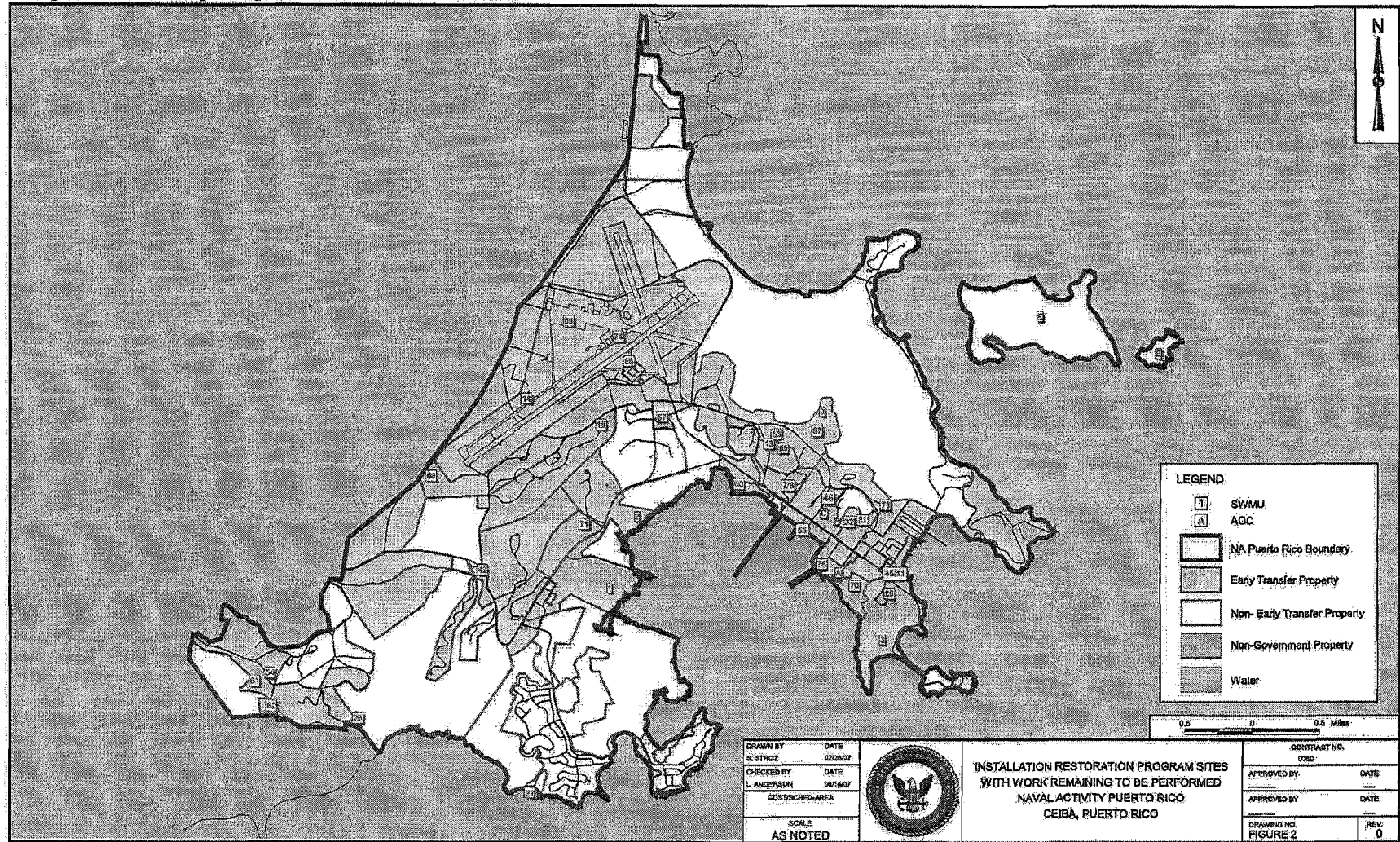
SWMU #	AKA	Description	Status in 7003 Order	Investigation and Remedial Action Requirements and Status	Media Affected / Key Contaminants	Proposed Site Specific Land Use Controls
45	IR Site 16	PCB Spill Area/Old Power Plant	Corrective Measures Study	Draft CMS Final Report due w/in 60 days of all work under the CMS Work Plan. Final Steps 3b/4 BERA approved 8/06. Initiated Baseline ERA field investigation.	GW, Sediments, Subsurface Soil - metals, PCBs, SVOCs	1, 2, 4
46	IR Site 30	Pole Storage Yard Covered Pad	Corrective Measures Implementation	Implement CMI WP at completion of public comment period. Remediation initiated Spring 2006.	Soil - PCBs	1
53		Malaria Control Building (Bldg. 64)	Corrective Measures Implementation (contingent)	Implement CMI WP at completion of public comment period. Remediation completed 2007.	Soil - pesticides	None
54		Former NEX Repair/Maintenance Shop (Bldg. 1914)	Corrective Measures Study	CMS work plans have been approved; complete CMS implementation to address TCE in groundwater.	GW - SVOCs, VOCs	1, 4
55		TCE Plume near Tow Way Fuel Farm (formerly part of SWMU 7)	Corrective Measures Study	Draft CMS Final Report due w/in 60 days of all work under the CMS Work Plan. Need to implement CMS Final Report dated 11/22/05.	GW - TCE	1, 4
56	ECP 2	Hangar 200 Apron	Corrective Measures Study	CMS Work Plan to complete Site Characterization and CMS. LRA to implement the work plan.	Sediments - lead, acetone, PAHs; other metals	1, 2
57	ECP 3	POL Drum Storage Area (Facility No. 278)	RCRA Facility Investigation	Phase 1 RFI work plan required. Needs to be developed.	Soil - arsenic > industrial RBC	1, 2, 4
59	ECP 5	Former Vehicle Maintenance and Refueling Area	Corrective Measures Study	CMS Work Plan to complete Site Characterization and CMS needs to be developed.	Soil - arsenic, chromium, and lead; GW - heptachlor epoxide, barium, and vanadium	1, 2, 4
60	ECP 6	Former Landfill at the Marina	RCRA Facility Investigation	Phase 1 RFI work plan required. Needs to be developed.	Soil, GW - metals; Sediments - metals, pesticides, and PAHs	1, 2, 4
61	ECP 7	Former Bundy Area Maintenance Facilities	Corrective Measures Study	CMS Work Plan to complete Site Characterization and CMS needs to be developed.	Soil - PAHs	1, 2
62	ECP 8	Former Bundy Disposal Area	RCRA Facility Investigation	Phase 1 RFI work plan required. Needs to be developed.	Soil - barium	1, 2
67	ECP 13	Former Gas Station	RCRA Facility Investigation	Phase 1 RFI work plan required. Needs to be developed.	GW - vanadium and mercury	1, 2, 4
68	ECP 14	Former Southern Fire Training Area	RCRA Facility Investigation	Phase 1 RFI work plan approved by the EPA. Draft RFI report being developed.	Soil - lead	1, 2
69	ECP 15	Aircraft Parking Apron	Corrective Measures Study	CMS Work Plan to complete Site Characterization and CMS. LRA to implement the work plan.	Soil - arsenic, barium, cadmium, and lead	1, 2
70	ECP 16	Disposal Area Northwest of Landfill	RCRA Facility Investigation	Phase 1 RFI work plan required. Needs to be developed.	Soil - arsenic, chromium, zinc; GW - Indeno(1,2,3-cd)pyrene, vanadium; Sediments - silver, copper, tin	1, 2, 4
71	ECP 17	Quarry Disposal Site	RCRA Facility Investigation	Phase 1 RFI work plan required. Needs to be developed.	Soil - vanadium, dibenzo(a,h)anthracene, benzo(a)pyrene, vanadium; GW - naphthalene, vanadium	1, 2, 4
73	ECP 19	DRMO Scrap Metal Recycling Yard	Corrective Measures Study	CMS Work Plan to complete Site Characterization and CMS needs to be developed.	Soil - benzo(a)pyrene, pesticides, arsenic, chromium, vanadium; GW - vanadium	1, 2, 4

**Naval Activity Puerto Rico  
Early Transfer Property  
Site Investigation and Remedial Action Summary**

SWMU #	AKA	Description	Status in 7003 Order	Investigation and Remedial Action Requirements and Status	Media Affected / Key Contaminants	Proposed Site Specific Land Use Controls
74	ECP 20	Fuel Pipelines and Hydrant Pits	Corrective Measures Study	CMS Work Plan to complete Site Characterization and CMS. LRA to implement the work plan.	Soil - dibenzo(a,h)anthracene, arsenic, cobalt, chromium, copper, nickel, lead, tin, vanadium, zinc; GW - ethylbenzene, benzene, xylene, copper, vanadium	1, 2, 4
75	ECP 21	Building 803	RCRA Facility Investigation	Phase 1 RFI work plan required. To be implemented by LRA.	Wipe samples from interior surfaces- bis(2-ethylhexyl)phthalate, di-n-butylphthalate, metals	Access to building interior restricted.
AOC A		Torpedo Shop	Phase 1 RCRA Facility Investigation	Previously identified as No Further Action in 1994 Permit. Now determined to warrant additional investigation in form of Phase 1 RFI. Phase 1 RFI work plan approved by the EPA. Draft RFI Report being developed.	Unknown - to be determined during the Phase 1 RFI	1, 2, 4
AOC C	IR Site 32	Transformer Storage Pads (Bldg. 2042)	Corrective Measures Implementation	Implement CMI WP at completion of public comment period. Remediation initiated Spring 2006.	Soil - PCBs	1
<b>Land Use Controls</b>						
1 - Non-Residential Use Only						
2 - Soil and/or Sediment: Access and/or Invasive Activity Restriction						
3 - Surface Water: Access and/or Use Restriction						
4 - Groundwater: Use and Well Installation Restriction						
<b>Acronyms and Abbreviations</b>						
ACM	Asbestos Containing Material					
AKA	Also Known As					
AOC	Area of Concern					
AST	Aboveground Storage Tank					
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes					
CMI	Corrective Measures Implementation					
CMS	Corrective Measures Study					
DRMO	Defense Reutilization Marketing Office					
ECP	Environmental Condition of Property					
EPA	Environmental Protection Agency					
ERA	Ecological Risk Assessment					
IR	Installation Restoration					
GW	Groundwater					
MNA	Monitored Natural Attenuation					
NEX	Navy Exchange					
PAH	Polynuclear Aromatic Hydrocarbon					
PCB	Polychlorinated Biphenyl					
POL	Petroleum, Oils and Lubricants					
RBC	Risk-Based Concentration					
RCRA	Resource Conservation and Recovery Act					
RFI	RCRA Facility Investigation					
SWMU	Solid Waste Management Unit					

**Naval Activity Puerto Rico  
Early Transfer Property  
Site Investigation and Remedial Action Summary**

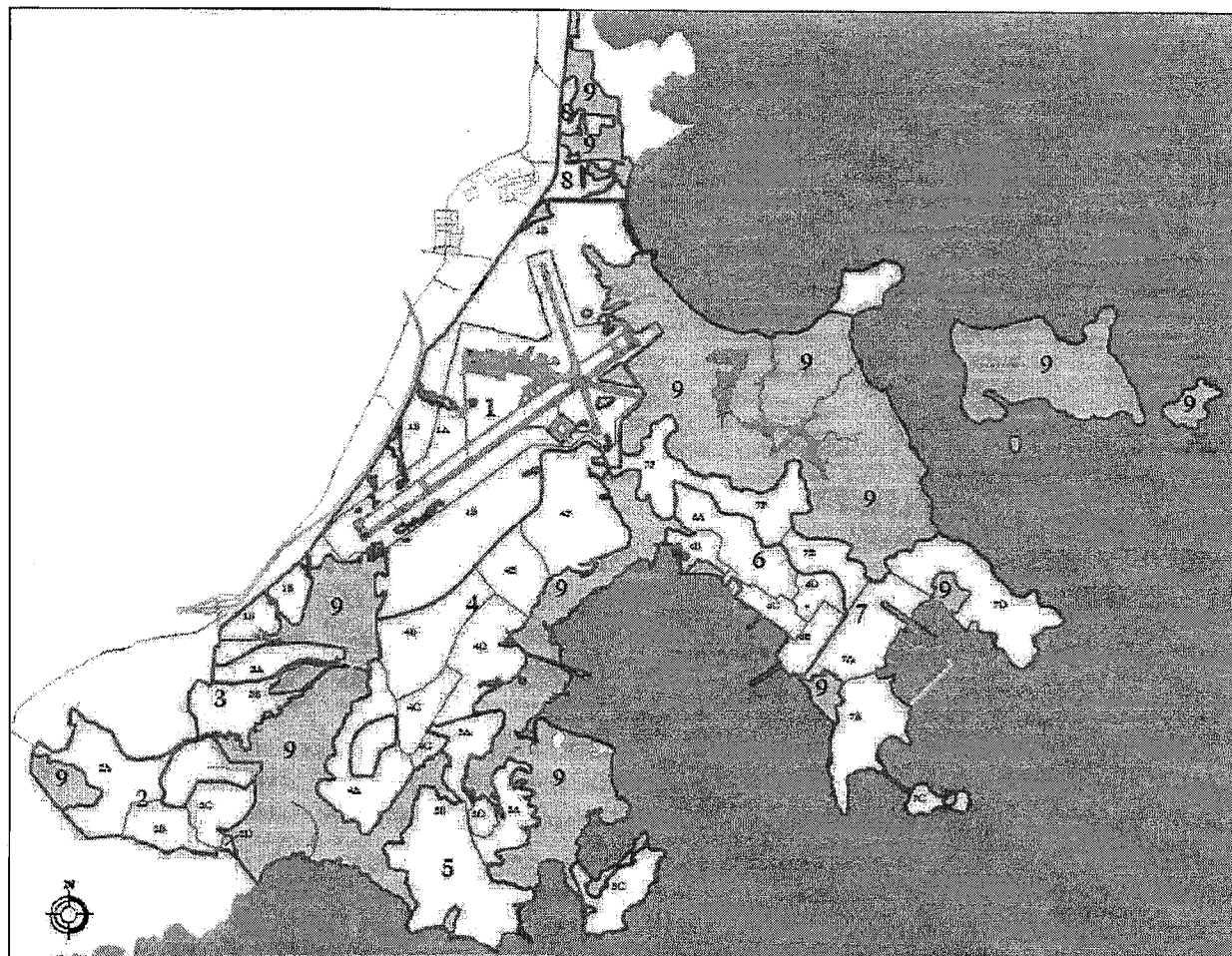
<b>SWMU #</b>	<b>AKA</b>	<b>Description</b>	<b>Status in 7003 Order</b>	<b>Investigation and Remedial Action Requirements and Status</b>	<b>Media Affected / Key Contaminants</b>	<b>Proposed Site Specific Land Use Controls</b>
SVOC	Semi-Volatile Organic Compound					
TCE	Trichloroethene					
TPH	Total Petroleum Hydrocarbons					
UST	Underground Storage Tank					
VOC	Volatile Organic Compound					



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**EXHIBIT E**  
**LAND USE ZONES MAP**



**Land Use Zones Map**

(Source: Figure V.1, Naval Station Roosevelt Roads Reuse Plan, December 2004)

**Zone Description**

- 1 Airport** - Airport, Industrial, Mfg., Distribution
- 2 Bundy** - Moderate Lodging, Residential, Learning and Training Center
- 3 Golf Course** - Public Golf Course, with an expansion to 18 holes
- 4 Downtown** - Mixed Use, University Campus, Public School
- 5 Residential** - Residential, Private School, Recreation Areas
- 6 Port** - Marina, Ferry Terminal, Hospital, Waterfront Commercial
- 7 Science Park** - R & D, Industrial, Mfg., Conference Center, Lodging Facilities, University
- 8 North Gate** - Open Space, Beach and Recreation
- 9 Conservation** - Conservation Areas

**EXHIBIT F**

**CERCLA HAZARDOUS SUBSTANCE  
STORAGE, RELEASE OR DISPOSAL NOTICE  
AND RESPONSE ACTION SUMMARY**



Former Naval Station Roosevelt Roads, Puerto Rico  
Early Transfer Property  
CERCLA Hazardous Substance Notice/Response Action Summary

The table below identifies those hazardous substances that it is known, based upon a complete search of agency files, were stored for one year or more in quantities greater than or equal to 1,000 kg (or greater than or equal to 1 kg if designated an acutely hazardous waste under 40 CFR Part 261.30) and/or were released or disposed of on the property to be transferred in quantities greater than or equal to their respective reportable quantities under 40 CFR 302.4. The information in this notice is required under the authority of regulations promulgated under Section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act. ("CERCLA" or "Superfund"), 42 U.S.C. Section 9620(h).

Bldg or Facility ID	Description	Substance Name	CAS Registry Number	40 CFR 102.4 Regulatory Synonyms	RCRA HW No.	Quantity Stored	Date of Storage	Quantity Released	Date of Release	Response Actions Taken
AQC A	Torpedo Shop	Acetone	67641	2-Propanone	F003, U002	Unknown	1966-2004	Unknown	Unknown	---
		Denatured Ethyl Alcohol	64175	---	D001	Unknown	1966-2004	Unknown	Unknown	---
		Sodium Sulfide	1313844	---	D002	Unknown	1966-2004	Unknown	Unknown	---
		Agentine (petroleum-based solvent)	---	---	D001	Unknown	1966-2004	Unknown	Unknown	---
AQC C	Transformer Storage Area	Polychlorinated Biphenyls	1336363	Aroclors; PCBs	---	Unknown	7-1990s	Unknown	Unknown	---
		Lead	7439921	---	D008	Unknown	7-1990s	Unknown	Unknown	---
		Sulfuric Acid	7664939	---	D002	Unknown	7-1990s	Unknown	Unknown	---
SWMU 1	Former Army Cremator Disposal Site	VOCs, SVOCs, dioxins, metals, herbicides	---	---	---	Unknown	1940s-1960s	Unknown	1940s-Present	---
SWMU 2	Langley Drive Disposal Area	VOCs, SVOCs, dioxins, metals	---	---	---	Unknown	1939-1959	Unknown	1939-Present	---
SWMU 3	Station Landfill	Arsenic	7440382	---	---	Unknown	1960-1978	Unknown	1960-Present	---
		Beryllium	7440417	Beryllium powder	---	Unknown	1960-1978	Unknown	1960-Present	---
		Chromium	7440473	---	---	Unknown	1960-1978	Unknown	1960-Present	---
		Lead	7439921	---	D008	Unknown	1960-1978	Unknown	1960-Present	---
		Selenium	7782492	---	---	Unknown	1960-1978	Unknown	1960-Present	---
		Mercury	7439976	---	U151, D009	Unknown	1960-1978	Unknown	1960-Present	---
		Radium	---	---	---	Unknown	1960-1978	Unknown	1960-Present	---
		Asbestos (friable)	1332214	---	---	Unknown	1962-1972	Unknown	1960-Present	---
		Sulfuric Acid	7664939	---	D002	Unknown	1960-1978	Unknown	1960-Present	---
		Potassium Hydroxide	1310583	---	D002	Unknown	1960-1978	Unknown	1960-Present	---
		Polychlorinated Biphenyls	1336363	Aroclors; PCBs	---	Unknown	1960-1978	Unknown	1960-Present	---
		Waste solvents, cleaning solutions, PQLs	---	---	---	2,500 gallons/year	1960-1973	2,500 gallons/year thru 1973	1960-Present	---
		Automotive Batteries	---	---	D002/D008	2,300 batteries	1960-1973	2,300 batteries	1960-Present	---
		Pesticides	---	---	---	Unknown	1960-1978	Unknown	1960-Present	---
SWMU 8	Tow Way Road Sludge Burial Pits	Lead	7439921	---	D008	Unknown	1972 or 1973 to Present	Unknown	1972 or 1973 to Present	---
		Bunker C Fuel Sludge	---	---	---	3,900-7,500 cubic yards	1972 or 1973 to Present	3,900-7,500 cubic yards	1972 or 1973 to Present	---
SWMU 9	Tank 212-217 Sludge Burial Pits	Lead	7439921	---	D008	Unknown	1940-1978	Unknown	1940-Present	---
		Zinc	7440666	---	---	Unknown	1940-1978	Unknown	1940-Present	---
		Toluene	108888	Benzene, methyl	F005, U220	Unknown	1940-1978	Unknown	1940-Present	---
		Semi-volatile Organic Compounds	---	---	---	Unknown	1940-1978	Unknown	1940-Present	---
SWMU 11	PCB Storage Compound	Lead	---	---	---	34-53,000 gallons	1940-1978	34-53,000 gallons	1940-Present	---
		Polychlorinated Biphenyls	1336363	Aroclors; PCBs	---	< 1,600 gallons	1956-1964	< 1,600 gallons	1956-1964	---
SWMU 13	Old Pest Control Shop	Pesticides	---	---	---	Unknown	1950s-1983	Unknown	1950s-1983	---
		DDT	50293	Benzene, 1,1-(2,2,2-trichloroethylidene)bis[4-chloro-	U061	Unknown	Unknown	Unknown	Unknown	---
		DDD	72548	Benzene, 1,1-(2,2-dichloroethylidene)bis[4-chloro-	---	Unknown	Unknown	Unknown	Unknown	---
		DDE	72559	4,4'-DDE	---	Unknown	Unknown	Unknown	Unknown	---
		Dieldrin	60571	see 40 CFR 302.4	---	Unknown	Unknown	Unknown	Unknown	---
		Cupric Acetoarsenite	12002038	---	---	Unknown	Unknown	Unknown	Unknown	---
		para-dichlorobenzene	106467	Benzene, 1,4-dichloro	U072	Unknown	Unknown	Unknown	Unknown	---



Former Naval Station Roosevelt Roads, Puerto Rico  
Early Transfer Property  
CERCLA Hazardous Substance Notice/Response Action Summary

Bldg or Facility ID	Description	Substance Name	CAS Registry Number	40 CFR 302.4 Regulatory Synonyms	RCRA HW No.	Quantity Stored	Date of Storage	Quantity Released	Date of Release	Response Actions Taken
		Chlordane	57749	Chlordane, alpha & gamma isomers Chlordane (Technical Mixture and Metabolites) 4,7-Methano-1H-isodene, 1,2,4,5,5,7,8,8-octachloro-2,3,3a,4,7,7a-heptachloro-	U038	Unknown	Unknown	Unknown	Unknown	---
		Pentachlorophenol	87865	Phenol, pentachloro-	U242	Unknown	Unknown	Unknown	Unknown	---
		Malathion	121755	---	---	Unknown	Unknown	55 gallons	1976	---
SWMU 14	Fire Training Pit Area	Waste Fuel and Solvents	---	---	D001	1963-1983	120,000 gallons	1963-1983	1963-1983	Removal of contaminated soil during construction of new pit in 1983.
SWMU 31	Waste Oil Collection Area - Buildings 31 and 2022	Waste oil, solvents, degreasers	---	---	---	Unknown	Unknown	Unknown	Unknown	---
SWMU 32	Battery Collection Area (PWD Storage Yard)	Lead	7439921	---	D008	Unknown	Unknown	Unknown	Unknown	---
		Sulfuric Acid	7664939	---	D002	Unknown	Unknown	Unknown	Unknown	---
SWMU 45	PCB Spill Area	Polychlorinated Biphenyls	1336383	Aroclors; PCBs	---	Unknown	1956-1964	1,600 gallons	1956-1964	Interim Measure - soil excavation in 1984 and backfilling of cooling water tunnel with concrete in 1996.
SWMU 46	Pole Storage Yard	Polychlorinated Biphenyls	1336383	Aroclors; PCBs	---	Unknown	Unknown	Unknown	Unknown	---
		HIWAA - see SWMUs 17 & 18	---	---	---	Unknown	1990s	Unknown	Unknown	---
SWMU 53	Malaria Control Building	Malathion	121755	---	---	Unknown	1942-1980	Unknown	Unknown	---
		Aldrin	308002	1,4,5,8-Dimethylnonachlorane 1,2,3,4,10,10,10-heptachloro-1,4,4a,5,8,8a-hexahydro-1,4:4a,8:8a-dibenz[4,5-b:4',5'-]piperidine-2,3-dichloro-	P004	Unknown	1942-1980	Unknown	Unknown	---
		DDT	50293	Benzene, 1,1'-[2,2,2-trichloroethylidene]bis(4-chloro-	U061	Unknown	Unknown	Unknown	Unknown	---
SWMU 54	Former NEX Repair/Maintenance Shop	Trichloroethylene	79016	Trichloroethene Ethene, trichloro	F001, F002, U228	Unknown	1979 - ?	Unknown	Unknown	---
		Benzene	71432	---	U109	Unknown	1979 - ?	Unknown	Unknown	---
		Toluene	106883	Benzene, methyl	F005, U220	Unknown	1979 - ?	Unknown	Unknown	---
SWMU 55	TCE Plume near Tow Way Fuel Farm	Tetrachloroethylene	127184	Ethene, tetrachloro Perchloroethylene	F001, F002, U210	Unknown	Unknown	Unknown	Unknown	---
		Trichloroethylene	79016	Trichloroethene Ethene, trichloro	F001, F002, U228	Unknown	Unknown	Unknown	Unknown	---
SWMU 56	Hangar 200 Apron	POLs and hazardous materials	---	---	---	Unknown	1950s-1990s	Unknown	1950s-1990s	---
SWMU 57	Facility No. 278 POL Drum Storage Area	POLs and hazardous materials	---	---	---	Unknown	1950s-1990s	Unknown	Unknown	---
SWMU 59	Former Vehicle Maintenance and Refueling Area	POLs and hazardous materials	---	---	---	Unknown	1940s-1980s	Unknown	1940s-1980s	---
SWMU 60	Former Landfill at the Marina	Possible hazardous wastes	---	---	---	Unknown	1940s-1960s	Unknown	1940s-1960s	---
SWMU 61	Former Bundy Area Maintenance Facility	POL and hazardous materials	---	---	---	Unknown	1940s-1960s	Unknown	1940s-1960s	---
SWMU 62	Former Bundy Disposal Area	Possible hazardous wastes	---	---	---	Unknown	1958-1961	Unknown	1958-Present	---
SWMU 67	Former Gas Station	POLs and hazardous materials	---	---	---	Unknown	1950s-?	Unknown	Unknown	---
SWMU 68	Former Southern Fire Training Area	POLs and possibly hazardous wastes	---	---	---	Unknown	1950s-1960s	Unknown	1950s-1960s	---
SWMU 69	Aircraft Parking Area	POL and hazardous materials	---	---	---	Unknown	1977-1985	Unknown	1977-1985	---
SWMU 70	Disposal Area Northwest of Landfill	Possible hazardous wastes	---	---	---	Unknown	1976-1983	Unknown	1976-1983	---
SWMU 71	Quarry Disposal Site	Possible POLs and hazardous wastes	---	---	---	Unknown	1976-1983	Unknown	1978-1983	---
SWMU 73	DRMO Scrap Metal Recycling Yard	POLs, pesticides and possibly hazardous materials	---	---	---	Unknown	1970s-2004	Unknown	1970s-2004	---

*Covenant Deferral Request*  
*Former Naval Station Roosevelt Roads, Puerto Rico*

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**EXHIBIT G**  
**PUBLIC NOTICE ADVERTISEMENT**

Sunday, March 25, 2007

## LEGAL NOTICE

# Notice of Availability for Public Review The Covenant Deferral Request for Naval Activity Puerto Rico (Formerly Naval Station Roosevelt Roads)

Pursuant to the findings of an Environmental Assessment, the Navy proposes to transfer portions of Naval Activity Puerto Rico (NAAP), formerly Naval Station Roosevelt Roads (NSRR), to the Commonwealth of Puerto Rico. The transfer of the property is necessary to allow the Navy to complete its environmental cleanup and decommissioning actions. Such a transfer is known as an "early transfer." Early transfers allow new property owners, such as the Commonwealth, to begin development of the property immediately and under the CDR, while the Navy completes its environmental cleanup and decommissioning actions. Early transfer only applies to those portions of property that require additional environmental investigations or cleanup and not to parcels determined to be clean. Because of the various types of proposed property transfers planned, the Navy has subdivided the total 8,831 acres of NAAP into several smaller parcels. Of these subdivided parcels, several contain cleanup sites. If a cleanup site is located within a parcel, then the entire acreage of that parcel is included in the early transfer request. At such, approximately 4,500 acres will be affected by early transfer. A document called a Conditional Deferral Request (CDR) must first be approved by the Governor of Puerto Rico to allow the early transfer to take place in accordance with Section 120(a)(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The Governor's approval must be based on a determination that the property is suitable for transfer for the intended use and measures will be enacted to protect human health and the environment. In addition, the Navy must provide assurances that necessary investigations and cleanup actions will be taken. The purpose of this notice is to inform the public that a draft version of the CDR has been prepared. The next step in the approval process of the CDR is to first present this Draft CDR to the public and invite comment. The Navy will receive the public's comments for 30 days. Your comments will then be addressed as appropriate and incorporated into the Final Version of the CDR. The proposed Final CDR will be submitted by the Deputy Assistant Secretary of the Navy (Installations & Facilities) to the Governor of Puerto Rico requesting approval and authority to proceed with the early transfer of property.

After approval of the CDR, portions of the Early Transfer Property will be eligible for transfer to the Commonwealth of Puerto Rico for post and/or other purposes. The transfer of the property is necessary to allow the Navy to complete its environmental cleanup and decommissioning actions. The transfer of the property is necessary to allow the Navy to complete its environmental cleanup and decommissioning actions. The transfer of the property is necessary to allow the Navy to complete its environmental cleanup and decommissioning actions.

The CDR provides a summary of the status, nature of contamination and proposed land use controls for each of the areas on the ET Property that have environmental work remaining to be completed. The proposed land use controls are necessary to prevent unacceptable risks to human health and the environment during the redevelopment, until the site cleanup is completed by either the Navy or the new property owner(s). In the cases where a new owner assumes responsibility for completing cleanup obligations, the Navy will retain legacy obligations to perform the necessary cleanup actions if they are not completed in a timely and competent fashion by the new owner or necessary to protect human health and the environment. The CDR describes the Early Transfer Property, proposed property transfer mechanisms, the nature and extent of hazardous substance contamination, intended future land use and the land use controls needed to prevent unacceptable exposure to contaminants under the future use scenario, work remaining to be completed at the sites and the process for ensuring it is completed and the proposed land language that will ensure the requirements and assurances of CERCLA 120(a)(3)(C) are met.

Through this notice, the Navy is soliciting public review and comment on the Draft CDR. The public review and comment period will run for thirty (30) days, commencing today and closing thirty (30) calendar days from today's date (March 25, 2007). Only written comments will be considered by the Navy. Written comments may be submitted by mail, telephone, facsimile (fax), or express delivery and must be postmarked or later than April 24, 2007. Please provide your name, address, the page and line number of the CDR the comment refers to, and the comment. The Navy will not receive comments via telephone, e-mail, or personal communication. Comments must be submitted using the following address or fax number:

Mr. Jeff Meyers  
Navy BRAC Program Management Office Southeast  
4130 Faber Place Drive, Suite 202  
North Charleston, SC 29406

Fax: (843) 743-2142  
The Draft CDR and related investigation and cleanup documents that provide detailed information for sites with work remaining and sites for which investigation and/or cleanup activities have been completed are available for review at:

Public Library/Anaesthesia Clinics  
Francisco Osorio Street  
8516 Rosay Valley  
Box 235 (Superintendent Office)  
Caguas, PR 00725

U. S. Environmental Protection Agency  
Caribbean Environmental Protection Division  
Centro Europeo Building, Suite 417  
1492 Ponce de Leon Ave.  
San Juan, PR 00907-4127

Attn: Mr. Luis Negron, phone (787) 977-5855  
Puerto Rico Environmental Quality Board  
Land Pollution Regulation Program  
National Plaza Building  
431 Ponce de Leon Ave.

Hato Rey, PR 00917  
Attn: Ms. Yarela Martinez, phone (787) 355-8573  
U.S. Environmental Protection Agency, Region 2  
RCRA File Room  
100 Broadway, 15th floor  
New York, NY 10007-1558  
Attn: Mr. David Abrams, phone (212) 637-3043  
or Online at: <http://www.epa.gov>

Requests for single copies of the Draft CDR should be directed to Mr. Jeff Meyers at (843) 743-2134.

## LEGAL NOTICE

## Aviso de la Disponibilidad para Revisión Pública De la Solicitud de Aplazamiento del Convenio Facilidad Naval Puerto Rico (Antigua Estación Naval de Roosevelt Roads)

Deposición de los resultados del Informe de Evaluación Ambiental: La Marina de los Estados Unidos propone transferir parte de la Estación Naval Puerto Rico (NAAP, por sus siglas en inglés), antigua Base Naval Roosevelt Roads, a través de una transacción conocida como "transferencia temprana", a través de una transacción de transferencia temprana, a través de una transacción de transferencia temprana, a través de una transacción de transferencia temprana. Este tipo de transferencia permite a los propietarios nuevos, como el Gobierno de Puerto Rico, a comenzar el re-desarrollo de la propiedad inmediatamente y ganarse ingresos económicos sin tener que esperar que la propiedad permanezca en un estado hasta que la limpieza ambiental sea completada. La transferencia temprana aplica solamente a aquellos puntos de la propiedad que necesitan evaluaciones o limpieza ambiental adicional y no a los puntos que están determinados como limpios. Debido a la variedad de tipos de transferencias de transferencia temprana, la Marina de los Estados Unidos ha subdividido el total de las 8,831 acres de NAAP en parcelas más pequeñas. De estas, hay varias que contienen áreas que requieren limpieza. Si una área de las que requieren limpieza ambiental está dentro de una parcela, entonces toda el área de la parcela está incluida en la solicitud de transferencia temprana. Aproximadamente 4,500 acres serán afectados por la transferencia temprana.

Un documento conocido como una Solicitud de Aplazamiento del Convenio (CDR, por sus siglas en inglés) debe ser primeramente aprobado por el Gobernador de Puerto Rico para permitir la transferencia temprana de la propiedad. La Solicitud de Aplazamiento del Convenio (CDR) de la Ley de Responsabilidad Ambiental, Responsabilidad y Compensación (CERCLA por sus siglas en inglés) de 1980. La aprobación del Gobernador de Puerto Rico debe ser basada en la determinación de que la propiedad es adecuada para la transferencia temprana. En adición, la Marina debe proporcionar garantías de que todas las tareas necesarias de investigación y de limpieza hayan sido realizadas. El propósito de este aviso es para informar al público que un borrador de CDR ha sido preparado. El próximo paso en el proceso de aprobación del CDR es presentar el borrador de este documento a la opinión pública y recibir comentarios. La Marina recibirá los comentarios del público por los próximos treinta (30) días. Sus comentarios serán considerados y serán incorporados en la versión final del CDR. La propuesta versión final del CDR será sometida por el Asistente del Asistente del Secretario de la Marina (Instalaciones y Facilidades) al Gobernador de Puerto Rico para pedir su aprobación y autorización para proceder con la transferencia temprana de la propiedad.

Una vez aprobado el CDR, partes de la propiedad de transferencia temprana serán elegibles para ser transferidas al Estado Libre Asociado de Puerto Rico para servir de operaciones de puerto y de cuartel y para propósitos de desarrollo económico, consistentes con el Plan de Uso de la antigua Base Naval de Roosevelt Roads, desarrollado por el Departamento de Desarrollo Económico y Comercio de Puerto Rico (la autoridad de desarrollo local). La Marina se propone vender el resto de la Propiedad de Transferencia Temprana a través del proceso de subasta.

El CDR provee un resumen de las condiciones, áreas de contaminación y los controles propuestos para el uso de terrenos para cada uno de las áreas en la propiedad de transferencia temprana que tienen trabajo ambiental por completar. Los controles propuestos para uso de terrenos son necesarios para evitar riesgos inaceptables a la salud humana y al ambiente durante el re-desarrollo del lugar, mientras se limpian los sitios de la propiedad. En aquellos casos donde un nuevo propietario asume la responsabilidad de completar los trabajos de limpieza, la Marina quedará legalmente obligada a realizar los trabajos de limpieza necesarios al sitio, no son completados a tiempo o no son completados por el nuevo dueño para proteger la salud humana y al ambiente.

La CDR describe la propiedad de transferencia temprana, los mecanismos propuestos de la transferencia de la propiedad, la naturaleza y extensión de la contaminación por sustancias peligrosas, el propósito uso futuro del terreno y los controles de uso de terrenos necesarios para prevenir la exposición inaceptable a contaminantes bajo los escenarios de uso futuro. Los trabajos que están por completarse en las diferentes áreas y el procedimiento para asegurarse que estos sean completados, y el lenguaje propuesto en la escritura que asegura que los requisitos de CERCLA 120(a)(3)(C) sean cumplidos.

Por este medio, la Marina solicita la revisión y comentarios del público sobre el borrador del CDR. El periodo de revisión y comentarios será de treinta (30) días, comenzando hoy y terminando en un término de treinta días calendario desde la fecha de hoy (15 de marzo de 2007). La Marina considerará solamente comentarios por escrito. Estos deben ser sometidos por correo, facsimil (fax), y deben ser entregados no más tarde del 24 de abril de 2007. Favor de incluir su nombre, dirección, la página y el número de línea del CDR al que se refiere. La Marina no recibirá comentarios por teléfono o e-mail ni comunicaciones personales.

Los comentarios deben ser enviados a la siguiente dirección:

Mr. Jeff Meyers

Navy BRAC Program Management Office Southeast  
4130 Faber Place Drive, Suite 202  
North Charleston, SC 29406  
Fax: (843) 743-2142

Los interesados del CDR, la investigación y la documentación de limpieza que proveen información detallada de las áreas en donde quedan trabajos de limpieza por realizar o donde los trabajos de limpieza han sido completados, están disponibles para su inspección en los siguientes lugares:

Biblioteca Pública de Caguas  
Ave. León Ponce, Plaza Rosado  
(al lado Casa Alcaldía) Caguas, PR 00725

U. S. Environmental Protection Agency  
Caribbean Environmental Protection Division  
Centro Europeo Building, Suite 417  
1492 Ponce de Leon Ave.  
San Juan, PR 00907-4127

Attn: Mr. Luis Negron, phone (787) 977-5855  
Junto de Calidad Ambiental de Puerto Rico  
Oficina del Presidente, 5to Piso  
Avenida Ponce de León #1306  
Citr Estal 8818, Sector El Cinco

Rio Piedras, PR 00918  
Attn: Ms. Yarela Martinez, phone (787) 355-8573  
U.S. Environmental Protection Agency, Region 2  
RCRA File Room

290 Broadway, 15th floor  
New York, NY 10007-1558  
Attn: Mr. David Abrams, phone (212) 637-3043  
o en Internet en: <http://www.epa.gov>

Solicitudes de copias individuales del borrador del CDR deben ser dirigidas al Sr. Jeff Meyers al (843) 743-2134.

No somos capaces  
de respetar  
la vida.  
¿QUE NOS PASA, PUERTO RICO?



Maribel Ríos y su hijo Jorge Andrés Ríos, en la casa, San Juan.

Esta es  
gente  
de verdad  
y merece  
la verdad.  
La verdad es la  
única luz que  
y que nos muestra  
por qué hay que  
cambiar.

San Juan, P.R.

# Cruda violencia en Irak

**BAGDAD. (AP).—** Dos camiones cargados con explosivos (Stallaton simultáneamente en dos mercados de al-Mad al-Najaf, matando por lo menos a 48 personas y dejando heridas a decenas, informó la policía.

Los ataques ocurrieron a eso de las 4 de la tarde en dos mercados de al-Mad al-Najaf, uno de los mercados más importantes de la ciudad. Por la mañana, 48 personas murieron y 103 resultaron heridas, dijo el investigador policial Abdul Karim al-Jumaili.

Antes del ataque, se informó que un atacante suicida mató a cuatro personas y a 10 personas en un mercado de al-Mad al-Najaf, un ataque con mortero mató en el sur de Bagdad por lo menos a otras cuatro y, según la policía, en la ciudad de Kirkuk fueron muertas a puñaladas dos mujeres en la Ciudad de la Virgen.

En Hamadi el atacante suicida detonó su cargamento de Hamadi hacia la 1 de la tarde en el distrito de al-Jazera, una zona que no es patrullada por los militares, según el coronel de la policía Tariq Yusuf.

## Matan dos monjas

El teniente de la policía de Kirkuk Mawwan Salih dijo que las monjas católicas Pawzeyah Naoum, de 85 años, y su hermana Margaret, de 73, fueron apu-

ñaladas y repetidamente por dos intrusos que allanaron su casa el lunes por la noche cerca de la ciudad de Kirkuk. Vivían solas y no hay indicios de robo, agregó Salih.

Margaret Naoum fue apuñalada siete veces en el jardín de la vivienda, a la que entraron luego los atacantes donde se encontraba recostada en un sofá. Pawzeyah Naoum, tras haber sido operada de la vista la semana pasada. Fue apuñalada tres veces.

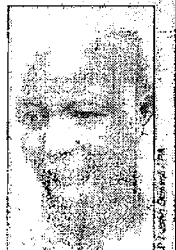
Los católicos caldeos siguen el rito oriental pero obedecen al Vaticano. Viven principalmente en Siria, Turquía, Irán e Irak y en general hablan un dialecto turco.



Una mujer llora durante el funeral de las dos monjas católicas muertas a puñaladas en Kirkuk, Irak.

## Interrumpe ceremonia

**T**oyin Agbete interrumpió ayer un servicio en la abadía de Westminster para el 200 aniversario de la abolición de la esclavitud. La abadesa de Westminster, Jane Philpott, dijo que Agbete interrumpió el servicio para leer una declaración que decía: «El papa es un asesino». Agbete fue la única mujer que interrumpió el servicio.



escritas por el papa. En 1807 se hizo ilegal la trata de esclavos pero sólo fue aplicada en las colonias en 1833.

## Chile nombra 6 ministros

**SANTIAGO DE CHILE (AP).—** La presidenta Michelle Bachelet tomó juramento el martes a seis nuevos ministros en un intento de dignificar la política y la profunda crisis política que enfrenta el gobierno. Como consecuencia de un polémico plebiscito de confianza que la indigna renuncia de los ministros de Relaciones Exteriores y del Interior, Bachelet anunció la renuncia de los ministros de Relaciones Exteriores y del Interior.

La Ministra de Relaciones Exteriores, Evelyn Dagnino, anunció su renuncia el martes. Bachelet dijo que la Ministra de Relaciones Exteriores, Evelyn Dagnino, anunció su renuncia el martes.

Int. relacionada P35

# DISFRUTA

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## Avise de la Disponibilidad para Revisión Pública de la Solución de Aterrizamiento del Aeropuerto de la Estación Naval de Puerto Rico

Dependiente de las actividades de la Marina de Estados Unidos, la Marina de Estados Unidos propone la construcción de la Estación Naval de Puerto Rico (ENPR), por sus siglas en inglés, antigua Base Naval Roosevelt Roads, a través de una licitación pública. Esta licitación es para la construcción de la Estación Naval de Puerto Rico, a través de una licitación pública. Esta licitación es para la construcción de la Estación Naval de Puerto Rico, a través de una licitación pública.

Un documento describe como la Estación Naval de Puerto Rico (ENPR) será construida en la Estación Naval de Puerto Rico (ENPR). El documento describe como la Estación Naval de Puerto Rico (ENPR) será construida en la Estación Naval de Puerto Rico (ENPR).

Una vez aprobada el CDR, la Marina de Estados Unidos procederá a la construcción de la Estación Naval de Puerto Rico (ENPR). La Marina de Estados Unidos procederá a la construcción de la Estación Naval de Puerto Rico (ENPR).

El CDR provee un resumen de las condiciones, lista de contratación y los controles propuestos para el uso de terrenos para el desarrollo de la Estación Naval de Puerto Rico (ENPR). El CDR provee un resumen de las condiciones, lista de contratación y los controles propuestos para el uso de terrenos para el desarrollo de la Estación Naval de Puerto Rico (ENPR).

La CDR describe la propiedad de la Estación Naval de Puerto Rico (ENPR). La CDR describe la propiedad de la Estación Naval de Puerto Rico (ENPR).

Por este motivo, la Marina de Estados Unidos solicita la opinión pública de la Estación Naval de Puerto Rico (ENPR). La Marina de Estados Unidos solicita la opinión pública de la Estación Naval de Puerto Rico (ENPR).

Mr. Jeff Meyer  
Naval BRAC Program Management Office  
4100 Foster Place Drive, Suite 202  
Harrisburg, PA 17112  
Tel: (717) 745-2141

Los comentarios del CDR, la información relacionada y los documentos de la Estación Naval de Puerto Rico (ENPR) están disponibles en la Estación Naval de Puerto Rico (ENPR).

**Estación Naval de Puerto Rico**  
Attn: Lt. Col. William J. P. P. P.  
Calle, PR 00705  
**U.S. Environmental Protection Agency**  
Caribbean Environmental Protection Division  
Cesar E. Pineda Building Suite 412  
1400 Ponce de León Ave.  
San Juan, PR 00901-4122  
Attn: Mr. Luis Pineda  
phone: (787) 977-5855

**Junta de Calidad Ambiental de Puerto Rico**  
Oficina del Presidente-5 Piso  
Avenida Ponce de León #1308  
Canales, Est. 1308, Sector El Centro  
Río Piedras, PR 00926  
Attn: Mr. Yvonne Madril, phone  
(787) 767-8181, ext 6187  
**U.S. Environmental Protection Agency, Region 2**  
1001 New York Ave., NY 10003  
Attn: Mr. David Johnson  
phone: (212) 637-3000  
e-mail: johnson.david@epa.gov

Solicite las copias individuales del informe del CDR de la Estación Naval de Puerto Rico (ENPR) al Sr. Jeff Meyer al (717) 745-2141.

## AVISO DE EXTENSIÓN DE 15 DÍAS AL PERÍODO PARA REVISIÓN PÚBLICA DE LA SOLICITUD DE APLAZAMIENTO DEL CONVENIO FACILIDAD NAVAL PUERTO RICO (Antigua Estación Naval de Roosevelt Roads)

La Marina de los Estados Unidos propone transferir parte de la Facilidad Naval Puerto Rico (NAPR, por sus siglas en inglés), antigua Base Naval Roosevelt Roads, a través de una escritura antes de que todos los trabajos necesarios de limpieza e investigación ambiental estén terminados. Esta transferencia es conocida como "Transferencia Temprana". Este tipo de transferencia permite a los propietarios nuevos, como el Gobierno de Puerto Rico, comenzar el re-desarrollo de la propiedad inmediatamente y ganar ingresos económicos en vez de requerir que la propiedad permanezca sin usarse hasta que la limpieza ambiental sea completada. La Transferencia Temprana aplica solamente a aquellas partes de la propiedad que necesitan evaluaciones o limpieza ambiental adicional y no a las partes que están determinadas como limpias. Debido a la planificación de varias clases de transferencias de propiedad propuestas, la Marina de los Estados Unidos ha subdividido el total de los 8,631 acres de NAPR en parcelas más pequeñas. De éstas, hay varias que contienen áreas que requieren limpieza. Si un área de las que requieren limpieza ambiental está dentro de una parcela, entonces todo el área que la comprende está incluida en la petición de Transferencia Temprana. Aproximadamente 4,559 acres serán afectados por la Transferencia Temprana.

Un documento conocido como Solicitud de Aplazamiento del Convenio (CDR, por sus siglas en inglés) debe ser primeramente aprobado por el Gobernador de Puerto Rico para permitir la Transferencia Temprana de acuerdo con la sección 120(h)(3) de la Ley de Respuesta Ambiental, Responsabilidad y Compensación (CERCLA por sus siglas en inglés) de 1980. La aprobación del Gobernador de Puerto Rico debe ser basada en la determinación de que la propiedad está disponible para ser transferida para el uso que se la ha determinado y que las medidas pertinentes son tomadas para proteger la salud del público y del ambiente. La Marina debe proveer garantías de que todas las tareas necesarias de investigación y de limpieza hayan sido realizadas. El propósito de este aviso es para informar al público que un borrador de la CDR ha sido preparado. La próxima etapa del proceso de aprobación de la CDR es presentar el borrador de ésta documento e invitar a que el público comente sobre el mismo. La Marina recibirá los comentarios del público por los próximos treinta (30) días. Sus comentarios serán atendidos e incorporados en la versión final de la CDR. La propuesta versión final de la CDR será sometida por el Subsecretario de la Marina (Instalaciones y Facilidades) al Gobernador de Puerto Rico para su aprobación y autoridad para proceder con la Transferencia Temprana de la propiedad.

Una vez aprobado la CDR, partes de la propiedad de Transferencia Temprana son elegibles a ser transferidas al Estado Libre Asociado de Puerto Rico para servir de operaciones de puerto y aeropuerto; y para propósitos de desarrollo económico, consistentes con el Plan de Usos de la antigua Base Naval de Roosevelt Roads, desarrollados por el Departamento de Desarrollo Económico y Comercio de Puerto Rico (la autoridad de re-desarrollo local). La Marina se propone vender el resto de la Propiedad de Transferencia Temprana a través del proceso de subasta.

La CDR provee un resumen de las condiciones, tipo de contaminación y los controles propuestos para el uso de terrenos para cada una de las áreas en la Propiedad de Transferencia Temprana que tienen trabajo ambiental por completar. Los controles propuestos para uso de terrenos son necesarios para evitar riesgos inaceptables a la salud humana y al ambiente durante el re-desarrollo del lugar mientras la limpieza de las áreas sea continuada, sea por la Marina o los nuevos dueños de la propiedad. En aquellos casos donde un nuevo propietario asume la responsabilidad de completar los trabajos de limpieza necesarios, la Marina permanecerá legalmente obligada a realizar los trabajos de limpieza necesarios si éstos no son completados a tiempo y de manera competente por el nuevo dueño fueren el interés proteger la salud humana y el ambiente.

La CDR describe la propiedad de Transferencia Temprana; los mecanismos propuestos de la transferencia de la propiedad; la naturaleza y extensión de la contaminación con sustancias peligrosas; el propósito uso futuro del terreno y los controles de uso de tierra necesarios para prevenir la exposición inaceptable a contaminantes bajo los escenarios de uso futuro; los trabajos que están por completarse en las diferentes áreas y el procedimiento para asegurarse que estos sean completados; y el lenguaje propuesto en la escritura que asegure que los requisitos de CERCLA 120(h)(3)(C) sean cumplidos.

Por este medio, la Marina está extendiendo por 15 días el período para revisión y comentarios del público sobre el borrador de la CDR. El período de revisión y comentarios será de cuarenta y cinco (45) días consecutivos a partir del 25 de marzo de 2007. La Marina considerará solamente comentarios por escrito. Estos comentarios deberán ser sometidos por correo, fax, o servicios expresos de entrega, y con matasello no más tarde del 9 de mayo de 2007. Favor de incluir su nombre, dirección, la página y el número de línea de la CDR al que se refiere. La Marina no recibirá comentarios por teléfono, e-mail, ni comunicación personal.

Los comentarios deben ser sometidos a la siguiente dirección o número de fax:

**Mr. Jeff Meyers**  
**Navy BRAC Program Management Office Southeast**  
**4130 Faber Place Drive, Suite 202 North Charleston, SC 29405**  
**Fax: (843) 743-2142**

Los borradores de la CDR, la investigación relacionada y los documentos de limpieza que proveen información detallada de las áreas en donde quedan labores de limpieza por realizarse o donde las labores de limpieza han sido completadas, están disponibles para su inspección en los siguientes lugares:

**Biblioteca Pública de Cádiz**  
Ave. Lluvia Placido, Plaza Recreo  
(el lado Calle Alcázar) Cádiz, PR 00738

**U.S. Environmental Protection Agency**  
**Caribbean Environmental Protection Division**  
Centro Europa Building, Suite 412  
1432 Ponce de León Ave. San Juan, PR 00907-4122  
Attn: Mr. Luis Negron, phone (787) 877-5855

**Junta de Calidad Ambiental de Puerto Rico**  
Oficina del Presidente - 5 Piso Avenida Ponce de León #308  
Carr. Estatal 8238, Sector El Cincin San Pablos, PR 00826  
Attn: Ms. Yvonne Martinez, phone (787) 797-9181, ext 6137

**U.S. Environmental Protection Agency, Region 2 RCRA File Room**  
290 Broadway, 15th floor New York, NY 10027-1698  
Attn: Mr. David Alvarez, phone (212) 637-3043  
o en Internet en: <http://www.epa.gov>

Solicitudes de copias individuales del borrador de la CDR deben ser dirigidas al Sr. Jeff Meyers al (843) 743-2134.

# 6 SEMANA EN EL ESTE

www.horizontep.com • del 25 de abril al 1 de mayo de 2007

## Inter-Galería celebra su primer aniversario



**Por: Yolanda Lebrón López**  
**HORIZONTE**

El aspecto cultural y artístico Inter-Galería, que permite a artistas de la Isla e internacionales exponer sus obras en el área este, celebró la pasada semana, su primer aniversario.

Para la celebración, el Decanato de Estudiantes de la Universidad Interamericana del Recinto de Fajardo junto a personal del Centro de Acceso a la Información organizaron una actividad en el Centro de Estudiantes de la institución en la que se inauguró una exposición colectiva de ocho artistas puertorriqueños e internacionales.

La exposición colectiva que exhibe en su mayoría pinturas realistas, costumbristas y abstractas presentó las obras de los artistas José Luis Rodríguez, Carmon Robles, Lourdes Nogales, Brenda Vigil, Laura Rodríguez, Samuel Flores, Jahne Díaz y el venezolano Justo Quijada.

Como parte de la actividad se llevó a cabo una feria de artesanías en las afueras del Centro de Estudiantes a través de la cual los visitantes tuvieron la oportunidad de adquirir y apreciar muñecas de trapo y trabajos de joyería realizados en coco y bambú, entre otros trabajos.

José Luis Rodríguez, coordinador de las Intergalerías, explicó que las noches de galerías surgieron como una alternativa para los estudiantes y la comunidad en general que gusta apreciar obras de arte.

Según Rodríguez, la primera Inter-Galería fue realizada el año pasado como una actividad conmemorativa de la Semana del Centro de Acceso a la Información, conocida como Semana de la Biblioteca. No obstante, el éxito que tuvo la actividad motivó que se llevara a cabo todos los meses.

Regularmente, los primeros martes del mes en el viejo San Juan se realizan las noches de galerías. En este sentido, la Interamericana de Fajardo propuso realizar un concepto similar a través de las Intergalerías con el propósito de que las personas no tuvieran que bajar hasta al metro para poder apreciar el talento y las pinturas de diversos artistas.

De esta forma los segundos martes de cada mes se inaugura una nueva exposición colectiva en el Centro de Estudiantes de la Interamericana en Fajardo. Posteriormente parte de esas obras son trasladadas al Centro de Acceso a la Información, donde permanecen exhibidas para el disfrute de todos los estudiantes y visitantes.

Rodríguez explicó que durante el año que lleva celebrándose las "Intergalerías", artistas de países como República Dominicana y Venezuela, así como de diversos pueblos de la Isla, como Guánica, han exhibido sus obras. Así también, estudiantes universitarios y escuelas como Danzante han tenido la oportunidad de participar de las exposiciones.

Aquellos artistas interesados en exponer sus obras o personas que posean colecciones y deseen exhibirlas en las Noches de Inter-Galería del Recinto de Fajardo deben comunicarse con José Luis Rodríguez al (787) 863-2390 en 2226 o escribir a la dirección electrónica [maritasintergalria@yahoo.com](mailto:maritasintergalria@yahoo.com).

Mientras, aquellas personas que busquen pasar un agradable apreciando obras de arte sapan que pueden asistir a las noches de galería los segundos martes de cada mes.



**AVISO DE SEGUNDA EXTENSIÓN AL PERÍODO  
PARA REVISIÓN PÚBLICA DE LA SOLICITUD DE APLAZAMIENTO  
DEL CONVENIO FACILIDAD NAVAL PUERTO RICO  
(Antigua Estación Naval de Roosevelt Roads)**

La Marina de los Estados Unidos propone transferir parte de la Facilidad Naval Puerto Rico (NAPR, por sus siglas en inglés), antigua Base Naval Roosevelt Roads, a través de una escritura antes de que todos los trabajos necesarios de limpieza e investigación ambiental estén terminados. Esta transferencia es conocida como "Transferencia Temprana". Este tipo de transferencia permite a los propietarios nuevos, como el Gobierno de Puerto Rico, comenzar el re-desarrollo de la propiedad inmediatamente y ganar ingresos económicos en vez de requerir que la propiedad permanezca sin usarse hasta que la limpieza ambiental sea completada. La Transferencia Temprana aplica solamente a aquellas partes de la propiedad que necesitan evaluaciones o limpieza ambiental adicional y no a las partes que están determinadas como limpias. Debido a la planificación de varias clases de transferencias de propiedad propuestas, la Marina de los Estados Unidos ha subdividido el total de los 8,691 acres de NAPR en parcelas más pequeñas. De éstas, hay varias que contienen áreas que requieren limpieza. Si un área de las que requieren limpieza ambiental está dentro de una parcela, entonces toda el área que la comprende está incluida en la petición de Transferencia Temprana. Aproximadamente 4,599 acres serán afectados por la Transferencia Temprana.

Un documento conocido como Solicitud de Aplazamiento del Convenio (CDR, por sus siglas en inglés) debe ser primeramente aprobado por el Gobernador de Puerto Rico para permitir la Transferencia Temprana de acuerdo con la sección 120(h)(3)(C) de la Ley de Responsabilidad y Compensación Comprensiva (CERCLA por sus siglas en inglés) de 1980. La aprobación del Gobernador de Puerto Rico debe ser basada en la determinación de que la propiedad está disponible para ser transferida para el uso que se ha determinado y que las medidas pertinentes sean tomadas para proteger la salud del público y del ambiente. La Marina debe proveer garantías de que todas las tareas necesarias de investigación y de limpieza hayan sido realizadas. El propósito de este aviso es para informar al público que un borrador de la CDR ha sido preparado. La próxima etapa del proceso de aprobación de la CDR es presentar el borrador de este documento e invitar a que el público comente sobre el mismo. Sus comentarios serán atendidos entonces e incorporados en la versión final de la CDR. La propuesta versión final de la CDR será sometida por el Subsecretario de la Marina (Instalaciones y Facilidades) al Gobernador de Puerto Rico para su aprobación y autoridad para proceder con la Transferencia Temprana de la propiedad.

Una vez aprobado la CDR, partes de la propiedad de Transferencia Temprana son elegibles a ser transferidas al Estado Libre Asociado de Puerto Rico para servir de operaciones de puerto y aeropuerto; y para propósitos de desarrollo económico, consistentes con el Plan de Usos de la antigua Base Naval de Roosevelt Roads, desarrollados por el Departamento de Desarrollo Económico y Comercio de Puerto Rico (la autoridad de re-desarrollo local). La Marina se propone vender el resto de la Propiedad de Transferencia Temprana a través del proceso de subasta.

La CDR provee un resumen de las condiciones, tipo de contaminación y los controles propuestos para el uso de terrenos en cada una de las áreas en la Propiedad de Transferencia Temprana que tienen trabajo ambiental por completar. Los controles propuestos para uso de terrenos son necesarios para evitar riesgos inaceptables a la salud humana y al ambiente durante el re-desarrollo del lugar mientras la limpieza de las áreas sea continuada, sea por la Marina o los nuevos dueños de la propiedad. En aquellos casos donde un nuevo propietario asuma la responsabilidad de completar los trabajos de limpieza necesarios, la Marina permanecerá legalmente obligada a realizar los labores de limpieza necesarios si éstos no son completamente a tiempo y de manera competente por el nuevo dueño fueran al interés proteger la salud humana y al ambiente.

La CDR describe la propiedad de Transferencia Temprana; los mecanismos propuestos de la transferencia de la propiedad; la naturaleza y extensión de la contaminación con sustancias peligrosas; el propósito uso futuro del terreno y los controles de uso de tierra necesarios para prevenir la exposición inaceptable a contaminantes bajo los escenarios de uso futuro; los trabajos que están por completarse en las diferentes áreas y el procedimiento para asegurarse que estos sean completados; y el lenguaje propuesto en la escritura que asegura que los requisitos de CERCLA 120(h)(3)(C) sean cumplidos.

Por medio, la Marina está extendiendo por 30 días el período para revisión y comentarios del público sobre el borrador de la CDR para la segunda vez. El período de revisión y comentarios ahora se cerrará el 10 de junio de 2007. La Marina continúa solamente comentarios por escrito. Estos comentarios deberán ser sometidos por correo, fax, o servicios expresos de correo, y con material no más tarde del 9 de junio de 2007. Favor de incluir su nombre, dirección, la página y el número de línea de la CDR al que se refiere. La Marina no recibirá comentarios por teléfono, e-mail, ni comunicación personal. Los comentarios deben ser sometidos a la siguiente dirección o número de fax:

**Mr. Jeff Meyers  
Navy BRAC Program Management Office Southeast  
4130 Faber Place Drive, Suite 202 North Charleston, SC 29405  
Fax: (843) 743-2142**

Los borradores de la CDR, la investigación relacionada y los documentos de limpieza que proveen información detallada de las áreas en donde quedan labores de limpieza por realizarse o donde las labores de limpieza han sido completadas, están disponibles para su inspección en los siguientes lugares:

**División Pública de Costa**  
Ave. Luro Pifaro, Plaza Recreo  
(al lado Casa Alameda) Caba, PR 00735

**U.S. Environmental Protection Agency**  
Caribbean Environmental Protection Division  
Centro Ecología Building, Suite 417  
1432 Ponce de Leon Ave. S.W., Atlanta, GA 30303-4127  
Attn: Mr. Luis Negron, phone (770) 977-5866

**Junta de Calidad Ambiental de Puerto Rico**  
Oficina del Presidente - 8 Piso Avenida Ponce de León #1208  
Cruz Estrella Bldg., 8400 El Cidre Rd. Pinar, PR 00926  
Attn: Mr. Yurya M. Diaz, phone (787) 757-6161, ext. 6131

**U.S. Environmental Protection Agency Region 2 RMDA File Room**  
230 Broadway, 15th Floor New York, NY 10037-1899  
Attn: Mr. David Abshire, phone (212) 627-3443  
o en Internet en: <http://efm1.rtr.com>

Solicitudes de copias individuales del borrador de la CDR deben ser dirigidas al Sr. Jeff Meyers al (843) 743-2142.

*Covenant Deferral Request*  
*Former Naval Station Roosevelt Roads, Puerto Rico*

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**EXHIBIT H**  
**PUBLIC COMMENTS**

## RODRIGUEZ LEGAL ACTION CENTER CORPORATION

Golden Beach Condominium  
3511 Isla Verde Ave. Ste. 404  
Carolina, PR 00979-4912

Tel. and Fax: 787-268-5269

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April 12, 2007

Mr. Jeff Meyers  
Navy BRAC Program Management Office Southeast  
4130 Faber Place Drive, Suite 202  
North Charleston, SC 29405  
(jeffrey.g.meyers@navy.mil)

Dear Mr. Meyers,

I am writing on behalf of Mr. William Lourido, president of the Puerto Rican Veterans and Soldiers Council, Inc. He is, at present, a member of the Roosevelt Roads Restoration Advisory Board.

Aside from representing the interests of the communities, Mr. Lourido has put forward a proposal to Portal del Futuro for the establishment of a Project named Veterans City. The proposed plan for this project includes a living and recreation area for disabled and aged veterans, including facilities for those in need of assisted living and nursing care.

The plan includes a proposed national monument to honor American men and women veterans of all wars and armed conflicts. Added to this is a memorial to civilians, especially to members of the press and other media that have died in the course of discharging their duties in the war effort.

Since there is a lack of space in the national cemetery, Mr. Lourido has proposed a design for a burial vault filled with stacked niches for putting the remains of our dead veterans in their final resting place. Adjoining the burial vault, there would be a chapel for carrying out religious services and ceremonies.

Mr. Lourido considers that he needs of a total of 100 acres for the development of the above-mentioned projects. Naturally, he would expect these premises to be decontaminated. Anything not certified as free from contaminants, should be marked in a map available for inspection to all interested parties. If possible, the property should be restricted for this designated use before transfer is effected.

Although the projects contained on the Veterans City Plan appear staggering from a



financial standpoint, when coming down to basics, it may be seen that it is affordable. The land is available by property transfer from the Navy. Each project in the major plan may be financed with private capital, first in the initial construction and preparation of facilities and second in the later stage of administration. Private contractors can bid into any phase of the projects, creating needed jobs.

Mr. Lourido expects an endorsement from our governor, who, in the past, has exercised his influence to obtain benefits for our veterans. He is especially grateful for our governor's intervention to correct an injustice committed against the Korean veterans belonging to the 65th Infantry Regiment.

Thank you for your attention to this matter.

Cordially,

  
SONIA RODRIGUEZ-VALLECHILLO, ESQ.

Legal Advisor to the Puerto Rican Veterans and Soldiers Council, Inc.

Copy sent to:

- 1) Mr. William Lourido, Calle 530 QB-8, Country Club, Carolina, PR 00982; Wlourido@aol.com.
- 2) Mr. Antonio Colorado, Portal del Futuro, PO Box 362350, San Juan, PR 00936-2350; ajcolorado@pridco.com.
- 3) Mr. Ramón Figueroa, RAB, Community Co-Chairman, CIV USA USAIMA; ramon.david.figueroa@us.army.mil.

Official Petition

RAB Meeting - April 12, 2007  
at: Ceiba, P.R.

TO: Mr. Mark Davidson  
Co-Chair - US NAVY  
RAB - for the former US Naval Station Roosevelt


FROM: MRS. LILYANA M. BETANCOURT  
COMMUNITY MEMBER

Re: Petition - for requesting the extension of the  
stipulated time (deadline) for the Public  
to submit written comments - on or before  
April 25, 2007. (CDR).

Dear Sir;

I hereby Petition & request the  
extension of the deadline (April 25, 2007) for the  
Public\* (Communities affected by the BRR Action)  
to submit their written Comments on the RAB  
process and approval, Thank you.

\* CDR



E-Mail: lilbetan@yahoo.com  
Tel: 1-787-655-0962

.....  
Lirio Márquez D'Acunti

Punta Las Marias, 4 Hstela  
San Juan, PR 00913

April 13, 2007

Mr. Jeff Meyers  
Navy BRAC Program Management Office Southeast  
4130 Faber Place Drive, Suite 202  
North Charleston, SC 29405

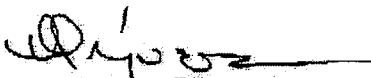
**Via fax: (843) 743-2142**

Dear Sir:

My letter pertains the document called: Draft Final Covenant Deferral Request, former Naval Station Roosevelt Roads, Ceiba, Puerto Rico (CDR).

It became apparent during last night's NAPR RAB meeting, that many persons in the community either didn't understand this document or still have not had a chance to review it (it is a long technical document and there is only one copy in the town's library). Therefore, I respectfully request an extension of the public comment period in order to provide those persons who expressed an interest in examining the document and submitting comments adequate time to do so.

Sincerely,

  
Lirio Márquez D'Acunti  
Community RAB Member

787-726-2889, 787-448-0385  
lirio@marquez@gmail.com

**Document:** Draft Covenant Deferral Request, Former Naval Station Roosevelt Roads  
**Document Date:** March 2007  
**Comments By:** Ramon Figueroa  
**Comments Date:** May 4, 2007

Excerpted from email:

From: Figueroa, Ramon CIV USA IMCOM [mailto:ramon.david.figueroa@us.army.mil]

Sent: Friday, May 04, 2007 7:51

To: Meyers, Jeffrey G CIV OASN (I&E) BRAC PMO SE

Subject: Request of second extension for public comments Former Roosevelt Roads Naval Station)

Dear Mr. Meyers:

The purpose of this communication is to formally request an extension for "the period of public comment" in reference to the proposed CDR related to the former Roosevelt Roads Naval Station in Ceiba, Puerto Rico. This period was extended until 09 May 07. I am writing as the Community Co-Chairman of the RAB and on behalf of the RAB members.

Attached you have copy of the attendance roster of a meeting that Restoration Advisory Board members held last night (3 May 07-1900hrs). As part of the agenda, the group discussed to file a second request to extend the period for public comments, for at least 30 additional days, based on the following grounds:

- a.) The proposed CDR is a lengthy and voluminous document which consists of more than 180 pages obviously in English. This represents a major obstacle in terms of interpretation for majority of the local population, which are "non native English speakers". The RAB members suggested to the Navy personnel, in previous meeting, to have the document translated into Spanish for a better understanding of it, with negative results.
- b.) The technical and scientifically language in which the document is written, demand some experience and a very in depth knowledge of the matter for being in a position to make responsible, serious and objective comments.
- c.) When reading the CDR it makes references to some other "supporting documents", which are really non-existent or not available as annexes such as the "Environmental Condition of Property".

Thank you for your attention to this matter.

Cordially,

Mr. Ramón D. Figueroa, Esq.  
RAB Community Co-Chairman  
Former Roosevelt Roads Naval Station  
Tel. (787) 235-1473

**NOTE: In response to requests from the public, the Navy extended the public comment period twice – first to April 9, 2007, then to June 10, 2007.**

Ceiba - P.R.  
27-Mayo-07

A quien pueda interesar:

Nosotros los residentes de Ceiba desearíamos que investigue al pueblo de Ceiba de la contaminación que hubo y ~~ah~~ hay en los terrenos de la base Naval de Ceiba porque aquí se sentían los ruidos de los aviones cuando a la cuadra de la madrugada esa avione empezaban a calentarse eso mató a la veces que tiraban bomba en Vieques estas casas se querían caer y por la contaminación porque el aire traía esa partícula para el pueblo de Ceiba

atle

Marta J. Toruía  
Jordines de Ceiba

Calle 10 - J-23  
Ceiba, P.R. 00735

También mi esposo trabajó en la base  
psv 15 año - en R.C.A y  
general Electric el trabaja en el  
amgar:

**TRANSLATION:**

To whom it may concern:

Ceiba residents want you to find out about the contamination that occurred and still exists at the former Naval Station land because here, we heard the planes at 4:00 am and also when Vieques was bombed, our houses almost fell off and the contamination caused by the particles in the air carried to the town of Ceiba.

Mart J. Garcia  
Jardines de Ceiba  
Street # 10, J23  
Ceiba, PR 00735

Also my husband used to work on the base for 15 years, with R.C.A. and General Electric at the hangar.

**Document:** Draft Covenant Deferral Request, Former Naval Station Roosevelt Roads  
**Document Date:** March 2007  
**Comments By:** Ramon Figueroa  
**Comments Date:** June 5, 2007

Excerpted from emails:

From: Figueroa, Ramon CIV USA IMCOM [mailto:ramon.david.figueroa@us.army.mil]

Sent: Tuesday, June 05, 2007 1:58 PM

To: Meyers, Jeffrey G CIV OASN (I&E) BRAC PMO SE

Subject: RE: Request of third extension for public comments (Former Roosevelt Roads Naval Station)

Mr. Meyers,

We had a meeting this last Sunday 03 June 2007 in which the CDR was discussed and analyzed with the assistance of some "ad-honorem" environmental specialists. The unanimous recommendation was to file an additional request for extension of the period of public comment to your office. The request is based on the following:

1. We have not completed the study and analysis of said the document. Our major shortcoming is the lack of or conflictive cross reference information. The CDR mentions other relevant publications, (i.e. ECP, Tables, Figures, etc.) that have to be found in different sources.
2. Based on your below message, we think that a joint meeting with your office prior to the end of the period will be in the benefit of the local community in terms of have a better understanding of the process and the document.
3. The extension will provide additional time for the community to clarify and/or coordinate with the Navy in relation to specifics environmental sites at former RRNS. The upcoming RAB meeting is the 14 June 07.

Thanks for your prompt attention to this matter.

Cordially,

Mr. Ramón D. Figueroa, Esq.  
RAB Community Co-Chairman  
Former Roosevelt Roads Naval Station  
Tel. (787) 235-1473

Mr. Jeff Meyers  
Navy BRAC Program Management Office Southeast  
4130 Faber Place Drive, Suite 202  
North Charleston, SC 29405

**Re: Draft Covenant Deferral Request, Former Naval Station Roosevelt Roads,  
Ceiba, Puerto Rico of March 2007**

After having examined the abovementioned document, we respectfully submit the following commentaries –

**I Commentary of a General Nature**

1. As members of the community, we oppose the transfer of portions of the real property comprising the former Naval Station Roosevelt Roads by deed before all the necessary remedial actions have been completed pursuant to Section 120(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and Department of Defense (DoD) early transfer agreement. This opposition is sustained despite the acknowledgement of Section 2905(e) of the Base Closure and Realignment Act of 1990 (BRAC), which states that subject to Section 1912(h) of CERCLA, the Secretary of Defense may enter into an agreement to transfer by deed real property or interest therein, if the Secretary agrees to perform all environmental restoration, environmental compliance activities that are required by applicable Federal and State laws, administrative decisions, agreements (including schedules and conditions) and that if the costs of all environmental restoration, environmental compliance and environmental remediation activities are lower than the fair market value of the property.

This agreement, if it is legally allowed, excludes the community from a real oversight in remediation actions of the transferred parcels, more so if they are sold to a private entity.



The April, 2007 RAB Newsletter states:

***"How long will the RAB keep working?"***

*The BRAC transfer process will continue until mid-2008. The Navy will sponsor the RAB until after all the property has been transferred, and the Navy is no longer taking an active role.*

***What happens then?*** *That's a question that the RAB will explore together, over the next year or so. The hope is that the RAB will continue working with EPA and Portal del Futuro, as the parcels are cleaned up and redevelopment begins..."*

This statement doesn't guarantee that after the transfer community participation and oversight will continue.

2. CERCLA's provisions for property transfers by Federal Agencies state that:

"...any real property owned by the United States on which any hazardous substance was stored for one year or more, known to have been released, or disposed of, each deed entered into for the transfer of such property by the United States to any other person or entity shall contain—

(i) to the extent such information is available on the basis of a complete search of agency files—

(I) a notice of the type and quantity of such hazardous substances,

(II) notice of the time at which such storage, release, or disposal took place, and

(III) a description of the remedial action taken, if any;

(ii) a covenant warranting that—

(I) all remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken before the date of such transfer, and

**(II)** any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States (CERCA Section 120(h)(3)(A)).

Now, in order for this requirement for remedial action previous to transference be deferred, Section 120(h)(3)(C) states:

**(C) Deferral**

**(i)** In general The Administrator, with the concurrence of the Governor of the State in which the facility is located (in the case of real property at a Federal facility that is listed on the National Priorities List), or the Governor of the State in which the facility is located (in the case of real property at a Federal facility not listed on the National Priorities List) may defer the requirement of subparagraph (A)(ii)(I) with respect to the property if the Administrator or the Governor, as the case may be, determines that the property is suitable for transfer, based on a finding that—

- (I)** the property is suitable for transfer for the use intended by the transferee, and the intended use is consistent with protection of human health and the environment
- (II)** ...
- (III)** the Federal agency requesting deferral has provided notice, by publication in a newspaper of general circulation in the vicinity of the property, of the proposed transfer and of the opportunity for the public to submit, within a period of not less than 30 days after the date of the notice, written comments on the suitability of the property for transfer; and
- (IV)** the deferral and the transfer of the property will not substantially delay any necessary response action at the property.

We would like to comment these three requirements, beginning with (III):

Our duty, as members of the public and RAB community component, is to submit written comments on the suitability for transfer of the property. We find this a very difficult task.

**First**, some of the most important documents that serve as an information source for evaluating the suitability for transfer are not available to the public: for example, the RFA, Phase I/II Environmental Condition of Property (ECP) Report (July 15, 2005).

Reference is made to documents from the 80's that are part of the environmental record of these properties. But the public doesn't have access to them and they are not even in the digital document repository.

As a result of Section 8132 of Public Law 108-87 -the Department of Defense Appropriations Act, 2004 (signed 31 September 2003)- a series of documents were published that the public never had the opportunity to examine or comment. For example, the *Draft Phase II Environmental Condition of Property Work Plan*, dated April 30, 2004; the *Draft Phase II Environmental Condition of Property Report Naval Activity Puerto Rico (Draft Phase II Report)*, dated September 1, 2004; the *Draft Biological Assessment for Land Transfer of Naval Station Roosevelt Roads, Puerto Rico* (Geo-Marine, Inc. September 2005); and the *Damage Assessment and Restoration Plan Environmental Assessment* (U.S. Navy October 2004), among others. We are aware of their existence because they are quoted or appear as reference in some of the documents available to the public.

In fact, the Draft CDR states (pages 7 and 8) that "detailed summaries of the findings to date for all SWMUs and AOCs are provided in the ECP Report" and that "Analytical data collected during the investigations of these sites were used

to perform human health and ecological risk assessments which indicated the potential for unacceptable human exposure to the residual contaminants detected in groundwater, surface water, surface and subsurface soil, and sediment." These HHRAs and ERAs are not available to the public either.

**Second**, it is very difficult to evaluate suitability for transfer when the information about some of the sites under evaluation is incomplete or inadequate. Take SWMU 16 as an example: in Table 7-1 a recommendation that no action is to be taken (NFA) is stated; but in the "Early Transfer Property Site Investigation and Remedial Action Summary" (March 2007) it is described as a site where additional investigation is warranted and a Phase 1 RFI is being developed. This same situation applies to SWMUs 27, 28 29 and 42; and AOC A. In all these sites, a RCRA Facility Investigation is being developed. Yet, we are asked to evaluate their suitability for transfer without the benefit of the results of these investigations, and even without contaminants concentration data.

**Third**, it is very difficult to evaluate sites for the suitability of early transfer where Remediation has already begun while the public comment period for the Correctives Measures Implementation Work Plan has not ended. This situation happens in SWMUs 13, 46 and 53, and AOC C. We simply do not understand how the remedy is being implemented before the discussion of its viability has occurred. This tells us that either the Early Transfer has become a desperate measure, or that public comment periods are a farce. To this date, we have not seen a single CMI WP, or for that matter, a single CMS or a CMS WP, both of which are called for in SWMUs 1, 2, 7/8, 9, 45, 55, 56, 59, 61, 69, 73 and 74.

Section C(1)(I), which states that "the property is suitable for transfer for the use intended by the transferee, and the intended use is consistent with protection of human health and the environment", we have the following comments:

Reportedly, there changes have been made to the proposed property uses since the Puerto Rico Government (in this case the Local Redevelopment Authority)

submitted the Naval Station Roosevelt Roads Reuse Plan in December 2004 (the only one we have seen). The head of the LRA has stated to the local press that there will be changes in the Plan, but according to what appeared in the press, they will be announced later this year. We have also been informed by an LRA member that the "Downtown" area has been moved from where it was first proposed to an area that in the Reuse Plan was proposed as a Science Park. As we do not have documents or written proposals to evaluate this and other changes at this time, it is very difficult to ascertain whether the intended use is consistent with protection of human health and the environment.

The absence as of this moment of a zoning plan for the implementation of the Reuse Plan (whichever it may be) is also a limitation in the transfer suitability evaluation process. The promised Special Regulation for the Reuse Plan will not be ready before the Covenant Deferral Request is signed. This is another drawback when evaluating the suitability for transfer. It seems like the early transfer process is being pushed through regardless of the lack of the necessary information for its proper evaluation.

Section C(i)(IV), states that "the deferral and the transfer of the property will not substantially delay any necessary response action at the property"; regarding this section several questions come to mind:

- ¿How many third parties will there finally be?
- Will cleanup responsibilities be delegated upon clients of the "first tier" third parties? Let's say a third party buys, either from the Government of Puerto Rico or the Navy, one or more parcels and subdivides and sells them. Will they be allowed to do this without cleaning up first?
- How do the Navy or EPA plan to follow up the clean up when it is carried out simultaneously by several persons in several parcels?
- How will the agencies deal with the inevitable proposals and actions to postpone clean up until some economic benefit is derived from the "clean" parts of the parcels?

- How do the agencies plan to deal with proposed variations –whether significant or not- in land use?
- Who will grant land use variations, the Puerto Rico Planning Board? Even if the Navy remains legally obligated to perform the cleanup?
- Where is the proposed cleanup schedule that will provide a guarantee to the community that the contamination will be cleaned in a timely manner, that provides us with a reasonable expectation that the contaminants will not remain in our land or water for a long, long time?

Frankly, we have serious concerns as to whether the scenario proposed by the Navy and the Puerto Rican Government “will not substantially delay any necessary response action at the property”.

3. **Groundwater is addressed in a piecemeal fashion.** Many of the SWMU's and AOC's will have groundwater use restrictions in place. Section 4.0 of the Draft CDR states that “a restriction on use of groundwater and installation of new wells in or near areas of known groundwater contamination” will be included in the Quit Claim Deed for some of the parcels.

The Navy is addressing groundwater as if there were several distinct, separate and isolated aquifers under the former NSRR. It does not seem to be sound groundwater management to restrict well drilling “in or near areas of known groundwater contamination”. Groundwater doesn't just stay put in one place. Also, the Draft CDR does not address the issue of where the groundwater contamination came from; and neither does it address where it goes to. There is no mention at all about pollution migration in the groundwater.

Will there be restrictions on well drilling outside known SWMUs? How far into the future will the well drilling restriction be in place? Are there any known working wells in the NSRR right now?

4. **Land Use Controls.** The People of Puerto Rico should not be restricted in the use and enjoyment of our land because the entity that polluted it does not want to clean the pollution. Placing restrictions in the form of Land Use Controls in the Quit Claim Deed for any parcel is unacceptable. More so because when the Navy began to use this land there were no land use restrictions.

The Navy is absolutely responsible for whatever is in and under those land parcels that wasn't there before 1941, and as such, should return it to its original condition, not look for the legally cheapest way to abandon Ceiba and Naguabo lands to an uncertain fate and a limited use.

## II Specific Comments

1. **SWMUs 1 and 2:** Dioxins/furans and elevated levels of other contaminants were found at this site. Table 7-1 indicates an NFA with no restrictions for AOC D (marine sediments).

We object to the early transfer of any site where dioxins/furans were found. As a precautionary principle, dioxins/furans should be removed to prevent them from gaining access to ground and surface water, and to prevent humans and animals from exposure to these extremely hazardous substances. Were any other remediation alternatives considered besides LUCs?

According to the table that constitutes Exhibit E several actions have been undertaken on this site, including a Baseline Ecological Risk Assessment and CMS Work Plan. These documents have not been available for public review. These documents should be made available to the community before the transfer of these sites is even considered.

2. **SWMU 3:** Dioxins/furans and elevated levels of other contaminants were found at this site. We object to the early transfer of any site where dioxins/furans were found. As a precautionary principle, dioxins/furans should be removed to prevent them from gaining access to ground and surface water, and to prevent humans and animals from exposure to these extremely hazardous substances. Were any other remediation alternatives considered besides LUCs? Why hasn't the community been allowed to examine the environmental studies for this parcel (if any) and the waste characterization data? These documents should be made available to the community before the transfer of this site is even considered.

3. **SWMU 9:** According to the table that constitutes Exhibit E a Phase I RFI Workplan was been submitted for Area B Tank 214 on January 2007, and a CMS is or was underway. This table also refers to a Baseline Ecological Risk Assessment and a CMS Work Plan. These documents have not been available



for public review. These documents should be made available to the community before the transfer of this site is considered.

4. **SWMU 11:** PCB and ACMs were found in this building and the remedy proposed is a total access restriction. PCB and ACM contamination is remediable. We oppose LUC as a remedy and we request the remediation of the site before transfer.
5. **SWMU 16:** According to the table that constitutes Exhibit E Phase I RFI Workplan has been approved for this site. In order for us to be able to properly evaluate if this property is suitable for early transfer this Work Plan should be made available to the community. We oppose the early transfer of this site until the RFI Report has been examined and commented by the community.
6. **SWMU 17:** The Consent Order requires an RFI for this site, yet it has been eliminated from the table that constitutes Exhibit E. We oppose the early transfer of this site until the RFI Report has been examined and commented by the community.
7. **SWMU 31:** Dioxins/furans and elevated levels of other contaminants were found at this site. We object to the early transfer of any site where dioxins/furans were found. As a precautionary principle, dioxins/furans should be removed to prevent them from gaining access to ground and surface water, and to prevent humans and animals from exposure to these extremely hazardous substances. This type of contamination can be cleaned, LUCs and an asphalt cap are not an acceptable remedy.

We request the remediation of the site before transfer.

8. **SWMU 32:** Dioxins/furans and elevated levels of other contaminants were found at this site. We object to the early transfer of any site where dioxins/furans were found. As a precautionary principle, dioxins/furans should be removed to prevent them from gaining access to ground and surface water, and to prevent humans and animals from exposure to these extremely hazardous substances. This type of contamination can be cleaned,

LUCs are not an acceptable remedy.

We request the remediation of the site before transfer.

9. **SWMU 45:** PCB and elevated levels of other contaminants were found at this site. Table 7-1 indicates an NFA with no restrictions for AOC D (marine sediments).

According to the table that constitutes Exhibit E several actions have been undertaken on this site, including a Baseline Ecological Risk Assessment and CMS Work Plan. These documents have not been available for public review. These documents should be made available to the community before the transfer of this site is considered.

Were any other remediation alternatives considered besides LUCs?

10. **SWMU 46:** PCB and elevated levels of other contaminants were found at this site. This type of contamination can be cleaned, LUCs are not an acceptable remedy.

The table that constitutes Exhibit E that the CMI Workplan will be implemented at the end of the public comment period, and at the same time indicates that remediation was initiated in 2006. We request clarification of these contradictory statements.

We request the complete cleanup of the site before transfer.

11. **SWMU 53:** The table that constitutes Exhibit E that the CMI Workplan will be implemented at the end of the public comment period, and at the same time indicates that remediation was initiated in 2006. We request clarification of these contradictory statements and complete cleanup of the site before transfer.
12. **SWMU 54:** In this site, where the groundwater is contaminated with TCE, we learn from the Consent Order, that included in this SWMU and was the

location of a former 4,000-gallon UST, south of Building 1914. The date of installation and the type of fuel stored is unknown (assumed to be gasoline), but it was decommissioned in 1992. And that although a CMS work plan has been approved by EPA; implementation has not been fully completed. This is very confusing information, not enough to illustrate anybody on the history of this site.

Yet, the site has disappeared from the table that constitutes Exhibit E. It is impossible to comment on this site with the information available.

We request the site not be transferred until the community has been fully informed about it.

13. **AOC A:** According to the table that constitutes Exhibit E an RFI is being developed and the contaminants are "unknown, to be determined during the Phase I RFI". When is the RFI document going to be made available to the community?

We request the site not be transferred until the RFI document has been made available to the community and the community has been able to emit their comments.

14. **SWMU 6/AOC B:** Dioxins/furans and elevated levels of other contaminants were found at this site. We object to the early transfer of any site where dioxins/furans were found. As a precautionary principle, dioxins/furans should be removed to prevent them from gaining access to ground and surface water, and to prevent humans and animals from exposure to these extremely hazardous substances.

The Consent Order indicates that remediation for this site is complete and "is contingent on the Respondent completing acceptable closure of all hazardous waste container storage units located inside the DRMO compound" as well as public comment. This site has been dropped from the table that constitutes Exhibit E. What does remediation complete mean? Are LUCs being

recommended for this site?

We request the site not be transferred until the community has been fully informed.

15. **SWMUs 57, 59, 60, 61, 62, 67, 70, 71, 73:** A lot of investigation and remediation still remains to be done on these sites. We request they not be transferred until either the RFIs, site characterizations or CMSs are completed, made available to the community for comments and discussed within the community.

16. **AOC C:** PCB and elevated levels of other contaminants were found at this site. This type of contamination can be cleaned, LUCs are not an acceptable remedy.

It is indicated in the table that constitutes Exhibit E that a CMI Workplan will be implemented at the completion of the public comment period, but also that remediation is already ongoing. We request this site not be transferred until this contradictory information is clarified and the site has been completely cleaned.

17. **AOC E:** According to the table that constitutes Exhibit E, RFI fieldwork is currently in progress.

We request the site not be transferred until the RFI document has been made available, the community has been able to emit their comments and the site has been completely

### **III About public information and public participation**

The US Navy, the regulatory agencies and the Government of Puerto Rico expect the people of Puerto Rico to endorse the transfer of former Naval Base Roosevelt Roads and its re-development. In order for this to happen, the process has to be absolutely transparent. If the information on which decisions are to be based is not available for public review, this clouds both governments' credibility. If the public participation process is deceptive, or hurried without allowing the community to fully understand what is happening, this erodes the agencies' and both governments' credibility even more. For instance, when the Consent Order was up for public comment, the RAB hadn't been created. The public notice was placed in The San Juan Star, a newspaper that is read by only very small segment of the Puerto Rican population. A meeting was held to talk about the Consent Order, but it was not clearly explained to the community that the very few questions or comments made at that meeting (where certainly no one understood the implications of the signing of this document) were to be used and placed in the document as if it had been a public hearing.

With this statement and the comments expressed at the beginning of this document we would like to state for the record of this remediation and land reversion process that we are profoundly unsatisfied with the manner in which the Government of the United States and el Estado Libre Asociado have handled this matter. We are firm believers that only a process based on transparency, public participation—decisive and real— and access to information will achieve true community involvement. And only through true community participation Puerto Ricans will feel confident that our expectations of regaining our lands as safe and clean as is needed in order to achieve the development that we all need and aspire to will be met.

Submitted, Saturday, June 09, 2007

Lirio Márquez D'Acunti  
RAB Community Member

Jorge Fernández Porto  
RAB Community Member

Guillermo J. Avilés Mendoza, J.D.  
P.O. Box 58136  
Washington, D.C. 20037

June 10, 2007

U.S. Department of the Navy  
Base Realignment and Closure  
Program Management Office Southeast  
Att: Mr. Jeffrey Meyers, P.E., CHMM  
BRAC Environment Coordinator  
4130 Faber Place Drive Suite 202  
North Charleston, South Carolina 29405

Mr. Meyers:

Please find the enclosed comments to the Draft Final Covenant Deferral Request, Former Naval Station Roosevelt Roads in Ceiba, Puerto Rico.

It is an honor to exercise my right and provide a constructive suggestion to the transfer process of the real property comprising the former naval station.

If you have any questions, please do not hesitate to contact me at (202) 489-6676 or e-mail me at [Lcdo.AvilesMendoza@gmail.com](mailto:Lcdo.AvilesMendoza@gmail.com).

Sincerely,

A handwritten signature in black ink, appearing to be 'G. Aviles Mendoza', written over a horizontal line.

GUILLERMO J. AVILES MENDOZA, J.D.

COMMENTS  
TO  
FINAL DRAFT  
COVENANT DEFERRAL REQUEST

FORMER NAVAL STATION ROOSEVELT ROADS  
CEIBA, PUERTO RICO

Prepared by:

Guillermo J. Avilés Mendoza, J.D.,  
P.O. Box 58136  
Washington, D.C. 20037

June 2007

Guillermo J. Avilés Mendoza, J.D.  
Comments to Final Draft Deferral Request  
Former Naval Station Roosevelt Roads, Puerto Rico

**I. Disclaimer**

The comments here provided represent the ideas of Guillermo J. Avilés Mendoza as a citizen of the United States of America exercising the right to submit, within the public commentary period, written comments on the suitability of the proposed title transfer of portions of the real property comprising the former Naval Station Roosevelt Roads, Puerto Rico by deed before all required remedial actions have been accomplished pursuant to Section 120(h)(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

**II. Requirements for Early Transfer under Section 120(h)(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA)**

Approximately 4,599 acres at the former naval station, including the islands of Piñeros and the Cabeza the Perro, are areas with hazardous substances levels requiring institutional controls as part the remedial action. With ongoing remedial investigations the institutional controls at the former naval station are likely to evolve. Therefore, before the Governor of Puerto Rico approves the transfer of title without the required corrective actions the proposed institutional controls must guarantee that the intended use of the real property is consistent with protection of the environment and human health and that required remedial investigations, and oversight activities will not be disrupted. As a result, the evaluation of the property transfer is contingent on the establishment that the institutional controls will be effective in preventing environmental or human exposure to hazardous substances that remain on site above levels which allow unrestricted use.



### **III. Health Concerns**

The March 12, 2007 unofficial minutes of the Restoration Advisory Board (RAB) for the former Naval Station Roosevelt Roads demonstrate that community members of Ceiba, Fajardo and Naguabo have health related concerns as to the potential exposure to the hazardous substances at the former Naval Station Roosevelt Roads.<sup>1</sup>

### **IV. Agency for Toxic Substances and Disease Registry (ATSDR) & Section 104(i) and 104(i)(4) of CERCLA**

Section 104(i) of CERCLA created the Agency for Toxic Substances and Disease Registry (ATSDR) at the U.S. Department of Health and Human Services. ATSDR is mandated by the U.S. Congress to perform specific functions concerning the effect on public health of hazardous substances in the environment. Although not a regulatory agency, ATSDR has provided in the past important data for the enhancement of institutional controls at sites with hazardous substances not in the national priority list. For instance, the ATSDR provides health consultations concerning specific hazardous substances, health surveillance, applied research in support of public health assessments, information development and dissemination, and education and training concerning hazardous substances.<sup>2</sup>

<sup>1</sup> Naval Activity of Puerto Rico Virtual Project Website- "NAPR-RABMtgMinutes 12Mar2007 English" Restoration Advisory Board (RAB) Information. Available at <http://nsrr-ir.org/rab.asp#2>. Last accessed June 10, 2007

<sup>2</sup> About ATSDR. Available at <http://www.atsdr.cdc.gov/about.html>. Last accessed June 10, 2007

Guillermo J. Avilés Mendoza, J.D.  
Comments to Final Draft Deferral Request  
Former Naval Station Roosevelt Roads, Puerto Rico

Section 104(i)(4) of CERCLA reads as follows,

The Administrator of the ATSDR shall provide consultations upon request on health issues relating to exposure to hazardous or toxic substances, on the basis of available information, to the Administrator of EPA, State officials, and local officials. Such consultations to individuals may be provided by States under cooperative agreements established under this chapter.

**V. Comments**

The Restoration Advisory Board (RAB) record shows community members with health related concerns as to the potential exposure to the hazardous substances at the former Naval Station Roosevelt Roads. Navy's Final Draft Deferral Request is silent as whether the Agency for Toxic Substances and Disease Registry (ATSDR) was consulted for remedial investigations that formulated the present institutional controls for the former Naval Station Roosevelt Roads. It is in the best interest of all the involved parties to explore the possibility of consulting with, under Section 104(i)(4) of CERCLA, the ATSDR. Collaboration with the ATSDR provides the Government of Puerto Rico with evidence based public health data that will corroborate whether the institutional controls and the intended use of the real property are consistent with protection of the environment and human health.

*Covenant Deferral Request*  
*Former Naval Station Roosevelt Roads, Puerto Rico*

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**EXHIBIT I**  
**RESPONSES TO UNRESOLVED WRITTEN COMMENTS**

**Document:** Draft Covenant Deferral Request, Former Naval Station Roosevelt Roads  
**Document Date:** March 2007  
**Comments By:** Puerto Rican Veterans and Soldiers Council  
**Comments Date:** April 12, 2007

Email version of letter:

RODRIGUEZ LEGAL ACTION CENTER CORPORATION  
Golden Beach Condominium  
3511 Isla Verde Ave. Ste. 404 Tel. and Fax: 787-268-5269  
Carolina, PR 00979-4912

April 12, 2007

Mr. Jeff Meyers,  
Navy BRAC Program Management Office Southeast  
4130 Faber Place Drive, Suite 202  
North Charleston, SC 29405

Dear Mr. Meyers,

I am writing on behalf of Mr. William Lourido, president of the Puerto Rican Veterans and Soldiers Council, Inc. He is, at present, a member of the Roosevelt Roads Restoration Advisory Board.

Aside from representing the interests of the communities, Mr. Lourido has put forward a proposal to Portal del Futuro for the establishment of a Project named Veterans City. The proposed plan for this project includes a living and recreation area for disabled and aged veterans, including facilities for those in need of assisted living and nursing care.

The plan includes a proposed national monument to honor American men and women veterans of all wars and armed conflicts. Added to this is a memorial to civilians, especially to members of the press and other media that have died in the course of discharging their duties in the war effort.

Since there is a lack of space in the national cemetery, Mr. Lourido has proposed a design for a burial vault filled with stacked niches for putting the remains of our dead veterans in their final resting place. Adjoining the burial vault, there would be a chapel for carrying out religious services and ceremonies.

Mr. Lourido considers that he needs of a total of 100 acres for the development of the above-mentioned projects. Naturally, he would expect these premises to be decontaminated. Anything not certified as free from contaminants, should be marked in a map available for inspection to all interested parties. If possible, the property should be restricted for this designated use before transfer is effected.

Although the projects contained on the Veterans City Plan appear staggering from a financial standpoint, when coming down to basics, it may be seen that it is affordable. The land is available by property transfer from the Navy. Each project in the major plan may be financed with private capital, first in the initial construction and preparation of facilities and second in the later stage of administration. Private contractors can bid into any phase of the projects, creating needed jobs.

Mr. Lourido expects an endorsement from our governor, who, in the past, has exercised his influence to obtain benefits for our veterans. He is especially grateful for our governor's intervention to correct an injustice committed against the Korean veterans belonging to the 65th Infantry Regiment.

Thank you for your attention to this matter.

Cordially,

SONIA RODRIGUEZ-VALLECILLO, ESQ.

Legal Advisor to the Puerto Rican Veterans and Soldiers Council, Inc.

Copy sent to:

1) Mr. William Lourido, Calle 530 QB-8, Country Club, Carolina, PR 00982; Wlourido@aol.com.

2) Mr. Antonio Colorado, Portal del Futuro, PO Box 362350, San Juan, PR 00936-2350; ajcolorado@pridco.com.

3) Mr. Ramón Figueroa, RAB, Community Co-Chairman, CIV USA USAIMA; ramon.david.figueroa@us.army.mil.

**Response:**

The Navy certainly understands and appreciates Mr. Lourido's concern for the care and remembrance of our nation's veterans.

However, the Navy is statutorily obligated to give the Local Reuse Authority's (LRA's) redevelopment plan considerable weight in making property disposal determinations. Accordingly, a request for a Veterans City is more appropriately made to the LRA (Portal del Futuro), which Mr. Lourido has done.

Should the LRA propose to make a change in the approved land use plan to incorporate a Veterans City, the Navy would consider it and, with EPA and EQB, would evaluate the proposed land use relative to the environmental condition of the parcel.

To whom it may concern:

Ceiba residents want you to find out about the contamination that occurred and still exists at the former Naval Station land because here, we heard the planes at 4:00 am and also when Vieques was bombed, our houses almost fell off and the contamination caused by the particles in the air carried to the town of Ceiba.

María García  
Jardines de Ceiba  
St. # 10, J23  
C.R. PR 00735

My father worked in the base for 15 years, with R.C.A. and General Electric.

Response:

The Navy understands that Ceiba residents are concerned about the contamination committed to the environment. The Navy is committed to providing information about this contamination to the community members who have volunteered to participate in the restoration. The Navy Board (RAE) members of the public are welcome to attend RAE meetings.

The Navy is currently conducting investigations, or will be investigating, to protect human health. The Navy is also conducting investigations of contaminants to the town of Ceiba.

The CDR does not deal with any environmental issues at Vieques, only at Ceiba.

**Document:** Draft Covenant Deferral Request, Former Naval Station Roosevelt Roads  
**Document Date:** March 2007  
**Comments By:** Naval Activity Puerto Rico Restoration Advisory Board  
**Comments Date:** June 9, 2007

Mr. Jeff Meyers  
Navy BRAC Program Management Office Southeast  
4130 Faber Place Drive, Suite 202  
North Charleston, SC 29405

**Re: Draft Covenant Deferral Request, Former Naval Station Roosevelt Roads,  
Ceiba, Puerto Rico of March 2007**

After having examined the abovementioned document, we respectfully submit the following commentaries –

**I Commentary of a General Nature**

1. As members of the community, we oppose the transfer of portions of the real property comprising the former Naval Station Roosevelt Roads by deed before all the necessary remedial actions have been completed pursuant to Section 120(h)(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and Department of Defense (DoD) early transfer guidance. This opposition is sustained despite the acknowledgement of Section 2905(e) of the Defense Base Closure and Realignment Act of 1990 (BRAC), which states that subject to Section 19 120(h) of CERCLA, the Secretary of Defense "may enter into an agreement to transfer by deed real property or facilities....with any person who agrees to perform all environmental restoration, waste management, and environmental compliance activities that are required for the property or facilities under Federal and State laws, administrative decisions, agreements (including schedules and milestones), and concurrences" and that if the costs of all environmental restoration, waste management, and environmental compliance activities are lower than the fair market value of the property or facilities, the recipient of the property or facilities must agree to pay the difference between the fair market value and such costs.

This transfer method, even if it is legally allowed, excludes the community from a real oversight in the remediation actions of the transferred parcels, more so if they are sold to a private entity.

The April, 2007 RAB Newsletter states:

**"How long will the RAB keep working?** The BRAC transfer process will continue until mid-2008. The Navy will sponsor the RAB until after all the property has been transferred, and the Navy is no longer taking an active role.

**What happens then?** That's a question that the RAB will explore together, over the next year or so. **The hope is that the RAB will continue working** with EPA and Portal del Futuro, as the parcels are cleaned up and redevelopment begins..."

This statement doesn't guarantee that after the transfer community participation and oversight will continue.

**Response:**

As long as the Navy has ongoing cleanup activities at the former Naval Station Roosevelt Roads, it will continue to support and conduct the RAB. For cleanup activities performed by the Commonwealth on property transferred to the Portal del Futuro, the Navy will encourage the Commonwealth to continue to participate in the RAB. For the cleanup work on the sale parcels, public participation will continue through the Resource Conservation and Recovery Act (RCRA) Corrective Action process as required in the Third-party Orders signed between the new owners and EPA Region 2. For cleanup work on property transferred to other federal agencies, the receiving agency's policies on public participation will govern their participation in the existing RAB or some other forum. At a minimum, the receiving federal agency will be required to follow the public participation requirements of the RCRA Corrective Action process as required in the Third-party Order signed between the agency and EPA Region 2. Under RCRA, decision documents (such as Corrective Measures Studies and Statements of Basis) require a public notice; the public can request a public meeting as well.

2. CERCLA's provisions for property transfers by Federal Agencies state that:

"...any real property owned by the United States on which any hazardous substance was stored for one year or more, known to have been released, or disposed of, each deed entered into for the transfer of such property by the United States to any other person or entity shall contain—

(i) to the extent such information is available on the basis of a complete search of agency files—

(I) a notice of the type and quantity of such hazardous substances,

(II) notice of the time at which such storage, release, or disposal took place, and

(III) a description of the remedial action taken, if any;

(ii) a covenant warranting that—

(I) all remedial action necessary to protect human health and the environment with respect to any such substance remaining on the



property has been taken before the date of such transfer; and  
(II) any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States (CERCA Section 120(h)(3)(A)).

Now, in order for this requirement for remedial action previous to transference be deferred, Section 120(h)(3)(C) states:

**(C) Deferral**

(i) In general The Administrator, with the concurrence of the Governor of the State in which the facility is located (in the case of real property at a Federal facility that is listed on the National Priorities List), or the Governor of the State in which the facility is located (in the case of real property at a Federal facility not listed on the National Priorities List) may defer the requirement of subparagraph (A)(ii)(I) with respect to the property if the Administrator or the Governor, as the case may be, determines that the property is suitable for transfer, based on a finding that—

- (I) the property is suitable for transfer for the use intended by the transferee, and the intended use is consistent with protection of human health and the environment
- (II) ...
- (III) the Federal agency requesting deferral has provided notice, by publication in a newspaper of general circulation in the vicinity of the property, of the proposed transfer and of the opportunity for the public to submit, within a period of not less than 30 days after the date of the notice, written comments on the suitability of the property for transfer; and
- (IV) the deferral and the transfer of the property will not substantially delay any necessary response action at the property.

We would like to comment these three requirements, beginning with (III):

Our duty, as members of the public and RAB community component, is to submit written comments on the suitability for transfer of the property. We find this a very difficult task.

**First**, some of the most important documents that serve as an information source for evaluating the suitability for transfer are not available to the public: for example, the RFA, Phase I/II Environmental Condition of Property (ECP) Report (July 15, 2005).

Reference is made to documents from the 80's that are part of the environmental record of these properties. But the public doesn't have access to them and they are not even in the digital document repository.

**Response:**

The RFA, Phase I/II ECP Report, as well as all relevant documents from the 1980s are available on the electronic Administrative Record located at [www.nsrr-ir.org](http://www.nsrr-ir.org). Conclusions from the ECP Report are also attached to the CDR.

As a result of Section 8132 of Public Law 108-87 -the Department of Defense Appropriations Act, 2004 (signed 31 September 2003)- a series of documents were published that the public never had the opportunity to examine or comment. For example, the Draft Phase II Environmental Condition of Property Work Plan, dated 2004; the Draft Phase II Environmental Condition of Property Report and Activity Puerto Rico (Draft Phase II Report), dated September 1, 2004; the Draft Biological Assessment for Land Transfer of Naval Station Ponce, Puerto Rico (Geo-Marine, Inc. September 2005); and the Assessment and Restoration Plan Environmental Assessment (U.S. Department of Defense, 2004), among others. We are aware of their existence because they appear as reference in some of the documents available to the public.

In fact, the Draft CDR states (pages 7 and 8) that "detailed summaries of the findings to date for all SWMUs and AOCs are provided in the ECP Report" and "chemical data collected during the investigations of these sites were used to perform human health and ecological risk assessments which indicated the potential for adverse human health exposure to the residual contaminants detected in groundwater, surface water, surface and subsurface soil, and sediment." These HHRAs and ERAs are not available to the public either.

**Onset**

final Biological Assessment and the Damage Assessment and Restoration Plan have been placed on the [www.nsrri-ir.org](http://www.nsrri-ir.org) website.

The human health and ecological risk assessments are contained in SWMU-specific documents, all available on the [www.nsrri-ir.org](http://www.nsrri-ir.org) website.

**Second**, it is very difficult to evaluate suitability for transfer when the information about some of the sites under evaluation is incomplete or inadequate. Take SWMU 16 as an example: in Table 7-1 a recommendation that no action is to be taken (NFA) is stated; but in the "Early Transfer Property Site Investigation and Remedial Action Summary" (March 2007) it is described as a site where additional investigation is warranted and a Phase 1 RFI is being developed. This same situation applies to SWMUs 27, 28, 29 and 42; and AOC A. In all these sites, a RCRA Facility Investigation is being developed. Yet, we are asked to evaluate their suitability for transfer without the benefit of the results of these investigations, and even without contaminants concentration data.

**Response:**

The information contained in Table 7-1 (part of the 2005 ECP Report and attached to CDR) for SWMUs 16, 27, 28, 29, and 42, and AOC A, was superseded by the RCRA 7003 Order signed in January 2007. As is noted, RFIs for these sites are currently being developed. Accordingly, the Navy is imposing interim land use controls (LUCs) for the duration of the covenant deferral period to ensure protection of Human Health. SWMU 16 is the Waste Explosives Storage Building, which is a small (10-ft X 10-ft) building located on a sale parcel near the airfield. AOC A is the torpedo shop. While originally proposed for no further action in the November 1994 RCRA permit, EPA determined the sites now warrant Phase I RFIs since the Navy is closing the NAPR facility and plans to sell or transfer these parcels to non-federal entities. The contaminants of concern at these sites are munitions and explosives of concern-related compounds and access to the sites will be restricted by deed during the interim period until the RFIs are completed. EPA will enforce the deed restrictions through the RCRA order.

SWMUs 27, 28, 29, and 42 are operating water and wastewater treatment plants. It is anticipated that any contaminants found at these SWMUs are the result of past operation of these plants. The plants are secured with fencing and only authorized personnel are allowed to enter these areas. It is anticipated that these plants will continue to operate after transfer and the accompanying deeds will restrict access to these SWMUs until the

RFIs are complete. EPA will enforce the deed restrictions through the RCRA order.

Third, it is very difficult to evaluate sites for the suitability of early transfer where remediation has already begun while the public comment period for the Correctives Measures Implementation Work Plan has not ended. This situation happens in SWMUs 13, 46 and 53, and AOC C. We simply do not understand how the remedy is being implemented before the discussion of its viability has occurred. This tells us that either the Early Transfer has become a desperate measure, or that public comment periods are a farce. To this date, we have not seen a single CMI WP, or for that matter, a single CMS or a CMS WP, both of which are called for in SWMUs 1, 2, 7/8, 9, 45, 55, 56, 59, 61, 69, 73 and 74.

**Response:**

CMS documents for SWMUs 1, 2, 7/8, 9, and 55 are available to the public on the electronic Administrative Record located at [www.nsrri-ir.org](http://www.nsrri-ir.org). All of these CMS documents have been reviewed and approved by the EPA and Puerto Rico Environmental Quality Board (EQB). Look for Document Numbers 739, 791, 977, 978, and 1079.

CMS Work Plans for SWMUs 56, 59, 61, 69, 73, and 74 are presently under development.

The public comment period for the CMI Work Plans for SWMUs 13, 46, 53 and AOC C took place concurrently with the public comment period for the RCRA 7003 Order in September 2006. In an effort to continue the cleanup process, the field work for these sites was initiated in 2006 prior to the completion of the public comment period in coordination with EPA. With the signing of the RCRA 7003 Order, EPA has approved of the work plans and the Navy is preparing the after-action reports on the cleanup.

SWMU 45, which encompasses areas around the old power plant (SWMU 11) that were impacted by releases to the external environment, is undergoing an ecological risk assessment in conjunction with SWMU 11, and then a CMS will be performed.

Section C(i)(I), which states that "the property is suitable for transfer for the use intended by the transferee, and the intended use is consistent with protection of human health and the environment", we have the following comments:

Reportedly, there changes have been made to the proposed property uses since the Puerto Rico Government (in this case the Local Redevelopment Authority) submitted the Naval Station Roosevelt Roads Reuse Plan in December 2004 (the only one we have seen). The head of the LRA has stated to the local press that there will be changes in the Plan, but according to what appeared in the press, they will be announced later this year. We have also been informed by an LRA member that the "Downtown" area has been moved from where it was first proposed to an area that in the Reuse Plan was proposed as a Science Park. As we do not have documents or written proposals to evaluate this and other changes at this time, it is very difficult to ascertain whether the intended use is consistent with protection of human health and the environment.

The absence as of this moment of a zoning plan for the implementation of the Reuse Plan (whichever it may be) is also a limitation in the transfer suitability evaluation process. The promised Special Regulation for the Reuse Plan will not be ready before the Covenant Deferral Request is signed. This is another drawback when evaluating the suitability for transfer. It seems like the early transfer process is being pushed through regardless of the lack of the necessary information for its proper evaluation.

**Response:**

At this time the Navy has not seen any new or revised Reuse Plan proposal from the LRA, either formally or informally. Should the LRA propose a different reuse, the Navy will evaluate and respond accordingly, including any necessary revisions to remedial decisions and cleanup responsibilities under the Navy's RCRA order or future cleanup and LUC responsibilities under the third-party orders for new property owners.

Section C(i)(IV), states that "the deferral and the transfer of the property will not substantially delay any necessary response action at the property"; regarding this section several questions come to mind:

- How many third parties will there finally be?

**Response:**

Two of the three proposed sale parcels are subject to this Covenant Deferral Request (one sale parcel is clean). All sale parcels will be sold separately, but one buyer may purchase all. Therefore, there is the

potential to have two "first tier" third parties for the sale parcels. If the Navy and the Commonwealth enter into an Early Transfer Cooperative Agreement, the Commonwealth will conduct cleanup for the Airfield, Port, and Science Park parcels under a first tier third party order.

- Will cleanup responsibilities be delegated upon clients of the "first tier" third parties? Let's say a third party buys, either from the Government of Puerto Rico or the Navy, one or more parcels and subdivides and sells them. Will they be allowed to do this without cleaning up first?

**Response:**

An original buyer of the property may transfer cleanup to another party only if agreed to by both EPA and the Navy. Neither the Navy nor EPA will agree to this if it would endanger cleanup efforts, scheduling, and accountability. Property may be sold to another party with the original third-party keeping cleanup responsibility, provided the Navy and EPA are notified of the transaction at least 90 days prior.

- How do the Navy or EPA plan to follow up the clean up when it is carried out simultaneously by several persons in several parcels?

**Response:**

New 'first tier' parties [purchaser(s) of the two sale parcels with RCRA sites, and possibly the LRA for the Airfield, Port, and Science Park parcels] will enter into a RCRA Consent Order with the EPA for all cleanup sites on the appropriate parcels. As mentioned above, the cleanup cannot be further delegated without the express approval of both the Navy and EPA. Accordingly, only a limited number of RCRA Consent Orders will be developed. The EPA will certainly be able to oversee cleanup efforts.

- How will the agencies deal with the inevitable proposals and actions to postpone clean up until some economic benefit is derived from the "clean" parts of the parcels?

**Response:**

CERCLA 120 (h) requires that the Early Transfer not substantially delay any necessary response action. In order to ensure this, the RCRA Order(s) entered into between the EPA and all new parties will contain schedule requirements. Additionally, the Navy will require successful bidder(s) to meet certain financial requirements so cleanup funding is not dependent upon future economic benefit from the parcels.

Furthermore, under the Consent Order and the subsequent Third Party Order, the Navy is responsible for the cleanup, regardless of whether there is an economic benefit from clean parcels. The Navy is committed to funding cleanup on Public Benefit Conveyance and Economic Development Conveyance parcels through the execution and funding of an Early Transfer Cooperative Agreement (ETCA) with the LRA to ensure the prompt and effective cleanup of these parcels. If the Navy and LRA are unable to agree on the terms of an ETCA, the Navy will remain obligated to perform the cleanup itself, under the terms of the Consent Order.

- How do the agencies plan to deal with proposed variations -whether significant or not- in land use?

**Response:**

Should a proposal for a change in land use be requested, the Navy, EPA, and EQB would evaluate the change relative to the environmental condition of the parcel. Should a new owner propose a less restrictive reuse (for example, residential) the new owner may have to conduct additional cleanup or studies to demonstrate potential risk to human health and the environment. In that case, any Land Use Controls imposed would only be released or modified if EPA and the Navy approve.

- Who will grant land use variations, the Puerto Rico Planning Board? Even if the Navy remains legally obligated to perform the cleanup?

**Response:**

Land uses will be governed through a special zoning district ordinance proposed in the Reuse Plan. The Puerto Rico Planning Board is the agency that will be responsible for any zoning or land use variations. However, once an environmental land use restriction is recorded on the deed, only the Navy can release or modify that restriction. This would only occur with the consent of EPA under the requirements of the RCRA Order.

- Where is the proposed cleanup schedule that will provide a guarantee to the community that the contamination will be cleaned in a timely manner that provides us with a reasonable expectation that the contaminants will not remain in our land or water for a long, long time?

**Response:**

The Navy's RCRA Order contains requirements to submit work plans and implement corrective actions at several of the SWMUs and AOCs. According to the order implementation schedules for field work and the completion of studies and reports may be outlined in individual work plans as approved by EPA. All CMS documents and work plans contain a proposed cleanup schedule for each individual site. These CMS are available to the public on the electronic Administrative Record located at [www.nsrir-ir.org](http://www.nsrir-ir.org).

Frankly, we have serious concerns as to whether the scenario proposed by the Navy and the Puerto Rican Government "will not substantially delay any necessary response action at the property".

**Response:**

The statutory requirement that the early transfer "will not substantially delay any necessary response action at the property" is met through the reference in the CDR and the deed to the RCRA Orders and their requirements to adhere to schedules outlined in those orders. Through the Navy's RCRA Order and the CDR, the Navy remains legally obligated



to perform the necessary response actions if such actions are not completed in a timely and competent fashion by the transferees.

3. **Groundwater is addressed in a piecemeal fashion.** Many of the SWMU's and AOC's will have groundwater use restrictions in place. Section 4.0 of the Draft CDR states that "a restriction on use of groundwater and installation of new wells in or near areas of known groundwater contamination" will be included in the Quit Claim Deed for some of the parcels.

The Navy is addressing groundwater as if there were several distinct, separate and isolated aquifers under the former NSRR. It does not seem to be sound groundwater management to restrict well drilling "in or near areas of known groundwater contamination". Groundwater doesn't just stay put in one place. Also, the Draft CDR does not address the issue of where the groundwater contamination came from; and neither does it address where it goes to. There is no mention at all about pollution migration in the groundwater.

**Response:**

Due to the nature of the RCRA Corrective Action process, the Navy addresses groundwater contamination, if any, at individual SWMUs. This investigation and analysis is not part of the CDR, but rather part of SWMU-specific documents such as RFI and CMS. All sites with groundwater contamination present are either subject to periodic groundwater monitoring, or slated for remedial action as spelled out in the respective CMS. Monitoring programs are designed to determine sources and any contaminant migration, and to evaluate the effectiveness of the remedial action. In the event contaminants continue to migrate past SWMU or AOC boundaries and/or buffer zones, or concentrations change substantially, additional monitoring wells and/or modified remedies will be considered in consultation with EPA, and implemented accordingly.

Will there be restrictions on well drilling outside known SWMUs? How far into the future will the well drilling restriction be in place? Are there any known working wells in the NSRR right now?

**Response:**

Restrictions are, and will be, in place in or near any SWMU that has resulted in groundwater contamination. Appropriate buffers around the

SWMUs will be developed in coordination with EPA and EQB. These restrictions will be in place until the groundwater is clean. There will be no restrictions on well drilling outside LUC areas (including the SWMU and any buffer as noted above). Monitoring programs will determine if migration would affect the specific area subject to a LUC; however, groundwater at the base is fairly stable.

There are no working wells on the former NSRR property.

4. **Land Use Controls.** The People of Puerto Rico should not be restricted in the use and enjoyment of our land because the entity that polluted it does not want to clean the pollution. Placing restrictions in the form of Land Use Controls in the Quit Claim Deed for any parcel is unacceptable. More so because when the Navy began to use this land there were no land use restrictions.

The Navy is absolutely responsible for whatever is in and under those land parcels that wasn't there before 1941, and as such, should return it to its original condition, not look for the legally cheapest way to abandon Ceiba and Naguabo lands to an uncertain fate and a limited use.

**Response:**

All Land Use Controls put in place by the Navy are consistent with the LRA's reuse plan, and do not inhibit beneficial reuse of the land. This approach is consistent with existing DOD/EPA policy for all closed military bases.

**II Specific Comments**

1. **SWMUs 1 and 2:** Dioxins/furans and elevated levels of other contaminants were found at this site. Table 7-1 indicates an NFA with no restrictions for AOC D (marine sediments).

We object to the early transfer of any site where dioxins/furans were found. As a precautionary principle, dioxins/furans should be removed to prevent them from gaining access to ground and surface water, and to prevent humans and animals from exposure to these extremely hazardous substances. Were any other remediation alternatives considered besides LUCs?

**Response:**

Any contaminants detected during the AOC D RFI were effectively transferred to the respective source SWMU RCRA Corrective Action process. Portions of AOC D that were clean were given an NFA. Those portions of AOC D where contaminants were detected are SWMUs 1, 2, 9, and 45. Those SWMUs are still under investigation; accordingly, remediation alternatives, including the possibility of removal or LUCs, will be considered. Any remedy implemented must result in protectiveness to human health, including from any dioxins/furans present.

According to the table that constitutes Exhibit E several actions have been undertaken on this site, including a Baseline Ecological Risk Assessment and CMS Work Plan. These documents have not been available for public review. These documents should be made available to the community before the transfer of these sites is even considered.

**Response:**

The CMS Work Plan and Screening Level Ecological Risk Assessment documents for SWMUs 1 and 2 are available to the public on the electronic Administrative Record located at [www.nsrri-ir.org](http://www.nsrri-ir.org). Look for Document Numbers 739, 1015, 1022, and 1172. The Baseline Ecological Risk Assessment for SWMUs 1 and 2 (and 45) is currently under development.

2. **SWMU 3:** Dioxins/furans and elevated levels of other contaminants were found at this site. We object to the early transfer of any site where dioxins/furans were found. As a precautionary principle, dioxins/furans should be removed to prevent them from gaining access to ground and surface water, and to prevent humans and animals from exposure to these extremely hazardous substances. Were any other remediation alternatives considered besides LUCs? Why hasn't the community been allowed to examine the environmental studies for this parcel (if any) and the waste characterization data? These documents should be made available to the community before the transfer of this site is even considered.

**Response:**

Part of SWMU 3 (that part which was permitted as a landfill) is currently being closed according to the approved Closure and Post Closure Plan, and pursuant to EPA and EQB regulations. The Closure and Post Closure Plan (subject to a public review concurrent with the Consent Order) is available on [www.nsrr-ir.org](http://www.nsrr-ir.org), and was placed in the three public repositories in Puerto Rico, including the Ceiba Public Library. Closure included installation of an 18-inch thick, low permeability engineered soil cap, installation and maintenance of a 6-inch overlying vegetative cover, and 30 years of groundwater monitoring. The remaining part of SWMU 3 will be closed, according to the same approved Closure and Post Closure Plan, by the new owner. These closures must result in protectiveness to human health, including from any dioxins/furans present.

3. **SWMU 9:** According to the table that constitutes Exhibit E a Phase I RFI Workplan was submitted for Area B Tank 214 on January 2007, and a CMS is or was underway. This table also refers to a Baseline Ecological Risk Assessment and a CMS Work Plan. These documents have not been available for public review. These documents should be made available to the community before the transfer of this site is considered.

**Response:**

CMS Work Plan for SWMU 9, including Area B Tank 214, is available to the public on the electronic Administrative Record located at [www.nsrr-ir.org](http://www.nsrr-ir.org). Look for Document Number 791. Due to contamination found after the CMS Work Plan, an RFI Workplan for the tank was submitted to EPA in January 2007. Fieldwork was recently completed, and the RFI Report is currently being prepared. The Baseline Ecological Risk Assessment was halted after the additional contamination was found, and will be completed subsequent to the RFI Report's approval.

4. **SWMU 11:** PCB and ACMs were found in this building and the remedy proposed is a total access restriction. PCB and ACM contamination is remediable. We oppose LUC as a remedy and we request the remediation of the site before transfer.

**Response:**

The Final Remedy decision has not been made for SWMU 11. The restrictions on interior access are interim measures to prevent unacceptable human exposures, but do not constitute the Final Remedy decision. Any releases of hazardous waste or constituents impacting the outside areas surrounding the power plant building have been previously addressed and/or are being addressed under corrective action requirements for SWMU 45.

5. **SWMU 16:** According to the table that constitutes Exhibit E Phase I RFI Workplan has been approved for this site. In order for us to be able to properly evaluate if this property is suitable for early transfer this Work Plan should be made available to the community. We oppose the early transfer of this site until the RFI Report has been examined and commented by the community.

**Response:**

This RFI Workplan (Final RCRA Facility Investigation Work Plan SWMUs 16, 27, 28, 29 and 42 and AOC A Naval Activity Puerto Rico), document number 1149, is available at [www.nsrr-ir.org](http://www.nsrr-ir.org). SWMUs 27, 28, 29 and 42 are secured with fencing and only authorized personnel are allowed to enter these areas. It is anticipated that these plants will continue to operate after transfer and the accompanying deeds will restrict access to these SWMUs until the RFIs are complete. EPA will enforce the deed restrictions through the RCRA order. Similarly, access to SWMU 16 will be controlled until the RFI is complete.

6. **SWMU 17:** The Consent Order requires an RFI for this site, yet it has been eliminated from the table that constitutes Exhibit E. We oppose the early

transfer of this site until the RFI Report has been examined and commented by the community.

**Response:**

SWMU 17 went through a rigorous RCRA closure process, and was clean closed. RCRA closure is equivalent to an RFI and/or corrective action. An extensive investigation/sampling program was conducted on both the interior of the building (including concrete core samples), and on the outside surface and subsurface soils which might have been impacted by past releases, though none were known to have occurred. Therefore, no RFI or other corrective measures were required, since clean closure was certified.

7. **SWMU 31:** Dioxins/furans and elevated levels of other contaminants were found at this site. We object to the early transfer of any site where dioxins/furans were found. As a precautionary principle, dioxins/furans should be removed to prevent them from gaining access to ground and surface water, and to prevent humans and animals from exposure to these extremely hazardous substances. This type of contamination can be cleaned, LUCs and an asphalt cap are not an acceptable remedy.

We request the remediation of the site before transfer.

**Response:**

Contaminant levels are below industrial standards, and are consistent with use of the parcel as a Science Park. Even though contaminant levels are below the accepted industrial standards, the Navy and EPA have agreed that an asphalt cap will provide additional assurance to the protection of human health.

8. **SWMU 32:** Dioxins/furans and elevated levels of other contaminants were found at this site. We object to the early transfer of any site where dioxins/furans were found. As a precautionary principle, dioxins/furans should be removed to prevent them from gaining access to ground and surface water, and to prevent humans and animals from exposure to these extremely hazardous substances. This type of contamination can be cleaned, LUCs are

not an acceptable remedy.

We request the remediation of the site before transfer.

**Response:**

Contaminant levels are below industrial standards, and are consistent with use of the parcel as a Science Park. Even though contaminant levels are below the accepted industrial standards, the Navy and EPA have agreed that an asphalt cap will provide additional assurance to the protection of human health.

9. **SWMU 45:** PCB and elevated levels of other contaminants were found at this site. Table 7-1 indicates an NFA with no restrictions for AOC D (marine sediments).

According to the table that constitutes Exhibit E several actions have been undertaken on this site, including a Baseline Ecological Risk Assessment and CMS Work Plan. These documents have not been available for public review. These documents should be made available to the community before the transfer of this site is considered.

Were any other remediation alternatives considered besides LUCs?

**Response:**

Ecological Risk Assessment documents for SWMU 45 are available to the public on the electronic Administrative Record located at [www.nsrr-ir.org](http://www.nsrr.ir.org). Look for Document Numbers 1013 and 1118. SWMU 45 is still under investigation, and a CMS has not yet been developed. The CMS will evaluate all appropriate remedial alternatives for this site.

10. **SWMU 46:** PCB and elevated levels of other contaminants were found at this site. This type of contamination can be cleaned, LUCs are not an acceptable remedy.

The table that constitutes Exhibit E that the CMI Workplan will be implemented at the end of the public comment period, and at the same time indicates that remediation was initiated in 2006. We request clarification of these contradictory statements.

We request the complete cleanup of the site before transfer.

**Response:**

SWMU 46 has been cleaned to allow any land use except residential. RFI and CMS documents for this site are available to the public on the electronic Administrative Record located at [www.nsrr-ir.org](http://www.nsrr-ir.org).

11. **SWMU 53:** The table that constitutes Exhibit E that the CMI Workplan will be implemented at the end of the public comment period, and at the same time indicates that remediation was initiated in 2006. We request clarification of these contradictory statements and complete cleanup of the site before transfer.

**Response:**

SWMU 53 has been cleaned to residential standards. RFI and CMS documents for this site are available to the public on the electronic Administrative Record located at [www.nsrr-ir.org](http://www.nsrr-ir.org).

12. **SWMU 54:** In this site, where the groundwater is contaminated with TCE, we learn from the Consent Order, that included in this SWMU and was the location of a former 4,000-gallon UST, south of Building 1914. The date of installation and the type of fuel stored is unknown (assumed to be gasoline), but it was decommissioned in 1992. And that although a CMS work plan has been approved by EPA, implementation has not been fully completed. This is very confusing information, not enough to illustrate anybody on the history of this site.

Yet, the site has disappeared from the table that constitutes Exhibit E. It is impossible to comment on this site with the information available.

We request the site not be transferred until the community has been fully informed about it.

**Response:**

SWMU 54 has been added to Exhibit E. The final CMS for this site has been approved by EPA (and is available on [www.nsrr-ir.org](http://www.nsrr-ir.org) see document 1079). The CMI (recommended Monitored Natural Attenuation and Land Use Controls) will be completed by the new owner.



13. **AOC A:** According to the table that constitutes Exhibit E an RFI is being developed and the contaminants are "unknown, to be determined during the Phase I RFI". When is the RFI document going to be made available to the community?

We request the site not be transferred until the RFI document has been made available to the community and the community has been able to emit their comments.

**Response:**

The RFI Work Plan for AOC A (document 1149) is available to the community on [www.nsrr-ir.org](http://www.nsrr-ir.org). Decision documents (such as a CMS), when ready, are made available to the community for their comments. AOC A is a fenced compound and access will be controlled until the RFI is complete.

14. **SWMU 6/AOC B:** Dioxins/furans and elevated levels of other contaminants were found at this site. We object to the early transfer of any site where dioxins/furans were found. As a precautionary principle, dioxins/furans should be removed to prevent them from gaining access to ground and surface water, and to prevent humans and animals from exposure to these extremely hazardous substances. The Consent Order indicates that remediation for this site is complete and "is contingent on the Respondent completing acceptable closure of all hazardous waste container storage units located inside the DRMO compound" as well as public comment. This site has been dropped from the table that constitutes Exhibit E. What does remediation complete mean? Are LUCs being recommended for this site?

We request the site not be transferred until the community has been fully informed.

**Response:**

SWMU 6 and AOC B have been cleaned to residential standards. Relevant documents are available at the electronic Administrative Record located at [www.nsrr-ir.org](http://www.nsrr-ir.org). The statement, "is contingent on the Respondent completing acceptable closure of all hazardous waste container storage units located inside the DRMO compound", applies only to SWMU 25 (DRMO Storage Yard.)

15. **SWMUs 57, 59, 60, 61, 62, 67, 70, 71, 73:** A lot of investigation and remediation still remains to be done on these sites. We request they not be transferred until either the RFIs, site characterizations or CMSs are completed, made available to the community for comments and discussed within the community.

**Response:**

These ECP sites are, as noted, in various stages of the RCRA Corrective Action Process. The ECP resulted in sufficient information to determine what interim LUC is required until the RCRA process is completed and a final remedy, as appropriate, is completed. These interim LUCs will protect human health as required by CERCLA 120(h).

16. **AOC C:** PCB and elevated levels of other contaminants were found at this site. This type of contamination can be cleaned, LUCs are not an acceptable remedy. It is indicated in the table that constitutes Exhibit E that a CMI Workplan will be implemented at the completion of the public comment period, but also that remediation is already ongoing. We request this site not be transferred until this contradictory information is clarified and the site has been completely cleaned.

**Response:**

AOC C has been cleaned to allow any land use except residential. All relevant documents are in the electronic Administrative Record located at [www.nsrir.org](http://www.nsrir.org).

17. **AOC E:** According to the table that constitutes Exhibit E, RFI fieldwork is currently in progress.

We request the site not be transferred until the RFI document has been made available, the community has been able to emit their comments and the site has been completely

**Response:**

AOC E (Pineros and Cabeza de Perro Islands) has been removed

from this Covenant Deferral Request, and thus will not be transferred as part of this Early Transfer.

### **III About public information and public participation**

The US Navy, the regulatory agencies and the Government of Puerto Rico expect the people of Puerto Rico to endorse the transfer of former Naval Base Roosevelt Roads and its re-development. In order for this to happen, the process has to be absolutely transparent. If the information on which decisions are to be based is not available for public review, this clouds both governments' credibility. If the public participation process is deceptive, or hurried without allowing the community to fully understand what is happening, this erodes the agencies' and both governments' credibility even more. For instance, when the Consent Order was up for public comment, the RAB hadn't been created. The public notice was placed in The San Juan Star, a newspaper that is read by only very small segment of the Puerto Rican population. A meeting was held to talk about the Consent Order, but it was not clearly explained to the community that the very few questions or comments made at that meeting (where certainly no one understood the implications of the signing of this document) were to be used and placed in the document as if it had been a public hearing.

#### ***Response:***

The Navy is committed to the public participation process, including full disclosure and transparency. That is one reason why the RAB was formed, and why the public comment period for the CDR was extended twice. Additionally, based on feedback gained from the RAB, the Navy now uses other newspapers (for example El Horizonte and El Yunque) in addition to, or instead of, The San Juan Star. Also, please note that the Consent Order replaced the RCRA Permit which was previously in effect. The Consent Order defines the Navy's corrective action obligations under RCRA as did the previous permit, but more accurately reflects the non-operational status of the base. As explained above, the public participation process for corrective action decisions will continue after the early transfer. The CDR document does not record or propose corrective action decisions. It is a document that communicates to the Governor that the property is suitable for transfer for its intended use and identifies measures that will be enacted to protect human health and the environment until cleanup is complete following the RCRA Corrective Action process.

With this statement and the comments expressed at the beginning of this document we would like to state for the record of this remediation and land reversion process that we are profoundly unsatisfied with the manner in which the Government of the United States and el Estado Libre Asociado have handled this matter. We are firm believers that only a process based on transparency, public participation—decisive and real- and access to information will achieve true community involvement. And only through true community participation Puerto Ricans will feel confident that our expectations of regaining our lands as safe and clean as is needed in order to achieve the development that we all need and aspire to will be met.

Submitted, Saturday, June 09, 2007

Lirio Márquez D'Acunfi  
RAB Community Member

Jorge Fernández Porto  
RAB Community Member

**Document:** Draft Covenant Deferral Request, Former Naval Station Roosevelt Roads  
**Document Date:** March 2007  
**Comments By:** Guillermo J. Avilés Mendoza, J.D.  
**Comments Date:** June 10, 2007

Excerpt from letter:

#### **V. Comments**

The Restoration Advisory Board (RAB) record shows community members with health related concerns as to the potential exposure to the hazardous substances at the former Naval Station Roosevelt Roads. Navy's Final Draft Deferral Request is silent as whether the Agency for Toxic Substances and Disease Registry (ATSDR) was consulted for remedial investigations that formulated the present institutional controls for the former Naval Station Roosevelt Roads. It is in the best interest of all the involved parties to explore the possibility of consulting with, under Section 104(i)(4) of CERCLA, the ATSDR. Collaboration with the ATSDR provides the Government of Puerto Rico with evidence based public health data that will corroborate whether the institutional controls and the intended use of the real property are consistent with protection of the environment and human health.

#### **Response:**

The Navy appreciates this suggestion. The ATSDR was not consulted because the former Naval Station Roosevelt Roads (NSRR) is not on the National Priority List (sites on the NPL require an ATSDR consultation). Land use controls (including institutional controls), which are based on analytical data and on human health risk assessments, and which are subject to EPA approval, are and will be protective for future reuse of this property. Regarding past exposures to hazardous substances and related health concerns, should any former worker believe that he/she has experienced past occupational health impacts, he/she may provide all relevant information (job description, building location, dates worked, and a description of activities that may have contributed to occupational exposures) to the Navy's RAB Co-Chair. The Navy RAB Co-Chair will work with the Navy Environmental Health Center to determine an appropriate course of action. Workers who believe they have suffered from occupational health impacts may also file a claim under the Federal Tort Claims Act (see <http://www.jag.navy.mil/FieldOffices/Code15.htm>).

**Exhibit "F"**

**GOVERNOR'S APPROVAL OF GOVERNMENT'S  
COVENANT DEFERRAL REQUEST**

ANÍBAL ABEVEDO VILA  
GOBERNADOR  
ESTADO LIBRE ASOCIADO DE PUERTO RICO

July 30, 2008

Ms. Kimberly Kesler  
Director  
Base Realignment and Closure Program Management Office  
1455 Frazee Rd, Suite 900  
San Diego, CA 92108-4310

Dear Ms. Kesler:

I am writing in regards to the correspondence received from Assistance Secretary B.J. Penn on August 6, 2007, requesting my approval of the early transfer of certain property at the former Naval Station Roosevelt Roads ("NSRR") in Ceiba and Naguabo and your modification of that request dated June 19, 2008 indicating that the authority for early transfer sought at this time applies only to approximately 132 acres to be used for a maritime port.

The Department of the Navy ("Navy") is proposing an early transfer of this property to facilitate the expeditious redevelopment and reuse of this property and is asking for deferral of the covenant that environmental remediation has been completed. Early transfer, redevelopment and reuse of the maritime port will have a significant positive impact on the economy of this area.

Federal law requires the federal government to include in the deed of transfer a covenant warranting that all environmental remediation is complete. Under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. § 9620(h)(3)(C), I, acting in my capacity as Governor of the Commonwealth of Puerto Rico, can approve the deferral of this covenant prior to any early transfer of the property.

Ms. Kimberly Kesler  
July 30, 2008  
Page 2

In order to make this decision, the Commonwealth Government has reviewed the documentation accompanying the Navy's request, which includes a description of the various sites within this property that still require environmental remediation, the public comments received and the Navy's responses to them. I also have received the Navy's commitment that the Navy will award a fixed-price contract for the environmental cleanup actions in the airport property. Lastly, under federal law and under the terms of the RCRA § 7003 Administrative Order on Consent signed between the Navy and the Environmental Protection Agency, the Navy will continue to be responsible for any remediation activities within this property, and this request will not waive any rights of the Commonwealth of Puerto Rico during this process.

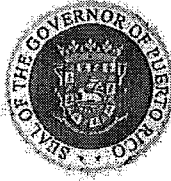
Based on the aforementioned, I have determined that the approximately 132 acres of the maritime port property will comply with the requirements found in the applicable CERCLA sections under 42 U.S.C. §9620(h)(3)(C)(i). Therefore, I find this land suitable for transfer in accordance with 42 U.S.C. § 9620(h)(3)(C), and I defer the covenant required by 42 U.S.C. § 9620(h)(3)(A)(ii)(I).

Sincerely,



Anibal Acevedo Vila





**GOVERNMENT OF PUERTO RICO**

**LUIS G. FORTUÑO**  
**GOVERNOR**

January 24, 2012

Mr. James E. Anderson  
Director  
Base Realignment and Closure Program  
Management Office Southeast  
4130 Faber Place Drive  
Suite 202  
North Charleston, SC 29405

Dear Mr. Anderson:

By letter dated July 30, 2008, the Government of Puerto Rico determined that the approximately 132 acres of maritime port property would comply with the requirements found in the applicable CERCLA sections under 42 U.S.C. §9620(h)(3)(C)(i) and therefore, found the land suitable for transfer in accordance with 42 U.S.C. §9620(h)(3)(C), and deferred the covenant required by 42 U.S.C. §9620(h)(3)(A)(ii)(I).

Initially, our intent was to have the Puerto Rico Ports Authority receive this maritime port property through a Public Benefit Conveyance sponsored by the US Department of Transportation's Maritime Administration which was approved by the sponsoring agency on May 21, 2008. As you are aware, we have revised our development goals in an effort to increase work opportunities for our citizens as well as enhance our economy. As such, we submitted to you an Addendum to our 2004 Reuse Plan for Naval Station Roosevelt Roads and on April 6, 2010, requested US Department of Transportation's Maritime Administration approve a change in property recipient for the Public Benefit Conveyance from the Puerto Rico Ports Authority to our implementing Local Redevelopment Authority. US Department of Transportation's Maritime Administration approved our request on May 13, 2010.

Mr. James E. Anderson


Page 2

January 24, 2012

In December 2010, the Government of Puerto Rico submitted an Economic Development Conveyance application to the Department of the Navy which included the redevelopment of the maritime port property. We no longer desire receipt of the maritime port property through a Public Benefit Conveyance, rather through an Economic Development Conveyance.

Based on the aforementioned, I, acting in my capacity as Governor of Puerto Rico, find the land suitable for transfer by Economic Development Conveyance in accordance with 42 U.S.C. §9620(h)(3)(C). The deferral of the covenants required by 42 U.S.C. §9620(h)(3)(A)(ii)(I) remain valid.

Sincerely,



Luis G. Fortuño

**Exhibit "G"**

**GOVERNMENT SCHEDULE INVESTIGATION AND COMPLETION OF  
NECESSARY RESPONSE ACTIONS AS APPROVED BY EPA**

[illegible]

**Exhibit "H"**

**HAZARDOUS SUBSTANCE NOTICE**





Substance Name	CAS Registry Number	40 CFR 302.4 Regulatory Synonyms	RCRA HW No.	Quantity Stored	Date of Storage	Quantity Released	Date of Release	Response Actions Taken
Lead	7439921	- - -	D008	Unknown	1972 or 1973 to Present	Unknown	1972 or 1973 to Present	---
Bunker C Fuel Sludge	---	- - -	---	3,900-7,500 cubic yards	1972 or 1973 to Present	3,900-7,500 cubic yards	1972 or 1973 to Present	---

**Exhibit "I"**

1. **ANNUAL LAND USE CONTROL (LUC) COMPLIANCE CERTIFICATION FORM**
- 2.
- 3.

# **LAND USE CONTROL (LUC) INSPECTION FORM** **CALENDAR YEAR \_\_\_\_\_**

SWMU/ AOC	SWMU NAME	Restricted Media				Inspection Frequency	A check mark indicates the LUC has been complied with. "N" means a LUC has not been complied with. Shading indicates LUC not required										
		Groundwater	Soil	Sediment	Building Interior		Groundwater Not Being Used	Monitoring Wells Not Disturbed	Land Not Being Used for Residential Use	Soils Not Removed from Site	Sediment Not Disturbed	Surface Soils Not Disturbed	Subsurface Soils Not Disturbed	Adjacent Wetlands Not Disturbed	Concrete Cap Not Disturbed	Site Access Restrictions in Place	Remarks

SWMU 7/8	Tow Way Fuel Farm Plume and Disposal Pits	1	1			Annual											
----------	---	---	---	--	--	--------	--	--	--	--	---	--	--	---	---	---	--

Notes:

AOC - Area of Concern

CAC - Corrective Action Complete

SWMU - Solid Waste Management Unit

w - with

● - Media is restricted

1- Site under investigation. Restricted media and land uses will be determined at the conclusion of the investigation.

Corrective Action Complete with controls

I, the undersigned, hereby certify that I am an authorized representative of the property owner and that the above described land use controls have been complied with for the period noted. Any known deficiencies and completed or planned actions to address such deficiencies are described in the attached explanation of deficiency(ies).

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Mail Original Form to the Navy at the following address, not later than February 1 of each year:

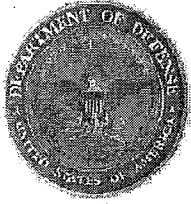
Navy BRAC PMO SE  
Attn: Base Closure Manager  
4130 Faber Place Drive, Suite 202  
North Charleston, SC 29405



1  
2  
3

**EXHIBIT "J"**

**DEPARTMENT OF DEFENSE INSTRUCTION 4165.72**



# Department of Defense INSTRUCTION

**NUMBER 4165.72**  
December 21, 2007

USD(AT&L)

**SUBJECT:** Real Property Disposal

- References:**
- (a) DoD Directive 4165.6, "Real Property," October 13, 2004
  - (b) DoD Directive 4275.5, "Acquisition and Management of Industrial Resources," October 6, 1980
  - (c) DoD Instruction 4165.69, "Realignment of DoD Sites Overseas," April 6, 2005
  - (d) DoD Directive 5110.4, "Washington Headquarters Services (WHS)," October 19, 2001
  - (e) through (v), see Enclosure I

## 1. PURPOSE

This Instruction:

- 1.1. Implements policy and assigns responsibility pursuant to Reference (a) for the disposal of real property.
- 1.2. Re-delegates various statutory and regulatory authorities and responsibilities relating to real property disposal.

## 2. APPLICABILITY AND SCOPE

This Instruction:

- 2.1. Applies to the Office of the Secretary of Defense, the Military Departments (including their Reserve components), the Office of the Chairman of the Joint Chiefs of Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities in the Department of Defense (hereafter referred to collectively as the "DoD Components").
- 2.2. Applies to all DoD real property holdings except:
  - 2.2.1. Civil works projects.

2.2.2. The acquisition and management of defense industrial plants that are governed by DoD Directive 4275.5 (Reference (b)).

2.3. Does not apply to DoD real property holdings:

2.3.1. Disposed of pursuant to a base closure law, except for paragraphs 5.1.2., 5.5., 5.8., 5.9., 5.10., and 5.11., which do apply.

2.3.2. Outside the United States with regard to those provisions of law not having extraterritorial application. (See DoD Instruction 4165.69 (Reference (c))).

### 3. DEFINITIONS

3.1. Consistent with DoD Directive 5110.4 (Reference (d)), for purposes of the Pentagon Reservation, Washington Headquarters Services shall be considered a Military Department and its Director the secretary thereof.

3.2. Other terms used in this Instruction are defined in Joint Publication 1-02 (Reference (e)) and section 101 of title 10, United States Code (U.S.C.) (Reference (f)).

### 4. RESPONSIBILITIES

4.1. The Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) shall establish overarching guidance and procedures regarding the disposal of real property.

4.2. The Deputy Under Secretary of Defense for Installations and Environment (DUSD(I&E)), under the USD(AT&L):

4.2.1. Shall provide additional guidance and procedures for the implementation of DoD real property disposal policy and this Instruction.

4.2.2. Is hereby re-delegated, with authority to re-delegate, all those authorities and responsibilities delegated or re-delegated, as the case may be, to the USD(AT&L) under paragraph 5.1.3. of Reference (a) that relate to the disposal of real property.

4.3. The Secretaries of the Military Departments shall:

4.3.1. Establish programs and procedures to dispose of real property that conform with applicable law and the policies, guidance, and procedures provided by and pursuant to Reference (a) and this Instruction.

4.3.2. Accurately inventory and account for the real property under their jurisdiction, management, and control in accordance with DoD Instruction 4165.14 (Reference (g)).

4.4. The Heads of the DoD Components shall:

4.4.1. Ensure compliance with this Instruction.

4.4.2. Provide, within 45 days after a Military Department gives notice of the availability of real property for which a DoD Component has a requirement, a firm commitment to take real property accountability for the property in the case of a Military Department, or a firm commitment from a Combatant Command, Defense Agency, or DoD Field Activity that it requires the property and has secured the agreement of a Military Department to accept real property accountability for the property. A Combatant Command, Defense Agency, or DoD Field Activity that is supported by a specific Military Department for its real property requirements will communicate its requirements through that Military Department.

5. PROCEDURES

5.1. Disposal of Real Property. The programs of the Military Departments shall ensure that, after screening with the other DoD Components, real property for which there is no foreseeable military requirement, either in peacetime or for mobilization, and for which the Department of Defense does not have disposal authority, is promptly reported for disposal to the General Services Administration (GSA), or the Department of the Interior in the case of land withdrawals, in accordance with applicable regulations of those agencies.

5.1.1. Real property may be transferred, at no cost, among the Armed Forces, including the Coast Guard, pursuant to section 2696 of title 10, U.S.C. (Reference (h)). Subject to the authority, direction, and control of the Secretary of Defense with regard to the DoD Components, this transfer authority cannot be precluded, directly or indirectly, by any regulatory, program, or policy restrictions issued by any agency or official within the Executive Branch of the Federal Government.

5.1.2. Subject to Reference (h), ensure compliance with part 373 of title 40, Code of Federal Regulations (CFR), "Reporting Hazardous Substance Activity When Selling or Transferring Federal Real Property" (Reference (i)).

5.1.3. Subject to Reference (h), ensure compliance with the Federal Management Regulation (Reference (j)) dealing with real property disposal, part 102-75 of title 41, CFR.

5.1.4. Ensure compliance with chapter 6 of volume 4 of the DoD Financial Management Regulations, DoD 7000.14-R (Reference (k)) relating to valuation of property assets.

5.1.5. Until such time during the disposal process that GSA assumes such responsibility, the holding Military Department will ensure compliance with the McKinney-Vento Homeless Assistance Act, as amended, section 11411 of title 42, U.S.C., (Reference (l)) with regard to

identifying unutilized, underutilized, excess, or surplus property that may be suitable for use by the homeless.

5.1.6. Disposal of real property may include disposing of associated interests in real property such as authorized by section 2668a of title 10, U.S.C. (Reference (m)), including those needed to comply with the requirements of the National Historic Preservation Act, section 470 et seq. of title 16, U.S.C. (Reference (n)).

5.1.7. In the case of withdrawn lands not accepted back by the Department of the Interior, always address disposition of mineral rights during the disposal process. (See part 2720 of title 43, CFR (Reference (o))).

5.1.8. For granting uses of real property such as outgrants, see DoD Instruction 4165.70 (Reference (p)).

5.1.9. Before disposing of real property containing floodplains or wetlands, ensure compliance with Executive Orders 11988 and 11990 (References (q) and (r), respectively).

5.2. Mobilization Requirements. Real property may be held solely to meet a mobilization requirement.

5.2.1. Such property may be made available for interim use in one of the following ways, provided it will not involve modifying the property in a manner that would prevent its timely use in meeting its mobilization requirements:

5.2.1.1. By permit to another Government agency.

5.2.1.2. By outgranting by license, easement, or lease.

5.2.1.3. By declaring it as excess to GSA for disposal subject to adequate provisions for recapture in accordance with existing regulations, instructions, and statutes.

5.2.2. Any property subject to interim use in accordance with paragraphs 5.2.1.1. and 5.2.1.2. shall have a provision in the granting document requiring immediate return of the property, without cost to the Department of Defense, upon the demand of the holding Military Department, after it determines the property is required for mobilization.

5.3. Release of Reverter and Reuse Rights and of Covenants. The release of reverter and emergency reuse (recapture) rights and of covenants retained by the Government may be effected in response to a petition from the current owner to the Secretary of Defense through the original Federal grantor agency, such as the Departments of Interior, Health and Human Services, Housing and Urban Development, and Education; the Federal Aviation Administration; or GSA; if there is no current requirement for the right or covenant by any of the Military Departments.

5.3.1. Upon notification by DUSD(I&E) that such a petition has been received, the holding Military Department shall review:

5.3.1.1. In the case of reverter or reuse rights, plans covering contemplated use of the facility in light of the current and projected physical condition of the improvements.

5.3.1.2. In the case of a covenant, the original reason for the covenant, State regulatory concurrence if applicable, and changed circumstances.

5.3.2. The holding Military Department shall also notify the other DoD Components that the reverter or reuse rights it has reserved may be extinguished and request they provide, within 45 days, their objections, if any, to the release of such rights along with their rationale for objecting.

5.3.3. The holding Military Department:

5.3.3.1. If it was not the grantor agency, shall then make a recommendation to DUSD(I&E) as to whether the reverter or reuse rights or the covenant should be extinguished.

5.3.3.2. If it was the grantor agency and intends to extinguish the reverter or reuse rights or the covenant, shall advise DUSD(I&E) of its intention and wait 15 days before taking further action.

5.3.4. DUSD(I&E) shall, in the case of paragraph 5.3.3.1., then provide the position of the Department of Defense to the Federal grantor agency as to whether the reverter or reuse rights or the covenant should be extinguished.

5.4. Environmental Impacts. The holding Military Department shall accomplish any environmental analysis, including of the environmental condition of the property, required by law or its regulations prior to disposing of property, whether the disposal is done directly or by transfer to another agency for disposal or reuse.

5.5. Clauses Under section 120(h) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), section 9620(h) of title 42, U.S.C., (Reference (s)).

5.5.1. Reference (s) provides an exception to the prohibitions of the Anti-Deficiency Act by allowing the commitment of a future unfunded obligation, namely the potential return of the United States to conduct a remedial action on former DoD properties. The Department of Defense has no authority to increase or decrease the commitments directed to be provided by section 120(h).

5.5.2. Any deed transferring title to real property shall contain, to the extent they are required by law, the notices, descriptions, assurances, access rights, warranties, and covenants (collectively referred to as "120(h) clauses" in this Instruction) specified in Reference (s) as provided by this Instruction. The 120(h) clauses contained in this Instruction shall not be

inserted into any other real property transfer documents other than a deed transferring real property, nor shall any other versions of such clauses be inserted into such other documents.

5.5.2.1. Such 120(h) clauses:

5.5.2.1.1. Ensure compliance with Reference (s) when a DoD Component transfers real property to a non-Federal entity.

5.5.2.1.2. Provide uniformity in transaction documents.

5.5.2.1.3. Ensure the liability of the United States is not increased beyond that provided by law.

5.5.2.1.4. Ensure the commitments made by the United States to non-Federal recipients of DoD real property are not less than those required to be provided by Reference (s).

5.5.2.2. Such 120(h) clauses shall contain without change or limitation the applicable language provided in Enclosure 2. Changes or limitations to the language provided in Enclosure 2 are only authorized with the prior written approval of DUSD(I&E).

5.5.2.3. This paragraph 5.5. has limited application:

5.5.2.3.1. It addresses the provision of 120(h) clauses under Reference (s). It does not address all obligations under Reference (s). (See paragraph 5.1.2., for example.)

5.5.2.3.2. Not all property transfers are subject to this paragraph:

5.5.2.3.2.1. Only those transfers by deed (or other agreement in the case of section 120(h)(3)(C)(ii) assurances), i.e., transfer of title outside of the Federal Government, are subject to these 120(h) clauses. Leases and easements are not a transfer of title.

5.5.2.3.2.2. Only those transfers of title that occurred after the enactment of the relevant provisions of paragraphs 120(h)(3) and (4) of Reference (s) would be subject to its provisions relating to 120(h) clauses. For instance, a formerly used defense site transferred before the date of enactment of sections 120(h)(3) and (4) would not have had the 120(h) clauses provided in the deed.

5.5.2.4. No other 120(h) clauses, other than those provided in Enclosure 2, or changed or limited with the permission of DUSD(I&E) pursuant to paragraph 5.5.2.2., shall be used to comply with Reference (s). As a negotiated aspect of a business transaction, the Secretary concerned may agree to other deed provisions that are not inconsistent with the 120(h) clauses in Enclosure 2. Such negotiated provisions shall not increase or reduce the liability of the United States with regard to its section 120(h) obligations. Such negotiated provisions may include, for example, contractual transfer of responsibility for conducting the remedial action in instances of early transfer, contractual agreements relating to insurance to ensure performance of other contractual obligations, and environmental covenants or similar restrictions to ensure

viability of a remedy. As an aid in applying paragraph 5.5., Enclosure 3 contains a table providing a broad overview as to which 120(h) clauses should be used in various circumstances.

5.5.2.4.1. Property subject to paragraph 120(h)(3) of Reference (s). For property subject to paragraph 120(h)(3) of Reference (s), but excluding property subject to deferral under paragraph 120(h)(3)(C) of Reference (s), the following 120(h) clauses shall be used in the deed:

5.5.2.4.1.1. The appropriate option for the 120(h) clause found at paragraph E2.1.1. of Enclosure 2 entitled "Property Covered by Notice, Description, Access Rights, and Covenants Made Pursuant to Section 120(h)(3)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A))";

5.5.2.4.1.2. The appropriate option for the 120(h) clause found at paragraph E2.1.2. of Enclosure 2 entitled "Notices Pursuant to Section 120(h)(3)(A)(i)(I) and (II) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(I) and (II))";

5.5.2.4.1.3. The appropriate option for the 120(h) clause found at paragraph E2.1.3. of Enclosure 2 entitled "Description of Remedial Action Taken, if Any, Pursuant to Section 120(h)(3)(A)(i)(III) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(III))";

5.5.2.4.1.4. The 120(h) clause found at paragraph E2.1.4. of Enclosure 2 entitled "Covenant Pursuant to Section 120(h)(3)(A)(ii) and (B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(ii) and (B))" [this 120(h) clause shall not be provided in any case in which the person or entity to whom the real property is transferred is a potentially responsible party with respect to such property]; and

5.5.2.4.1.5. The 120(h) clause found at paragraph E2.1.5. of Enclosure 2 entitled "Access Rights Pursuant to Section 120(h)(3)(A)(iii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(iii)).

5.5.2.4.2. Property subject to paragraph 120(h)(3)(C) of Reference (s).

5.5.2.4.2.1. For property subject to paragraph 120(h)(3) of Reference (s) but where the requirement to provide the warranty under paragraph 120(h)(3)(A)(ii)(I) of Reference (s) has been deferred pursuant to paragraph 120(h)(3)(C) of Reference (s), the following 120(h) clauses shall be used in the deed (or other agreement addressing the response action assurances in the case of the 120(h) clause addressed in paragraph 5.5.2.4.2.1.5):

5.5.2.4.2.1.1. The appropriate option for the 120(h) clause found at paragraph E2.2.1. of Enclosure 2 entitled "Property Covered by Notice, Description, Assurances, Access Rights, and Covenants Made Pursuant to Section 120(h)(3)(A) of the Comprehensive



Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A))”;

5.5.2.4.2.1.2. The appropriate option for the 120(h) clause found at paragraph E2.1.2. of Enclosure 2 entitled “Notices Pursuant to Section 120(h)(3)(A)(i)(I) and (II) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(I) and (II))”;

5.5.2.4.2.1.3. The appropriate option for the 120(h) clause found at paragraph E2.1.3. of Enclosure 2 entitled “Description of Remedial Action Taken, if Any, Pursuant to Section 120(h)(3)(A)(i)(III) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(III))”;

5.5.2.4.2.1.4. The 120(h) clause found at paragraph E2.2.2. of Enclosure 2 entitled “Covenant Pursuant to Section 120(h)(3)(A)(ii)(II) and (B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(ii)(II) and (B))” [this 120(h) clause shall not be provided in any case in which the person or entity to whom the real property is transferred is a potentially responsible party with respect to such property];

5.5.2.4.2.1.5. The 120(h) clause found at paragraph E.2.2.3. of Enclosure 2 entitled “Assurances Pursuant to Section 120(h)(3)(C)(ii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(C)(ii))”; and

5.5.2.4.2.1.6. The 120(h) clause found at paragraph E.2.1.5. of Enclosure 2 entitled “Access Rights Pursuant to Section 120(h)(3)(A)(iii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(iii))”.

5.5.2.4.2.2. When all response action necessary to protect human health and the environment with respect to any substance remaining on the property on the date of transfer has been taken, the following 120(h) clauses shall be provided to the transferee in an appropriate document [these 120(h) clauses shall not be provided in any case in which the person or entity to whom the real property is transferred is a potentially responsible party with respect to such property];

5.5.2.4.2.2.1. The appropriate option for the 120(h) clause found at paragraph E2.2.1. of Enclosure 2 entitled “Property Covered by Notice, Description, Assurances, Access Rights, and Warranty Made Pursuant to Section 120(h)(3)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A))”;

5.5.2.4.2.2.2. The 120(h) clause found at paragraph E2.2.4. of Enclosure 2 entitled “Warranty Pursuant to Section 120(h)(3)(C)(iii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(C)(iii))”.

5.5.2.4.3. Property subject to paragraph 120(h)(4) of Reference (s). For property subject to paragraph 120(h)(4) of Reference (s), the following 120(h) clauses shall be used in the deed:

5.5.2.4.3.1. The appropriate option for the 120(h) clause found at paragraph E2.3.1. of Enclosure 2 entitled "Property Covered by Covenant and Access Rights Made Pursuant to Section 120(h)(4)(D) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(4)(D))";

5.5.2.4.3.2. The 120(h) clause found at paragraph E2.3.2. of Enclosure 2 entitled "Covenant Pursuant to Section 120(h)(4)(D)(i) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(4)(D)(i))"; and,

5.5.2.4.3.3. The 120(h) clause found at paragraph E2.3.3. of Enclosure 2 entitled "Access Rights Pursuant to Section 120(h)(4)(D)(ii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(4)(D)(ii))".

5.5.2.5. If a hazardous substance was not stored for one year or more, known to have been released, or disposed of on the parcel, but a petroleum product or its derivative is known to have been released or disposed of on the property, none of the 120(h) clauses under Reference (s) shall be provided.

5.5.2.6. To the extent a deed contains separately identified parcels at least one each of which is subject to any two or more of paragraphs 120(h)(3), 120(h)(3) with deferral, and 120(h)(4) of Reference (s), the deed shall separately designate those parcels under each of those three categories and provide the applicable 120(h) clauses in Enclosure 2 for each of those groupings.

5.5.2.7. Users of the 120(h) clauses found at paragraphs E2.1.2. and E2.1.3. of Enclosure 2 should note that they include the possibility of voluminous attachments. Since the transferee will pay the cost of recording, the transferee should be consulted before voluminous but not necessarily required attachments are included with the deed.

5.6. Release of Leaseholds. Excess leaseholds, if transferable, should be made available to other DoD Components and the Coast Guard as soon as possible.

5.6.1. Immediately upon a determination that a DoD leasehold is no longer required by the DoD Component, the DoD Component concerned shall send a notice of availability to the appropriate offices of the other DoD Components and the Coast Guard, provided the leasehold terms would not prevent their use of the leasehold and there is a reasonable useful life remaining.

5.6.2. Such notices shall include a physical description of the property, terms of the lease, surrender date, and date of contract renewal.

5.6.3. The DoD Component or Coast Guard interested in acquiring such an excess DoD leasehold shall assume responsibility for continuing the leasehold interest, including payment of all rents.

5.6.4. If no DoD or Coast Guard interest is expressed, the DoD Component shall advise GSA of any excess leasehold which has at least 9 months of beneficial occupancy remaining to permit Federal screening.

5.6.5. For GSA leaseholds occupied by DoD Components, the DoD Component will inform GSA as soon as the DoD Component becomes aware that it will no longer require the use of the GSA leasehold.

5.7. Excess Family Housing Units. A Report of Excess Real Property (Standard Form 118) (Reference (t)) to GSA covering mortgaged or unencumbered family housing and related land and improvements or unimproved land acquired for family housing purposes shall include the statement: "Net proceeds from the sale of family housing, including related land and improvements, shall be deposited in the Family Housing Account of the appropriate Military Department."

#### 5.8. Timberland

5.8.1. Under the authority of section 2665 of title 10, U.S.C. (Reference (u)), any forest products produced on land owned or leased by a Military Department may be sold without also selling the underlying land, provided, in the case of leased property, that the lease does not prohibit such sales. Since Reference (u) is used to dispose of the forest products, they are not declared excess under title 40, U.S.C., or its implementing regulations.

5.8.2. If forestlands are being considered for disposal, the forest resources should be evaluated to determine the feasibility of harvesting and sale of forest products before disposal of lands. This evaluation must consider the effects of harvesting on the future use and environmental quality of the property as well as its relative diminution of the property's fair market value. With respect to base realignment and closure property, the evaluation should also consider the impact of harvesting on the redevelopment plans of the local redevelopment authority. Planned harvesting may continue on land reported as excess until actual disposal or transfer, provided that the evaluation determines that harvesting and sale of forest products should proceed and any sales agreement does not provide otherwise.

#### 5.9. Property with Military Munitions

5.9.1. Real property known to contain or suspected of containing explosive or chemical agent hazards shall not be transferred out of DoD control (other than to the Coast Guard) unless appropriate protective measures have been taken to ensure the recipient of the property is both fully informed of the actual and potential hazards relating to the presence or possible presence of explosives or chemical agents and restrictions or conditions have been placed on the use of the property to avoid harm to users due to the presence of explosives or chemical agents. Appropriate notice requirements and restrictions on use will be submitted by the disposing

Component to the Department of Defense Explosives Safety Board for its approval prior to transfer. An outgrant such as a lease or permit may constitute transfer out of DoD control if the DoD Component does not retain sufficient control over the property to adequately manage exposure to explosive or chemical agent hazards.

5.9.2. Real property being transferred out of DoD control after explosive and chemical agent hazards have been addressed, but which is adjacent to property where such hazards have not been addressed, will have appropriate restrictions and reservations included in the transfer documents to ensure the use of the transferred property does not obstruct addressing the hazards on the adjacent property. DUSD(I&E), after consultation with the Department of Defense Explosives Safety Board, will provide model language for this purpose.

#### 5.10. Retention of Access Rights

5.10.1. Property disposed of but not subject to inclusion of clauses under Reference (s) or paragraph 5.5. should retain a right of entry onto the property for purposes of addressing the possibility of undiscovered contamination. For this purpose, the transfer document should contain a clause similar to or the same as the clause contained at paragraph E.2.3.3., although without including in the clause any reference to Reference (s).

5.10.2. Appropriate access rights should also be retained whenever other laws or provisions of the transfer document could generate an obligation or responsibility on the part of the United States requiring it to return to the property.

5.11. Indemnification Under Section 330 of the National Defense Authorization Act for Fiscal Year 1993 (Reference (v)), as amended. Reference (v) provides for indemnification of transferees of closing DoD properties under circumstances specified in that statute. The authority to implement this provision of law has been delegated by the Secretary of Defense to the General Counsel of the Department of Defense; therefore, this provision of law shall only be referred to or recited in any deed, sales agreement, bill of sale, lease, license, easement, right-of-way, transfer document for real or personal property, or cooperative agreement or grant after obtaining the written concurrence of the Deputy General Counsel (Environment and Installations), Office of the General Counsel, Department of Defense.

## 7. EFFECTIVE DATE

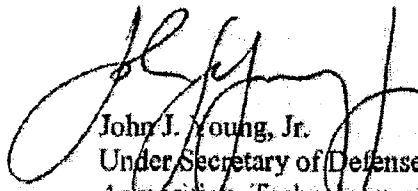
This Instruction is effective immediately.

## 8. RELEASABILITY

UNLIMITED. This Instruction is approved for public release. The DoD Components (to include the Combatant Commands), other Federal agencies, and the public may obtain copies of

*DoDI 4165.72, December 21, 2007*

this Instruction through the Internet from the DoD Issuances Web Site at  
<http://www.dtic.mil/whs/directives>.



John J. Young, Jr.  
Under Secretary of Defense for  
Acquisition, Technology, and Logistics

**Enclosures - 3**

- E1. References, continued
- E2. CERCLA 120(h) Clauses
- E3. Table of CERCLA 120(h) Clauses

E1. ENCLOSURE 1

REFERENCES, continued

- (e) Joint Publication 1-02, "Department of Defense Dictionary of Military and Associated Terms," as amended
- (f) Section 101 of title 10, U.S.C.
- (g) DoD Instruction 4165.14, "Real Property Inventory and Forecasting," March 31, 2006
- (h) Section 2696 of title 10, U.S.C.
- (i) Title 40, CFR, Part 373, "Reporting Hazardous Substance Activity When Selling or Transferring Federal Real Property," current edition
- (j) Title 41, CFR, Part 102-75, "Federal Management Regulation," current edition
- (k) DoD 7000.14-R, "DoD Financial Management Regulations," current edition
- (l) Section 11411 of title 42, U.S.C., "McKinney Vento Homeless Assistance Act"
- (m) Section 2668a of title 10, U.S.C.
- (n) Section 470, et seq., of title 16, U.S.C., "The National Historic Preservation Act"
- (o) Title 43, CFR, Part 2720, "Conveyance of Federally-Owned Mineral Interests," current edition
- (p) DoD Instruction 4165.70, "Real Property Management," January 6, 2005
- (q) Executive Order 11988, "Floodplain Management," May 24, 1977
- (r) Executive Order 11990, "Protection of Wetlands," May 24, 1977
- (s) Section 120(h) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (Section 9620(h) of title 42, U.S.C.)
- (t) Report of Excess Real Property (Standard Form 118)
- (u) Section 2665 of title 10, U.S.C.
- (v) Section 330 of Public Law 102-484, "The National Defense Authorization Act for Fiscal Year 1993"

E2. ENCLOSURE 2

CERCLA 120(h) CLAUSES

**TEXT OF CLAUSES PROVIDED PURSUANT TO SECTION 120(h) OF CERCLA  
(Reference (s))**

**[USER NOTE: UPON USE, DELETE MATERIAL IN SQUARE BRACKETS. THE MATERIAL IN BOLD  
CURLY BRACKETS IS TO BE FILLED IN OR A SELECTION MADE.]**

**E2.1—DEPARTMENT OF DEFENSE UNIFORM NOTICE, DESCRIPTION, ACCESS RIGHTS, AND  
COVENANTS FOR SECTION 120(h)(3) OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE,  
COMPENSATION, AND LIABILITY ACT OF 1980 (42 U.S.C. § 9620(h)(3))**

**E2.1.1. “\_\_\_ . Property Covered by Notice, Description, Access Rights, and Covenants  
Made Pursuant to Section 120(h)(3)(A) of the Comprehensive Environmental Response,  
Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)):**”

**[OPTION #1: FOR USE WHERE THE 120(h) CLAUSES ONLY APPLY TO CERTAIN PARCELS OF THE  
TOTAL PROPERTY.]**

“For parcels \_\_\_\_\_ of the property, the Grantor provides the following notice,  
description, and covenants and retains the following access rights:”

**[OPTION #2: FOR USE WHERE THE 120(h) CLAUSES APPLY TO THE ENTIRE PROPERTY.]**

“For the property, the Grantor provides the following notice, description, and covenants  
and retains the following access rights:”

**E2.1.2. “\_\_\_ . Notices Pursuant to Section 120(h)(3)(A)(i)(I) and (II) of the Comprehensive  
Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. §  
9620(h)(3)(A)(i)(I) and (II)):**”

**[OPTION #1: FOR LENGTHY NOTICES, SET FORTH THE DETAILED INFORMATION IN AN EXHIBIT  
TO THE DEED AND INCORPORATE IT BY THIS REFERENCE.]**

“Pursuant to section 120(h)(3)(A)(i)(I) and (II) of the Comprehensive Environmental  
Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(I) and (II)),  
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 section 120(h),  
is provided in Exhibit \_\_\_, attached hereto and made a part hereof.”

**[OPTION #2: FOR BRIEF NOTICES, SET FORTH THE DETAILED INFORMATION IN THE NOTICE  
ITSELF.]**

"Pursuant to section 120(h)(3)(A)(i)(I) and (II) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(I) and (II)), notice is hereby provided that {INSERT DESCRIPTION OF TYPE, QUANTITY, AND LOCATION OF HAZARDOUS SUBSTANCES} {was/were} {stored/released/disposed of} on the property on or about {INSERT DATES IF KNOWN FOR SUCH STORAGE, RELEASE, OR DISPOSAL OF HAZARDOUS SUBSTANCES}."

**E2.1.3. "\_\_\_\_. Description of Remedial Action Taken, if Any, Pursuant to Section 120(h)(3)(A)(i)(III) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(III)):"**

**[OPTION #1: FOR LENGTHY DESCRIPTIONS, SET FORTH THE DETAILED INFORMATION IN AN EXHIBIT TO THE DEED AND INCORPORATE IT BY THIS REFERENCE.]**

"Pursuant to section 120(h)(3)(A)(i)(III) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(III)), a description of the remedial action taken, if any, on the property is provided in Exhibit \_\_, attached hereto and made a part hereof."

**[OPTION #2: FOR BRIEF DESCRIPTIONS, SET FORTH THE DETAILED INFORMATION IN THE NOTICE ITSELF.]**

"Pursuant to section 120(h)(3)(A)(i)(III) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(i)(III)), a remedial action consisting of {FILL IN DESCRIPTION OF THE REMEDIAL ACTION} has been taken on the property."

**E2.1.4. "\_\_\_\_. Covenant Pursuant to Section 120(h)(3)(A)(ii) and (B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(ii) and (B)):"**

"Pursuant to section 120(h)(3)(A)(ii) and (B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(ii) and (B)), the United States warrants that—

"(a) all remedial action necessary to protect human health and the environment with respect to any hazardous substance identified pursuant to section 120(h)(3)(A)(i)(I) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 remaining on the property has been taken before the date of this deed, and

"(b) any additional remedial action found to be necessary after the date of this deed shall be conducted by the United States."



**E2.1.5. “\_\_\_ . Access Rights Pursuant to Section 120(h)(3)(A)(iii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(iii)):**

“The United States retains and reserves a perpetual and assignable easement and right of access on, over, and through the property, to enter upon the property in any case in which a remedial action or corrective action is found to be necessary on the part of the United States, without regard to whether such remedial action or corrective action is on the property or on adjoining or nearby lands. Such easement and right of access includes, without limitation, the right to perform any environmental investigation, survey, monitoring, sampling, testing, drilling, boring, coring, testpitting, installing monitoring or pumping wells or other treatment facilities, response action, corrective action, or any other action necessary for the United States to meet its responsibilities under applicable laws and as provided for in this instrument. Such easement and right of access shall be binding on the grantee and its successors and assigns and shall run with the land.

“In exercising such easement and right of access, the United States shall provide the grantee or its successors or assigns, as the case may be, with reasonable notice of its intent to enter upon the property and exercise its rights under this clause, which notice may be severely curtailed or even eliminated in emergency situations. The United States shall use reasonable means to avoid and to minimize interference with the grantee’s and the grantee’s successors’ and assigns’ quiet enjoyment of the property. At the completion of work, the work site shall be reasonably restored. Such easement and right of access includes the right to obtain and use utility services, including water, gas, electricity, sewer, and communications services available on the property at a reasonable charge to the United States. Excluding the reasonable charges for such utility services, no fee, charge, or compensation will be due the grantee, nor its successors and assigns, for the exercise of the easement and right of access hereby retained and reserved by the United States.

“In exercising such easement and right of access, neither the grantee nor its successors and assigns, as the case may be, shall have any claim at law or equity against the United States or any officer or employee of the United States based on actions taken by the United States or its officers, employees, agents, contractors of any tier, or servants pursuant to and in accordance with this clause. Provided, however, that nothing in this paragraph shall be considered as a waiver by the grantee and its successors and assigns of any remedy available to them under the Federal Tort Claims Act.”

**E2.2—DEPARTMENT OF DEFENSE UNIFORM 120(h) CLAUSES FOR SECTION 120(h)(3)(C)(iii) OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (42 U.S.C. § 9620(h)(3)(C)(iii))**

**E2.2.1. “\_\_\_ . Property Covered by Notice, Description, Assurances, Access Rights, and Covenants Made Pursuant to Section 120(h)(3)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)):**”

**[OPTION #1: FOR USE WHERE THE 120(h) CLAUSES ONLY APPLY TO CERTAIN PARCELS OF THE TOTAL PROPERTY.]**

“For parcels \_\_\_\_\_ of the property, the Grantor provides the following notice, description, assurances, and covenants and retains the following access rights:”

**[OPTION #2: FOR USE WHERE THE 120(h) CLAUSES APPLY TO THE ENTIRE PROPERTY.]**

“For the property, the Grantor provides the following notice, description, assurances, and covenants and retains the following access rights:”

**E2.2.2. “\_\_\_\_. Covenant Pursuant to Section 120(h)(3)(A)(ii)(II) and (B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(ii)(II) and (B)):**

“Pursuant to section 120(h)(3)(A)(ii)(II) and (B) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(A)(ii)(II) and (B)), the United States warrants that any additional remedial action found to be necessary after the date of this deed shall be conducted by the United States.”

**E2.2.3. “\_\_\_\_. Assurances Pursuant to Section 120(h)(3)(C)(ii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(C)(ii)):**

“Pursuant to section 120(h)(3)(C)(ii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(C)(ii)), the United States provides the following response action assurances:

{(1) INSERT DESCRIPTION AND ASSURANCE OF ANY NECESSARY RESTRICTIONS ON THE USE OF THE PROPERTY TO ENSURE THE PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT;

(2) INSERT DESCRIPTION AND ASSURANCE OF ANY RESTRICTIONS ON USE NECESSARY TO ENSURE THAT REQUIRED REMEDIAL INVESTIGATIONS, RESPONSE ACTION, AND OVERSIGHT ACTIVITIES WILL NOT BE DISRUPTED;

(3) INSERT ASSURANCE THAT ALL NECESSARY RESPONSE ACTION WILL BE TAKEN AND IDENTIFY THE SCHEDULES FOR INVESTIGATION AND COMPLETION OF ALL NECESSARY RESPONSE ACTION AS APPROVED BY THE APPROPRIATE REGULATORY AGENCY; AND

(4) INSERT ASSURANCE THAT THE DoD COMPONENT WILL SUBMIT A BUDGET REQUEST TO THE DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET THAT ADEQUATELY ADDRESSES SCHEDULES FOR INVESTIGATION AND COMPLETION OF ALL NECESSARY RESPONSE ACTION, SUBJECT TO CONGRESSIONAL AUTHORIZATIONS AND APPROPRIATIONS.}”

**[USER NOTE: THE FOLLOWING 120(h) CLAUSE GRANTED PURSUANT TO SECTION 120(h)(3)(C)(iii) IS GRANTED WHEN ALL RESPONSE ACTION NECESSARY TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT WITH RESPECT TO ANY SUBSTANCE REMAINING ON THE PROPERTY ON THE DATE OF TRANSFER HAS BEEN TAKEN:]**

**E2.2.4. “\_\_\_ Warrant Pursuant to Section 120(h)(3)(C)(iii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(C)(iii)):**

“Pursuant to section 120(h)(3)(C)(iii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(3)(C)(iii)), the United States warrants that all response action necessary to protect human health and the environment with respect to any substance remaining on the property on the date of transfer has been taken.”

**E2.3—DEPARTMENT OF DEFENSE UNIFORM 120(h) CLAUSES FOR SECTION 120(h)(4) OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (42 U.S.C. § 9620(h)(4))**

**E2.3.1. “\_\_\_ Property Covered by Covenant and Access Rights Made Pursuant to Section 120(h)(4)(D) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(4)(D)):**”

**[OPTION #1: FOR USE WHERE THE 120(h) CLAUSES ONLY APPLY TO CERTAIN PARCELS OF THE TOTAL PROPERTY.]**

“For parcels \_\_\_\_\_ of the property, the Grantor provides the following covenants and retains the following access rights:”

**[OPTION #2: FOR USE WHERE THE 120(h) CLAUSES APPLY TO THE ENTIRE PROPERTY.]**

“For the property, the Grantor provides the following covenants and retains the following access rights:”

**E2.3.2. “\_\_\_ Covenant Pursuant to Section 120(h)(4)(D)(i) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(4)(D)(i)):**

“Pursuant to section 120(h)(4)(D)(i) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(4)(D)(i)), the United States warrants that any response action or corrective action found to be necessary after the date of this deed for contamination existing on the property prior to the date of this deed shall be conducted by the United States.”

**E2.3.3. "\_\_\_ Access Rights Pursuant to Section 120(h)(4)(D)(ii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9620(h)(4)(D)(ii)):**

"The United States retains and reserves a perpetual and assignable easement and right of access on, over, and through the property, to enter upon the property in any case in which an environmental response or corrective action is found to be necessary on the part of the United States, without regard to whether such environmental response or corrective action is on the property or on adjoining or nearby lands. Such easement and right of access includes, without limitation, the right to perform any environmental investigation, survey, monitoring, sampling, testing, drilling, boring, coring, testpitting, installing monitoring or pumping wells or other treatment facilities, response action, corrective action, or any other action necessary for the United States to meet its responsibilities under applicable laws and as provided for in this instrument. Such easement and right of access shall be binding on the grantee and its successors and assigns and shall run with the land.

"In exercising such easement and right of access, the United States shall provide the grantee or its successors or assigns, as the case may be, with reasonable notice of its intent to enter upon the property and exercise its rights under this clause, which notice may be severely curtailed or even eliminated in emergency situations. The United States shall use reasonable means to avoid and to minimize interference with the grantee's and the grantee's successors' and assigns' quiet enjoyment of the property. At the completion of work, the work site shall be reasonably restored. Such easement and right of access includes the right to obtain and use utility services, including water, gas, electricity, sewer, and communications services available on the property at a reasonable charge to the United States. Excluding the reasonable charges for such utility services, no fee, charge, or compensation will be due the grantee, nor its successors and assigns, for the exercise of the easement and right of access hereby retained and reserved by the United States.

"In exercising such easement and right of access, neither the grantee nor its successors and assigns, as the case may be, shall have any claim at law or equity against the United States or any officer, employee, agent, contractor of any tier, or servant of the United States based on actions taken by the United States or its officers, employees, agents, contractors of any tier, or servants pursuant to and in accordance with this clause: Provided, however, that nothing in this paragraph shall be considered as a waiver by the grantee and its successors and assigns of any remedy available to them under the Federal Tort Claims Act."

E3. ENCLOSURE 3

Table of CERCLA 120(h) Clauses

Categories of CERCLA 120(h) clause requirements:		
120(h)(3) <sup>1</sup>	120(h)(3)(C)	120(h)(4)
Applicable clauses for each category:		
E2.1.1.	E2.2.1.	E2.3.1.
E2.1.2.	E2.1.2.	E2.3.2.
E2.1.3.	E2.1.3.	E2.3.3.
E2.1.4. <sup>2</sup>	E2.2.2. <sup>2</sup>	
E2.1.5.	E2.2.3.	
	E2.1.5.	
	After all response actions have been taken:	
	E2.2.1. <sup>2</sup>	
	E2.2.4. <sup>2</sup>	

<sup>1</sup> But excluding those properties subject to deferral under paragraph 120(h)(3)(C).

<sup>2</sup> These clauses shall not be provided in any case in which the person or entity to whom the real property is transferred is a potentially responsible party with respect to such property.