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Ser 1831.2/L7201
20 Jun 1997

Mr. Thomas P. Lanphar
Project Manager, Office of Military Facilities
Department of Toxic Substances Control Region 2
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Subj: RESPONSE TO DEPARTMENT OF TOXIC SUBSTANCES CONTROL COMMENTS ON THE PRE DRAFT ENGINEERING EVALUATION/COST ANALYSIS FOR SITE 15 AND THE PRE DRAFT EE/CA FOR SITE 16 AT THE NAVAL AIR STATION, ALAMEDA

Dear Mr. Lanphar:

Enclosed are responses to your 6 June 1997 FAXED comments on the Site 15 Engineering Evaluation/Cost Analysis (EE/CA) and Site 16 EE/CA documents.

Your questions are in bold print with responses following in normal print.

If you have any questions, please contact Mr. George Kikugawa, Code 1831.2, at (415) 244-2549, or Mr. Dennis Wong, Code 1831.3, at (415) 244-2526, FAX (415) 244-2654.

Sincerely,

Original signed by:

CAMILLE GARIBALDI
Lead Remedial Project Manager
By direction of
the Commanding Officer

Copies to:
NAS Alameda (Attn: Mr. Steve Edde)
U.S. Environmental Protection Agency (Attn: Mr. James Ricks)
Regional Water Quality Control Board (Attn: Ms. Lynn Suer)

Attachment: Response to DTSC comments

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Subj: RESPONSE TO DEPARTMENT OF TOXIC SUBSTANCES CONTROL COMMENTS ON THE PRE DRAFT EE/CA (ENGINEERING EVALUATION/COST ANALYSIS) FOR SITE 15 AND THE PRE DRAFT EE/CA FOR SITE 16 AT THE NAVAL AIR STATION, ALAMEDA

Blind copies to:
MOJU (Attn: Mr. Akali Igbene)
IT Corp. (Attn: Gary Elston)
PRC Environmental Management, Inc. (Attn: Mr. Duane Balch)
1831, 1831.2, 1831.3, 1831 File
09C N. Bollo
Administrative Record (3 copies)
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Act. File: NAS ALAMEDA (File: L7201GK.DOC) ab

RESPONSE TO COMMENTS
Pre-Draft EE/CA for Sites 15 and 16

SITE 15 DRAFT ADDENDUM EE/CA

1. **Page 2-5, Section 2.1.2, Type of Facility and Operational Status.**
   Please address the fact that the removal of soil at Site 15 was to protect against the migration of contaminants due to periodic flooding. While it is true that the original removal action was to accommodate for the sewer pipe, this work has not yet been done.

   The Action Memorandum for Site 15 (Site 15 Action Memorandum, Dec. 14, 1994) states the following basis for conducting the original Site 15 removal action: "The proposed removal action is intended to reduce the potential for environmental impact identified below due to co-contaminated soil at Site 15. These threats directly relate to the criteria in the NCP 300.415(b)(2).

   1 Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants, or contaminants. PCBs and lead may enter through direct contact and ingestion by burrowing animals or plant uptake and subsequent ingestion by wildlife. PCBs and lead are toxic by ingestion and accumulate within animal tissue. No sensitive or endangered plant species exist at Site 15.

   2 High levels of hazardous substances or pollutants or contaminants in soils that may migrate. Infiltrating rainwater may cause lead in soil to migrate to groundwater, which is 3 to 5 feet bgs (groundwater elevations are influenced by tidal and seasonal fluctuations). Although unlikely, PCBs and lead could be washed with surface water runoff into the nearby Oakland Inner Harbor during extremely high rainfall events.

   3 Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released. The Oakland Inner Harbor is adjacent to Site 15. Arid weather conditions and high winds may cause PCBs in soil to become airborne on fugitive dust, thus affecting the Harbor."

The recommended mechanism for conducting the Site 15 removal action was originally off-site disposal. Off-site disposal was not utilized because the Navy attempted to implement the CERCLA preference for on-site treatment. Based on the CERCLA preference, a combined soil-washing/acid washing treatment process was selected as the recommended alternative. This alternative was again amended to allow assessment of an innovative-technology variant soil-washing process to be conducted under a USEPA innovative technology (SITE) assessment program (Site 15 Action Memorandum, Dec. 14, 1994).

After implementing the innovative technology treatment process the process was found to not be working effectively. An Administrative Memorandum (October 25, 1995) revising the 1994 Action Memorandum was prepared and describes revisions to the Site 15 removal action as follows: "The Navy encountered unanticipated conditions during soil washing, making it impossible to complete treatment of all soil before the Army Corp of Engineers sewer relocation

project needed the site. Therefore the excavated soils must be relocated and stored while a treatment system is implemented near the TSTA."

The construction of the TSTA is described in a Workplan and Workplan addendum prepared by IT Corporation in the Fall of 1995. The TSTA site occupies about 1 acre, of which about 3/4 acres is used to stockpile contain soil and the remaining area is for water management. Key features of the TSTA are shown on the Site Plan, Figure 2-4. 5400 tons of affected soil were placed in three stockpiles in the TSTA. Stockpile 1 (164 tons) and Stockpile 2 (134 tons) were intended for soil with higher concentrations of lead or PCBs. Stockpile 3 (about 5100 tons) is much larger, about 3,300 cubic yards, and contains the remaining soil derived from the Site 15 removal action. The stockpiles are covered by a plastic membrane and the stockpile area is surrounded by a water collection system. Water collected from the stockpile area is stored in tanks in the TSTA site, until analytical tests are conducted to determine if the collected water has been polluted or can be discharged. The TSTA site is primarily unpaved.

2. **Page 2-9, Section 2.1.5, Sensitive Ecosystems.**
   Provide data that can be used to evaluate potential environmental impacts of the identified contaminated soil removal technology and identify methods to mitigate those impacts. Also, provide information on the least tern colony, such as the distance of the colony to the Site 15 TSTA, the distance of the colony to truck routes, and the dates of the tern's nesting period.

Response: The text for Section 2.1.5 has been revised to address this comment, as follows:

Revised Section 2.1.5 Sensitive Ecosystems

There are no sensitive ecosystems at the TSTA, which is partially covered by the soil piles and is stripped of vegetation. However, storm drains can carry on-site runoff into the nearby San Francisco Bay where there are potential sensitive Bay aquatic life forms. Dust suppression water, applied during the removal action, will be prevented from entering the storm drain system either by controlled application and/or berming of storm drain inlets.

The largest nesting and breeding ground in Northern California for the California least tern is located on NAS Alameda. The least tern colony is about 3300 feet from the site and upwind and is therefore not likely to be affected. Several other sensitive environments are located nearby in the San Francisco Bay Area. Southeast of NAS Alameda in the bay is commercial fishing for herring and sports fishing for leopard sharks. There is also a public beach located southeast of NAS Alameda. Nearby, another endangered bird species, the California clapper rail, is found. NAS Alameda is also near a flatfish nesting area. Crab Cove, located at the west end of the Robert Crown Memorial State Beach, is a unique marine reserve protected by California law and administer by the East Bay Regional Park District. None of these environments are likely to be affected by the removal action at Site 16 as fugitive dust will be very carefully controlled and potential migration through the storm water system will be prevented .

3. **Page 2-9, Section 2.1.6, Meteorology**
Please include the average wind speeds and directions for the months that the removal action will take place. Also describe the typical variation of wind speed and direction during the day.

Response: The prevailing winds of the San Francisco Bay area are from a westerly direction. Based on available information from the U.S. Western Regional Climate Center in Nevada and the U.S. Geological Survey, the average wind speed for the months of August and September are 10 knots and 9 knots, respectively. The maximum wind speed occurs in the mid-afternoon (3 to 5 P.M.). The historic record for a day in August 1996 recorded maximum wind speeds ranging from 10 to 14.9 knots in the mid-afternoon..

4. **Page 2-9, Section 2.2.1, Previous Removal Actions**
Please change this section to reflect that the soil from Site 15 was moved to the TSTA in order to protect public health and the environment.

Response: Please review response to Comment 1.

5. **Page 2-10, Section 2.3, TSTA Stockpile Characterization**
We would prefer that Table A-3 (STLC, or California Waste Extraction Test for Site 15 soil) in Appendix 1 be repeated and explained in Section 2.

Appendix A will be eliminated and the text and tables currently in Appendix A will be moved to Section 2.3 of the EE/CA.

6. **Page 3-1, Section 3.1, Statutory Framework**
There is no FFA (Federal Facility Agreement) for NAS Alameda. A draft Federal Facility Site Remediation Agreement (FFSRA) was written in 1993: however, it was never finalized and signed.

The text of Section 3.1 has been revised as follows to address this comment:

The process is also described by the NAS Alameda draft Federal Facility Site Remediation Agreement (FFSRA), 1993, which has not yet by completed. Parties to the FFSRA include the DON, USEPA, and CALEPA (DTSC,and SFBRWQCB).

7. **Page 3-2, Section 3.4, Applicable or Relevant and Appropriate Requirements**
This section should not only list and describe Applicable, Relevant and Appropriate Requirements (ARARs), it should also specifically state how the ARAR applies to this removal action, what is required by the ARAR, and how the removal action will comply with the ARAR. Discussing potential ARARs for non-selected alternative is not necessary.

Response: ARARs pertaining to non-selected alternatives have been deleted. Requested revisions to the ARARs have been made; please see the revised ARARs text attached to the response to comments.

8. **Page 3-5, Section 3.4. Applicable and Relevant ARARs.**
ARARs should be described in three separate sections such as Applicable Requirements; Relevant and Appropriate Requirements; and To Be Considered Requirements. The ARAR discussion should be limited to the selected alternative: Off-Site disposal.

Response: The ARARs sections have been separated; please see the revised ARARs text attached to the response to comments.. We have used the lay person's term "to be considered" for Relevant and Appropriate. As the use of the lay person's term appears to be confusing it will be deleted from the text of the EE/CA. The ARARs will therefore have the same two sections headings designating the separation of Applicable from Relevant and Appropriate. Also, the ARARs discussion will be limited to the ARARs that apply to the selected alternative as requested. The revised ARARs section is in the response to Comment 7.

9. **Page 3-5, Section 3.4, CCR Title 22- Social Security, Division 4.5**
Specific section of California Code of Regulations, Title 22, Division 4.5 must be identified as Applicable Requirements. These sections include Chapter 11 (Hazardous Waste Classification), Chapter 12 (Requirements for Generators of Hazardous Waste), and Chapter 15 (Correction Action Management Units - Closure requirements). These sections apply because hazardous waste are stored in the Temporary Storage and Treatment Facility (TSTA).

Response: The revised ARARs section includes discussion of the above items but does not include Chapter 15 as closure may be a separate activity from the removal action. The need to incorporating closure into the removal action will have to be decided by the Navy.

10. **Page 3-6, Bay Area Air Quality Management Regulations**
Please provide more detail on Regulations 6 and 11 (Rule 1) including what requirements apply and how the action will meet them.

Response: Based on telephone discussion with BAAQMD (Vicki Devorack, Enforcement Division) Regulation 11, does not apply to this site and discussion of this regulation will be deleted. Revised ARARs describing compliance with Regulation 6 are included in the new ARARs section and as follows.

<u>California Clean Air Act (CCAA) of 1988</u>, as implemented by the Bay Area Air Quality Management District regulation, includes Regulation 6 which limits particulate emissions in general. The measures to be taken to comply with these regulation are described in the previous section for the CAA.

note: the following is the pertinent section of the CAA section that proceeds the above in the ARARs text

<u>Clean Air Act (CAA)</u> ... The generation of dust will be minimized during the removal action by thoroughly saturating the soil with water prior to start of the removal action, during soil removal action, and until verification sampling results are finalized and demonstrate that the clean-up

goals have been achieved. Additionally, equipment movement over the affected area will also be conducted in a manner that minimizes traffic in the area subject tot he removal action. The Construction Work Plan for the project will require that transit of excavation equipment within the removal action area be minimized and that transit of transport-trucks within the TSTA be allowed only in areas not subject to the removal action or where the depth of excavation for the removal action has been achieved. Primary monitoring will be by visual observation. Excavation work will be halted and additional water applied to the excavation area at any time when visible dust is generated. Additionally, overall compliance with regulations will be demonstrated by monitoring particulate emissions monitoring at the facility fence line and also with personal air monitors for site workers. Typical monitors use a small vacuum to draw ambient air into a filter (which is later tested to assess ambient particulate matter). The specific method for conducting air monitoring will be decided by the contractor conducting the removal action but must meet regulatory requirements.)

11. **Page 3-6, California Health and Safety Code**
    The document must change to reflect that California Health and safety Code (Sections 25356.1, 25358.1, and 25323.1) are Applicable Requirements for any removal actions conducted in the State of California.

Response: The requested revisions has been made; please see revised ARARs section attached to this response to comments.

12. **Page 3-7, 40 CRF Part 264**
    This section states that this regulation is not directly applicable to the TSTA because the soil at the site is not a hazardous waste. Section 2.3 of this EE/CA stated that the soil in stockpile was found to be hazardous based on the STLC.

Response: 40 CRF Part 264 applies to RCRA hazardous waste, which the soil is not The soil characterized as hazardous waste, which is in Stockpile 1, is a California only hazardous waste but not a RCRA hazardous waste.

13. **Page 4-3, Table 4-1, General Removal Action and Technology Screening Summary TSTA (Soil from Site 15)**
    The comment for Removal/Disposal Action, On-Site Backfill was stated as community resistance; this is not accurate. The main problem with the alternative is the unanswered technical questions surrounding on-site disposal. This is due to the lack of a Record of Decision for the Site 2 landfill. Please change this comment.

Response: The Table has been revised as requested.

14. **Appendix 1, TSTA Stockpile Characterization and Table A-3.**
    This section reports that Soil Stockpile 1 was found to have an average solubility of lead of 5 mg/L. Because Table A-3 does not identify which soil pile a sample was taken from, we can not follow the Navy's calculations. We assume that samples 121-S15-001 and 002 were taken from Soil Stockpile 1. We therefore calculate an average concentration of soluble lead in Soil Stockpile 1 as 6 mg/L. Please provide the information in Table A-3 that will allow the reader to understand the calculations of average soluble lead in the soil stockpiles.

Response: The Table has been revised as requested.

Response to Comments
SITE 16 DRAFT EE/CA

1. **Page 207, Section 2.1.6, Sensitive Ecosystems**
   In order to help meet the last objective of the EE/CA, "Provide data that can be used to evaluate potential environmental impacts of the identified contaminated soil removal technology and identify methods to mitigate those impacts", please provide more information on the least tern colony.

Response: The text for Section 2.1.6 has been revised to address this comment, as follows:

Revised Section 2.1.6 Sensitive Ecosystems

There are no sensitive ecosystems at Site 16 itself, which is partially paved and stripped of vegetation. However, storm drains can carry on-site runoff into the nearby San Francisco Bay where there are potential sensitive Bay aquatic life forms. Dust suppression water, applied during the removal action, will be prevented from entering the storm drain system either by controlled application and/or berming of storm drain inlets.

The largest nesting and breeding ground in Northern California for the California least tern is located on NAS Alameda. The least tern colony is about one mile from the site and upwind and is therefore not likely to be affected. Several other sensitive environments are located nearby in the San Francisco Bay Area. Southeast of NAS Alameda in the bay is commercial fishing for herring and sports fishing for leopard sharks. There is also a public beach located southeast of NAS Alameda. Nearby, another endangered bird species, the California clapper rail, is found. NAS Alameda is also near a flatfish nesting area. Crab Cove, located at the west end of the Robert Crown Memorial State Beach, is a unique marine reserve protected by California law and administer by the East Bay Regional Park District. None of these environments are likely to be affected by the removal action at Site 16 as fugitive dust will be very carefully controlled and potential migration through the storm water system will be prevented .

2. **Page 2-17, Section 2.4, Analytical Data**
   This section does not include a waste analysis of the Site 16 soil. Without a waste analysis we can not determine if the soil is a hazardous waste. This determination is needed to establish ARARs. Please include the data from the waste analysis.

A new Section (Section 2.5) has been added to the Addendum EE/CA to address this comment. The text of is as follows:

2.5 Waste Classification Characterization of Soil Subject to Removal Action at Site 16

A preliminary assessment was conducted to determine if the soil, subject to the removal action, is likely to be classified as TSCA waste or as Hazardous Waste (requiring Class 1 land disposal and possibly treatment) or is likely to be a designated waste (requiring Class II land disposal, without treatment).

Soil at the site is present in four discrete areas. Based on data from previous investigations (summarized in Figures 2-7 and 2-8 of this document) the primary chemicals of concern

identified at Site 16 are PCBs and the metal lead. The areas identified as subject to the removal action are shown on the Site Plan, Figure 2-6. Approximately 1800 cubic yards of soil is expected to be excavated during the removal action.

For the soil to be a TSCA waste the soil would have to contain 50 ppm or more of PCBs (40 CFR Part 761.60 (c) (3) and (d). As the maximum concentration of PCBs found in Site 16 soil is 23 ppm and the average is much less the soil is not a TSCA regulated waste.

In order to assess whether the soil is likely to be a hazardous waste, or a designated waste, or a mixture of both, soil samples were collected from the three of the four designated excavation areas and subject to laboratory analyses for total and soluble PCB and lead concentrations in accordance with CCR Title 22 requirements which also include RCRA requirements. A fourth area was difficult to access and was therefore not sampled but the results are not expected to be substantially different from those for the three areas sampled. Additionally, all areas were soil is to be removed for off-site disposal will be subject to additional sampling as needed to meet waste acceptance criteria for the receiving land disposal facility.

Sixteen samples were collected from four areas as shown on Figure 2-10. The samples were collected by PRC Environmental in April 1997, at locations specified by Moju, and submitted to a Navy approved laboratory for compositing and analyses. Each composite was formed from four samples and are designated as Composite I, II, III, and IV. The results of the analyses are summarized in Table 2-3 and indicate that it is very unlikely that the soil will be classified as a hazardous waste as the total and soluble concentration are both substantially below hazardous waste threshold concentrations.

3. **Page 3-2, Section 3.4, Applicable or Relevant and Appropriate Requirements**
   This section should not only list and describe Applicable Relevant and Appropriate Requirements (ARARs), it should also specifically state how the ARAR applies to this removal action. What is required by ARAR, and how the removal action will comply with the ARAR. Discussing potential ARARs for non-selected alternative is not necessary. Appendix B contains much of this information and is presented in a format clearer than that found in this section.

Response: Appendix B has been deleted from the EE/CA and a revised ARARs section has been included in the EE/CA; please see the revised ARARs text attached to the response to comments.

4. **Page 3-5, Section 3.4, Applicable and Relevant ARARs**
   ARARs should be described in these separate sections such as: Applicable Requirements; Relevant and Appropriate Requirements; and To Be Considered Requirements. The ARAR discussion should be limited to the selected alternative: Off-Site Disposal.

Response: The text for Section 3.4 has been revised to address this comment; please see the revised ARARs text attached to the response to comments.

5. **Page 3-5, Section 3.4, CCR Title 22 - Social Security, Division 4.5**
If the soil from Site 16 is determined to be a hazardous waste, California Code of Regulations, Title 22, Division 4.5 must be identified as Applicable Requirements. These sections include Chapter 11 (Hazardous Waste Classification), and Chapter 12 (Requirements for Generators of Hazardous Waste). (Traffic Management Plan).

Response: The soil at 16 is not hazardous waste based on the preliminary assessment conducted and described in Section 2.3

6. **Page 3-6, Bay Area Air Quality Management Regulations**
Please provide more detail on Regulations 6 and 11 (Rule 1) including what requirements apply and how the action will meet them.

Response: Based on telephone discussion with BAAQMD (Vicki Devorack, Enforcement Division) Regulation 11, does not apply to this site and discussion of this regulation will be deleted. Revised ARARs describing compliance with Regulation 6 are included in the new ARARs section and as follows.

<u>California Clean Air Act (CCAA) of 1988</u>, as implemented by the Bay Area Air Quality Management District regulation, includes Regulation 6 which limits particulate emissions in general. The measures to be taken to comply with these regulation are described in the previous section for the CAA.

note: the following is the pertinent section of the CAA section that proceeds the above in the ARARs text

<u>Clean Air Act (CAA)</u> ... The generation of dust will be minimized during the removal action by thoroughly saturating the soil with water prior to start of the removal action, during soil removal action, and until verification sampling results are finalized and demonstrate that the clean-up goals have been achieved. Additionally, equipment movement over the affected area will also be conducted in a manner that minimizes traffic in the area subject tot he removal action. The Construction Work Plan for the project will require that transit of excavation equipment within the removal action area be minimized and that transit of transport-trucks within the TSTA be allowed only in areas not subject to the removal action or where the depth of excavation for the removal action has been achieved. Primary monitoring will be by visual observation. Excavation work will be halted and additional water applied to the excavation area at any time when visible dust is generated. Additionally, overall compliance with regulations will be demonstrated by monitoring particulate emissions monitoring at the facility fence line and also with personal air monitors for site workers. Typical monitors use a small vacuum to draw ambient air into a filter (which is later tested to assess ambient particulate matter). The specific method for conducting air monitoring will be decided by the contractor conducting the removal action but must meet regulatory requirements.)

7. **Page 3-6, California Health and Safety Code**
   The document must change to reflect that California Health and Safety Code (Sections 25356.1, 25358.1, and 25323.1) are Applicable Requirements for any removal actions conducted in the State of California.

Response: The text for Section 3.4 has been revised to address this comment; please see the revised ARARs text attached to the response to comments.

8. **Page 4-3, Table 4-, General Removal Action and Technology Screening Summary Site 16- CANS - 2 Area**
   The comment for Removal/Disposal Action, On-Site Backfill was stated as community resistance; this is not accurate. The main problem with the alternative are the unanswered technical questions surrounding on-site disposal. This is due to the lack of a Record of Decision for the Site 2 landfill. Please change this comment.

Response: The Table has been revised as requested.