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28 November 1994

Department of the Navy
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway
San Diego, CA 92132-5187

Attn.: Mr. Kurt Baer
CTO-0046 Remedial Project Manager

Subject: Response to Draft Preliminary Assessment (PA) Report - Sites 4, 5 and 6,
Naval Training Center (NTC), San Diego, California

Dear Mr. Baer:

Please find enclosed ten (10) copies of our response to SWDIV reviewer's comments on the Draft Preliminary Assessment (PA) Report, Naval Training Center, San Diego, California. As required by our contract, the attachment describes how each comment was addressed. Please make distribution to your reviewers as appropriate.

If you have any questions regarding our response, please contact me at (619) 687-8712 or William Felix at (619) 541-1145.

Very truly yours,



Emile H. Houle
Project Manager

Attachments

cc: W. Felix



Bechtel National, Inc. Systems Engineers-Constructors

**RESPONSE TO COMMENT SUMMARY FOR DRAFT PRELIMINARY ASSESSMENT (PA) - SITES 4, 5
AND 6, NAVAL TRAINING CENTER (NTC), SAN DIEGO, CALIFORNIA**

RESPONSE TO DTSC GENERAL COMMENTS

- Comment 1.** Minor grammatical or typographical errors that do not change meaning or interpretation of report, should be corrected. **Response 1.** Comment noted. Grammatical and typographical errors were corrected.
- Comment 2.** Future changes should be clearly identified. **Response 2.** Comment noted. A separate response to comment summary will be issued with each final PA report copy.
- Comment 3.** Research additional naval facilities with a document incinerator to determine which chemicals were used during incinerator processes. **Response 3.** Additional research has been conducted to locate more information regarding Site 4. Appropriate revisions to the PA report have been made to incorporate the new information discovered. The new information can be found in Section 4.1 and Subsections 4.1.1 through 4.1.3.
- Comment 4.** With respect to Site 5, a geophysical investigation should be conducted as well as, sampling the stormwater channel. **Response 4.** Comment noted. This activity will be conducted in the SI for Site 5.

RESPONSE TO DTSC SPECIFIC COMMENTS

- Comment 1.** Page 1-5, Subsection 1.3.8, Table 1 Include number of years listed personnel worked at NTC as well as specific areas worked. **Response 1.** Comment noted. The report was revised as requested.
- Comment 2.** Page 3-3, Section 3.3, Paragraph 5, Delete paragraph. **Response 2.** Comment noted. The Navy believes that this paragraph contains important information and should not be deleted. Although it may not fit exactly into this section, there has not been a better place in this document to insert this paragraph. No revision to the PA report was made regarding this comment.
- Comment 3.** Page 4-1, Section 4.1, Paragraph 2, Line 6, If no information is available then sampling must be conducted. **Response 3.** BNI incorrectly used the word "information". Information was located; however, based upon review of the information no "evidence" with respect to hazardous substance use, transportation or disposal was found. The word "information" was replaced with the word "evidence".
- Comment 4.** Page 4-1, Subsection 4.1.2, Paragraph 4, Line 7, If no information regarding the soaking tanks is available then research other military facilities. **Response 4.** Additional research has been conducted to locate more information regarding the soaking tanks. Appropriate revisions to the PA report will be made to incorporate the new information discovered. See Page 4-1, Subsection 4.1.2, Line 4 for BNI response.
- Comment 5.** Page 4-1, Subsection 4.1.3, Paragraph 5, Provide more information on the sumps which underlain former document incinerator. **Response 5.** Additional research has been conducted to locate more information regarding the sumps. Appropriate revisions to the PA report have been made to incorporate the new information discovered. See Page 4-3, Subsection 4.1.3, Line 5 for BNI response.

Comment 6. Page 4-3, Section 4.2, Provide date when stormwater channel was built and lined.

Response 6. The stormwater channel was lined with concrete prior to the construction of the Former Firefighter Training School in 1943 (NTC Base Map, 1942). See Page 4-3, Section 4.2, Paragraph 2, Line 7 for BNI response.

Comment 7. Page 4-3, Section 4.2, Paragraph 2, Line 7, Table 4-1, Update values for xylene and provide source of information.

Response 7. Xylene information sources include the Merck Index, 11th Edition, 1989, Hawley's Condensed Chemical Dictionary, SARA Section 313 List of Toxic Chemicals, NIOSH Guide to Chemical Hazards. In each of these sources, specific information varies with respect to the different isomers of xylene. Table 4-1 was revised to include the aforementioned information sources.

Comment 8. Page 4-8, Subsection 4.2.3, Paragraph 1, Line 2, Delete the word "trace".

Response 8. Comment noted. The lead content for leaded gasoline is approximately 0.05% and is considered a trace constituent by the petroleum industry. The sentence was reworded to exclude the word "trace". See Page 4-7, Subsection 4.2.3, Paragraph 2, Line 3 for BNI response.

Comment 9. Page 4-9, Paragraph 2, Line 10, Identify chemicals of concern used at the Former Firefighter Training School. Check other military facilities which may have used a school similar to the one at the NTC.

Response 9. Primary chemicals used at the Firefighter Training School are adequately discussed in Subsections 4.2.1-4.2.8. Adequate information exists for Site 5 and the Navy believes that the information presented adequately characterizes chemical use and daily activities at the site. No revision to the PA report was made regarding this comment.

Comment 10. Pages 4-8 and 4-9, Subsections 4.2.6 and 8, Delete last sentence of each paragraph.

Response 10. Comment noted. The last sentence in Subsection 4.2.6 was deleted and the last sentence in Subsection 4.2.8 was modified to describe the former oil/water separator.

Comment 11. Page 4-8, Subsection 4.2.6, Provide more information on the chemical content of the foam used at the Former Fire Fighter Training School.

Response 11. One foam that may have been used as a fire suppressant was an aqueous film forming foam (AFFF). The Material Safety Data Sheets are enclosed for review. In addition, a protein foam may have been used at the Former Firefighter Training School however, the contents are not documented. Firefighters interviewed describe the foam as a combination of fish emulsion and animal parts. All of the ingredients in the protein-based foam appear to be biodegradable. See Page 4-9, Subsection 4.2.6, Paragraph 2 and Appendix F for BNI response.

Comment 12. Page 4-10, Section 4.3, Table 4-2, Provide source of information for the solubility of chemicals.

Response 12. Comment noted. Solubility values appear to vary by source. Consequently, these values will remain unchanged in Table 4-2. Table 4-1 was revised to include information sources listed in BNI response #7.

Comment 13. Page 4-12, Section 4.3, Paragraph 1, Line 1, Provide information with respect to the toxicity and carcinogenicity of Triox.

Response 13. Triox is a toxic substance according to Appendix X, California Hazardous Waste Rules, State Solid Waste-Land use. It contains Pramitol, pentachlorophenol and chlorinated phenols. Pentachlorophenol. According to the NIOSH pocket guide to chemical hazards, Triox has a vapor pressure of 0.0001 mm, a solubility of .001% and it's not combustible (Sources: Merck Index and NIOSH). No corresponding revision was made to the PA report.

Comment 14. Page 5-3, Section 5.2, Table 5-2, Provide source for data.

Response 14. Sources are NTC base maps (1944-1964). Table 5-2 was revised as requested.

Comment 15. Page 7-1, Subsection 7.1.1, Paragraph 4, Line 1, Re-state sentence because sufficient evidence does not exist to determine the likelihood of release.

Response 15. The word speculate infers that the likelihood of release is not certain. No revision was made to the PA report.

Comment 16. Page 7-1, Subsection 7.1.2, Paragraph 3, Line 1, Re-state sentence because insufficient evidence exists to determine the likelihood of a release.

Response 16. Speculative is used because insufficient evidence exists to determine the a likelihood of release. No revision was made to the PA report.

Comment 17. Page 7-6, Subsection 7.2.3.1, Paragraph 5, Line 3, Re-state or delete sentence.

Response 17. The NTC is a federal installation which is occupied by military and limited civilian personnel. The general public is allowed access to this installation only if they are conducting specific business on base, for a short period of time. The NTC should not be construed as public property with unlimited access to the general population. Based upon the aforementioned discussion, direct contact with soil at Site 6 is not anticipated. No revision was made to the PA report.

Comment 18. Page 7-7, Subsection 7.2.3.2, Paragraph 2, Line 8, Re-state or delete sentence.

Response 18. The NTC is a federal installation which is occupied by military and limited civilian personnel. The general public adjacent to Rosecrans Street are not allowed access this installation unless they are conducting specific business on base. Based upon the aforementioned discussion, direct contact with soil at Site 6 is not anticipated. No revision was made to the PA report.

Comment 19. Page 8-1, Section 8.2, Paragraph 7, Line 6, Delete the sentence following because it is redundant.

Response 19. Comment noted. Sentence deleted.

RESPONSE TO EPA GENERAL COMMENTS

Comment 1. EPA does not concur with recommendations made for Site 4.

Response 1. Comment from EPA is noted.

Comment 2. How are sites identified for PA Sites 4-6. How will identified PA sites be incorporated into the cleanup process. Are other sites within the NTC unchecked?

Response 2. Sites 5-6 were identified during the Initial Assessment Study (IAS) conducted by NEESA in 1987. Site 4 was identified during an aerial photograph review conducted by the Navy. The PA sites will be incorporated into the cleanup process in accordance with CERCLA. Additional sites including Building 288 are being investigated independent of the PA process (Discovery). Sites requiring further study be investigated further, as required.

Comment 3. Prepare a brief overview of workplan once the comments for the PA are submitted to the regulatory agencies.

Response 3. A brief overview of the workplan was presented during a BRAC Cleanup Team (BCT) meeting on October 11, 1994. A 3-page memo, discussing the sampling protocol was also provided. A formal work plan will be submitted at a later date as part of the SI process.

Comment 4. Suggest that maps within the report be placed in a separate Appendix.

Response 4. Suggestion of map placement is noted.

Comment 5. References should be provided with each table.

Response 5. Comment noted.

RESPONSE TO EPA SPECIFIC COMMENTS

Comment 1. Page 1-1, Section 1.1, Clarify how a PA determines the need for remedial action.

Response 1. Based upon observations at the site, along with the knowledge of hazardous substances which may be present, an emergency removal action may be required, if an actual or potential threat to human health and/or the environment exists. See Page 1-1, Section 1.1, Paragraph 2, Line 1 for BNI response.

Comment 2. Page 1-4, Subsection 1.3.3, Discuss how the aerial photos were chosen for each site. Discuss industrial and historical significance.

Response 2. Aerial photographs were chosen on the basis of availability for years of interest, altitude at which the photos were taken and the clarity of the photo. Correlation of historical data can be used to infer dates of construction, demolition, and events of historical significance. See Page 1-4, Subsection 1.3.3, Paragraph 1, Line 2 for BNI response.

Comment 3. Page 1-4, Subsection 1.3.5, Paragraph 3, Provide a history of regulatory activities, including permits violations and inspections.

Response 3. Included within Appendix B is a list of Agency Records researched for Sites 4-6. Although additional sources were researched, no additional information was found for the sites investigated.

Comment 4. Page 2-3, Section 2.3, Provide a brief geologic section for Sites 4-6.

Response 4. Appropriate information regarding regional geology has been discussed in section 2. It is the authors opinion that additional geology descriptions is not required. More site specific lithological information will be available after the performance of the SI.

Comment 5. Page 3-3, Section 3.3, Provide a brief status of the former Chevron gas station.

Response 5. Comment noted. Appropriate changes to the report have been made. See Page 3-3, Section 3.3, Paragraph 4 for BNI response.

Comment 6. Page 4-8, Subsection 4.2.4, Provide any available information with respect to the former (or present) underground storage tanks at Site 5. Discuss sediment sampling along drainage and discharge areas.

Response 6. Information has been supplied in Subsection 4.2.4 . Figure 4-2 is a scaled drawing providing the approximate locations and sizes of fuel storage units. No further data was collected with respect to the former fuel storage facilities. The proposed SI will include a geophysical survey and subsurface exploration, identifying underground anomalies such as tanks piping, and impacted soil (if any). The subsurface investigation will also address sediment sampling at the terminus of the concrete-lined stormwater channel. No revision to the PA report was made.

Comment 7. Page 4-8, Subsection 4.2.5, Paragraph 5, Provide a description of the storm-water channel including, condition, and drainage history.

Response 7. The stormwater channel runs parallel to the former fire fighter training facility from Truxton Road to San Diego Bay. The Channel is approximately 10 feet wide, 10 feet deep and conveys excess runoff toward the boat channel. The stormwater channel was built prior to 1943. No revision to the PA report was made.

Comment 8. Page 4-8, Subsection 4.2.3, Include relevance of word "trace" constituent of gasoline.

Response 8. Comment noted. The lead content for leaded gasoline is approximately 0.05% and is considered a trace constituent by the petroleum industry. The sentence was reworded to exclude the word "trace". See Page 4-7, Subsection 4.2.3, Paragraph 2, Line 3 for BNI response.

Comment 9. Page 4-9, Subsection 4.2.8, Discuss disposal practices of lighter petroleum hydrocarbons separated from seawater.

Response 9. Navy disposal practices are unknown, with respect to the former fire fighter training school. Documents researched do not describe transport, transfer, or disposal of generated wastes. Consequently, soil samples will be collected from areas where a suspected release may have occurred. No revision to the PA report was

made.

Comment 10. Page 4-10, Section 4.3, Table 4-2, Designate which chemicals are currently used at the NTC. Describe the carcinogenicity using EPA Guideline for Carcinogen's Risk Assessment.

Response 10. As mentioned in the PA report, small quantities of gasoline are used at Site 6 to fuel golf course maintenance equipment. Insect abatement and large-scale landscaping operations are subcontracted to more specialized firms which transport and dispose of their own materials. Sites 4 & 5 are not in operation and have not stored chemicals on-site for approximately 10-30 years. No revision to the PA report was made.

Comment 11. Page 4-10, Section 4.3, Table 4-2, Provide information with respect to the chemical composition of Triox.

Response 11. Triox is a non-selective herbicide containing such active ingredients as pentachlorophenol, Pramitol and chlorinated phenols, all of which are listed in Table 4-2, Nature of Hazardous Substances. See Page 4-10, Section 4.3, Paragraph 1, Line 12 for BNI response.

Comment 12. Page 5-1, Section 5.0, Paragraph 2, Provide criteria for "deep aquifer".

Response 12. The term "deep aquifer" was used generically, and was not intended to quantify the probability of materials reaching groundwater. No revision to the PA report was made.

Comment 13. Page 5-2, Section 5.1, Describe relevance of hydraulic conductivity values.

Response 13. The hydraulic conductivity defines how a viscous material will travel under saturated conditions in a porous medium. Consequently, if a dissolved hazardous substance (i.e. Benzene) exists in the groundwater, the hydraulic conductivity will define how that material will move through a specific porous material. Note that artificial fill has a higher HC than the Bay Point Formation consequently, viscous materials under saturated conditions, will tend to move faster through the artificial fill than the Bay Point Formation. See Page 5-2, Section 5.1, Paragraph 2, Line 4 for BNI response.

Comment 14. Page 6-4, Section 6.6, Provide estimates of populations with a 4-mile radius of the subject site.

Response 14. A census study conducted by Jacobs Engineering is included in the PA report which describes populations within a four mile radius of the MCRD. This census documents both residential and occupational populations. See Table 6-1.

Comment 15. Page 7-1, Subsection 7.1.1, Paragraph 3, Provide the 1988 PCB data. Soil samples may be necessary.

Response 15. The data concerning the PCB spill on July 6, 1988 will be included in another study conducted independent of the PA. However, PCB spill-information is provided in Appendix G of the final PA report.

Comment 16. Page 7-2, Section 7.1, Table 7.2, A "No" for suspected release at Site 4 is inappropriate.

Response 16. Comment noted. Additional research does not warrant a change in Table 7.2. No revision to the PA report was made.

Comment 17. Page 7-3, Subsection 7.1.6, Are geophysical techniques going to be used at Site 5, the Former Firefighter Training Facility?

Response 17. A geophysical investigation will be conducted at the aforementioned site.

Comment 18. Page 7-4; Subsection 7.1.12, and Page 7-6, Subsection 7.2.2, Describe differences between a chemical remaining in the soil versus volatilizing into the air. Include chemicals found at the NTC.

Response 18. DDT will not "volatilize" like a chemical such as benzene. However, it may break down over time if exposed to the natural elements. If DDT and other pesticides should be distributed via spraying, airborne particles may affect persons directly or indirectly. See Page 7-5; Subsection 7.1.12, Paragraph 2, Line 1 for BNI response.

Comment 19. Page 7-4, Subsections 7.1.9 and 7.1.10, Please include a discussion of other chemicals in addition

Response 19. Subsections 7.1.9 and 7.1.10 discuss only hazardous substances that are likely to have been released to soil and

to DDT

Comment 20. Pages 7-4 and 7-5, Subsection 7.1.12, Expand the air pathway discussion to include chemicals currently used, volatility and potential to contribute to current air exposure.

Comment 21. Page 7-8, Section 7.3, Table 7-3, State "unknown" instead of "NA".

Comment 22. Page 8-1, Section 8.0, Clarify that a PA does not consider "adverse health affects" but evaluates potential exposure pathways.

Comment 23. Page 8-1, Section 8.0, Provide types of removal actions including, "critical" versus "non-critical".

Comment 24. Page 8-1, Section 8.1, Site 4, Provide confirmation PCB data as well as rationale for not sampling soil beneath the incinerator.

Comment 25. Page 8-1, Section 8.2, Site 5, Provide schedule and work plan for future fieldwork.

Comment 26. Page 8-2, Section 8.3, Site 6, Provide work plan of fieldwork. Will sampling be conducted in areas of probable pesticide/herbicide contamination.

groundwater. Each hazardous substance that has or potentially has been released to soil and groundwater is adequately discussed. No other substances are known to have been potentially released at Site 6; therefore, no other information can be presented.

Response 20. The only chemical used at Site 6 is gasoline, stored in 5-gallon safety canisters in a secured flammable materials cabinet. The canisters are opened as needed to fuel lawn care and maintenance equipment. This practice is not anticipated to cause significant air exposures. See Page 7-5, Subsection 7.1.12, Paragraph 3, Line 1 for BNI response.

Response 21. Comment noted. Not applicable is an acceptable response because Waste Characterization Scores are based on a tiered approach depending on available information. Based on our observations at the time of the PA site reconnaissance and records review, hazardous waste estimates were calculated by either volume or area. It was not appropriate to estimate waste quantities using a combination of both methods. If impacted soil is discovered and the amount quantified, a more accurate waste estimate could be calculated based on area rather than volumetric considerations. No revision to the PA report was made.

Response 22. Comment noted. The report was revised to indicate that the PA considers potential exposure pathways, not adverse health effects. See Page 8-1, Section 8.0, Paragraph 2, Line 4 for BNI response.

Response 23. Removals actions associated with the PA are on emergency basis (critical). The type of remedial actions would most likely include immediate removal, transportation, and disposal off site. See Page 8-1, Section 8.0, Paragraph 4, Line 4 for BNI response.

Response 24. The area of the PCB spill will be addressed during an independent site assessment. The basic rationale for not sampling beneath Site 4 is that a release of hazardous substances is not suspected. No revision to the PA report was made.

Response 25. Comment noted. The work plan will be submitted to the EPA at a later date. No revision to the PA report was made.

Response 26. The work plan will be submitted to the EPA and sampling will include areas of possible pesticide contamination. No revision to the PA report was made.

RESPONSE TO SELECTED RAB COMMENTS

Comment 1. Page 4-12, Section 4.3, sentence 2, Delete the word "only" to describe the use of Triox and calcium arsenate. The RAB requests information on the toxicity, carcinogenicity of Triox.

Response 1. The word "only" was deleted. See BNI response to DTSC-comment #13 for information on Triox.

Comment 2. Page 5-2, Section 5.2, paragraph 2, sentence 1, Groundwater depths, 17 feet bgs is the underlying bay deposits. What does this mean?

Comment 3. Page 6-4, Section 6.6, sentence 2, Add “and to County Water Authority.”

Comment 4. Page 7-5, Section 7-2, Populations (BOQ) could be affected from volatile chemicals in the firefighting pits. This should be added.

Response 2. The sentence has been revised to clarify the information presented. See Page 5-2, Section 5.2, Paragraph 2, Line 1 for BNI response.

Response 3. This RAB comment is not clear; however, changes to the report will be made to indicate that the County Water Authority receives water from MWD, and subsequently sells a portion of the water to the City of San Diego. The city also provides potable water to residents from domestic well sources. See Page 6-4, Section 6.6, Paragraph 1. Line 3 for BNI response.

Response 4. The firefighting pits are referred to in the report as the demonstration tanks. These tanks were above ground structures used to burn fuel oil. Additionally, they were removed prior to the BOQ being built. Because the source of exposure was removed prior to construction and occupation of the BOQ, significant exposures from the demonstration tanks pits are not anticipated. No revision to the PA report was made.