CLEAN 3 Program
Bechtel Job No. 23818
Contract No. N68711-95-D-7526
File Code: 0232

IN REPLY REFERENCE: CTO-045/0041

May 20, 2003

Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Ms. Karen Rooney, Code 02R1.KR
1220 Pacific Highway
San Diego, CA 92132-5190

Subject: Responses to Regulatory Agency Comments Received on the Draft Record of Decision for Operable Unit 3 Site 16, Crash Crew Training Pit No. 2.
Former MCAS El Toro, California - Dated May 2003

Dear Ms. Rooney:

It is our pleasure to submit the Navy's Responses to Comments received from the regulatory agencies on the Draft Record of Decision for Operable Unit 3, Site 16, Crash Crew Training Pit No. 2, Marine Corps Air Station, El Toro, California. This document was prepared under Contract Task Order (CTO) 0045 and Contract No. N68711-95-D-7526 and is a Federal Facility Agreement (FFA) deliverable.

We appreciate the opportunity to be of service to you on this project. If you have any questions or would like further information, please contact John Scholfield at (619) 744-3093 or me at (619) 744-3004.

Sincerely,

Thurman L. Heironimus, R.G.
Project Manager

TLH/sp
Enclosure

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RESPONSE TO COMMENTS
DRAFT RECORD OF DECISION
FOR OPERABLE UNIT 3 SITE 16, CRASH CREW TRAINING PIT NO. 2 AT
MCAS EL TORO, CALIFORNIA

Originator: **Triss Chesney** **Department of Toxic Substances Control** **To:** **Andy Piszkin** **MCAS El Toro BEC** **Date:** **3 February 2003**	**CLEAN 3 Program** **Contract No. N-68711-95-D-7526** **CTO-0045** **File Code: 0232**
COMMENTS	***RESPONSES TO COMMENTS***
COMMENT 1: Declaration, page 2: The last sentence under "Institutional Controls" states, "restrictions will be removed when cleanup goals have been met." The procedures that will be used to determine that the cleanup standards have been met and the parties that will be involve in that determination should be described in the ROD.	**RESPONSE 1:** The procedures and parties involved in the determination that cleanup standards have been met will be contained in the Preliminary and Final Remedial Design reports. The sentence in question will be revised to state: "These restrictions will be described in the Preliminary and Final Remedial Design reports to be developed and submitted to the Federal Facilities Agreement (FFA) signatories for review pursuant to the FFA. The Remedial Design reports will identify the procedures to determine when the cleanup standards have been meet and the parties involved in this determination. The restrictions described in the Remedial Design reports will be removed when the cleanup standards have been determined to be met."
COMMENT 2: Site 2, Site History and Enforcement Activities, page 2-1: Paragraph 1, sentence 3 states, "Water solvents may have reached the surface..." Please revise "Water" to "Waste".	**RESPONSE 2:** The change will be made as requested.
COMMENT 3: Section 2.2, Phase 1 and Phase II Remedial Investigations, page 2-1 and 2-2: Paragraph 1, sentence 2 states that the Marine Corps/DON signed an FFA with "...California Department of Health Services (part of which is now the DTSC), and RWQCB (FFA 1990)." This should be changed to "...California Department of Health Services and RWQCB (FFA 1990). DTSC is the successor to the Toxic Substances Control Program of the California Department of Health Services."	**RESPONSE 3:** The change will be made as requested.
COMMENT 4: Page 2-4, Section 2-4, Recent evaluations and Assessments: Paragraph 2 refers to a California "provisional action level" or "PAL" for contaminants in drinking water. This level is more accurately designated as an "action level" or "AL." Please reflect this in the text. Additionally, the proposed public health goal for perchlorate in drinking water is "in the range of 2 to 6 micrograms per liter (µg/L)" rather than at "6 µg/L."	**RESPONSE 4:** The sentence in question regarding PAL for perchlorate will be deleted. This information does not relate to Site 16. Perchlorate is not an issue at Site 16 (see response #5).

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COMMENT 5: Page 2-4, Section 2.4, Recent Evaluations and Assessments: Paragraph 2 summarizes the results of a site-specific perchlorate investigation that was conducted at Site 1. It appears that the intent of this section is to summarize basewide evaluations and assessment. As a result, it may be more appropriate to summarize the purpose and conclusions of the Draft Final Evaluation of Perchlorate in Groundwater, Marine Corps Air Station, El Toro, California, dated July 1999. The purpose of the evaluation was to (1) determine the concentrations and distribution of perchlorate in groundwater, (2) provide data for determining whether perchlorate in groundwater is from the Station or a result of ambient conditions, and (3) assess the need for further evaluation. The evaluation concluded that further assessment is required for low-level concentrations (2 to 13 µg/L) of perchlorate detected throughout the Station and a source of perchlorate (detected at 280 µg/L) exists at Site 1. Further monitoring at Site 1 and landfill sites 2, 3, 5, and 17 was recommended. As a result, perchlorate is being evaluated as part of the basewide groundwater monitoring program and through additional site-specific investigations at Sites 1 and 2. The "Summary of Findings" in Table 2-1, Summary of Environmental Investigations at Former MCAS El Toro, for the Evaluation of perchlorate in groundwater (1998-1999) should also be modified to reflect the conclusions and recommendations summarized in the previous paragraph.	**RESPONSE 5:** The purpose of Section 2.4 is to summarize investigations conducted at MCAS El Toro as they relate to Site 16. To clarify the results of the perchlorate in groundwater evaluation, the following sentence will replace sentences two through six of the second paragraph: "An evaluation of perchlorate was conducted in 1998 and 1999 to determine the concentration and distribution of perchlorate at the station, evaluate probable sources of perchlorate, and assess the need for further evaluation based on perchlorate concentration. Based on sampling conducted at Site 16, perchlorate was not determined to be an issue at Site 16. The perchlorate evaluation report recommended further monitoring at Site 1 and landfill sites 2, 3, 5, and 17 (Earth Tech 2001a). As a result, perchlorate is being evaluated as part of the basewide groundwater monitoring program and through additional site-specific investigations at Sites 1 and 2." Summary of Findings Section of Table 2-1 has been revised to, "Based on results from the evaluation, further monitoring was recommended at Site 1 and landfill sites 2, 3, 4, and 17 and other wells where perchlorate was reported."
COMMENT 6: Page 2-4, Section 2.4 Recent Evaluations and Assessments: In Paragraph 3, please clarify that the historical radiological assessment did not indicate that further investigation was required at Site 16 as justification for not including Site 16 in the subsequent survey.	**RESPONSE 6:** To clarify that the historical radiological assessment did not indicate further investigation was required at Site 16, the following text will be added to the third sentence in the third paragraph: "; Site 16 was not one of these sites."
COMMENT 7: Table 2-1, Summary of Environmental Investigations at Former MCAS El Toro, page 2-10: The "Summary of Findings" for the "1998-1999, Evaluation of perchlorate in groundwater" should be consistent with the information provided in comment number 5.	**RESPONSE 7:** See response #5.

Originator: Triss Chesney Department of Toxic Substances Control **To:** Andy Piszkin MCAS El Toro BEC **Date:** 3 February 2003	**CLEAN 3 Program** **Contract No. N-68711-95-D-7526** **CTO-0045** **File Code: 0232**
COMMENT 8: Table 2-1, Summary of Environmental Investigations at Former MCAS El Toro, page 2-11, 2001-2002, Radiological survey: The statement, "The survey did not include Site 16," should be clarified by adding that the historical radiological assessment did not indicate that further investigation was required at Site 16.	**RESPONSE 8:** The summary of findings for the 2001-2002 Radiological survey in Table 2-1, second sentence, will be revised as follows: "The historical assessment did not indicate that further investigation was required at Site 16."
COMMENT 9: Section 4, Scope and Role of Operable Unit, page 4-1: Paragraph 6, sentence 3 states, "OU-3A Site 11 was addressed in a no action ROD that was signed in September 1999 (SWDIV 1999)." Please clarify that the ROD for Site 11 was not a "no action ROD." Instead, the ROD documented the selected remedy that included no further action for Site 11 (Unit 3) and excavation and off-site disposal for Site 11 (Units 1 and 2).	**RESPONSE 9:** The sentence will be reworded to state: "OU-3A Site 11 was addressed in a ROD that was signed in September 1999 which documented the selected action remedy for Units 1 and 2 and included no further action for Unit 3 (SWDIV 1999). "
COMMENT 10: Page 6-1, Section 6.1, Current Land Use: Paragraph 1 states, "Former MCAS El Toro currently encompasses about 3, 740 acres." Please add text to clarify that the current area resulted after various transfers including those to the Federal Aviation Administration and Caltrans.	**RESPONSE 10:** The sentence in question will be deleted, and the following text taken from the Draft Environmental Baseline Survey (Earth Tech 2003) will be added after the second sentence of the first paragraph under Section 6.1: "At its maximum acreage, the base comprised about 4,740 acres of property. Approximately 1,000 acres of property have been transferred or are pending transfer at this time. In 1998, approximately 25 acres in the southeastern portion of the station were transferred to the California Department of Transportation (CalTrans). In 2001, approximately 901 acres of property in the northeast portion of the base was transferred to the Federal Aviation Administration (FAA). The remaining 74 acres pending transfer are also located in the northeast portion of the base and are scheduled to be transferred to the Federal Bureau of Investigation (FBI)."
COMMENT 11: Page 7-12, Section 7.5.1, Units 1 and 2: Paragraph 3 states, "The risk to a resident from exposure to lead in the shallow soil (0 foot to 10 feet bgs) of Units 1 and 2 was not assessed because lead was not identified as a COPC in shallow soil." Please add to text to clarify why lead was not identified as a COPC in shallow soil (0 to 10 feet bgs) even though it was	**RESPONSE 11:** The following text will be added at the end of the first sentence in the third paragraph of Section 7.5.1: "...based on a statistical comparison of soil concentrations with background concentrations for the station. Due to a slightly higher calculated UCL in the 0 to 2 feet bgs samples (industrial worker scenario), lead was identified as a COPC in surface soil (0 to

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identified as a COPC for surface soil (0 to 2 feet bgs).	2 feet bgs)."
COMMENT 12: Page 8-1, Section 8.1, Remedial Action Objectives and Cleanup Standards: This section presents the numerical cleanup standard for TCE, which is the only COC in groundwater based upon the results of the risk assessment. However, other organic chemicals were detected in groundwater above their respective MCL. As a result, the MCLs for all chemicals detected should be included as cleanup standards.	**RESPONSE 12:** Although several other VOCs have been reported above their respective MCLs at Site 16, historical groundwater sampling data for Site 16 indicates that TCE has been the only VOC consistently reported above its MCL. Table 8-1 presents the COCs in groundwater that are the drivers for the cleanup required. Since TCE accounts for 99% of the risk contributed by groundwater, it is appropriate that TCE is the only COC represented in this table.
COMMENT 13: Page 8-2, Section 8.2, Remedial Alternatives: The citation for the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), should read "42 United States Code..." rather than "43 United States Code..."	RESPONSE 13: The change will be made to the text.
COMMENT 14: Page 8-3, Section 8.2.2.2, Institutional Controls: Paragraph 2 should also include institutional controls to provide the DON and regulatory agencies access to the site for completion of the final remedy, including well abandonment.	RESPONSE 14: Section 8.2.2.2 has been revised to focus on Land Use Control objectives to be achieved through land use restrictions. The text regarding authorization for DON and the regulators has been removed since it is more appropriately addressed in the deed documentation since it will be a requirement as part of the property transfer.
COMMENT 15: Section 8.2.2.2, Institutional Controls, page 8-4, Implementation of Institutional Controls: Items 1 and 2 should include "and associated buffer zone" after "site 16 shallow groundwater plume."	**RESPONSE 15:** The text in Section 8.2.2.2 has been revised to reference the Memorandum of Agreement (MOA) between the DON and DTSC regarding Environmental Restriction Covenant and Agreement(s). The following sentence has been added to the paragraph referencing the MOA to address this comment: "The Environmental Restriction Covenant and Agreement(s) will address the real property containing the Site 16 shallow groundwater plume and associated buffer zone.

Originator: Triss Chesney Department of Toxic Substances Control **To:** Andy Piszkin MCAS El Toro BEC **Date:** 3 February 2003	**CLEAN 3 Program** **Contract No. N-68711-95-D-7526** **CTO-0045** **File Code: 0232**
COMMENT 16: Section 8.2.2.2, Institutional Controls, page 8-5, Environmental Restriction Covenant and Agreement (Chapters 6.5 and 6.8 of Division 20 of the California Health and Safety Code and California Civil Code Section 1471): A sample of the model Environmental Restriction Covenant and Agreement that was included with the Memorandum of Agreement between the DON and DTSC should be included as an attachment to the ROD. Reference to the attachment can be added to paragraph 1, after the first sentence that ends "...and access provisions."	**RESPONSE 16:** The text in Section 8.2.2.2 has been revised to reference the MOA between DTSC and the DON including a reference to the attached models. The Preliminary and Final Remedial Design reports (primary documents per Section 7.3 of the FFA) will be the documents that will contain specific information pertaining to implementation of the LUCs.
COMMENT 17: Section 8.2.2.2, Institutional Controls, page 8-5, Environmental Restriction Covenant and Agreement (Chapters 6.5 and 6.8 of Division 20 of the California Health and Safety Code and California Civil Code Section 1471): Paragraph 2, sentence 3 states, "The Environmental Restriction Covenant and Agreement(s) will include the legal description of the property overlying the Site 16 shallow groundwater plume and associated buffer zone, and the location of monitoring wells that are included in the remedial action." Add "(and associated piping and equipment as provided in the O&M Plan if Alternative 3 is implemented in the future)" after "monitoring wells."	**RESPONSE 17:** See response #16.
COMMENT 18: Section 8.2.2.2, Institutional Controls, page 8-6, Environmental Restrictive Covenants in the Quitclaim Deed (California Civil Code Section 1471): Paragraph 2 states that quitclaim deeds between the United States and transferees will include provisions for terminating or modifying the restrictive covenants in the deeds when cleanup levels established in the ROD have been achieved. The ROD should describe the procedures that will be used to determine that the cleanup standards have been met and the parties that will be involved in that determination prior to termination of the restrictive covenants.	**RESPONSE 18:** The text in Section 8.2.2.2 has been revised to address LUC objectives for institutional controls; identify that Remedial Design reports will contain specific information pertaining to implementation and maintenance actions for institutional controls; reference the MOA between DON and DTSC; and describe the area where institutional controls will apply at the site. In addition, Section 10-1, Bullet 2, has been revised to the following: "**Institutional controls.** Institutional controls will be used to protect groundwater monitoring wells, prevent use or disturbance of groundwater, and maintain a positive drainage over the main pit. These restrictions will be described in the Preliminary and Final Remedial Design reports to be developed and submitted to the FFA signatories for review pursuant to the FFA. The Remedial Design reports will identify the procedures to determine

Originator: Triss Chesney **Department of Toxic Substances Control** **To:** Andy Piszkin **MCAS El Toro BEC** **Date:** 3 February 2003	**CLEAN 3 Program** **Contract No. N-68711-95-D-7526** **CTO-0045** **File Code: 0232**
	when cleanup standards have been meet and the parties involved in this determination. The restrictions described in the Remedial Design reports will be removed when cleanup goals have been determined to be met."
COMMENT 19: Page 9-2, Section 9.2, Compliance with ARARs: In Paragraph 2, the citation to CERCLA section 121(d)(1) should read "42 U.S.C. § 9621 (d)(1)" rather than "96621(d)(1)".	**RESPONSE 19:** The change will be made as requested.
COMMENT 20: Page 10-4, Section 10.3, Institutional Controls: Paragraph 3 states, "The area requiring institutional controls at Site 16 is shown on Figure 10-1." However, the "area requiring institutional controls" should be more specifically described and shown so that the location of controls and the boundaries of the affect area are certain. DTSC recommends that the "area requiring institutional controls" be shown on a map drawn to scale with reference to monitoring wells with survey data.	**RESPONSE 20:** Based on the Navy Headquarters recommendations, figure 10-1 has been moved to Section 8 and has been renamed Figure 8-1. The information already presented on Figure 10-1 (will be Figure 8-1 in the Draft Final version) is sufficient at this time to define the area where institutional controls apply. Surveying of the area of institutional controls will be conducted as part of upcoming transfer activities or as part of post-ROD activities and documented in the Remedial Design reports.
COMMENT 21: Section 10.3, Institutional Controls, page 10-7: First partial paragraph begins, "enforceable by the DON against future transferees." Please add "/lessees" after "transferees".	**RESPONSE 21:** Text from Section 10.3 has been either moved to Section 8.2.2.2 or deleted from this section. Section 10.3 references Section 8.2.2.2 which contains information on institutional controls applicable to Alternative 2. The Environmental Restriction Covenant and Agreement(s) are addressed by reference to the MOA between the DON and DTSC in Section 8.2.2.2.
COMMENT 22: Section 10.3, Institutional Controls, page 10-7: First full paragraph, last sentence states, "The DON shall report the results of the inspections to U.S. EPA, DTSC, and RWQCB." Please add that the O&M plan will address the frequency of such reporting and contents of the inspection reports.	**RESPONSE 22:** See response #21.
COMMENT 23: Page 10-8, Section 10.5, Contingency Remedy: Paragraph 3 lists criteria that would trigger an evaluation of the need to implement the contingency remedy. The first bulleted item states, "VOC groundwater concentration data indicate that, after 10 years, VOCs have extended or will likely extend farther downgradient than the 1,300 feet from the main pit	**RESPONSE 23:** The 10 year time period is based on groundwater modeling results and would indicate that the preferred remedy is not behaving as predicted. The text "after 10 years" will be removed since trigger is based on maximum extent predicted by model, not based on amount of time.

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predicted by the groundwater model." Please provide an explanation for the time period of 10 years.	
COMMENT 24: Page 10-9, Section 10.6, Termination of Remedial Action: Sentence 2 states, "Groundwater remediation will be considered complete when the concentration of TCE in all monitoring wells reaches and remains at drinking water standards for 1 year." The ROD should specifically describe the procedures that will be used to determine that the cleanup standards have been met and the parties that will be involved in that determination. The ROD should also describe how and when the required 5-year reviews will be conducted in accordance with the FFA and the procedures for ending these reviews.	**RESPONSE 24:** The following sentences will be added to the end of Section 10.6: "Remedial Design reports will describe the specific procedures that will be used to determine that the cleanup standards have been met." Section 10.4 has been revised to summarize the requirement for 5-year reviews under CERCLA Section 121(c).
COMMENT 25: Page 11-10, Section 11.2.3.2, Waste Characterization and Accumulation: Please note that hazardous waste characterization and accumulation are also applicable to treatment residuals such as spent carbon.	**RESPONSE 25:** The first sentence of the second paragraph in Section 11.2.3 will be revised as follows: "The waste groundwater accumulated during the sampling, the soil from drill cuttings, and the treatment residuals such as spent carbon, will be disposed of off-site."
COMMENT 26: Table 11-2, Action-Specific ARARs for Selected Remedy: The following ARARs for pre-treatment requirements should also be included as applicable for any operation where hazardous waste is generated and transported. • Hazardous waste must be packaged in accordance with Department of Transportation regulations before transport (Cal. Code Reg., tit. 22, § 66262.30). • Hazardous waste must be labeled in accordance with Department of Transportation regulations before transport (Cal. Code Reg., tit. 22, § 66262.31). • Hazardous waste must be marked prior to transport (Cal. Code Reg., tit. 22, § 66262.32). • A generator must ensure that the transport vehicle is correctly	**RESPONSE 26:** The regulations cited will be added as ARARs for this action. Section 11 will be updated accordingly.

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placarded before transporting hazardous waste (Cal. Code Reg., tit. 22 § 66262.33).	
COMMENT 27: Responsiveness Summary, Response to Letters Received During the Public Comment Period: DTSC has the following suggestions for clarifying the responses to the following comments: • Mr. Daniel Jung, letter dated 15 October 2002, comment number 2C, part f: It may be helpful to mention that sufficient area to utilize a drill rig to abandon any monitoring or extraction wells upon completion of the remedial action may be needed. The space requirements for a drill rig should be considered during development of a reuse plan. A typical drill rig is approximately 10 feet wide by 35 feet long and can only be used if no overhead utilities are present. • Dr. Michael Brown, Consultant for the City of Irvine, comment number 6C: It may be helpful to mention that sufficient area to utilize a drill rig to abandon any monitoring or extraction wells upon completion of the remedial action may be needed. The space requirements for a drill rig should be considered during development of a reuse plan. A typical drill rig is approximately 10 feet wide by 35 feet long and can only be used if no overhead utilities are present.	**RESPONSE 27:** The following text will be added as requested after the 4th sentence in response 2C part f of Mr. Jung's comment, and to the end of the first paragraph to response 6C of Mr. Brown's comment: "In addition, sufficient area to utilize a drill rig to abandon any monitoring or extraction wells upon completion of the remedial action may be needed. The space requirements for a drill rig should be considered during development of a reuse plan. A typical drill rig is approximately 10 feet wide by 35 feet long and can only be used if no overhead utilities are present."

RESPONSE TO COMMENTS
DRAFT RECORD OF DECISION
FOR OPERABLE UNIT 3 SITE 16, CRASH CREW TRAINING PIT NO. 2 AT
FORMER MCAS EL TORO, CALIFORNIA

Originator: **Nicole Moutoux** **U.S. EPA** **To:** **Andy Piszkin** **MCAS El Toro BEC** **Date:** **28 January 2003**	**CLEAN 3 Program** **Contract No. N-68711-95-D-7526** **CTO-0045** **File Code: 0232**
GENERAL COMMENTS **1.** Since the LUCICP is an integral part of the remedy, please reference it in the Declaration as well as Section 10, Selected Remedy.	***RESPONSES TO GENERAL COMMENTS*** **RESPONSE 1:** The last sentence on Page 3, 3rd bullet, and page 10-1, 2nd bullet, will be revised as follows: "These restrictions will be described in the Preliminary and Final Remedial Design reports to be developed and submitted to the Federal Facilities Agreement (FFA) signatories for review pursuant to the FFA. The Remedial Design reports will identify the procedures to determine when the cleanup standards have been meet and the parties involved in this determination. The restrictions described in the Remedial Design reports will be removed when the cleanup standards have been determined to be met."
SPECIFIC COMMENTS **1.** Page 2, Description of Selected Remedy: In the second to last paragraph it is stated that groundwater monitoring remediation will be considered complete when concentrations reach MCLs for 1 year. EPA guidance states that concentrations must be at MCLs for 2-3 years. Please revise.	***RESPONSES TO SPECIFIC COMMENTS*** **RESPONSE 1:** The text on page 2 will be revised to, "Performance monitoring will continue as long as contamination remains above required cleanup levels. Typically, monitoring is continued for a specified period (e.g. one to three years) after cleanup levels have been achieved to ensure that concentration levels are stable and remain below target levels. Remedial Design reports will describe the specific procedures that will be used to determine that the cleanup standards have been met. The selected alternative of MNA was chosen based on the results of previous groundwater monitoring, although natural attenuation data was not collected. In instances where an MNA evaluation has not been conducted, the EPA recommends a contingency remedy be developed." The second sentence of Section 10.6 will be deleted and the first paragraph of inserted text above will be added following the first sentence.
2. Page 2, Description of Selected Remedy: In the last paragraph the Navy states that EPA requires a contingency remedy when MNA is selected. EPA requires a contingency remedy not only for MNA but when predictive modeling is used heavily in remedy section as is the case for Site 16.	**RESPONSE 2:** DON agrees that the selected remedy MNA does rely on predictive modeling as a basis for its implementation. However, the contingency remedy is provided as backup to MNA to provide greater protection to the public should MNA not behave as predicted by the model. Since the use of MNA for the final remedy is the prime reason for having a contingency remedy, the text on Page 2 will not be revised.

Originator: Nicole Moutoux U.S. EPA **To:** Andy Piszkin MCAS El Toro BEC **Date:** 28 January 2003	**CLEAN 3 Program** **Contract No. N-68711-95-D-7526** **CTO-0045** **File Code: 0232**
3. Page 3, Statutory Determinations: In the third paragraph, the Navy states that if remedial objectives are not being met, they will evaluate potential new technologies or implement the contingency remedy. EPA believes that the point of the contingency remedy is that if objectives are not being met, the Navy should move directly to that remedy. Other technologies can then be evaluated while the contingency remedy is already in operation.	**RESPONSE 3:** It is not appropriate at this time to identify when and if the contingency remedy will be implemented. The contingency remedy was developed to provide protection to human health and the environment should the preferred remedy fail to be protective. Over time new technologies may be developed that prove to be more effective in addressing VOC contamination at Site 16. There are other circumstances that could arise in which the preferred remedy is still protective but is not working as quickly as predicted. In these cases the Navy may want to evaluate potential new technologies in consultation with the regulators.
4. Page 4, Statutory Determinations and Page 10-8, Contingency Remedy: The first bullet states that if VOC groundwater data shows that after 10 years VOCs have extended or will likely extend farther downgradient than 1,300 feet from the main pit predicted by the groundwater model, this will trigger the need to evaluate implementation of the contingency remedy. This bullet implies that migration of the plume is acceptable. It seems that the last bullet covers the intent to review the model and groundwater trends and make decisions based on them which may include implementing the contingency remedy. Please remove the first bullet as it causes confusion.	**RESPONSE 4:** The intent of the first bullet is different then that of the third bullet. The first bullet identifies the situation for which the remedy in the future may no longer be protective as stated in the ROD. It does not imply that migration is acceptable since the maximum extent is conservatively based on modeling and existing groundwater sampling data indicated the plume is not migrating. The third bullet is a means for evaluating the performance of the remedy. Therefore, these statements are necessary to provide criteria to measure both the protectiveness and performance of the remedy. The "after 10 years" phrase will be removed from the first bullet to avoid confusion.
5. Section 7, Summary of Site Risks: This section does not include an analysis of the vapor intrusion pathway. The vapor intrusion pathway is the means by which volatile chemicals in groundwater or soil may enter into buildings and affect indoor air quality. This pathway can be evaluated as part of the post ROD vadose zone monitoring.	**RESPONSE 5:** The following sentences have been added as the fifth paragraph to Section 7.2.1: "Vadose zone monitoring will be conducted as part of the post ROD activities. This information will be used to evaluate the vapor intrusion pathway (the means by which volatile chemicals in groundwater or soil may enter into buildings and affect indoor air quality) to quantify risk from this pathway at the site."
6. Section 7, Summary of Site Risks: Please identify if 1,4-dioxane was analyzed for as part of the groundwater investigation.	**RESPONSE 6:** The following text was added to the end of Section 7.1.2: "(Note: Based on the results of soil samples collected at Site 16, 1,4-dioxane was not identified as a COPC for groundwater and therefore, was not included in the suite of analyses.)"

Originator: Nicole Moutoux U.S. EPA **To:** Andy Piszkin MCAS El Toro BEC **Date:** 28 January 2003	**CLEAN 3 Program** **Contract No. N-68711-95-D-7526** **CTO-0045** **File Code: 0232**
7. Page 7-15, Basis for risk management decision, 2nd paragraph: The discussion of how EPA and DTSC define the risk management range is confusing. Instead of referencing comments on prior RODs, the Navy could state that EPA and DTSC have made those comments on past documents.	**RESPONSE 7:** The reference to prior RODs has been deleted and the sentence in question as been revised to state: "Both U.S. EPA and DTSC have indicated in their comments on past documents that they interpret the generally allowable (i.e., 10^{-6} to 10^{-4}) risk range stated in the NCP…"
8. Page 8-3, Section 8.2.2, Alternative 2: The first paragraph should include discussion of the contingency remedy.	**RESPONSE 8:** Section 8 provides a description of each of the alternatives as they were evaluated in the feasibility study. The contingency remedy is not a component of Alternative 2, and therefore it is not appropriate to describe it in Section 8.2.2. The contingency remedy is discussed in Section 10.5.
9. Page 8-4, Section 8.2.2.2 Institutional Controls: Please add that extraction wells that may affect plume movement will also be prohibited.	**RESPONSE 9:** A new Land Use Control has been added in Section 8.2.2.2 that states: "Prohibit the installation of any well that has the potential to affect plume migration;"
10. Page 8-7, Section 8.2.2.3, Groundwater Monitoring: As EPA has stated in meetings and in prior comments, the appropriate monitoring well network will be developed during remedial design, and it may consist of some of the existing wells and will likely consist of additional wells. Please add the following sentences to the first paragraph on this page: "The remedial design will consist of a Long Term Monitoring Plan to implement the MNA remedy. In order to evaluate the MNA alternative in the FS, a conceptual design was developed."	**RESPONSE 10:** The following text has been added to the beginning of Section 8.2.2.3: "Implementation of the MNA remedy will be developed during the remedial design phase and described in the Remedial Design reports. For evaluation purposes of the FS, a conceptual design was developed."
11. Figure 8-1: Please change the title of this figure to Conceptual Groundwater Monitoring Well Network.	**RESPONSE 11:** The figure title was revised to: "Alternative 2 – Conceptual Groundwater Monitoring Well Network".
12. Page 10-3, Groundwater Monitoring: Since we do not know which wells will be used to monitor the plume, please remove the second sentence of this paragraph.	**RESPONSE 12:** The second sentence has been deleted as requested.

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FOR OPERABLE UNIT 3, SITE 15, CRASH CREW TRAINING PIT NO. 2 AT
FORMER MCAS EL TORO, CALIFORNIA

Originator: **John Broderick** **RWQCB** **To:** **Andy Piszkin** **MCAS El Toro BEC** **Date:** **3 February 2003**	**CLEAN 3 Program** **Contract No. N-68711-95-D-7526** **CTO-0045** **File Code: 0232**
COMMENTS	***RESPONSES TO COMMENTS***
1. DECLARATION: Petroleum hydrocarbons from fuels and oils burned and released are the most prevalent contaminant or pollutant at Site 16. Although identified in the investigation and decision document, evaluation and cleanup of these contaminants is not a component of this document. With the exception of certain petroleum hydrocarbons that are known carcinogens, petroleum hydrocarbons are not identified as contaminants of concern, have no cleanup goals proposed, and no remedial evaluation. We believe this release of petroleum hydrocarbons from fuel and other fuel sources has not been adequately characterized. As we have stated many times, release of petroleum hydrocarbons from the site requires an adequate investigation and may require remedial action. The Declaration must identify this site as an open petroleum corrective action site and should discuss planned activities for this site.	**RESPONSE 1:** The following text will be added to the end of the second paragraph under Description of the Selected Remedy on page 1: "Although petroleum hydrocarbons are present at Site 16, evaluation and cleanup of these contaminants is not addressed in this ROD. Petroleum hydrocarbons from fuels and oils released at the site will be addressed in the Petroleum Corrective Action Program."
2. 8.2.2.5 Site Grading, Page 8-6 The are requiring grading is not identified. Grading projects of five acres or larger require filing a Notice of Intent to obtain coverage under the statewide General Permit for Storm Water Discharges Associated With Construction Activity. This filing requirement will change to grading projects of one acre or larger on March 10, 2003.	**RESPONSE 2:** The following sentence has been added to the end of Section 8.2.2.5: "The area to be graded is less than 1 acre in size."

BECHTEL ENVIRONMENTAL, INC.

CLEAN 3 TRANSMITTAL/DELIVERABLE RECEIPT

Contract No. N-68711-95-D-7526 **Document Control No.:** CTO-0045/0041

File Code: 0232

TO: Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Ms. Karen Rooney, Code 02R1.KR
1220 Pacific Highway
San Diego, CA 92132-5190

DATE: May 20, 2003
CTO #: 0045
LOCATION: Former MCAS El Toro, CA

FROM: Thurman L. Heironimus, Project Manager

DESCRIPTION: Responses to Regulatory Agency Comments Received on the Draft Record of Decision for Operable Unit 3 Site 16, Crash Crew Training Pit No. 2 Dated May 2003

TYPE: ____ Contract Deliverable (Cost) X CTO Deliverable (Technical) ____ Other

VERSION: NA REVISION #: 0

ADMIN RECORD: Yes X No ____ Category ____ Confidential ____
(PM to Identify)

SCHEDULED DELIVERY DATE: 5/20/03 ACTUAL DELIVERY DATE: 5/20/03

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