



**Opportunity
Ahead**

MCAS EL TORO LOCAL REDEVELOPMENT AUTHORITY • Janice
MCAS EL TORO MASTER DEVELOPMENT PROGRAM • Courtney C. Wierciach, Manager

August 12, 1999

Mr. Dean Gould
BRAC Environmental Coordinator
U.S. Marine Corps Air Station - El Toro
P.O. Box 51718
Irvine, CA 92619-1718

Dear Mr. Gould:

We appreciate the opportunity to comment on the Draft Record of Decision (ROD) for Sites 8, 11 and 12 located at the Marine Corps Air Station (MCAS) EL Toro. Our comments are set forth in the attached memorandum.

We have also reviewed a copy of the August 22, 1999 letter from Mr. Tayseer Mahmoud of the Department of Toxic Substances Control (DTSC) to Mr. Joseph Joyce of DON/USMC, conveying DTSC's comments on the Draft ROD and Responsive Summary for Sites 8, 11 and 12. We concur in and incorporate by reference DTSC's comments on both documents.

If there are any questions, please feel free to contact Polin Modanlou at (714) 834-3156.

Sincerely,

Michael Lapin, Manager
MCAS El Toro Master Development Program

Attachment

cc: Taysee Mahmoud, DTSC
Glenn Kistner, USEPA
Peter Janiki, CIWMB
Patricia Hannon, RWQCB
Steve Sharp, LEA



M E M O R A N D U M

TO: Polin Modanlou, MCAS El Toro Master Development Program

FROM: Bertrand S. Palmer, Ph.D., P.E., GeoSyntec Consultants

DATE: 12 August 1999

SUBJECT: **Review of Draft Record of Decision, Operable Unit 3A,
Sites 8, 11, and 12
Marine Corps Air Station, El Toro
Orange County, California**

INTRODUCTION

In May 1999, the Department of the Navy/United States Marine Corps (DON/USMC) issued the "Proposed Plan for Clean-up at Three Shallow Soil Sites (Sites 8, 11, and 12)" (Proposed Plan) at Marine Corps Air Station (MCAS) El Toro. The Local Redevelopment Authority (LRA) provided comments to DON/USMC on the Proposed Plan in a memorandum dated 6 June 1999. DON/USMC responded to the LRA comments on the Proposed Plan in a Responsiveness Summary (RS) transmitted by letter dated 20 July 1999 from Mr. Thurman Herronimus of Bechtel to Mr. Richard Selby, Contracting Officer, Naval Facilities Engineering Command, Southwest Division. Prior to issuance of the RS, DON/USMC issued the Draft Record of Decision (ROD) for Operable Unit 3A, Sites 8, 11, and 12 (Draft ROD), dated June 1999.

At your request, GeoSyntec reviewed the Draft ROD and RS. The purpose of this memorandum is to present in summary form GeoSyntec's comments on the principal issues and concerns raised by the Draft ROD and RS. GeoSyntec recommends that these issues and concerns be discussed with DON/USMC and resolved before the ROD for Sites 8, 11, and 12 is finalized.

DISCUSSION

Issue/Concern No. 1

In the Draft ROD, DON/USMC selected Alternative 3 as the remedy for remediation of contaminated soils at Site 8 Units 3 and 5, Site 11 Units 1 and 2, and Site 12 Unit 3. (See, e.g., Draft ROD at Section 9) In the descriptions of Alternative 3 presented in the Draft ROD, DON/USMC states that soil excavated from Sites 8, 11, and 12 will be recycled as cover material at the on-station Sites 2 and 17 landfills. In the RS, DON/USMC states that (1) DON/USMC has decided to dispose of soil excavated from Sites 8, 11, and 12 at an off-site facility, and (2) no excavated soils will be recycled at landfill Sites 2 and 17. (See e.g., RS at Item Number 1A). We recommend that DON/USMC revise the Draft ROD to memorialize its decision to dispose of all excavated soils at appropriate off-site facilities.

Issue/Concern No. 2

DON/USMC reports in the Draft ROD that Sites 8, 11, and 12 are partially paved with concrete and/or asphalt. (See e.g., Draft ROD at page 1-1) We recommend that DON/USMC revise the Draft ROD to address a number of questions and concerns that may arise from this observation. For example, DON/USMC should revise the Draft ROD to address the following questions:

- Has DON/USMC tested paving material for constituents of concern?
- If the paving material is contaminated, will DON/USMC remove paving material as part of remediation activities for Sites 8, 11, and 12?

We also recommend that DON/USMC revise the Draft ROD to address the further characterization and management of paving materials at Sites 8, 11, and 12. More specifically, where asphalt, concrete, or other paving materials will be excavated

and disposed of, DON/USMC should revise the Draft ROD to clarify that these materials will be characterized and disposed of at appropriate off-site facilities. Where asphalt, concrete, or other paving materials will remain at Sites 8, 11, and 12, DON/USMC should address in the ROD any sampling or confirmation sampling that will be undertaken to ensure that such materials are not contaminated and will not pose a threat to human health or the environment upon subsequent management by future owners and operators of the Site

Issue/Concern No. 3

In the Draft ROD, DON/USMC states that a refuse pile and PCB-impacted soil were removed and/or excavated from Unit 3 of Site 8. (See e.g., Draft ROD at page 5-3) We recommend that DON/USMC revise the Draft ROD to address the following questions:

- Were the excavated materials disposed of on-station? If so, where is this disposal area located; and does DON/USMC plan to remedy this area as part of the remedial work conducted at Sites 8, 11, and 12?
- Were the excavated materials disposed of at an off-site facility? If so, which one(s)? If so, how were the materials characterized by DON/USMC (e.g. were they characterized as hazardous waste, special waste, or nonhazardous waste)?

We also recommend that DON/USMC revise the Draft ROD (1) to provide information concerning these historic remediation activities, and (2) to discuss the need, if any, to conduct additional sampling and management (e.g. off-site disposal) of previously excavated soils.

Issue/Concern No. 4

DON/USMC indicates in the RS that “cleanup levels for soil are provided in the Operable Unit (OU)-3 Feasibility Study Report and in Tables 7-1 to 7-3 of the OU-3A Sites 8, 11, and 12 ROD. These levels are based on a residential risk of 10^{-6} (one additional cancer incident in a population of one million).” (See RS, Item Number 1H) DON/USMC also indicates in the RS that “[f]ield sampling and analysis for the remedial action will be developed during the remedial design phase and presented in the Remedial Action Plan. Once the cleanup levels in the OU-3 ROD are attained, the residential risk level of 10^{-6} will be achieved.” (See RS, Item Number 1I)

Similarly, in the Draft ROD, DON/USMC states that “Alternative 3 [the selected remedy] will remove contaminated soil from Sites 8, 11, and 12, resulting in risk reduction to a level of 1×10^{-6} or less in excess cancer risks under the residential scenario. Because wastes will not be left in place and risks will be within the range considered acceptable by U.S. EPA, the 5-year review requirement of CERCLA Section 121(c) is not applicable following implementation of this alternative.” (See Draft ROD at 10-8)

A review of the Draft ROD suggests that these and other similar statements represent an overstatement of the proposed remedy that may be misleading.

For example, contrary to the statements presented above, DON/USMC selects in the Draft ROD a remediation strategy of “no further action” at Site 8 Units 1, 2, 3, and 4, and Site 12, Units 1, 2, and 4. In some instances, this remediation strategy maintains identified excess cancer risk levels greater than 1×10^{-6} and excess noncancer risks greater than 1.0. (See, e.g., Draft ROD at Table 6-1) For a number of reasons, including those discussed elsewhere in this memorandum, we recommend, at a minimum, that DON/USMC (1) revise the text of the Draft ROD to clarify these issues, (2) revise the Draft ROD to discuss in greater detail the rationale for determining that these units do not require further action, and (3) address in greater detail the decision to

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take no further action at Site 12 Unit 1 because certain pesticides were present in “only one sample” and because PAHs, pesticides, PCBs, and metals are confined to the uppermost soils and are “not mobile” (see Draft ROD at Table 6-2). In addition, DON/USMC should clarify why there is no need to conduct a five-year review pursuant to CERCLA Section 121(c) at these units.

Moreover, in light of the apparently small volumes of soils at issue, GeoSyntec recommends that DON/USMC consider revising the proposed remedies to implement Alternative 3 (excavation and off-site disposal of contaminated soils) at Site 8 Units 2 and 3 and Site 12 Units 1, 2, and 4 be undertaken with the goal of achieving post-remediation excess cancer risks less than 1.0×10^{-6} and excess noncancer risks less than 1.0. Such a remediation decision may, in the long term, prove cost effective and result in greater acceptance by regulatory agencies and the public.

In addition, for units to be remediated, concerns arise with respect to DON/USMC's consideration of combined chemical exposures. If, for example, the individual clean-up levels for each chemical of potential concern at Sites 8, 11, and 12 were developed with the goal of establishing an excess cancer risk of 1×10^{-6} and an excess noncancer risk of 1.0, the presence of more than one chemical of potential concern at a post-remediation concentration at or near its established clean-up level, nonetheless, could produce combined cancer and noncancer risks in excess of the goals established by DON/USMC. It is unclear from the Draft ROD whether DON/USMC considered this issue in establishing clean-up levels and in its remedy selection process. We recommend that DON/USMC address and clarify this issue of excess cancer and noncancer risks associated with the combination of chemicals of potential concern at each site.

Issue/Concern No. 5

DON/USMC also indicates, in some portions of the Draft ROD, that arsenic and manganese detected at Site 8 Unit 2, 3, (and, possibly, 5) and at Site 12 Units 1, 2, and 4 appear to be related to natural conditions and occur naturally in native soil on and off MCAS El Toro property. On the basis of this data, DON/USMC apparently concludes that these chemical concentrations are not associated with site-related activities. (See, e.g., Draft ROD 6-9, 6-10, 6-11, and Table 6-2)

DON/USMC's statements that elevated concentrations of arsenic and manganese are not associated with "site-related activities" is not persuasive. For example, DON/USMC reports in the Draft ROD that "TAL metals" at the units noted above exceeded background levels. Arsenic and manganese are included in the TAL metals analyzed by DON/USMC at these units. (See, e.g., Draft ROD, 5-3, and 5-7, and Tables 5-1, 5-2, 5-5, and 5-6) DON/USMC does not appear to explain in the Draft ROD why "TAL metals" occurring in excess of background levels — including, presumably, arsenic and manganese — are not indicative of contamination resulting from site-related activities by DON/USMC or other historic owners and operators of the sites.

Moreover, we note that, contrary to DON/USMC statements, elevated concentrations of arsenic and manganese at these units reasonably may be attributed to "site-related activities." We note, for example, that arsenic is component of metal alloys and rodenticides; and manganese is component of many paints, varnishes, and hardeners.

At a minimum, we recommend that DON/USMC reconsider and re-evaluate the issue of whether arsenic and manganese detected in the relevant units are associated with site-related activities. We further recommend that DON/USMC change its proposed remedy of "no further action" at Site 8 Units 2 and 3 (and, possibly 5) and Site

12 Units 1, 2, and 4. As noted above, DON/USMC should consider implementing Alternative 3 at these units to ensure that excess cancer and noncancer risks are reduced to an acceptable level.

In the alternative, if DON/USMC proposes, and regulatory agencies approve, remediation strategies that maintain or result in excess cancer risks in excess of 1×10^{-6} and excess noncancer risks in excess of 1.0, DON/USMC should revise the Draft ROD to identify and discuss the potential responsibilities and liabilities which future owners and operators would have with respect to the conduct of future activities at the sites. For example, it is reasonable and prudent to assume that the anticipated future uses of the sites will involve, from time to time, the disturbance of soils (e.g. the excavation and relocation or disposal of soils). Would such activities conflict with the remedy selected by DON/USMC and presented in the Draft ROD? Would such activities be deemed to involve the management of "clean" soils or "contaminated" soils? Would such activities require the special management of soils at incremental, additional costs to future site owners and operators? Would such activities require special management of the soils (e.g. as "hazardous waste" or as "special waste")? These and related issues should be clarified in the Draft ROD and discussed with regulatory agencies prior to the finalization of the remedy selection process.

Issue/Concern No. 6

In May 1999, DON/USMC issued a document titled "Draft Historical Radiological Assessment Marine Corps Air Station, El Toro" (Draft HRA) prepared by Supervisor of Shipbuilding, Portsmouth, Virginia, Environmental Detachment, Vallejo, California for Naval Sea Systems Command Detachment, Radiological Affairs Support Office and Naval Facilities Engineering Command, Southwest Division. The Draft HRA identifies areas at MCAS El Toro potentially impacted by radiological materials. By letter dated June 21, 1999, the LRA submitted to DON/USMC comments and

questions prepared by GeoSyntec concerning the Draft HRA. These comments are incorporated by reference in this memorandum. To date, the LRA has not received any response from DON/USMC to the comments and concerns regarding the Draft HRA. GeoSyntec recommends that DON/USMC address the June 21, 1999 submittal, and the issues set forth below, prior to finalizing the ROD for Sites 8, 11, and 12.

The authors of the Draft HRA note that radioactive materials may have been stored or handled at Site 8 at MCAS El Toro (Site 8 is also called DRMO Yard #1). (See, e.g., Draft HRA at 49) Site 12 may also have been impacted by radioactive material. This site was the location of a treatment plant that received waste liquids originating from Buildings 295, 296, and 297, which contained radioactive material. (See, e.g., Draft ROD Table 1.1) In consideration of the above, we recommend that DON/USMC consider and comment upon the following questions and concerns:

- The authors of the Draft HRA recommend further radiological investigations at MCAS El Toro. Have these investigations already been conducted? If so, do they confirm the findings presented in the Draft HRA? Does DON/USMC intend to conduct or authorize such investigations? Will the investigations include Sites 8 and 12? If so, on what schedule will the investigations be undertaken?
- Should additional investigations indicate that radioactive materials are present at Site 8 or 12, what would be the impact of the presence of these radioactive materials on the remedy selected by DON/USMC for Site 8 or 12? On the proposed post-remediation reuse of these sites?
- The Draft HRA addresses groundwater pathways. Has DON/USMC considered the transport of radioactive materials and contaminants from Site 8 or 12 to the groundwater? Does DON/USMC have any

information or expect to receive any information about the ability of the soils beneath Site 8 or 12 to attenuate or impede the migration of radioactive materials and contaminants from the landfills to the groundwater?

- U.S. Nuclear Regulatory Commission procedures for closing a site at which there may be radioactive constituents require, in part, the development of a radiological performance assessment. Has DON/USMC conducted such a performance assessment at Site 8 or 12? Is one planned for Site 8 or 12? If so, what is the schedule for the completion of such a performance assessment?

CONCLUSIONS

As noted above, GeoSyntec recommends, at a minimum, that the ROD not be finalized until DON/USMC responds to the comments listed herein regarding the Draft ROD. Indeed, GeoSyntec notes that the Department of Toxic Substance Control (DTSC) is not prepared to approve the Draft ROD for Sites 3 and 5 until issues similar to those raised in this memorandum are addressed to DTSC's satisfaction. The same course of action is warranted with respect to Sites 8, and 12.

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