



DEPARTMENT OF THE NAVY  
SOUTHWEST DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
1220 PACIFIC HIGHWAY  
SAN DIEGO, CA 92132 - 5190

M60050.003089  
MCAS EL TORO  
SSIC NO. 5090.3

5090  
Ser 06CC.AP/0544  
May 20, 2004

***Via Certified Mail***

Mr. Tayseer Mahmoud  
Remedial Project Manager  
California Department of Toxic Substances Control  
Office of Military Facilities  
5796 Corporate Ave.  
Cypress, CA 90630

Dear Mr. Alonzo:

SUBJECT: IDENTIFICATION OF POTENTIAL APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS), INSTALLATION RESTORATION SITE 8, DEFENSE REUTILIZATION AND MARKETING OFFICE STORAGE AREA, AND SITE 12, SLUDGE DRYING BEDS, FORMER MARINE CORPS AIR STATION (MCAS) EL TORO, CALIFORNIA

Pursuant to accomplishing the goals of the Installation Restoration Program (IRP) at the former Marine Corp Air Station (MCAS), El Toro, and in accordance with Section 7.6 of the Federal Facility Agreement (FFA), we hereby request the Department of Toxic Substances Control (DTSC), as the lead agency for the State of California, identify potential State chemical-specific, action-specific, and location-specific applicable or relevant and appropriate requirements (ARARs) for potential removal actions at the following IRP sites: Site 8, Defense Reutilization and Marketing Office Storage Area, and Site 12, Sludge Drying Beds. ARARs identified will be considered and evaluated during the preparation of an Action Memorandum for the sites. In this context it should be noted that the Department of the Navy (Navy) initiated the ARARs identification process for Sites 8 and 12 with a letter (dated 25 April 1997) to the DTSC, requesting identification of chemical-, location-, and action-specific state ARARs. The response to the request was transmitted to the Navy as enclosures in a letter dated 27 May 1997. The state ARARs included input from the following agencies:

- California Regional Water Quality Control Board – Santa Ana Region (letter dated 06 May 1997)
- Cal/EPA, Integrated Waste Management Board (letter dated 23 May 1997)
- Cal/EPA, Air Resources Board (letter dated 12 May 1997)
- South Coast Air Quality Management District (SCAQMD) (letter dated 20 May 1997)

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These ARARs were evaluated during the preparation of the feasibility study report for Sites 8 and 12. However, subsequent to the original ARAR identification by the State, and the completion of the feasibility study and Draft Record of Decision (June 1999), radiological contamination primarily consisting of radium-226 (Ra-226) was discovered at Sites 8 and 12. Therefore, the Navy requests DTSC to identify potential ARARs for the radiological component of the response action at Sites 8 and 12.

Enclosure (1) provides an overview of the previous investigation results and tentative response action alternatives for the subject sites.

In addition, the Navy is requesting that the State of California identify any other criteria, advisories, guidance and proposed standards that the State requests to be considered for the above identified sites. Please coordinate responses from all California state agencies.

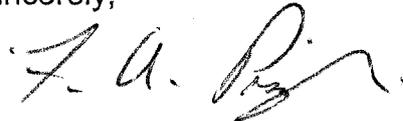
The Navy is requesting timely identification of potential State ARARs consistent with the National Contingency Plan (NCP) at 40 CFR §300.400(g), §300.415(j) and §300.525(d). Experience to date around the country has shown that failure to identify ARARs with sufficient precision, early in the response selection process, can cause severe disruptions in timely implementation of remedial/removal actions. To ensure timely and complete ARARs identification for the sites listed above, please include the following information:

- a. A specific citation to the statutory or regulatory provision(s) for the potential State ARAR and the date of enactment or promulgation.
- b. A brief description of why the potential State ARAR is applicable or relevant and appropriate to each site.
- c. A description of how the potential State ARAR would apply to the potential remedial action, including: specific numeric discharge, effluent, or emission limitations; hazardous substance/constituent action or cleanup levels; and if the State intends to take the position that the potential State ARAR includes such limitations, levels, etc.
- d. If the State believes its proposed ARAR is more stringent than the corresponding Federal ARAR, please provide the rationale and technical justification for this position.
- e. If the State determines that there is not enough information to fully respond to our request, please identify any additional information that would be required to support identification of State ARARs and their application.

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We are requesting that you send a response via first class mail addressed to the undersigned and postmarked within thirty (30) calendar days of receipt of this request. Please direct any technical questions to Mr. Karnig Ohannessian, Remedial Project Manager, at (619) 532-0796 and any legal questions to Mr. Rex Callaway, Associate Counsel, at (619) 532-0988.

Sincerely,



F. ANDREW PISZKIN  
Base Realignment and Closure  
Environmental Coordinator  
By direction of the Commander

Enclosure: 1. Site Summary and Response Action Alternatives, IRP Site 8 and IRP Site 12, Former Marine Corp Air Station El Toro, California of May 2004

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Copy to: (w/encl)  
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Commander  
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**Enclosure**  
**Site Summary and Response Alternatives**  
**Site 8 and Site 12**  
**Former Marine Corps Air Station El Toro, California**

**Site 8 Summary**

Site 8 is located in the southwest quadrant of former Marine Corps Air Station (MCAS) El Toro, California. Site 8 was formerly a Defense Reutilization and Marketing Office (DRMO) and was used as a storage area for containerized liquids, and scrap and salvage materials from former MCAS El Toro and former MCAS Tustin. The scrap materials included mechanical and electrical components and various types of liquids. The use of Site 8 as a DRMO storage area was discontinued when former MCAS El Toro closed in July 1999.

Site 8 comprises two distinct but adjacent areas bisected by R Street: an old salvage yard and a main storage yard. These two areas are subdivided into the following five separate units:

- Unit 1, East Storage Yard
- Unit 2, West Storage Yard
- Unit 3, Refuse Pile Area (the location of a former refuse pile within the West Storage Yard [Unit 2])
- Unit 4, PCB Spill Area (located within the East Storage Yard [Unit 1])
- Unit 5, Old Salvage Yard

Site 8 has been investigated as a part of a number of station-wide and site-specific investigations performed per the Federal Facility Agreement (FFA). These investigations include a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA), aerial photograph surveys, employee interviews, Phase I and II remedial investigations (RIs), historical radiological assessment (HRA), and on-site radiological characterization using radiological surveys and soil sampling. Data gathered during these investigations were used to characterize the nature and extent of radiological and non-radiological contamination at the site and to assess the potential threat to human health and the environment.

**Evaluation of Non-radiological Contamination at Site 8**

During the operation of Site 8 as a storage area for containerized liquids and scrap, liquids such as lubrication oil, fuels, and solvents may have spilled or leaked, impacting the shallow soil at the site. Soil at the site has also been impacted by the spillage of PCB-contaminated oil from scrap electrical components.

Phase I RI was conducted at Site 8 in 1992 and 1993, and Phase II RI was conducted in 1995 and 1996. During these RIs, soil sampling and analysis were conducted to assess the nature and extent of contamination at Site 8. These investigations indicated that volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), pesticides, petroleum hydrocarbons, and target analyte list (TAL) metals above background levels are present in shallow soil at Site 8. A risk assessment conducted using the results of above-mentioned investigations recommended no further action (NFA) for Units 1, 2, 4, and 5 of Site 8, and FFA representatives concurred with the recommendations. However, it was concluded that Unit 3 of Site 8 presents

unacceptable risks to human health mainly due to the presence of Aroclor 1254, and therefore requires some kind of response action.

#### Evaluation of Radiological Contamination at Site 8

The investigation to assess radiological contamination at Site 8 began with the stationwide historical radiological assessment (HRA) conducted for MCAS El Toro in 1999 and 2000. As a part of HRA, interviews, records review, site inspections, and limited informal surveys were conducted. Based on the survey results, Site 8 was recommended for further investigation, including radiological surveys, since it potentially handled small quantities of radium painted parts and gauges.

Radiological surveys and soil sampling for radiological characterization of Site 8 were conducted in November and December 2001. These surveys indicated that radium-226 (Ra-226) is present at Site 8 at concentrations ranging from 0.69 to 329 picocuries per gram (pCi/g). Trace levels (0.65 to 1.79 pCi/g) of thorium-232 (Th-232) were also encountered in the soil samples collected from locations within Site 8. Presently investigations are being performed to complete the radiological characterization of the site and to delineate the areas requiring removal for radiological contaminated soil.

#### Site 12 Summary

Site 12 is located in the southwest quadrant of former MCAS El Toro. Site 12, designated as the Sludge Drying Beds consists of the following four units:

- Unit 1, the former location of the west sludge-drying beds
- Unit 2, the former location of the east sludge-drying beds
- Unit 3, a drainage ditch
- Unit 4, the location of former wastewater treatment plants (WWTPs)

The east and west sludge-drying beds (Units 1 and 2) consisted of multicelled sand infiltration beds surrounded by a 4-foot-high earthen berm. The drainage ditch (Unit 3) was an unimproved earthen channel that skirted both sludge-drying bed areas and terminated at Bee Canyon Wash. The WWTP area (Unit 4) included eight concrete aboveground treatment tanks and a pump building. The industrial wastewater treatment plant (IWWTP) located immediately east of the WWTP, included two aboveground tanks and a sludge sump. The IWWTP was dismantled by 1961. The WWTP at Site 12 ceased operation in the early 1970s and was demolished a few years later.

Site 12 has been investigated as a part of a number of station-wide and site-specific investigations performed per the FFA. These investigations include a RFA, aerial photograph surveys, employee interviews, Phase I and II RIs, HRA, and on-site radiological characterization using radiological surveys and soil sampling. Data gathered during these investigations were used to characterize the nature and extent of radiological and non-radiological contamination at the site and to assess the potential threat to human health and the environment.

#### Evaluation of Non-radiological Contamination at Site 12

Phase I RI was conducted at Site 12 in 1992 and 1993, and Phase II RI was conducted in 1995 and 1996. The sludge produced at this facility was dewatered in the two drying bed areas (east and west). After the plants closed, the sludge remaining in the drying beds was reportedly

abandoned in place. The earthen berms surrounding the sludge beds were combined with imported fill material and graded in place.

During the Phase I and Phase II RIs, soil sampling and analysis were conducted to determine the nature and extent of contamination at Site 12. These investigations indicated that VOCs, SVOCs, PAHs, PCBs, pesticides, herbicides, petroleum hydrocarbons, and TAL metals above background levels are present in shallow soil at Site 12. A risk assessment conducted using these results and the results obtained from the May 1999 soil sampling event recommended NFA for Units 1, 2, and 4, and FFA representatives concurred with the recommendations. However, it was concluded that Unit 3 of Site 12 presents unacceptable risks to human health mainly due to the presence of PCBs, PAHs, pesticides, and herbicides and therefore requires some kind of response action.

#### Evaluation of Radiological Contamination at Site 12

The investigation to assess radiological contamination at Site 12 began with the stationwide HRA conducted for MCAS El Toro. As a part of HRA, interviews, records review, site inspections, and limited informal surveys were conducted at MCAS El Toro. Based on the survey results, Site 12 was recommended for further investigation, including radiological surveys, as it received and processed industrial waste from throughout MCAS El Toro.

Radiological surveys and soil sampling for radiological characterization of Site 12 were conducted in November and December 2001. These surveys indicated that Ra-226, and Th-232 are present at Site 12 at concentrations ranging from 0.79 to 1.94 pCi/g, and 0.81 to 2.3 pCi/g, respectively. Presently investigations are being performed to complete the radiological characterization of the site and to delineate any areas requiring removal for radiological contaminated soil.

#### Removal Action Alternative for Sites 8 and 12

The removal action alternative for radiological and non-radiological contaminated soils at Sites 8 and 12 is excavation and offsite disposal of contaminated soil.