



UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
EL TORO (SANTA ANA), CALIFORNIA 92709-5001

M60050.001130
MCAS EL TORO
SSIC # 5090.3

RY/JX
IN REPLY REFER TO:

6280
1JG

15 AUG 1989

From: Commanding General, Marine Corps Air Station El Toro
To: Commanding Officer, Engineering Field Activity - Southwest
Western Division, Naval Facilities Engineering Command
1220 Pacific Highway, Building 131, San Diego, CA 92132

Subj: REQUEST FOR ADDITIONAL INSTALLATION RESTORATION
PROGRAM SITES

Encl: (1) California Regional Water Quality Control Board,
Santa Ana Region ltr of June 23, 1989
(2) California Regional Water Quality Control Board,
Santa Ana Region ltr of July 18, 1988

1. Enclosure (1) requests numerous sites be added to the Installation Restoration Program at Marine Corps Air Station El Toro. Request your command evaluate these recommendations and provide this station with an appropriate response for the Regional Board.

2. It should be noted that the Regional Board did comment on the Site Inspection Plan of Action in July 1988 as part of the Technical Review Committee process. Those comments are provided in enclosure (2).

3. Point of contact is LTJG Michael Rehor, Environmental Director, at AUTOVON 997-2821.


J. R. FAUNCE
By direction

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION
6809 INDIANA AVENUE, SUITE 200
RIVERSIDE, CALIFORNIA 92506
PHONE: (714) 782-4130



June 23, 1989

LTJG Michael Rehor, Environmental Director
MCAS El Toro (Code 1JG)
Santa Ana, CA 92709-5001

MCAS EL TORO - SITE INSPECTION PLAN OF ACTION

Dear LTJG Rehor:

As we discussed in our May 30, 1989 meeting, we are hereby transmitting our recommendations for additional sites at the El Toro Marine Corps Air Station (MCAS) which we believe should be included in the Site Inspection Plan of Action.

Although the Installation Restoration (IRP) program is intended to address only past facility operations, we believe that some currently operating facilities should be included in the IRP program. Past and current chemical use and disposal practices at these sites may have allowed contaminants to be discharged where they could impact water quality. We believe that it is appropriate to include these sites in the present phase of investigation. The sites listed are areas where trichloroethylene (TCE) is either known or suspected to have been used. Chemical use and disposal practices, documented in the November 1987 Oil and Hazardous Substance Spill Prevention Control and Countermeasure (SPCC) plan, strongly suggest that there are areas on the base where TCE was routinely discharged to bare ground and unlined channels.

Although some of these areas are located near sites that have already been selected for investigation, we believe that the sites require individual investigation to adequately evaluate the threat to water quality from past chemical use practices. In some cases adequate coverage may be provided by expanding the specific site investigations. However, in most cases separate site investigations will be necessary. Investigation of these sites should focus on potential discharge areas and any adjacent drainage channels. The following sites should be given highest priority:

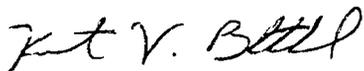
1. Building 359 - corrosion control facility, which housed 2 TCE degreasers.
2. Three engine test cells - the SPCC plan documents oily discharges from two of these test cells, located in buildings 658 and 447, that eventually entered storm drains. The location of the third test cell is not indicated.

3. Six drum storage areas - The SPCC plan depicts numerous drum storage areas on bare ground. The plan documents solvent storage in the following areas:
 - A. Northeast of building 392
 - B. Southeast of building 602
 - C. Between buildings 454 and 456
 - D. Northeast of building 320
 - E. Northeast of building 317
 - F. East of building 359
4. Hazardous and flammable materials storehouses 320 and 357.
5. Oil/water separators at Bee Canyon Wash and Agua Chinon Wash.

In addition, the SPCC plan identifies 23 wash areas including seven aircraft wash facilities. Each of these wash areas should be evaluated to determine whether solvents were used. If solvents were used at any wash area, that area should be included in the investigation.

Please submit a proposed sampling program for the sites discussed above in the form of an amendment to the Site Inspection Plan of Action. If you should have any questions, please call me or Steven Overman of our Pollutant Investigation Section.

Sincerely,



Kurt V. Berchtold
Supervising Engineer

cc: OCWD - Jim Reilly

TDP/mcaset2

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July 18, 1988

Mr. Ernest Cerini
Officer in Charge of Construction, Southwest
Department of the Navy
1220 Pacific Coast Highway, Bldg. 131
San Diego, CA 92132-5190

VERIFICATION STEP PLAN OF ACTION, CONFIRMATION STUDY;
MCAS EL TORO AND TUSTIN

Dear Mr. Cerini:

We have completed our review of the March 1988 Verification Step Plan of Action for the Marine Corps Air Stations at El Toro and Tustin. This Plan outlines the proposed field activities and techniques to verify the presence or absence of contamination at the potentially hazardous sites located at the two air stations. This Plan was prepared by your contractor, James M. Montgomery Consulting Engineers, Inc.

In general, we believe the proposed site investigations and methodology are well supported by site-specific information or known hydrogeologic details. However, with the objective of verification in mind, our general concern about the Plan is for the adequacy of the scope and extent of the proposed investigations at the individual sites. Under the Installation and Restoration Program, the results of these investigations will be used to justify or eliminate the need for additional characterization work at the sites. For those sites where contamination is confirmed, further site characterization activities will be performed. However, our primary concern is that the proposed investigations must be adequate to sufficiently characterize the site and justify the elimination of further investigation, for those sites where no contamination is found.

Our additional comments on the Plan of Action are attached. These comments represent items that warrant expansion of the proposed Plan of Action or additional justification. These comments are referenced by page number where applicable.

If you should have any questions, please call me or Steven Overman of our Pollutant Investigation Section.

VERIFICATION STEP PLAN OF ACTION - CONFIRMATION STUDY
MARINE CORPS AIR STATIONS TUSTIN AND EL TORO

SPECIFIC COMMENTS

1. (Table 3-1) Chemical analyses

Table 3-1 of the Plan of Action summarizes all of the proposed chemical analyses for either soil or ground water samples that will be collected during the field investigations. In addition to Table 3-1, Section 2 of the Plan of Action describes the site specific sampling activities and analytical procedures.

According to these references, the proposed site investigations described by the Plan of Action do not include soil or ground water analyses for Total Petroleum Hydrocarbons. Board staff believes that this omission is not appropriate and that the proposed analytical procedure for Oil and Grease is not a valid substitute. Therefore, The Plan of Action should be expanded to include soil and/or ground water analyses for Total Petroleum Hydrocarbons (TPH) by EPA Methods 8015, Modified 8015, and Method 418.1, as appropriate. The appropriate analytical procedure for TPH should be included for any soil or ground water samples collected from any site that may potentially include jet fuel, oil, gasoline, or any other petroleum product waste.

2. Vadose zone soil sampling at MCAS El Toro

According to Table 4-1 and the descriptions of the individual site investigations, the verification of either soil or ground water contamination is heavily dependent on either shallow soil samples (surface to 18 inches) or ground water samples collected from either monitoring wells or the Hydropunch method. The selection of either shallow soil samples or ground water samples as a basis for the site investigations was the result of an evaluation of the respective sources of contamination, the transport mechanisms, and the probable extent of any contamination.

While Board staff agrees with this approach, the proposed investigations at MCAS El Toro eliminate any verification or characterization of the vadose zone below 18 inches (with the exception of Site 9). Unlike MCAS Tustin, with shallow ground water at a depth of approximately 15 feet, the depth to ground water at MCAS El Toro is least 45 feet. In addition, MCAS El Toro is characterized by several subsurface sources of potential contamination that may have

resulted in contamination that extends throughout the soil column. As a result, the proposed investigations at MCAS El Toro will not address and cannot verify any vadose zone contamination below 18 inches unless that contamination has already extended to the ground water and can be detected in the ground water.

3. (pg. 3-4) Monitoring well installation

The Plan of Action, page 3-4, describes the monitoring well installation activities that will be performed during the site investigations. According to this description, soil samples will be collected at 10-foot intervals for lithologic logging and to accurately determine the depth at which ground water is encountered.

Board staff believes that the installation of the monitoring wells presents an excellent opportunity to obtain deeper vadose zone soil samples for verification screening, testing or analysis. Therefore, in light of the concerns expressed by Comment No. 2 above, Board staff believes that the monitoring well installation procedures should at least incorporate field-screening of the soil samples by an H-Nu meter or similar device to characterize any volatile aromatic compounds that may be present in the deeper vadose zone. Based on the field instrument readings, the monitoring well installation procedures should incorporate a provision to collect soil samples by a split-spoon sampler for analysis.

4. (pg. 2-16) MCAS El Toro Crash Crew Pit No. 1, Site 9

According to the Plan of Action, page 2-16, the site investigations for Site 9 include 4 deep soil samples (10 feet) and one hydropunch sample. Due to the nature of the source, Board staff believes that the investigations for Site 9 should include the installation of a minimum of three monitoring wells.

5. (pg. 2-23) MCAS Crash Crew Pit No. 2, Site 16

According to the Plan of Action, page 2-23, the site investigations for Site 16 will include the collection of 3 sediment samples and the installation of three monitoring wells. Board staff believes that the investigations for Site 16 should include the collection of deeper vadose zone soil samples during the installation of the monitoring wells or by additional deeper borings.