

DEPARTMENT OF HEALTH SERVICES

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M60050.001835
MCAS EL TORO
SSIC # 5090.3



April 12, 1988

Mr. Ernest Cerini
Officer In Charge Of Construction, Southwest
1220 Pacific Highway, Building 131
San Diego, California 92132-5190

Dear Mr. Cerini:

PLAN OF ACTION FOR MARINE CORPS AIR STATIONS AT EL TORO AND TUSTIN

Please find enclosed comments on the plan of action for Marine Corps Air Stations at El Toro and Tustin. The comments are divided into general comments and specific comments on particular items in the plan.

If you have any questions, please contact me at (213)620-5491.

Sincerely,

Tim Miles

Tim Miles, Project Officer
Assessment and Mitigation Unit
Southern California Section
Toxic Substances Control Division

General Comments:

1. The overall adequacy of the work plan cannot be ascertained without the Health and Safety Plan and the Quality Assurance Plan.
2. The use of odor to detect contaminants and determine sampling locations is not an approved health and safety practice.
3. The use of the "Hydropunch" to take ground water samples should meet the recommendations set forth in the "RCRA Ground Water Monitoring Technical Enforcement Guidance Document" or be approved by the Department of Health Services (DHS) Alternative Technology Section.
4. Background samples are not addressed at many of the sites. Page 1-7, Section 1.4.2 states that the ground water flow is in a westerly direction but is reversed in the summer. Placement of monitoring wells upgradient may not actually be upgradient. The plan should provide more information on pumping well locations so that true upgradient locations can be determined.
5. Procedures for the abandonment of boreholes need to be specified.
6. DHS recommends that the soil in all boreholes be logged continuously.
7. Based on incomplete knowledge of the exact boundaries of all disposal sites, the plan should be reexamined to determine whether adequate numbers of samples are being taken. Several site figures show areas of contamination where few or no samples will be taken.

Specific Comments:

1. Page 2-7, Section 2.2.1
Paragraph one describes the site. From the construction of the paragraph, it appears that the bermed area is used for the destruction of small munitions, flares, and other perishable ordnance. The paragraph needs to be clarified to show exactly where disposal occurred.
2. Page 2-8, Section 2.2.1
The first paragraph states that the borehole will be backfilled with an impermeable material if necessary. The material should be specified.
3. Page 2-8, Section 2.2.1
Since the types of munitions disposed of at the site are not clearly specified, the analytical procedures should include lead.
4. Page 2-20, Section 2.2.8
Based on the maps provided, the plan is not clear whether the upgradient water sampling location is also upgradient for site 9.
5. Page 2-21, Section 2.2.9
The samples should be analyzed for petroleum hydrocarbons. Background samples are not addressed.

6. Page 2-31, Section 2.3.3
What are the other potential contaminant source areas mentioned in sentence number two?
7. Page 2-35, Figure 2-19A
The figure shows areas of staining where no samples are being taken. DHS recommends that all areas where disposal occurred be sampled to determine the nature and extent of contamination.
8. Page 3-4, Section 3.5.1
The text states that clean 12-20 mesh Monterey sand will be used for the filter pack. The sand for the filter pack should be determined by a sieve analysis done from the borehole cuttings. DHS does not recommend the use of PVC casing and screen in the saturated zone where contaminants may be absorbed into the plastic. DHS recommends that stainless steel be used. The method of placement of the grout should be specified.
9. Page 3-5, Section 3.5.2
The well should be developed until the water does not exceed five nephelometric turbidity units.
10. Page 3-8, Section 3.8
Where will the background soil samples be collected?

RESPONSE TO
DEPARTMENT OF HEALTH SERVICES
COMMENTS

Response to General Comments:

1. Copies of the Health and Safety Plan and the Quality Control Plan for the Site Inspection POA will be forwarded.
2. All samples will be screened in the field by use of an HNU brand photoionization detector. Odor detection will be limited to the field personnel's notes of any detectable fuel related odor around a drill site. Note that the construction activities will take place using Level D protection with no respirators. If a fuel type contamination is encountered at a given depth, odor usually is the first detectable sign around the drill hole. This may be, in combination with HNU readings, the indication of potential upgrade of site safety level from D to C.
3. The Hydropunch water samples do meet the requirements of the said document. Suggestions will be made to the equipment's manufacturer to pursue DHS approval, if such approval has not already been obtained.
4. The plan essentially assumes background as the most upgradient well location in respect to the whole base. For those sites that such information is not adequately provided, a background well will be installed. For those sites that are located downgradient from another investigated site, the upgradient site will be utilized to assess background contamination potential, keeping in mind that the POA is for verification and not quantification. The gradient reversal is due to pumping effects and is localized around those irrigation wells. For the purpose of the Site Inspection the term "upgradient" is used to identify regionally upgradient conditions representative of long-term-average condition.
5. Borehole abandonment practices will follow the Orange County Health Agency guidelines. JMM common practice of borehole abandonment is by neat cement grout (cement grout mixed with a minimum of 3 percent by weight bentonite).
6. The dense soil conditions typically encountered in the area renders continuous sampling difficult and time consuming. For the purpose of the current investigation (verification) whereby the presence, and not the extent, of contamination is sought, such a procedure is not warranted.

7. It is believed that the POA stipulates adequate numbers of samples to identify the presence of any contamination. The areas of staining (not contamination) shown in the figures were identified mostly by the previous contractor. JMM site visits did not confirm the presence of staining in those areas that are not being sampled. This may be due to some surface cleanup and/or construction activities that have taken place at the bases. Stained areas identified by the previous contractor were left in figures to facilitate further visual field inspections at those locations, at which time a decision will be made to assess the need for sampling at those areas.

Response to Specific Comments

1. Page 2-7, Section 2.2.1
Figure 2-1, following Page 2.7, identifies the general and specific disposal area locations.
2. Page 2-8, Section 2.2.1
See response to Comment 5, above.
3. Page 2-8, Section 2.2.1
We are looking for FS Smoke only; lead is not part of the type of munition used to detonate FS Smoke.
4. Page 2-20, Section 2.2.8
The "northeast" on Page 2-20, paragraph 1, should be changed to read "northwest". Figures 2-7 and 2-8 show essentially the same areas (see BLDG 435 on both figures).
5. Page 2-21, Section 2.2.9
The POA is modified to include TPH analysis. Background is assumed to be clean in respect to TPH and PCB's.
6. Page 2-31, Section 2.3.3
See remainder of the paragraph.
7. Page 2-35, Figure 2-19A
See response to General Comment 7, above.
8. Page 3-4, Section 3.5.1
Adequate numbers of soil samples with geotechnical analysis exist from the area. For monitoring well construction, accomplishment of sieve analysis from each borehole is not justified. Stainless steel screen is not justified for the Site Inspection, where the presence of contamination is not known.

9. Page 3-5, Section 3.5.2
Since the wells are being drilled with augers, turbidity is not anticipated to be a problem. JMM will further evaluate development procedures if other drilling techniques are used.
10. Page 3-8, Section 3.8
See response to General Comment 7, above.