



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

October 23, 2000

Base Realignment and Closure
Attn: Mr. Dean Gould
BRAC Environmental Coordinator
MCAS El Toro
P. O. Box 51718
Irvine, CA 92619-1718

RE: EPA REVIEW COMMENTS ON DRAFT PROJECT WORK PLAN, INSTALLATION RESTORATION PROGRAM (IRP) SITES 3 & 5 AND DEBRIS DISPOSAL FROM SITE 1, FORMER MARINE CORPS AIR STATION, EL TORO, CA

Dear Mr. Gould:

The United States Environmental Protection Agency (EPA) has reviewed the above referenced document. Our comments are attached to this cover letter. Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Glenn Kistner".

Glenn Kistner
Remedial Project Manager
Federal Facilities Cleanup Branch

Attachment

cc: Mr. John Broderick, RWQCB
Ms. Triss Chesney, DTSC
Mr. Gregory Hurley, RAB Co-Chair
Ms. Polin Modanlou, LRA

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**Review of the Draft Project Work Plan, Installation Restoration Sites 3 and 5 and Debris
Disposal From Site 1
Marine Corps Air Station, El Toro, California**

General Comments

1. The overall process as described on Section 4.6 (Site 1 (EOI Range) Debris Segregation and Disposal Activities) does not address the possible presence of hazardous UXO on the site that should not be disturbed or moved. It is a common EOD practice to consider all ordnance items found on an EOD range to be in the armed condition until inspection and analysis proves otherwise. This is done because subject items are most likely kickouts that were ejected from a previous disposal detonation or burn and did not function. As a result of the forces that ejected these items from the detonation/burn, the fuzing/firing mechanisms of the items may have fully or partially armed. Should these items contain cocked striker mechanisms, piezoelectric fuzing, or any other mechanisms that make movement of the item hazardous, a process for dealing with them must be identified. In addition, personnel should be advised of the possible presence of such items in the scrap and dirt and that no movement should be initiated until it has been determined that no such items are present. Please revise section 4.6 to include procedures for identifying and dealing with UXO items that are too hazardous to be moved. These procedures must require that all UXO found on the range be considered unsafe to move or disturb until a properly trained UXO specialist determines that movement is permitted.
2. The proposed trench spacing does not adequately evaluate the potential location and perimeter of the landfills for Site 3 and Site 5. Investigation locations spaced 250 feet apart at Site 3 are potentially too far apart. Six trenches for investigation of approximately 2500 feet of landfill perimeter at Site 5 seem to be inadequate. Experience with other landfill perimeter evaluations has shown that waste limits must be investigated on a maximum 50-foot spacing, particularly around landfill corners or curves and nearby structures or physical features, to observe waste placed in any "fingers" or similar small features. A 50-foot spacing is recommended for most landfills where records are not available specifying the locations where waste was placed. This spacing is related to the approximate dimension of four truck widths, observed as a minimum operational effort in a typical landfill when waste is placed with mechanized equipment. Efficiencies may be gained by phasing the investigations for 200-foot spaced initial trenches, which may be elongated to chase the waste edge as necessary, then secondary trenches at the 50-foot final spacing. This phased method allows for much more exact location of the secondary trenches, limiting length and disturbed waste, while being definitive in the evaluation. Please revise the work plan to provide an adequate waste delimitation plan that includes trenching at no more than 50-foot intervals or show reason why the proposed approach will be adequate to delineate the waste at the site.
3. No criteria for waste identification is provided in the work plan. While some generalized description about suspect material is included in the trenching description, no criteria is

given about composition, thickness, frequency, or consistency. The landfills contain wastes which are reported to have been burned; therefore, identification methods for ash within soil materials should be described. Experience with landfill investigations has shown that significant interpretation is required to assess whether localized "lenses" are thin, discontinuous layers of the main waste body or simply windblown litter or other small waste volume that was covered separately from the main landfill.

4. Please revise the work plan to provide an indication of what the waste delineation data will be used for. If the Navy intends to excavate all of the waste at some point in the future, a detailed understanding of the extent of waste is probably not required at this time. If the Navy intends to cover the waste, then a detailed understanding of the extent of the waste is required and it should be obtained during the activities to be conducted under this work plan.

Specific Comments

1. Section 3.1.1.1 describes anomalies determined by the geophysical investigations for Site 3. No anomalies are shown on Figure 4. Please revise Figure 4 to show all anomalies found.
2. Section 3.1.1.1 contains a description of a feature interpreted in the geophysical investigations for Site 5 as a buried utility. However, this feature is not shown on Figure 5, the Site 5 site plan. Please revise Figure 5 to include the feature interpreted as a buried utility.
3. Section 3.1.2.1 and Section 3.1.2.2 describe air sampling and soil gas surveys performed at Site 3 and Site 5, respectively, that reported several different VOCs. Many of these VOCs are not addressed in the health and safety plan, nor are they described as potential chemical hazards for the trenching operation. Please revise the Work plan and the health and safety plan to address all of the reported VOCs.
4. Section 3.2 describes the project approach, including the proposed trench spacing. As described, the trench explorations are too far apart. See General Comment 2. Please revise text and approach for trench exploration spacing of 50 feet or less.
5. Section 3.2, Paragraph 7 contains description of the trench explorations as having a maximum length of 20 feet. This description does not match what is shown on the site plans, Figure 4 and Figure 6. Also, 20 feet is both too short and too restrictive for trench lengths in a landfill waste investigation. Experience has shown that a 20-foot length may significantly misinterpret the waste occurrence at a landfill, judging many wastes to be either wholly continuous or completely absent, depending on the observation. Please revise the text to accommodate whatever trench length is necessary to determine an accurate assessment of waste occurrence. It is recommended that the trenches be continued until at least 40 feet of undisturbed soil outboard of the waste footprint have

been uncovered. This length of undisturbed soil is recommended as the Navy cannot be sure of the distance between disposal trenches at the landfill. Additionally, please revise Figures 4 and 6 to accurately match the text description.

6. Section 4.5 does not address the buried utility interpreted from the geophysical investigation of Site 5. Please revise the text to include a description of the anomaly and its location.

7. Section 4.6, page 4-3, second sub-paragraph, fourth sentence: Large scrap metal items should be visually inspected prior to movement to insure that they are not themselves UXO items or to insure that no UXO items are concealed within them such as might happen if an ordnance item were kicked out into the large piece of scrap metal. If items that are too dangerous to be move are discovered, they should not be "set aside" or "segregated", but should be processed using the methodology developed in response to General Comment 1.

Please revise this sentence to reflect the process change developed in response to general Comment 1.

8. Section 4.6, page 4-3, second sub-paragraph, fifth sentence: UXO material encountered should not be set aside until it has been determined that the items are safe to move.

Please revise this sentence to reflect the process change developed in response to general Comment 1.

9. Section 4.6, page 4-3, second sub-paragraph, ninth and twelfth sentences: Any UXO items that remain in the dirt will have been subjected to considerable force by the digging, moving and shaking of the excavation and subsequent screening. However, the potential for detonation of the hazardous ordnance types described in General Comment 1 remains if these items are present in the dirt. These items should be processed using the methodology developed in response to General Comment 1.

Please revise this sentence to reflect the process change developed in response to general Comment 1.

10. Section 4.6, page 4-4, seventh sub-paragraph, ninth and twelfth sentences: There is a potential for encountering drums and/or containers that have deteriorated to the point that they cannot be excavated and/or removed without damage or destruction. This could result in disturbing of hazardous ordnance items, or the dispersal of hazardous substances into the environment. A process should be developed to address the excavation and removal of deteriorated drums and containers.