



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

February 5, 2002

Keith Forman  
BRAC Environmental Coordinator  
for Hunters Point Shipyard  
Southwest Division, Naval Facilities Engineering Command  
1220 Pacific Coast Highway  
San Diego, CA 92132-5190

RE: **Hunters Point Shipyard Draft Final Field Sampling Plan/Quality Assurance Project Plan for Parcel E Nonstandard Data Gaps Investigation (Industrial Landfill and Wetlands Delineation), January 8, 2002**

Dear Keith,

Please find enclosed EPA's review of the Response to Comments, Appendix D, of the *"Hunters Point Shipyard Draft Final Field Sampling Plan/Quality Assurance Project Plan for Parcel E Nonstandard Data Gaps Investigation (Industrial Landfill and Wetlands Delineation)"* dated January 8, 2002.

As you are aware, there is heightened community interest in the current investigative efforts for Landfill E. Therefore, EPA recommends that the Hunters Point Shipyard BCT work to expedite execution of this field sampling plan. Toward this end, EPA does not feel it necessary to resolve remaining EPA comments transmitted in this comment package prior to the Navy undertaking field work.

Please feel free to contact me at 415-972-3024 if you have any questions or comments.

Sincerely,

A handwritten signature in black ink that reads "Michael Work".

Michael Work  
Remedial Project Manager  
Superfund Division (SFD-8-3)

Attachment

cc: (see Distribution List)

**Distribution List HPS**

David Demars  
Lead RPM (Hunters Point Shipyard)  
US Navy, Naval Facilities Engineering Command  
SW Division  
1230 Columbia Street, Suite 1100  
San Diego, CA 92101-8571

Chein Ping Kao, P.E.  
Office of Military Facilities  
Department of Toxics Substances Control  
700 Heinz Avenue, Suite 200  
Berkeley, CA 94710-2721

Michael Rochette  
California Regional Water Quality Control Board  
SF Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

Amy Brownell  
City and County of San Francisco  
Department of Public Health  
1390 Market Street, Suite 210  
San Francisco, Ca 94102

Karla Brasaemle  
TechLaw  
530 Howard Street, Suite 400  
San Francisco, CA 94105

**EPA's Review of the  
Hunters Point Shipyard  
Draft Final Field Sampling Plan/Quality Assurance Project Plan for  
Parcel E Nonstandard Data Gaps Investigation  
(Industrial Landfill and Wetlands Delineation)  
Response to Comments, Appendix D  
January 8, 2002**

**GENERAL COMMENTS**

1. The response to this comment appears to be adequate.
2. This comment does not apply to the nonstandard data gaps investigation, so the response to this comment appears to be adequate.

**GENERAL COMMENTS ON ATTACHMENTS**

1. The response to this comment is adequate, however there is no table that summarizes the soil samples to be collected during test pit excavation.
2. The response to this comment appears to be adequate, but it is unclear why Quality Assurance/Quality Control samples (duplicate samples) will not be collected for the soil matrix.
3. The response to this comment appears to be adequate.
4. The response to this comment appears to be adequate.

**ATTACHMENT B, Lateral Extent of Parcel B Landfill**

**SPECIFIC COMMENTS**

- 1-4. The responses to these comments appear to be adequate.

**Attachment C, Landfill Gas Monitoring**

**GENERAL COMMENT**

1. The response to this comment appears to be adequate.

## **SPECIFIC COMMENTS**

1-10. The responses to these comments appear to be adequate.

### **Attachment D, Liquefaction Potential at Parcel E**

## **GENERAL COMMENTS**

1. The Navy has misinterpreted the comment. There is little reason to believe that a catastrophic failure of the landfill is possible as there are no laterally-continuous, saturated deposits of loose cohesionless materials present beneath the landfill. The original comment was meant to make the Navy consider whether the expense of the liquefaction investigation was merited. [However, see also specific comment #2 below.]
2. The response to this comment appears to be adequate.
3. The response to this comment appears to be adequate.

## **SPECIFIC COMMENTS**

1. The response to this comment was mostly acceptable. The procedure to be used for storing geologic samples is unworkable. The procedure appears to be for storing rock cores whereas in this study, the samples will be extruded from brass ring-lined standard penetration test (SPT) samplers. The potentially liquefiable strata should be stored in plastic bags. The boring and depth at which the sample was collected should be indicated on the bag.

The FSP/QAPP still contains relative density testing and has added Atterberg Limit testing. Relative density is almost meaningless outside of a controlled fill project or laboratory and is meaningless for samples collected using an SPT. In addition, the Navy will need about 20 pounds of material to perform the test, which is much more than will likely be collected using an SPT sampler. Atterberg Limits can only be calculated for cohesive materials. As cohesive materials do not liquefy (or if they do, do not have much strain potential), the purpose of performing the tests is not apparent. There are generally accepted correlations between SPT blow counts and Relative Density (e.g., Meyerhof, G.G.(1956). "Penetration Tests and Bearing Capacity of Cohesionless Soils." Proc of ASCE, Jour. SMF Div., Vol.82, SM.1, Proc. Paper 866, pp.1-19.), but the Navy has not explained how the relative density data will be used, so again, we do not understand the rationale. Please do not submit samples for analysis for relative density or Atterberg Limits.

2. The response to this comment appears to be adequate. However in documenting the results of the field study, the Navy should consider that land consisting of hydraulically-deposited sand is probably the most liquefaction-susceptible formation possible. Thus, if any of the land beneath the landfill was created in this fashion, it may liquefy during a

significant earthquake.

## **Attachment F, Parcel E Wetlands Delineation Work Plan**

### **GENERAL COMMENTS**

1. Generally, the wetland delineation approach presented in the Work Plan is adequate. However, additional detail would allow the reviewer to determine whether the proposed activities represent a comprehensive delineation process. Please provide additional detail to supplement the delineation where COE procedures will not be followed.

2. The response to this comment appears to be adequate.

### **SPECIFIC COMMENTS**

1. The response to this comment appears to be adequate.

2. The response to this comment appears to be adequate.

3. The response to this comment appears to be adequate.

4. The response to this comment appears to be adequate.

### **ADDITIONAL COMMENTS**

1. **Section 2.3.1, Landfill Gas Survey Design and Methods, Page 29, Surface Survey of Landfill Cap:** The description of the surface survey does not specify that the surface survey must be done during low wind conditions. If the survey is done on a windy day, no methane will be detected. Please revise the text to state that the surface survey will only be done on a day when there is little or no wind, and define the windspeed above which the surface survey should not be done.