

June 13, 1994

PRC Environmental Management  
135 Main Street  
Suite 1800  
San Francisco, CA 94105  
415-543-4880  
Fax 415-543-5480  
N00217.003004  
HUNTERS POINT  
SSIC NO. 5090.3

**PRC**

Mr. David Song  
Department of the Navy  
Western Division  
Naval Facilities Engineering Command  
900 Commodore Drive, Building B101  
San Bruno, CA 94066-2402

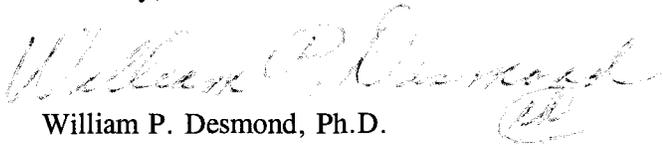
Reference: Minutes of Technical Meeting  
Ecological Risk Assessment, April 11, 1994  
Contract No. N62474-88-D-5086, Contract Task Order No. 254

Dear Mr. Song:

We are enclosing one copy of the Minutes of Technical Meeting held on April 11, 1994 for your records.

Should you have any questions, please do not hesitate to contact me in Dallas at (214) 754-8765.

Sincerely,



William P. Desmond, Ph.D.  
Assistant Project Manager

WPD:kk

Enclosure

cc: File  
Distribution List Attached

**MINUTES  
TECHNICAL MEETING  
HUNTERS POINT ANNEX  
ECOLOGICAL RISK ASSESSMENT**

**April 11, 1994**

**Purpose of the meeting**

The purpose of the meeting was to exchange technical information and solicit input from the responsible regulators for decisions the Navy anticipates it will face about the current Phase 1A ecological risk assessment and the forthcoming Phase 1B ecological risk assessment at Hunters Point Annex.

**Attendees**

The meeting was attended by the following representatives of the Navy and the regulatory agencies:

Ms. Alydda Mangelsdorf, U.S. EPA	Ms. Amy Brownell, SF Dept. Public Health
Mr. Raymond Seid, U.S. EPA	Mr. Dave Song, U.S. Navy
Mr. Cyrus Shabahari, DTSC	Dr. Bill Desmond, PRC
Dr. Jim Polisini, DTSC, OSA, HERS	Mr. Barney Popkin, PRC
Dr. Barbara Smith, RWQCB-SF Bay Region	Mr. Timo Allison, PRC
Mr. Ron Gervason, RWQCB-SF Bay Region	Ms. Sabrina Russo, PRC
Ms. Denise Klimas, NOAA	Mr. David Leland, HLA
Ms. Heather Rosmarin, U.S. Dept. Interior	Mr. Carl Michelsen, HLA

**Agenda Items**

An agenda was prepared in advance and distributed to the regulatory agencies and natural resource trustees. Dave Song opened the meeting with a general introduction at 1:00 pm, and Bill Desmond led the meeting. Nine items were discussed.

**1. Criteria for determining the useability of the ESAP bioassay and bioaccumulation data**

The Navy proposed using a number of criteria to determine the useability of the ESAP data. The regulatory officials concurred with the criteria, which include the following:

- Test acceptability criteria
- Dose-response curve soundness, including comparisons of inter-species variability and sensitivity and analysis of the useability of the data points
- Documentation of procedures and methodology used
- Appropriateness of the test conditions
- Use of a reference station

ESAP data will be used in a qualitative manner to focus further sampling methods. No sites will be eliminated from further consideration based only on the ESAP data. Confirmation testing will be performed on all non-detect sampling areas, and further testing will be performed in the areas having questionable results. Characterization of the lateral and vertical extent of contamination in areas lying below water was also discussed. The Navy plans to characterize contamination for risk assessment purposes only. EPA and DTSC stated that it is appropriate to conduct a remedial investigation of the offshore sediments. The Navy and the EPA and DTSC did not come to an agreement on an approach for characterizing the offshore sediments.

**2. Techniques for measuring bioavailability of soil and off-shore sediment contaminants**

Techniques discussed including the WET analysis, sediment pore water and elutriate extractions, toxicity bioassays, Microtox bioassays, immunoassay, bioaccumulation tests, biomarkers, and benthic community analysis. Assessment endpoints will drive the choice of the techniques used, and all techniques were considered valid if applied appropriately. The RWQCB prefers the use of biological effects measurements, rather than total chemistry to determine risk levels.

**3. Establishing background concentrations of on-shore contaminants**

The Navy, and EPA and DTSC, agreed that total concentrations will be used in the ecological risk assessment; background values will not be subtracted out for the risk assessment. Therefore, knowing the background levels of onshore contaminants is not necessary for the ecological risk assessment.

**4. Establishing background concentrations of off-shore contaminants**

Determination of off-shore background contaminant levels was discussed at length. Background values are necessary to establish what contamination present in the bay sediments potentially originated from HPA and what sediment contamination is common throughout the bay. One approach put forth by the Navy is to compare the range of sediment contamination at HPA with other sediment data sets collected throughout the Bay in order to find HPA's relative position in the contamination continuum of San Francisco Bay. This type of comparison is already being done by the RWQCB using the Bay Protection Program data sets. These results will not be ready for a month or two, however, upon completion, the RWQCB agreed to provide the Navy with the data.

Another approach suggested by RWQCB was to select a contaminant or suite of contaminants unique to HPA and track its presence in the sediments around the facility to determine extent of contamination. At this time, no contaminants have been identified that could serve this purpose. When evaluating sediment contamination, it was noted that sediment chemistry data may not be comparable if not corrected for soil type, grain size, organic matter, and other parameters.

**5. Estimating contaminant loads from Yosemite Creek to South Basin**

The Navy stated that it was important to determine whether Yosemite Creek was discharging contaminants into the South Basin. DTSC asked if the Navy was planning on sampling the South Basin sediments. While the Navy stated that Phase 1B had not been scoped yet and, generally, sampling would be driven by the results of the Phase 1A ecological risk assessment, it was still important to investigate other sources of contamination.

As a technique to sample the contamination from Yosemite Creek, the Navy suggested using transects to sample Yosemite Creek up past the zone of tidal influence. Other potential sources of contamination to the HPA area were also raised, such as documented releases from Pacific Gas and Electric's Hunters Point Power Plant and Islais Creek north of the shipyard.

NOAA, EPA, and RWQCB again stressed that a complete lateral and vertical evaluation of the sediments needs to be performed regardless of the possibility of contamination being transported onto the facility by other sources. The Navy and the regulatory agencies did not reach an agreement for characterizing the offshore sediments.

**6. Groundwater as a pathway to San Francisco Bay**

The Navy asked how attenuation of groundwater contaminants by soils should be addressed in the Phase 1A ecological risk assessment. RWQCB stated that the Navy should assume that attenuation does not occur. The Navy did not object to this approach for the Phase 1A ecological risk assessment.

**7. San Francisco Bay sediment transport and deposition**

The Navy stated that it was unable to obtain sediment transport and deposition data and modeling output from the USGS. The potential for using data from the USGS sediment transport study was discussed. Because the USGS has been reluctant to share their information with the Navy, Heather Rosmarin offered to facilitate access to the USGS data for the Navy. Timo Allison of PRC will be in contact with Heather Rosmarin to arrange access to the USGS data.

In the absence of sediment transport data, other methods for modelling sediment movement were proposed, such as using techniques employed in dredge studies. Another possible method suggested was to correlate on-shore with off-shore contamination in the characterization of the lateral extent of contamination, and then to derive a potential depositional pattern from this. Using historical records of dredging frequency in berthing areas, channels, and drydocks at HPA to estimate the relative sediment deposition rate in these areas at HPA was suggested as another potential method.

## **8. Methods for identifying Assessment and Measurement Endpoints**

The Navy proposed that selection of assessment endpoints should to be made based on four main criteria:

- Value to society, including commercial and recreational value
- Ecological relevance
- Susceptibility to the stressors
- Predictability of the effects

Selection of measurement endpoints will be based on the chosen assessment endpoints. The regulatory agencies concurred with this approach.

## **9. Selection of a Reference Station**

The Navy stated that available San Francisco Bay reference station information indicates the presence of contamination at all reference stations. RWQCB suggested investigating the suitability of a station off of the landfill at Yerba Buena Island. While this site has not been approved, toxicity has been observed to be low at this site.

Susan Andersen of Lawrence Livermore Laboratories was noted as the contact for obtaining the details of toxicity for the Yerba Buena Island site. The regulatory agencies stated that a reference station was not needed for the forthcoming Phase 1B of the ecological risk assessment. The Navy stated that it needed more feedback from the regulatory agencies about a suitable reference station for the forthcoming Phase 1B ecological risk assessment.

RWQCB is conducting a study to select other possible reference stations in the Bay, but the projected completion date is one to two years away. Because of this extended time frame and the uncertainty of the project's success in finding a reference station, waiting for project completion was not viewed as a viable alternative.

Alternatives to using a reference station were advanced. These alternatives included demonstrating a gradient of biological effects resulting from exposure to HPA sediment. A dose-response study could be conducted with sediment dilutions to mimic the effects from "clean" sediments that would theoretically be derived from a reference station. EPA offered to inquire for any information on potential reference stations.

## **10. Other items discussed**

There was continuing discussion about how offshore issues will be addressed. The issues discussed included the technical and administrative approaches for characterizing the offshore sediments. These issues require resolution.

Revised task summary reports for tasks one through three and task summary reports for tasks four through six will be submitted at the Phase 1A technical presentation scheduled for June 10, 1994.

**Distribution:**

Ms. Alydda Mangelsdorf, U.S. EPA  
Mr. Raymond Seid, U.S. EPA  
Mr. Cyrus Shabahari, DTSC  
Dr. Jim Polisini, DTSC, OSA, HERS  
Dr. Barbara Smith, RWQCB-SF Bay Region  
Mr. Ron Gervason, RWQCB-SF Bay Region  
Ms. Denise Klimas, NOAA  
Ms. Heather Rosmarin, U.S. Dept. Interior  
Ms. Amy Brownell, SF Dept. Public Health

Mr. Ray Ramos, U.S. Navy  
Mr. Dave Song, U.S. Navy  
Mr. Jim Sickles, PRC  
Dr. Bill Desmond, PRC  
Mr. Barney Popkin, PRC  
Mr. Timo Allison, PRC  
Ms. Sabrina Russo, PRC  
Mr. David Leland, HLA  
Mr. Carl Michelsen, HLA

## **PURPOSE OF PROGRESS MEETING**

- **DISCUSS EFFORT TO DATE**
- **DISCUSS METHODOLOGY FOR IDENTIFYING POTENTIAL CHEMICALS OF CONCERN**
- **EXCHANGE INFORMATION**