



## Brown & Root Environmental

C-NAVY-1-97-0007W

January 13, 1996

Project Number 6884

Mr. James Shafer  
Remedial Project Manager  
Northern Division, Naval Facilities Engineering Command  
10 Industrial Highway, Mail Stop 82  
Lester, Pennsylvania 19113

Reference: CLEAN Contract No. N62472-90-D-1298  
Contract Task Order No. 0254

Subject: Derecktor Shipyard, Marine Ecological Risk Assessment

Dear Mr. Shafer:

On January 9, 1997, a conference call was held to discuss several outstanding issues that were raised by the RIDEM after the submittal of the response to their comments in November 1996. These issues were documented in a letter to you dated December 9, 1996.

The call was initiated by Brown and Root and included representatives from the RIDEM (Paul Kulpa, Chris Deacutis, and Bob Richardson), the U.S. Navy Northern Division (Todd Bober, Jim Shafer and Simeon Hahn), NETC (Brad Wheeler), SAIC (Greg Tracey) and Brown and Root (Steve Parker, Hector Laguette). The discussions are briefly described in the following paragraphs, which are identified by the numbers that correspond to those used in the comment and response letters.

1: Future Use

Future Use of the shipyard and Coddington Cove will be addressed as a part of a feasibility study which is the next step planned for the site. The Baseline risk assessment addresses resuspension of sediments to a depth of 18 cm, but does not address resuspension of deeper sediments. The future use of the property will be evaluated by the Navy so that the interested parties can determine the necessity to do further work and/or remedial action. This evaluation will serve to define the scope of the Feasibility Study.

2 & 19: Exposure of Fish to PAHs

P450 activation indicates PAH exposure to organisms, although not necessarily effects from the exposure. However, available literature suggests there may be elevated P450 activity at some stations, particularly at station 29 where PAH concentrations in the sediment exceed ERL, but are below ERM. Therefore, it was agreed that the risk ranking can be increased based on sediment PAH concentrations and new data relating sediment concentrations to induction of P450 activity.



C-NAVY-1-97-0007W  
Mr. James Shafer  
January 13, 1997  
Page 2 of 3

Note: The second round of P450 sample collection/analysis has not yet been performed as of this date and no new data will be provided in the Draft Final Report.

4: False Positives/Negatives

The RIDEM indicated that the summary of potential false positives and negatives for toxicity testing was appropriate. However, to avoid creating the perception that toxicity testing is the only circumstance where false positives or false negatives could be found, the same kind of summary should be applied to other tests where it is appropriate. It was agreed that additional discussion would be added as it is appropriate.

5. Summary Figures

The RIDEM expressed interest in the type of figures that would be developed as a response to this comment. An example was faxed to the participants immediately prior to the meeting, and Greg Tracey explained that it would be one of several maps generated. Paul Kulpa expressed his interest in having more information on a single, larger map, but Greg pointed out that this info would be better presented on several maps. It was agreed that SAIC would finish the new figures, and send them to RIDEM for comment. (Note: These maps were sent to DEM on January 9, 1997).

17. Copper Concentrations in Lobsters and Lobster Mobility

Paul Kulpa stated that the mobility of lobsters should be addressed with reference to the discussion of the copper concentrations in the lobster tissue. Paul Kulpa indicated that he would attempt to provide a reference on the mobility of lobsters. If this information is available in time, it will be incorporated into the report text as appropriate.

24. Normalization to Aluminum and Dry Weight of Samples

Portions of an article (summary, conclusions, and formulas) describing the procedure for normalization as it was done in the Derecktor Shipyard study were faxed immediately prior to the call. The RIDEM requested a full copy of the article. The RIDEM also stated that they have a concern about the possible effects of double normalization to aluminum and to dry weight when interpreting the data. Greg Tracey stated that the procedure that was followed is the procedure accepted by the scientific community and, although the DEM makes a good point, it is a matter for research to decide.

Greg Tracey will include new text to acknowledge that the scientific literature only addresses aluminum normalization in relation to dry weight and does not address the effects of this procedure on a wet weight basis. Greg Tracey will fax the article to RIDEM who will consider it, and contact Greg if further concerns exist. (Note: Article was faxed to DEM on January 9, 1997.)



C-NAVY-1-97-0007W  
Mr. James Shafer  
January 13, 1997  
Page 3 of 3

26. Pollution-tolerant and pollution-indicator species

The state requested that the report note the particular sensitivities (to COCs or other factors) of the benthic species identified as pollution-tolerant or pollution-indicator species. If this information was not available, clearly state that limitation. Greg Tracey indicated that, if available information allows, particular sensitivities will be indicated.

27. Use of diversity indices for Benthic data:

The Shannon-Wiener index was evaluated for inclusion in the EMAP-Virginia Province Program but was dropped. Therefore, this index was not used in this study. However, a new table 5.3.1 will be presented which will include Shannon-Wiener Index along with other benthic community indices. The DEM also requested a percentual comparison to control (reference stations), in a manner similar to what is done with the Rapid Bioassessment approach). RIDEM requested a draft of the revised table, which was sent to them on January 10, 1997.

A delivery date of February 12, 1997, for the Draft Final ERA Report was confirmed. If you have any questions, please do not hesitate to contact me at 508-658-7899.

Very truly yours,

Stephen S. Parker  
Project Manager

SSP/gmd

c: K. Keckler, USEPA  
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T. Prior, U.S. Fish & Wildlife  
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File 6884-3.2