



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

April 8, 2002

James Shafer, Remedial Project Manager  
U.S. Department of the Navy  
Naval Facilities Engineering Command  
Northern Division  
10 Industrial Highway  
Code 1823, Mail Stop 82  
Lester, PA 19113-2090

Re: Draft Technical Memorandum - Sediment Predesign Investigation for the Old Fire Fighting Training Area at the Naval Station Newport in Newport, RI

Dear Mr. Shafer:

I am writing in response to your request for EPA to review the *Draft Technical Memorandum - Sediment Predesign Investigation for the Old Fire Fighting Training Area*. Detailed comments are provided in Attachment A.

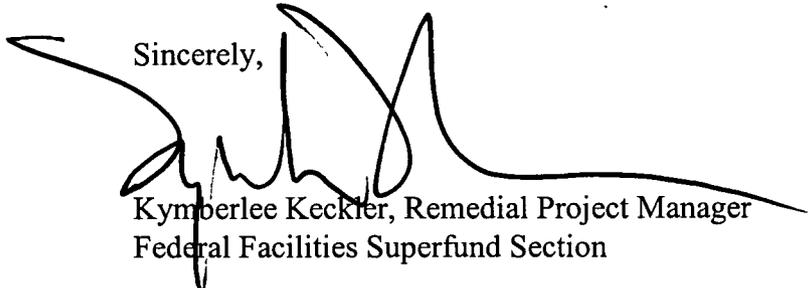
There is only one sample location in the largest eelgrass bed that exceeded the PRGs (SD-410). Based on the available data some area in the vicinity of this site should be considered as a candidate for remediation. The extent would depend on the procedures and assumptions involved in extrapolating from the sample points to an area. Such extrapolation necessarily includes some predetermined level of probability that the point data can usefully describe a larger area. Please explain how the area indicated in the figures as candidates for remediation was determined from the sample locations.

The report states that additional sampling may be required to finalize the extent of PRG exceedance. If additional sampling is needed to fully describe the areas that exceed ecological PRGs within the eelgrass beds, it may be worthwhile to include in the analysis of these samples a limited toxicity testing program similar to that used to develop the PRGs. Such testing may indicate that although a PRG is exceeded, there is no evidence of effects. In this instance it may be possible to avoid impacting the eelgrass beds and the consequent need for restoration. A small-scale toxicity testing program using sediment pore water would be recommended as this would facilitate controlling for ammonia as a confounding factor in toxicity.

Shoreline data indicate PRG exceedances in samples collected at the shoreline stations from 1.5 to 2.0 foot depths. The predesign report does not specify depth to bedrock in this area. I recommend taking additional deeper samples (possibly as part of remedial design) to better evaluate the extent of removal that may be required.

I look forward to working with you and the Rhode Island Department of Environmental Management toward the cleanup of the Old Fire Fighting Training Area. Please do not hesitate to contact me at (617) 918-1385 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kimberlee Keckler', with a long horizontal flourish extending to the right.

Kimberlee Keckler, Remedial Project Manager  
Federal Facilities Superfund Section

Attachment

- cc: Paul Kulpa, RIDEM, Providence, RI
- Melissa Griffin, NETC, Newport, RI
- Chau Vu, USEPA, Boston, MA
- Bart Hoskins, USEPA, Boston, MA
- Jennifer Stump, Gannet Fleming, Harrisburg, PA
- Ken Finkelstein, NOAA, Boston, MA
- Steven Parker, Tetra Tech-NUS, Wilmington, MA

## ATTACHMENT A

<u>Page</u>	<u>Comment</u>
p. E-1	The executive summary appears to misrepresent PAH concentrations at sample station SD-410. Only one ecological PRG exceeds at this station (2-methylnaphthalene). The other PAHs detected at station SD-410 below PRGs. Text in the third and sixth paragraphs of the executive summary and associated text in the report may require revision.
p. 2-1, §2.0	<i>Background Information:</i> The site includes three soil mounds in various locations, but these mounds are not depicted on any of the figures. It would be helpful to include these site features in all figures.
p. 2-4, §2.2.2	<i>Human Health Risk Assessment:</i> The sediment ingestion rate on which risk was calculated appears to be three orders of magnitude too high. The third paragraph states that sediment ingestion rates for children and adults are 100 grams and 50 grams per day, respectively. The appropriate sediment ingestion numbers should be 100 milligrams and 50 milligrams per day, respectively ( <i>see</i> 1997 U.S. EPA Exposure Factors Handbook, EPA/600/P-95/002Fa). If this was a typographical error, it simply needs to be corrected. If this is the actual set of values used for risk calculation, all of the ingestion-based risk numbers are incorrect, and all of the on-shore locations will need to be recalculated. It is unusual that a site shows human health risk but not ecological risk, as in this report. Typically, the concentrations of contaminants that demonstrated ecological risk are significantly lower than those demonstrating human health risk.
p. 3-3, §3.2.1, ¶6	The text indicates that grid sample station SD-429 was only sampled from 0-5 inches due to refusal. Figure 3-1, however, shows this location as a "Two Foot Depth Sample Station." Please correct. In addition, Figure 3-1 indicates that grid sample station 426 was only sampled for surface sediment, but the text in Section 3-3 does not indicate any refusal problems at this station. Please clarify.
p. 4-1, §4.1, ¶3	The second paragraph in this section starts with: "The reporting limits for the analytical laboratory were set to be below the PRGs in the laboratory specifications." This implies that the laboratory can arbitrarily set the reporting limits. However, reporting limits are determined by a variety of factors and cannot be arbitrarily assigned. Some steps can be taken to reduce reporting limits. For example, more sensitive methods can be selected or a larger sample size could be used. Please clarify the text.

The last two sentences indicate that samples with low solids frequently have a high concentration of organic matter. Please elaborate to clarify the text.

- p. 4-2, §4.1.1, ¶1 The last paragraph in this section indicates that the eastern and western boundaries of the shoreline PRG exceedances have not been identified. The Navy should address this issue in Section 5 and describe how the areal extent of contamination will be resolved.
- p. 4-3, §4.1.3, ¶1 The last sentence in the first paragraph on the page states: "... other PAH detections in this sample were within range ...." Please explain what is meant by "within range."
- p. 4-3, §4.1.3, ¶2 The last sentence in this paragraph states: "... and additional sampling may be warranted west and **south** of SD-410 prior to finalizing the remedial action area." The final sentence of the fifth paragraph on page 4-4 states: "Additional sampling is recommended to the **north** and west of SD-410 to determine the extent of this apparent hot spot." Please correct.
- Figure E-1 The grid spacing in the eelgrass bed was to be 50'. As such, please discuss why grid samples were not collected between sample stations 460 and 482 and between sample stations 482 and 466.
- Figures E-1 & 4-2 Both of these figures depict areas of potential remedial areas. However, the western coverage near SD-410 is displayed differently. Since these figures are similar and Figure 4-2 provides more information, *i.e.*, sample identifications, it appears unnecessary to have Figure E-1 in the document.
- Figures E-1 & 3-1 The symbols used to designate sample locations differ in meaning between these two figures. For example, in Figure E-1, the solid black circle represents a grid sample and in Figure 3-1 they represent "Two Foot Depth Sample Stations." The difference is subtle but somewhat confusing. It would be helpful if the figures were revised so that the symbol usage and meaning are consistent.
- Figure 2-4 This figure seems to indicate sampling locations, but the legend does not specify what these locations represent. Please modify the legend to identify these apparent sample locations and to describe when the sample was taken. Please also modify the text at the end of Section 2.2.3 to describe these features of Figure 2-4.
- Figure 2-5 This figure uses colored symbols to denote sample locations that exceeded ecological and human health direct exposure PRGs, but there is no symbol

for exceedances of human health shellfish ingestion PRGs. Please adjust the figure to show exceedances of PRGs associated with all three of the exposure scenarios.

This figure identifies some sample locations with filled black circles and others with filled black triangles. The legend must explain these symbols.

Figure 3-1 This figure should illustrate locations of grid and supplemental sediment samples. However, the legend does not specify which samples are grid and which are supplemental sediment sample stations. Please revise the figure to show these stations.

Figure 4-1 The legend for this figure does not define the triangle symbols used to mark some sample stations (*i.e.*, SSD-333 & SSD 334). The legend also does not define the difference between the filled versus hollow circles used to denote sample stations. Please clarify whether filled circles are grid samples and hollow circles are supplemental samples.

This figure does not show the location of sample station OFF-18. This location, as described in Section 4.13, showed exceedances of ecological PRG for 2-methylnaphthalene in 1998. I assume that sample stations 468 and 469 were selected to further evaluate the exceedance at OFF-18. If true, it would be useful for Figure 4-2 to show station OFF-18 in order to evaluate its proximity to 468 and 469.

Figure 4-2 The potential near shore and offshore areas of remediation as shown in this figure do not directly correspond with predesign samples. Was the line drawn to be in the middle of sample coverage? Please explain how these shapes were developed.