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LETTER AND U S EPA REGION 1 COMMENTS TO DRAFT PHASE 2 REMEDIAL
INVESTIGATION AND BASELINE EOLOGICAL RISK ASSESSMENT BUILDING 32 GOULD
ISLAND NS NEWPORT RI
2/1/2011
U S EPA REGION 1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I

5 Post Office Square, Suite 100
Boston, MA 02109-3912

February 1, 2011

Mr. Maritza Montegross
NAVFAC MIDLANT (Code OPNEEV)
Environmental Restoration
Building Z-144, Room 109
9742 Maryland Avenue
Norfolk, VA 23511-3095

Re: Draft Phase 2 Remedial Investigation and Baseline Ecological Risk Assessment for Building 32, Gould Island

Dear Ms. Montegross:

Thank you for the opportunity to review the Draft *Phase 2 Remedial Investigation and Baseline Ecological Risk Assessment*, dated December 2010, for Site 17: Building 32, Gould Island. The Phase 2 Remedial Investigation (RI) was conducted to further evaluate the nature and extent of sediment contamination, the source and extent of fuel contamination in the vicinity of Building 32, and to determine if residual contamination exists in the rigging platform area. The Phase 2 sediment data were used to assess ecological exposures and serves as the basis for the Baseline Ecological Risk Assessment. Detailed comments are provided in Attachment A.

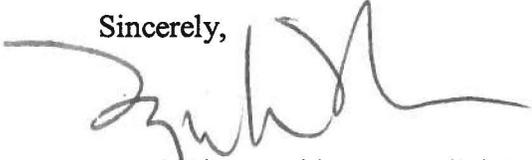
EPA recognizes the difficulties in linking toxicity, food chain modeling, and chemistry to clearly characterize ecological risk at Gould Island and appreciates the Navy's efforts in providing additional figures for our review on January 31, 2011.

While the receptors, exposure assumptions, NOAELs and LOAELS, for the food chain modeling are appropriate and adhere to the December 2009 Sampling and Analysis Plan, it is unclear why uptake and risk were only calculated for exposure to sediment. Surface water and biota data were not evaluated in most cases, even though the data were available, and uptake parameters were selected for these pathways. Please incorporate these data to the calculations.

The interpretation of the toxicity tests and derivation of NOEC and LOEC separately for each endpoint is not appropriate. EPA considers a sample toxic when there were effects for any of the endpoints. Identification of NOEC and LOEC should be based on this assumption. While various levels of interpretation have been provided in the BERA, priority should be given to NOEC and LOEC based on all toxicity test endpoints (survival, growth, and reproduction) together.

I look forward to working with you and the Rhode Island Department of Environmental Management toward the cleanup of the Gould Island. Please contact me at (617) 918-1385 to arrange a meeting to discuss these comments.

Sincerely,



Kimberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Gary Jablonski, RIDEM, Providence, RI
Darlene Ward, NETC, Newport, RI
Bart Hoskins, USEPA, Boston, MA
Ken Finkelstein, NOAA, Boston, MA
Todd Finlayson, Gannet Fleming, Orono, ME
Steven Parker, Tetra Tech-NUS, Wilmington, MA

ATTACHMENT A

<u>Page</u>	<u>Comment</u>
p. E-2, ¶2	In the last sentence remove “conducted.”
p. E-4, ¶1	In the first sentence following the bullet please change “insoluble in water” to “relatively insoluble in water “or “only slightly soluble in water.” Make the same correction on pages 1-20, 5-5, and 5-11.
p. E-4, ¶2	In the second sentence after the bullet please change “are not likely to breakdown or degrade” to “are likely to breakdown or degrade only very slowly.”
p. 1-10, §1.4.4	The last sentence refers to trace amounts of PCBs in groundwater, but the concentrations cited are 500 times the MCL and therefore are not considered trace . Please edit the text here and on pages 1-14; 5-2, and 7-3 to correct this.
p. 1-23, §1.6	In the last sentence please delete “in” following CSM.
p. 2-2, §2.1.1, ¶4	The third sentence refers to 2-foot intervals, but the surface soil sample was collected over a 1-foot interval. Please correct.
§2.2.1.1	Please discuss how to handle deeper sediment profile samples, especially the use of core baskets, or core catchers. There may be a better way to handle core loss in future sampling events (such as pre-remediation sampling for depth profiling contaminants). The use of a basket can be helpful for soft sediments, or for coarser sediments prone to falling out of a core upon retrieval, however they have some significant disadvantages. First, they tend to striate and smear the core as it enters the tube, creating a distortion of the core profile. Second, they can create resistance that pushes very soft sediment aside and prevents entry into the core tube, such that the top of the sample does not truly represent the top of the sediment profile. Often enough, at a certain depth, a core sampler will meet significant resistance, regardless of whether a core basket is used. Often this occurs in a sand layer that compacts at the bottom end of the tube. At this point, the end of the core tube is effectively plugged against core loss, and the core can be retrieved intact without the use of a core basket and the concurrent problems they present. The cores taken at Gould Island are likely adequate, but there is some uncertainty in the depth profiling that could possibly have been avoided. Please add this to the uncertainty discussion.
p. 2-6, §2.2.1.2	The second paragraph states that three locations where samples were planned were not sampled. Why weren’t substitute samples collected?

- p. 4-1, §4.0 The percent moisture discrepancy between the SAP Project Action Levels (PALs) in dry weight and the lab-reported concentrations in wet weight were resolved using 85% moisture for tissue. Please clarify whether this was a sample-specific or generic tissue-type value.
- p. 4-2, §4.0 In the first full sentence, please change “statistical calculates” to “statistical calculations.”
- p. 4-10, §4.1.4 In the last sentence please change “to not pose” to “do not pose.”
- p. 4-46, §4.3.7 The first sentence needs to be corrected. PCB tissue samples from the Stillwater Basin biota and the Northwest Shoreline biota had greater PCB concentrations than biota from the Northeast Shoreline.
- p. 5-7, §5.5, ¶2 Please correct the last sentence because mercury is present in potentially significant concentrations in coal. This site operated a coal-fired power plant, and therefore the mercury present at the site could reasonably be attributed to its presence in the coal.
- p. 6-16, §6.4.1 The first sentence is unclear and does not really explain the need for toxicity tests. Please consider rephrasing to something like: “Several of the sediment risk screening levels used to select COPCs are conservative and exceedances of them do not necessarily mean that adverse impacts to the benthic community are occurring.”
- pp. 6-17 to 6-19, §6.4.1.1 The decision rules described require that a sample must be statistically different from two of the three reference sample in order to be considered toxic. In this instance, most samples that were toxic to one reference sample were also toxic to two or more, so this rule did not drive the process significantly. EPA recommends that the data be examined differently, such as ranking the samples in descending order of toxicity in order to make sense of the contamination and toxicity data. This decision rule was not used in other Navy sites, where toxicity to any reference sample was sufficient to consider the sample impacted.
- p. 6-21, §6.4.1.3, ¶3 Regarding the last sentence, the analysis is reasonable but because of the extraordinarily high metals concentrations found in a few locations, contaminant migration is a concern so these isolated areas should not be disregarded for remediation.
- p. 6-22, §6.4.1.3 Please review the tabulated NOEC and LOEC values for total PCBs as they are not consistent with the text in the preceding paragraph.
- p. 6-27, §6.5.2, ¶3 a) Please supplement the second sentence to balance the statement by adding: “... conversely, chemicals that are biodegradable under field conditions may become non-biodegradable when removed from the field.”

b) Please delete the fifth sentence because not all chemical concentrations in the sediment can be considered low; some are quite high at many stations. The discussion should also note that uncertainty exists regarding consistency between the chemical concentrations in the samples sent for toxicity testing and the samples analyzed by the laboratory.

p. 6-28, §6.5.2 Please revise the last sentence regarding the use of “small” for all areas of contamination. The area of contamination in the Stillwater Basin is not small.

p. 7-4, §7.1.5, ¶3 The second sentence concludes that neither the coal pile nor the sanitary sewer was a source of the PAHs detected. Please explain the basis for that determination.

p. 7-11, §7.1.8.4 In the penultimate sentence change “to” to “do.”

p. 7-16, §7.4 Please explain the basis for the third sentence and incorporate the discussion to the RI.

p. 7-18, §7.5, ¶4 It is not apparent why the RI would suggest that indicator PAHs be used to focus remediation since there is no apparent cost benefit for this approach. Please clarify the rationale for using indicator PAHs.

