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LETTER AND THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGMENT  
COMMENTS ON THE FEASIBILITY STUDY SITE 16 NCBC DAVISVILLE RI  
06/05/2012  
RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGMENT



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

5 June 2012

Mr. Jeffrey Dale, RPM  
U.S. Department of the Navy  
BRAC PMO, Northeast  
4911 South Broad Street  
Building 679, PNBC  
Philadelphia, PA 19112

RE: NCBC Site 16 Feasibility Study  
Davisville, Rhode Island  
Submitted 2 May 2012, Dated 30 April 2012

Dear Mr. Dale:

The Rhode Island Department of Environmental Management, Office of Waste Management (RIDEM) has reviewed the above referenced document and has the following comments to offer:

This is a public document and the public should have a clear understanding of the site. This document goes to great lengths to point out the industrial nature of the site and further points out that residential uses are not permitted, especially those portions of the site which are part of the MARAD transfer to QDC. While there are existing industrial uses of the site there are no present or planned future residential uses of the site. What the document fails to point out adequately is that there are existing and foreseeable future recreational uses of the site most notably the Navy Yacht Club which is an approved use under MARAD. This needs to be more prominently conveyed in this document especially since there are other recreational uses associated with the former NCBC and Quonset Naval Air Station most notably the North Kingstown Marina (immediately adjacent to the Navy Yacht Club), Allen Harbor Landfill, Calf Pasture Point, North Kingstown Golf Course and the bike path which runs along the northern border of NCBC. This will provide better context for the public in order to evaluate the alternatives presented.

1. Page 1-3, Section 1.2.1.1, Description and History of NCBC Davisville, Paragraph 1, Sentence 6 – this sentence states that the former Quonset naval Air station was transferred by the Navy to the Rhode Island Port Authority. Please revise this to state that the former Quonset naval Air Station was transferred by the Navy to the General Services Administration who in turn transferred portions of the base to the

State of Rhode Island, Town of North Kingstown and the former Rhode Island Port Authority between 1975 and 1980.

2. Page 1-10, Section 1.2.2, Site Investigations, Paragraph 1, Sentence 2 – Please change “seven problem statements” to “nine problem statements”.
3. Page 1-20, Section 1.2.4, Nature and Extent of Contamination, Dioxin – This section notes an EPA action level of 72 ng/kg of dioxin (expressed as 2,3,7,8-tetrachlorodibenzodioxin (TCDD) equivalents (TEQ)) for residential exposure. The paragraph also notes that dioxin/furans were detected in the surface and shallow subsurface soils in the northwestern portion of the North Central Area. While there were no exceedances of the industrial/commercial EPA action level of 950 ng/kg please state if there were residential exceedances within the marina area.
4. Page 1-25, Section 1.2.6.1.2, Risk Summary, Paragraph 1, Sentence 2 – “Although Site 16 is not currently used for residential purposes (e.g., the MARAD agreement prohibits residential use) and the anticipated future land use is commercial/industrial; the HHRA evaluated the following land use scenarios for purposes of completeness:” please change to “*Although Site 16 is not currently used for residential purposes (e.g., the MARAD agreement prohibits residential use) a portion of the site is used for recreational purposes which is approved under MARAD. Under the RIDEM Remediation Regulations the direct exposure criteria are the same for residential and recreational use; the HHRA evaluated the following land use scenarios:*”
5. Page 2-3, Section 2.2.1, Chemicals of Concern in Soil, NWNCA – Though not regulated under CERCLA, please include TPH as a COC to be addressed as there are standards, which are exceeded, under the RIDEM Remediation Regulations and it would make sense to address it now rather than later especially since they are co-located with other COCs.
6. Page 2-8, Section 2.3.1.1, Soil, Last Paragraph – This paragraph states that there are no RAOs for TPH. Please revise to state that the RAO for TPH is 2500 mg/kg for industrial/commercial areas and 500 mg/kg for the marina area and include in Table 2-3B. While TPH does not have to be addressed under CERCLA, there is nothing in CERCLA that states TPH cannot be addressed. As the Navy points out, TPH is co-located with other COCs. It does not make sense to remediate the other COCs and then go back and separately address TPH. It is noted that paragraph 4 on Page 2-12 Section 2.4 (Preliminary Remediation Goals) seems to address this concern, but should also be stated in this Section for clarity.
7. Page 2-13, Section 2.4, Preliminary Remediation Goals, Groundwater – If the Navy wishes to designate a waste management area then the Rhode Island Solid Waste Regulations need to be ARARs as they address the design, maintenance and operation of the waste management area.

8. Page 3-2, Section 3.1 Preliminary Screening of Soil Technologies and Process Options, Table Within Text, Containment – The process options listed for containment are Soil Cover, low-permeability cap and asphalt cap. Please change asphalt cap to impermeable cap as an asphalt cap is an example of a low-permeability cap and is therefore redundant.
9. Table 3-1, Preliminary Screening of Remedial Technologies and Process Options for Soil – For the GRA of Limited Action/Remedial Technology/Process Option please revise the description restricting land us to industrial/commercial to include recreational use for existing such uses at the site (marina).
10. Page 3-4, Section 3.2.2.1, LUCs, Bullet 1 – This bullet notes that under MARAD Parcel 7 must be used for the development and operation of a port facility in perpetuity and then specifically notes that residential use would unlikely be an approved use. Since the Navy is making this distinction, please also point out that recreational use is approved under MARAD, especially since it is a current and foreseeable future use of a portion of the land under MARAD.
11. Page 3-13, Section 3.5.1, No Action – Cost – Please revise this Section to state that there would be no costs with this alternative other than the cost to prepare the five-year review.
12. Page 3-14, Section 3.5.2.1, LUCs, Bullet 1 – This bullet notes that under MARAD Parcel 7 must be used for the development and operation of a port facility in perpetuity and then specifically notes that residential use would unlikely be an approved use. Since the Navy is making this distinction, please also point out that recreational use is approved under MARAD, especially since it is a current and foreseeable future use of a portion of the land under MARAD.
13. Page 3-17, Section 3.5.2.3, Monitored Natural Attenuation – Cost – The Navy states that capital and O&M costs for MNA would be low. Based on Table 5-2 MNA will take anywhere from 75 to 300 years to meet cleanup goals. This option does not fit into the 30-year planning horizon that the Navy uses to economically evaluate alternatives as noted in Section 4.1.1.7. Routine evaluation of the data will need to be performed over the entire process (up to 300 years) for breakdown products and movement of the plume. This will necessitate the installation of new wells and possible abandonment of old wells to adequately monitor the contamination.

The remedy for NCBC Site 07 could be construed as MNA as there is no active treatment of groundwater. The Navy on numerous occasions has indicated the Long-Term Monitoring program, for this site, is very costly and has requested reductions in monitoring locations and frequency. Therefore, RIDEM does not agree that the costs associated with the proposed MNA for Site 16 are low. At best the MNA costs for Site 16 are moderate and more likely high. Please revise this Section to reflect this.

14. Table 3-1, Preliminary Screening of Remedial Technologies and Process Options for Soil – This table lists GRAs of In-Situ and Ex-Situ Treatment for soil. There is no discussion of these GRAs within Chapter 3. Please provide this discussion so the reader can understand why everyone of these GRAs were eliminated from further consideration.
15. Page 4-10, Section 4.2.2.1, Alternative S-2, Component 3: Excavation Near Marina, Paragraph 1, Sentence 2 - The sentence states that soil with COCs greater than industrial PRGs would be excavated to a depth of 2 feet bgs. Please revise this sentence to reflect that the marina is an existing and foreseeable future use of the land and as such RIDEM Residential Direct Exposure Criteria must be met which would require excavation until the contamination is removed or the water table, whichever is less.
16. Page 4-11, Section 4.2.2.1, Alternative S-2, Component 4: Monitoring – This paragraph discusses frequency of monitoring at quarterly for the first year, semi annual for the second year and annual thereafter. This is inconsistent with RIDEM general practice of quarterly monitoring for the first two years and then revising monitoring frequency thereafter based on results obtained. Please remove sentences 3, 4 and 5 from Paragraph 2 of this Section. Without these sentences the paragraph is clear enough at this time to indicate that there will be groundwater monitoring at an appropriate frequency which will be coordinated with groundwater remediation activities the specifics of which will be determined during the Remedial Design phase.
17. Page 4-12, Section 4.2.2.2, Alternative S-2, Detailed Analysis – Overall protection of Human Health and Environment – This paragraph addresses industrial/commercial and residential use, but makes no mention of the existing recreational use. Please include a discussion of recreational use in this paragraph and how it does/does not meet overall protection of human health and environment.
18. Page 4-14, Section 4.2.3.1, Alternative S-3, Component 1: Excavation Paragraph 1, Last Sentence – This sentence states that backfill material will act as both a cover and waste management area. Based on Figure 4-3 there will be 8 waste management areas. This seems rather cumbersome and inefficient to operate, monitor and maintain, not to mention making it difficult to develop this land which is one of the purposes of the clean-up. This may not be the appropriate alternative to introduce a waste management area.
19. Page 4-16, Section 4.2.3.2, Alternative S-3, Detailed Analysis, Overall Protection of Human Health and Environment, Paragraph 1, Sentence 2 - This sentence states that “soil with contaminant concentrations greater than leachability PRGs would be removed from the site.” This is contradictory to Section 4.3.2.1 Description; Component 1: Excavation which states that in some locations contaminant concentrations greater than PRGs will be beneath the backfill material and act as a

cover and waste management area. Please clarify if coils will be left behind which have concentration greater than direct exposure criteria and/or leachability criteria.

20. General Comment – Alternative S-3 – This alternative disregards the existing recreational use of the land. This will have an impact on amount of soil excavated and subsequent costs. Even if this alternative is not selected the alternative as a whole must be compared equally to other alternatives and must address existing as well as reasonable foreseeable land uses.
21. Page 4-18, Alternative S-3, Section 4.2.3.2, Detailed Analysis, Cost – This Section notes that approximately \$150,000 of the capital cost is for TPH removal which is not a CERCLA cost. Please be advised that while CERCLA exempts virgin oil products it does not exempt waste oil products. Since this was a fire fighting training area the oil products used to create fires are now waste having been burned and are therefore not exempt from CERCLA. Please remove the reference to the non-CERCLA costs.
22. Table 4-4, Alternative S-4 Excavation/Cover – Soil which exceeds leachability based PRGs are proposed for excavation in this alternative which is reference in Figure 4-4. Please clarify if the proposed excavated areas are those delineated in orange, as noted in the legend, or those areas outlined in the maroon colored lines for which there is no reference in the legend.
23. Page 4-23, Alternative S-4, Section 4.2.4.2, Detailed Analysis, Cost – see Comment 21.
24. Page 4-26, Alternative S-5, Section 4.2.5.2, Detailed Analysis, Cost – see Comment 21.
25. Page 4-27, Alternative S-6, Section 4.2.6.1, Description, Component 1: Cover to Allow Industrial Site Use, Paragraph 2, Sentence 1 – Figure 4-6 delineates the proposed cover. This cover, as shown, extends north to the banks of Allen Harbor. Since there does not appear to be any residential direct exposure criteria exceedances north of the east/west road to the south of building E-107 the cover would only need to extend to the southern side of the east/west road on the north side of the proposed cover. In addition to reducing the cost of the cover (minor amount) it would allow for the placement of down-gradient monitoring wells which would be a requirement if such a cover is selected as the preferred alternative.
26. Page 4-27, Alternative S-6, section 4.2.6.1, Description, Component 1 Cover to Allow Industrial Site Use, Paragraph 2, Sentence 1 – This sentence references Figure 4-6 which delineates the aerial extent of the cover. If the soil at the marina is going to be remediated to recreational standards then there is no need to extend the cover or the waste management area onto the marina property. Please revise Figure 4-6 accordingly.

27. Page 4-27, Alternative S-6, section 4.2.6.1, Description, Component 1 Cover to Allow Industrial Site Use, Paragraph 3, Sentence 3 – “In any case, damage to the cover would be prepared as required...” should this be In any case, damage to the cover would be repaired as required...” In addition, please explain why a fence and trees (for visual screening) would be needed along the road and perimeter of the cover since this area should be available for development.
28. Page 4-33, Section 4.2.7, Selection of Additional COCs based on RIDEM Criteria. Paragraph 3, Last Sentence – This sentence notes that land use controls for the entire North Central Area would restrict residential exposure. Please note that recreational exposure would be allowed on the portion of the site associated with the marina.
29. Page 4-34, Section 4.3.1.1, Alternative G-1, Description, Paragraph 1, Sentence 2 – Please remove the reference to prevent residential uses as groundwater classifications are not based on parcel by parcel land use.
30. Page 4-38, Section 4.3.2.1, Alternative G-2, Description, Component 2: LUCs, Paragraph 4, Last Sentence – This paragraph states that LUCs will be added to prevent residential use. For this groundwater alternative and subsequent ones please remove discussion of LUCs that pertain to land use as groundwater objectives are not based on land use, i.e. there are no residential or industrial/commercial groundwater standards.
31. Page 4-39, Section 4.3.2.2, Detailed Analysis, Long-Term Effectiveness and Permanence, Paragraph 2 – This paragraph states in part that monitoring would be effective to verify that there is no migration of COCs. Please remove this statement as groundwater is going to migrate. The monitoring would, however, be effective in letting one know where the contamination is and at what level.
32. Page 4-40, Section 4.3.2.2, Detailed Analysis, Implementability, Paragraph 1, Sentence 1 –“Sampling and maintenance of existing monitoring wells and performance of 5-year reviews could easily be accomplished.” Please be advised that as the plume moves additional new wells may be needed while existing wells could be abandoned. This should be reflected in this section and the costs associated with new wells and abandoning old wells should be reflected in the Cost Section. It is understood this would only be an estimate.
33. Table 5-1 – For Alternative S-6 please add Limited Excavation in the title heading. It should read: “Alternative S-6: Full Soil; Cover, Limited Excavation, Monitoring, and LUCs”
34. General Comment – When comparing costs of the alternatives the Navy uses a 30 year planning horizon. With respect to the groundwater alternatives, the time estimated to meet groundwater objective ranges from 50 to 300 years depending upon the alternative selected. As the Navy is aware, monitoring costs can be

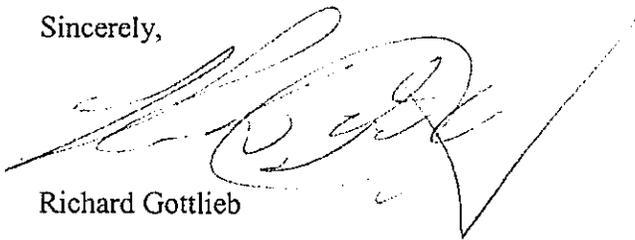
significant. Please state if the economic analysis performed for the groundwater alternatives account for the extended monitoring times. If they do not, then we are not adequately comparing the true cost of an alternative to another alternative.

35. General Comment – Within the proposed limits of the waste management area are exceedances of TPH leachability criteria for GB groundwater. Either the Navy can excavate the TPH to below 2500 mg/l or can develop a PRG for TPH in groundwater to insure that unacceptable levels of TPH in groundwater do not migrate beyond the waste management area boundary.

36. General Comment – RIDEM reserves the right to review/update ARARs once a preferred alternative is selected.

RIDEM would like to thank you for the opportunity to comment on this request and looks forward to working with the Navy and USEPA. If you have any questions or require additional information please call me at (401) 222-2797 ext. 7138 or email me at richard.gottlieb@dem.ri.gov.

Sincerely,



Richard Gottlieb

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