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PITT-06-14-012

June 4, 2014

Project No. 112G00822

Mr. David Barney
BRAC Environmental Coordinator
Former NAS South Weymouth
1134 Main Street, Building 11
South Weymouth, MA 02190

Reference: Contract No. N62467-04-D-0055
Contract Task Order (CTO) Number 418

Subject: ***Final Record of Decision for Site 16***
The Former Naval Construction Battalion Center, Davisville
North Kingstown, Rhode Island

Dear Mr. Barney:

Enclosed is the Final Record of Decision (ROD) for Site 16 at the Former Naval Construction Battalion Center, Davisville, Rhode Island, updated per the response-to-comments (RTCs) documents for comments received from the United States Environmental Protection Agency (USEPA) Region I and the State of Rhode Island Department of Environmental Management (RIDEM) on the March 2014 version of the document. The document is "signature ready" and reflects our BRAC Clean-up Team (BCT) discussions during the May 13th, 2014 teleconference. The referenced RTCs are also enclosed.

If RIDEM concurs with this ROD, the Navy respectfully requests a concurrence letter for inclusion as Appendix A-1. Once EPA and the Navy receive the concurrence letter from RIDEM, and with EPA's concurrence, the ROD will be executed and distributed.

Please call me at 412-921-8887 if you have any questions regarding the enclosed document.

Sincerely,

Lee Ann Sinagoga
Contract Task Order (CTO) Manager

LAS/mlg
Enclosures

cc: Mr. Jeff Dale, Remedial Project Manager (1 copy)
Ms. Christine Williams, EPA Region I (1 copy)
Mr. Richard Gottlieb, RIDEM (1 copy)
Project File (1 copy and 1 CD)
NIRIS RDM (1 copy and 1 CD)

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Navy Response to
USEPA Region I Comments on
The Site 16 Draft Final Record of Decision Dated March 26, 2014
Former Naval Construction Battalion Center (NCBC) Davisville
Davisville, Rhode Island
(USEPA Region I Correspondence Dated May 1, 2014)

Note to reader: Preliminary responses, discussed during the May 13, 2014 BRAC Clean-up Team (BCT) teleconference, are revised as follows and reflect the discussions/agreements made during the BCT teleconference:

EPA Comment No 1: Page 11, 1st bullet Make the following changes: "Implementation of land use controls (LUCs) to ensure that future use of the NCA~~/marina~~ portion of the property is limited to non-residential activities and restricted residential use is permitted in the marina portion of the property, as long as disturbance of soil covers and subsurface soils in both areas is prohibited without prior authorization, soil covers are inspected and maintained, groundwater is not used (except for sampling under the LTM program), and buildings are designed and constructed to minimize the potential for vapor intrusion. A soil management plan will be implemented to address any disturbance to the soils and covers.

Navy Response to EPA Comment No. 1: *Please see RIDEM input in May 5, 2014 email: The term "restricted residential" is not necessary. Section 3.68 of the RIDEM Remediation Regulations, Amended 2011, defines residential activity in part to include a recreational facility for public use. Thus, RIDEM recreational standards are the same as the residential standards by regulation.*

Please note that the referenced text provides a summary of the LUCs which are more completely defined in Section 2.12.2 (page 76). Navy suggests two changes:
Proposed language:
First, modifying the sentence in question to "Implementation of land use controls (LUCs) to ensure that future use of the NCA is limited to non-residential activities (also excluding recreational use as defined by RIDEM), disturbance of soil covers….
And, secondly, switching the order of the first two bullets in Section 2.12.2 "LUCs" and modifying the second bullet as follows:

- *Allow recreational uses within the existing Allen Harbor Boating Association (AHBA) marina that are consistent with marina activities.*
- *Prohibit expansion of residential use (which also excludes recreational use as defined by RIDEM) within the NCA.*

The last bullet of Section 1.4 will also be modified to include mention of the WMA, please see response to RIDEM Comment No 1.

EPA Comment No. 2: p. 11iop, § 1.5 Add at the end of the section the following paragraph:
"The selected remedy will reduce exposure levels to protective ARAR levels or , in the absence of protective ARAR levels, to within EPA's generally acceptable risk range of 10^{-4} to 10^{-6} for carcinogenic risk and below the HI of 1 for non-carcinogens in soil and groundwater, as outlined in Tables 2.4 & 2.5 {Soil and Groundwater Clean-Up Levels}."

Navy Response to EPA Comment No. 2: *Agree, however the EPA proposed text is from the ROD Guidance, Section 6.3.12 (1). Per the guidance, Section 1.5 is intended to be simple and concise. The Navy feels this text should appear in Section 2.13. Please see response to EPA Comment No. 17.*

EPA Comment No. 3: p. 21, § 2.4 2.4 **Scope and Role of Operable Unit**

Site 16 (OU9) is part of a comprehensive environmental investigation and cleanup program currently being performed at NCBC Davisville under CERCLA authority pursuant to the Federal Facility Agreement (FFA) dated March 23, 1992. IR Program cleanup activities are being performed under CERCLA. Sixteen IR sites have been identified at NCBC Davisville. RODs for "no further action" have been signed for Sites 05, 06, 08, 10, 11, 12, 13, 14, and 15 (OUs 2,3,4,5,&6). RODs were signed for Sites 07 (OU8) and 09 (OU1) in September 1999 and September 1997, respectively. To meet the requirements of the RODs for Sites 07(OU8) and 09 (OU1), periodic monitoring is being conducted in accordance with the LTM program for those sites. Study Areas 01 and 04 and Sites 02, 03 (OU7) and OU10 (QDC outfall) are in the Remedial Investigation (RI)/Feasibility Study (FS) process, and no remedial decisions have been made to date. These two OUs are located immediately northwest of Site 16 (OU9). Contamination detected at these and other sites has not impacted the Site 16 area.
Navy Response to EPA Comment No. 3: *Agree.*

EPA Comment No. 4: p. 50, ¶ 5 Correct the spelling of "Davisville."

Navy Response to Comment No. 4: *Agree.*

EPA Comment No. 5: p. 52, Table 2-7 In the LUCs text, change "Also LUCs would be implemented to ~~prevent~~ allow only restricted residential use of the marina area~~, allow for recreational use associated with the marina~~,"

Navy Response to EPA Comment No. 5: *Disagree. Please see response to EPA Comment No. 1.*

EPA Comment No. 6: p. 61, Table 2-9 In the first row, change "Sampling and analysis of the discharge water would be completed to ensure compliance with ~~the permit~~ ROD discharge standards.

Navy Response to EPA Comment No. 6: *Agree.*

EPA Comment No. 7: p. 63, ¶1 Change "LUCs would ~~prevent~~ allow only restricted residential uses of the NCA ~~/~~marina, to prevent disturbance of the soil cover. LUCs would prevent residential uses of the NCA ~~/marina~~.

Navy Response to EPA Comment No. 7*: Part 1: Please see response to EPA Comment No. 1. Part 2: Agree with the "prevent disturbance" language recommendation.*
Proposed language: The referenced sentence will be modified to read: …LUCs would prevent residential uses of the NCA/marina and disturbance of the soil cover.

EPA Comment No. 8: p. 61, §2.10 For the comparative analysis text for both soil and groundwater the No Action Alternatives need to be discussed for all of the NCP criteria, not just Protectiveness.

Navy Response to EPA Comment No. 8: *Disagree. The analysis presented is similar to that presented in other RODs. Since the "No Action Alternative" does not meet the threshold, further discussion of it is not necessary.*

EPA Comment No 9: p. 63, ¶3 Change "so RIDEM leachability criteria exceedances ~~do not need to be~~ are addressed ~~(i.e., do not have to be met)~~ by monitoring to ensure that contaminated groundwater does not migrate beyond~~. However, groundwater monitoring, conducted at~~ the WMA compliance boundary~~,~~. Monitoring will be used to assess if groundwater migrating beyond the compliance boundary presents an unacceptable risk to human or ecological receptors and, therefore, additional soil remediation may be necessary."

Navy Response to EPA Comment No. 9: *Agree.*

EPA Comment No. 10: p. 64, ¶5 Change "Alternative S-3A would meet the soil industrial cleanup levels and RIDEM I/C DECs in surface soil in the NCA, and ~~exposure to remaining contaminants that may leach from the soil into the groundwater would be addressed by the groundwater LUCs described in Section 2.12.2 which prohibit the use of groundwater for any use~~ meet the RIDEM soil leachability standards through monitoring to ensure soil contaminants do not migrate beyond the compliance boundary of the waste management area. Under Alternatives S-2, S-4, and S-6, COCs would be present in soil at concentrations greater than the cleanup levels in the NCA, but a cover and caps would eliminate the exposure pathways. Alternatives S-2, S-3, S-3A, S-4, S-5, and S-6 would meet ~~recreational~~ restricted residential use requirements in the vicinity of the marina building.

Navy Response to EPA Comment No. 10: *Agree with first part of comment (i.e., leachability issue). The first sentence will be modified as suggested. Disagree with suggested wording in the final sentence (i.e., the restricted residential issue). Please see Navy responses to EPA Comments No. 1 and 9.*

EPA Comment No. 11: p. 65, §2.10.2 Throughout the analysis of the groundwater tables it states that if soil alternative S-5 was chosen and the waste management area established that it would make no difference in any of the groundwater alternatives. It is unclear how this could be so since under the S-5 scenario groundwater cleanup standards need to be achieved throughout the Site and under the other soil alternatives groundwater cleanup standards never need to be achieved inside of the WMA compliance boundary. Please clarify the ROD language.

Navy Response to EPA Comment No. 11*: Should the first sentence of the EPA comment read as follows? "Throughout the analysis of the groundwater tables it states that if soil alternative S-5 was chosen and the waste management area* ***was not*** *established that it would make no difference in any of the groundwater alternatives." In any case, Navy respectfully disagrees with the comment. The presence/absence of the WMA only affects the comparative analysis of "short-term effectiveness" (the duration component) which is discussed on page 68. The "protectiveness" is not changed other than the need for LUCs, which are also discussed. "Compliance with ARARs", "Long-Term effectiveness/permanence", and "Treatment" are not changed. There is no effect on "Implementation".*
Note to reader: During the BCT teleconference, the EPA agreed that the comment could be withdrawn.

EPA Comment No. 12: p. 70, ¶2 Change: "This includes selective excavation and off-site disposal of shallow soil (to a depth of 0-2 feet bgs), maintaining and monitoring the protective cover, establishment of a WMA at the NCA and Marina…"

Navy Response to EPA Comment No. 12*: Agree. But, please note that the subject text is intended to be a general description of the remedy only. Also, subsurface debris was detected primarily in the southern portion of the marina area (Test Pits 1 and 2).*

EPA Comment No. 13: p. 70, § 2.12.2 In the last bullet change: "Prevent residential use of NCA and allow restricted residential use of the marina, prevent exposure to contaminated subsurface soil ~~by recreational users of~~ in the marina area,"

Navy Response to EPA Comment No. 13: *Disagree with changes to the first part of the sentence. However, the Navy agrees with the other recommendations. Please see response to EPA Comment No. 1.*
Proposed language: The referenced sentence will be modified to read: Prevent residential use of the NCA and marina, prevent exposure to contaminated subsurface soil in the marina area……

EPA Comment No. 13A, Un-numbered comment referring to page 76p. 76, ¶7 Change: "To prohibit residential uses throughout the NCA~~/marina~~area. Prohibited residential uses shall include, but are not limited to, any form of housing, child-care facilities, pre-schools, elementary schools, secondary schools, playgrounds, convalescent, or nursing care facilities. Allow ~~recreational~~ restricted residential uses within the ~~existing Allen Harbor Boating Association (AHBA)~~ marina area that ~~are consistent with marina activities~~ will not disturb components of the remedy (soil cover, monitoring wells)."

Navy Response to EPA Comment No. 13A: *Disagree with suggested deletions in the first part of the comment. Please see response to EPA Comment No. 1. However, agree with the "no disturbance" of the cover language recommendation.*
Proposed language: The referenced sentence (last bullet on page 76) will be modified to read: Allow recreational uses within the Allen Harbor Boating Association (AHBA) marina that are consistent with marina activities and will not disturb components of the remedy (soil cover, monitoring wells).

EPA Comment No. 14: p. 72, ¶2There needs to be a bullet that describes what LUCs will be established on property the Navy currently owns.

Navy Response to EPA Comment No. 14: *Please clarify this comment. Page 72 is Figure 2-10. The soil LUCs address the NCA/marina. The groundwater LUCs (groundwater and vapor intrusion) address the groundwater plume regardless of current land ownership.*

EPA Comment No. 15: p. 77, § 2.12.3 Expected Outcomes, Change as follows: ~~Groundwater at Site 16 is not used and is not expected to be used in the future~~. The current non-residential land use, which will be supported by the Selected Remedy, is expected to continue at Site 16. The primary expected outcome of the selected groundwater portion of the remedy is that the groundwater will be restored to its permissible, beneficial use and will no longer present an unacceptable risk to human health. The effectiveness of the groundwater remedy will be determined based upon attainment of the cleanup levels outlined in Table 2-5 as well as any additional site related Contaminants of Concern (COCs) added through subsequent decision documents. A monitoring program will be implemented in order to evaluate remedy performance and progress towards attainment. The details of the monitoring program will be established during the remedial design phase and will include the preparation of a long-term monitoring plan, but initial monitoring is expected to include evaluation of all site-related contaminants such as VOCs, SVOCs, & metals. Monitoring scope and frequency could change over time based on technical analysis of the remedy, optimization studies, revised conceptual site model, or other information as determined by the Navy with approval from EPA and RIDEM. The determination that all cleanup levels have been met should consider historical and current monitoring data, contaminant distribution, trend analysis, and the appropriateness of the compliance monitoring program. (i.e., locations, frequency of monitoring, sampling parameters.). There are no socio-economic, community revitalization, or economic impacts or benefits associated with implementation of the Selected Remedy. RAOs for Site 16 are

anticipated to be achieved within approximately 15 months for soil and 100 years for groundwater. Table 2-12 describes how the Selected Remedy mitigates risk and achieves RAOs for Site 16.

Navy Response to EPA Comment No. 15: *The current text is appropriate based on the requirements of the current ROD guidance. However, the Navy agrees with the addition of the following text, although the recommended text is not really describing "expected outcomes":*

The primary expected outcome of the selected groundwater portion of the remedy is that the groundwater will be restored to its permissible, beneficial use and will no longer present an unacceptable risk to human health. The effectiveness of the groundwater remedy will be determined based upon attainment of the cleanup levels outlined in Table 2-5 as well as any additional site related Contaminants of Concern (COCs) added through subsequent decision documents. A monitoring program will be implemented in order to evaluate remedy performance and progress towards attainment. The details of the monitoring program will be established during the remedial design phase and will include the preparation of a long-term monitoring plan. Monitoring scope and frequency would change over time based on technical analysis of the remedy, optimization studies, revised conceptual site model, or other information as determined by the Navy with approval from EPA and RIDEM. The determination that all cleanup levels have been met should consider historical and current monitoring data, contaminant distribution, trend analysis, and the appropriateness of the compliance monitoring program. (i.e., locations, frequency of monitoring, sampling parameters.).

EPA Comment No. 16: p. 79, Table 2-12 In the second and fifth rows change: "Groundwater monitoring will be performed to confirm that concentrations of COCs that may leach from the soil do not ~~reach~~ migrate beyond the compliance boundary into groundwater, sediment and surface water at concentrations that cause unacceptable risk.

Navy Response to EPA Comment No. 16: *Agree.*

EPA Comment No. 17: p. 79§2.13 **Statutory Determinations** The selected remedy will reduce exposure levels to protective ARAR levels or, in the absence of protective ARAR levels, to within EPA's generally acceptable risk range of 10^{-4} to 10^{-6} for carcinogenic risk and below the HI of 1 for non-carcinogens in soil and groundwater as outlined in Table 2-4 {Soil Cleanup Levels} and Table 2-5{Groundwater Clean-Up Levels} for the purposes of this CERCLA remediation. It should be noted that the groundwater remediation at this Site addresses contaminants related to the Site only. In accordance with the NCP, the Selected Remedy meets the following statutory determinations:

Navy Response to Comment No. 17: *(First sentence) Agree. The referenced text is derived from the ROD Guidance. However, the last sentence, regarding the site related contaminants, appears out-of-place. This section, Statutory Determinations, covers six subjects; the issue of site/non-site related contaminants is not one of them.*

EPA Comment No. 18: Table E-1, p. 4 For the Remediation Regulation Evaluation/Action to be Taken in the last paragraph change: "permit limited residential use…" In the Synopsis text remove "and leaching" after "direct contact;"

Navy Response to EPA Comment No. 18: *Disagree with language change regarding limited residential use. See response to EPA Comment No. 1. RIDEM does not agree with recommended wording. The text of the Synopsis section will be modified as suggested.*

EPA Comment No. 19: Table E-1, p. 5 For the Remediation Regulation Evaluation/Action to be Taken add as a new first sentence: "The remedy will ensure that soil contaminants exceeding these standards do not migrate past the compliance boundary for the waste management area."

Navy Response to EPA Comment No. 19: *Agree.*

EPA Comment No. 20: Table E-3, p. 2 the groundwater cleanup standards listed in Table E-4 (MCLs, *etc.) need to be added to Table E-3 as soil monitoring standards for the waste management area.*

Navy Response to EPA Comment No. 20: *Agree.*

EPA Comment No. 21: Table E-4 Where "PRGs" are cited in the Evaluation/Action to be Taken text change to "RGs."

Navy Response to EPA Comment No. 21: *Agree.*

EPA Comment No. 22: Table E-4, p.2 Add citation for the Safe Drinking Water Act, National Primary Drinking Water Regulations, Control of Copper and Lead / 40 C.F.R. 141, Subpart I / Relevant and Appropriate / The requirements of this subpart constitute the national primary drinking water regulations for lead and copper. Used as relevant and appropriate cleanup standards for aquifers and surface water bodies that are potential drinking water sources. / The lead standards in these regulations were considered in development of RGs and will be addressed through chemical oxidation, MNA, LUCs, and long-term monitoring. Since this alternative is paired with Alternative S-3A which manages waste in place, these standards will be used to establish RGs for groundwater outside of the WMA compliance *boundary (and used as Action-specific Performance Standards for inside of the compliance boundary).*

Navy Response to EPA Comment No. 22: *Agree. However, recommend referencing 40 CFR 141.80(c)(1) and (c)(2) – Lead and Copper Action Levels rather than the entire Subpart I. [Note: Dissolved lead and copper are less than the action levels.]*

EPA Comment No. 23: Table E-6, p. 2 For the Action to be Taken text for both the MCLs and MCLGs add a new last sentence: "LUCs will prevent consumption of groundwater that exceeds these standards."

Navy Response to EPA Comment No. 23: *Agree.*

EPA Comment No. 24: Table E-6, p. 3 Add citation for the Safe Drinking Water Act, National Primary Drinking Water Regulations, Control of Copper and Lead / 40 C.F.R. 141, Subpart I / Relevant and Appropriate / The requirements of this subpart constitute the national primary drinking water regulations for lead and copper. Used as relevant and appropriate standards for aquifers and surface water bodies that are potential drinking water sources. / Groundwater within the compliance boundary for any waste management area established for the soil component of the remedy will be monitored using these standards for lead to evaluate migration beyond the compliance boundary. Since this alternative is paired with Alternative S-3A which manages waste in place, then these standards will be used as Performance Standards for monitoring inside the compliance boundary for the waste management area. LUCs will prevent consumption of groundwater that exceeds these lead standards."

Navy Response to EPA Comment No 24: *Agree. However, please see response to EPA Comment No. 22.*

Navy Response to
RIDEM Comments on
The Site 16 Draft Final Record of Decision Dated March 26, 2014
Former Naval Construction Battalion Center (NCBC) Davisville
Davisville, Rhode Island
(RIDEM Correspondence Dated April 22, 2014)

RIDEM Comment No. 1: Page 8, Section 1.4 Description of Selected Remedy – There is no mention of the Waste Management Area which is a major part of the remedy.

Navy Response to RIDEM Comment No 1: *Agree. This omission will be corrected in Sections 1.4 and 2.12.2.*

Proposed Text, Section 1.4: The last bullet (on page 11) will be modified to "Implementation of land use controls (LUCs), including establishment of a waste management area (WMA) in the NCA/marina to ensure that future use of....
Proposed Text Section 2.12.2: The third bullet (on page 77) will be modified to "Establish a WMA to control excavation/disturbance of contaminated surface and subsurface..."

RIDEM Comment No. 2: Page 70, Section 2.12.2, Description of Selected Remedy, Arrows 2 and 4 – Both these arrows end with "near the marina". Please change to "in the portion of the marina which is within the boundary of Site 16." The proposed excavation is in the marina, not near the marina. This is highlighted by the discussion on page 71 which notes some concerns with excavation operations at Building E-107 which is clearly the marina.
Navy Response to RIDEM Comment No 2: *Agree. The wording in both arrows will be changed as requested.*

RIDEM Comment No. 3: Page 77, Section 2.12.2, Description of Selected Remedy, LUCs, 2nd Bullet- Please change "To prohibit disturbance of the cover on the NCA and in the vicinity of the marina" to "To prohibit disturbance of the cover on the NCA and marina, within Site 16 boundaries, without approval from Navy, USEPA and RIDEM.
Navy Response to RIDEM Comment No 3: *Agree. The wording will be changed as requested.*