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NSB NEW LONDON  
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LETTER AND COMMENTS FROM U S EPA REGION I REGARDING DRAFT THIRD FIVE  
YEAR REVIEW REPORT NSB NEW LONDON CT (PUBLIC DOCUMENT)

09/14/2011

U S EPA REGION I



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I

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

September 14, 2011

Mr. Dominic O'Connor  
Remedial Project Manger  
Environmental Restoration  
NAVFAC MIDLANT OPNEEV  
Bldg. Z-144  
9742 Maryland Avenue  
Norfolk, VA 23511-3095

Re: Draft Third Five-Year Review Report for CERCLA Sites at Naval Submarine Base New London

Dear Mr. O'Connor:

Thank you for the opportunity to review the Draft Third *Five-Year Review Report* for CERCLA Sites at Naval Submarine Base New London, Groton, Connecticut, dated August 2011 (Five-Year Review). This document summarizes the background and current status of all the CERCLA sites at the facility, summarizes the findings of the third five-year inspection for each site, and provides recommendations and conclusions for each site. Detailed comments are provided in Attachment A.

Add Appendix E to present the *Commander, Navy Region, Mid-Atlantic Instruction 5090.2, Installation Restoration; Land Use Controls at Navy Region, Mid-Atlantic Installations; Establishment and Maintenance*. This document is apparently also pertinent to land use controls at the Naval Submarine Base New London.

Please investigate the need to update all warning signs for all sites and add that to the recommendations as appropriate.

Several breaches of Navy's New London Instruction have occurred during this review period calling into question Navy's ability to properly manage the sites with this document and the associated procedures. It is evident that additional action is required on the part of Navy to better enforce the site use restrictions. Navy needs to develop and provide action items that it will implement to better ensure that these breaches will be less likely to occur in the future. Formal personnel training may be one of them. In addition, LUC documents should specify the chain of command between NAVFAC and NSB-NLON, including relevant contact information, so that oversight and enforcement of LUCs is clear to all base personnel. Further, more frequent LUC compliance monitoring may be warranted than the currently required annual reporting. A timetable for presentation of these action items must be established.

I look forward to working with you and the CTDEEP to protect the environs of the Naval Submarine Base. Please do not hesitate to contact me at (617) 918-1385 should you have any questions.

Sincerely,

Kymerlee Keckler, Remedial Project Manager  
Federal Facilities Superfund Section

Attachment

cc: Mark Lewis, CTDEEP, Hartford, CT

## ATTACHMENT A

<u>Page</u>	<u>Comment</u>
pp. iv to vii	Please identify the Operable Unit number for each site discussed.
p. iv, ¶2	Please describe the status of the LUCs (Base Instruction and LUC RD) for the entire wetland.
p. iv ¶3	Please describe the status of the LUCs (Base Instruction and LUC RD) for the landfill. Discuss compliance with them in the text.
p. v, ¶4	Please cite the CERCLA decision documents for Sites 23 and 9.
p. v	Please discuss the protectiveness of the remedy for OU 9.
p. vi, ¶2	Please list the corresponding site names and OUs .
p. vi, ¶¶3&6	Please describe what “enforcement” is anticipated. How did the past violations occur and what specific changes will be made to prevent future violations? When the LUC RD is completed, will it rely on the base instruction as a component of the LUC?
p. vii, ¶3	Please describe the CERCLA decision documents that addresses the area.
p. vii	Please add a discussion of OU9 in this Recommendations and Follow-up section.
p. vii, ¶4	Describe whether the monitoring data show contaminant trends that are decreasing as required in the OU9 ROD?  The fifth sentence is the first mention of OU9 in the text. As previously noted, the preceding section needs to discuss OU9 (monitoring results, condition of monitoring infrastructure, compliance with LUCs, <i>etc.</i> ).
p. 1-1, ¶3	Please identify the Sites by Operable Unit also.
p. 1-2, ¶2	Add citations for CERCLA “, 42 U.S.C. §9601 <i>et seq.</i> ” and for the NCP “40 C.F.R. Part 300.”
p. 1-6, 7 <sup>th</sup> Bullet	Describe the status of the soil at Site 23.

- p. 1-6, ¶3 In the second sentence, change “as recommended in” to “as required by.”  
In the sixth sentence, change “recommending NFA” to “requiring NFA.”  
In the eighth sentence, change “recommended NFA” to “required NFA.”
- p. 1-7, §1.3 Please include the correct NSB-NLON contact.
- p. 1-8, §1.4 In this section the Operable Unit numbers need to be identified as well as the Site since the RODs are identified by both. Please also briefly discuss ARAR compliance (or reference the section where it is discussed).
- p. 1-10, ¶4 At Site 8, have there been any changes to groundwater monitoring standards (CT Remediation Regs) since the ROD? Violations of ARAR LUC requirements occurred at this Site/OU.
- p. 1-10, ¶6 Sites 9 and 23 require a CERCLA decision document.
- Table 1-1 Identify the Operable Unit for each Site.
- p. 2-1, ¶3 Note that the OU 12 ROD requires LUCs to prevent unrestricted exposure throughout the entire wetland.
- p. 2-23, §2.5.3.1 The requirement to comply with the federal executive orders regarding the protection of wetland and floodplain are now incorporated into 44 C.F.R. Part 9. However, the ARAR would not actually be changed unless the Navy were issuing a new decision document for the OU. The last sentence should be modified because Executive Orders, by themselves are not ARARs.
- p. 2-29, 2<sup>nd</sup> bullet Discuss in detail what measures will be taken to prevent future violations of the LUCs. Citing the LUC RD is not sufficient because the draft LUC RD does not address increasing enforcement or taking other measures to prevent violations. Potential measures could include a requirement for more frequent LUC compliance monitoring, better training for base personnel, penalties against personnel who violate LUCs, creating LUC documents that specify the chain of command between NAVFAC and NSB-NLON (with contact information included, so that oversight and enforcement of LUCs is clear to all base personnel), or other measures.
- Table 2-7 As noted previously the Executive Order cannot be an ARAR by itself. Future CERCLA decision documents should cite 44 C.F.R. Part 9.
- Table 2-9 a) Please correct the selected criterion for cadmium for 2006. It is not clear where the 0.25 value originated unless it should instead be 0.125.  
  
b) Please clarify the selected criterion entry for chromium for 2006. Is a footnote missing that clarifies that these are trivalent and hexavalent values?

- Table 2-10                      Revise table to be consistent with the text and previous tables.
- Figure 2-3                      Since this figure shows exceedances of monitoring standards downgradient from the toe of the landfill, explain the basis for stating that the remedy is protective.
- p. 3-14, ¶1                      Clarify the discussion in this paragraph. The OU9 ROD can only base CERCLA cleanup standards on the GB classification. Monitoring and institutional controls are required as long as a CERCLA risk is present. Once GB standards are achieved no further action is needed under CERCLA to address groundwater risk. However, because some waste is capped in place as part of OU3, some long-term groundwater monitoring is required to assess the long-term protectiveness of that component of the remedy even after GB standards are achieved elsewhere within the OU. LUCs are required to prevent the groundwater from being used as drinking water.
- p. 3-17, §3.3.3.2              Please correct the year in the first sentence to 2011.
- p. 3-21, ¶2                      As noted previously the Executive Order cannot be an ARAR by itself. Future CERCLA decision documents should cite 44 C.F.R. Part 9. This comment applies anywhere in the text where a Executive Order is cited.
- Note that for the upstream Site 2B ROD wetland remediation, federal standards requiring that federal agencies control undesirable plants, 7 U.S.C. 2814 (including *Phragmites*), as well as CT statutes and guidance concerning the control of invasive species were included as ARARs. To control *Phragmites* and other invasives throughout the Area A wetland system, active invasive species control must be maintained in the restored Site 3 wetlands.
- p. 3-23, 1<sup>st</sup> bullet              As part of Protectiveness requirement, the Navy needs to comply with Executive Orders, including Executive Order 13112 Invasive Species (64 Fed. Reg. 6183, Feb. 8, 1999) that requires federal agencies, to the extent practicable: “(i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded;...” So the Navy should continue to monitor the restoration of the wetland to ensure that invasive species do not become established.
- Please delete the last sentence concerning groundwater natural attenuation.
- p. 3-24, 1<sup>st</sup> bullet              Clarify the discussion in this paragraph: The OU9 ROD can only base CERCLA cleanup standards on the State’s GB classification. Monitoring and institutional controls are required as long as a CERCLA risk is

present. Once GB standards are achieved, no further action is needed under CERCLA to address groundwater risk. However, because some waste is capped in place as part of OU3, some long-term groundwater monitoring is required to assess the long-term protectiveness of that component of the remedy even after GB standards are achieved elsewhere within the OU. LUCs are required to prevent the groundwater from being used as drinking water.

- p. 3-26, 1<sup>st</sup> bullet In the last sentence , delete “the degradation and potential migration of.”
- p. 3-26, §3.8 Add the following recommendation: Continue monitoring the restored wetland to ensure that invasive species do not become established.
- Table 3-6 As noted previously the Executive Order cannot be an ARAR by itself. Future CERCLA decision document should cite 44 C.F.R. Part 9.
- p. 4-11, 6<sup>th</sup> bullet If the site is used for yacht club parking for a private entity then the LUCs for the Site need to be incorporated into the lease (unless the Navy transfers the parcel, in which case the LUCs need to be incorporated into the deed).
- Table 4-4 As noted previously the Executive Order cannot be an ARAR by itself. Future CERCLA decision documents should cite 44 C.F.R. Part 9.
- p. 6-14, 1<sup>st</sup> bullet Address violation of LUCs from installation of the AST, pad and piping. Describe in detail what measures will be taken to prevent future violations of the LUCs. Measures could include more frequent LUC compliance monitoring, better training for base personnel, penalties against personnel who violate LUCs, creating LUC documents that specify the chain of command between NAVFAC and NSB-NLON (with contact information included, so that oversight and enforcement of LUCs is clear), or other measures.
- p. 6-16, §6.5.2.1 Please correct the penultimate sentence which appears to contradict itself.
- p. 6-17, §6.5.3 Discuss how the installation of the AST and violations of the Site’s LUC is also a violation of the remedy’s action-specific ARARs .
- p. 6-23, 1<sup>st</sup> bullet See previous comments regarding measures needed to create enforceable LUCs.
- p. 6-24, §6.8 Address violation of LUCs from installation of the AST, pad and piping . Describe what measures will be taken to prevent future violations of the LUCs. Potential measures could include requirement for more frequent LUC compliance monitoring, better training for base personnel, penalties against personnel who violate LUCs, creating LUC documents that specify the chain of command between NAVFAC and NSB-NLON (with contact

information included, so that oversight and enforcement of LUCs is clear), or other measures.

- Table 6-3 a) Figure 6-6 and the text on page 6-16 indicate that exceedances of the beryllium criterion occurred in 2008 but no exceedances are indicated in this table. There is no exceedance for beryllium in Table 6-4. Please correct.
- b) This table shows an “S” for lead in 2007. Please add “S” to the table notes.
- Table 6-4 This table shows an “S” for mercury in 2010. Please add “S” to the table notes.
- Table 6-6 As noted previously, the Executive Order cannot be an ARAR by itself. Future CERCLA decision document should cite 44 C.F.R. Part 9. This comment applies to all location-specific ARARs tables where the Executive Order appears.
- Table 6-9 The missing well cover bolts are said to constitute a future potential protectiveness risk but in other tables in this document this condition is said to not constitute a potential protectiveness risk. Please make the comments consistent.
- Figure 6-1 a) Three of the well symbols used in the Legend do not exactly match the symbols shown on the plan. Please correct.
- b) The arrow for the unapproved trees growing on the landfill cap is pointing to the pavement. Please provide the correct location.
- Figure 6-2 The abandoned well symbol in the Legend does not match the symbol on the plan. Please correct.
- p. 7-3, §7.3 A CERCLA decision document is needed for OT-5. Did the removal of the PCB contaminated bottom sludge address all site risks? How was that documented? Was there any release of PCBs or other sludge contaminants from the tank(s)? What is the source of contaminants in the groundwater?
- Since the groundwater is classified as GB, there only is a CERCLA remedial action for groundwater under the OU9 ROD if groundwater at Site 9 and 23 exceed GB standards. It is not clear what the basis for CERCLA ICs are since the groundwater is classified as GB.
- p. 7-5, 1<sup>st</sup> bullet If soil contamination from CERCLA contaminants are left on site exceeding unlimited use (residential standards) after the completion of the UST cleanup, a CERCLA decision document for soil is required.
- p. 7-7, §7.6 Regarding the first bullet, even if the tank was properly closed under the

UST Program, if contamination (by CERCLA contaminants) was left behind that requires an LUC to prevent disturbance of the soil or residential use, there needs to be a CERCLA decision document.

- p. 7-7, 6<sup>th</sup> bullet If CERCLA contaminants were left on-site after the UST removal action that exceed residential risk levels then ARARs for the long-term monitoring and LUCs need to be identified in a CERCLA decision document.
- p. 15-1, §15.0 The Site 9 comments, above, also apply to Site 23.
- p. 18-1, §18.0 Incorporate all of the comments made previously on the text and tables in this section.
- p. 18-2, §18.2
- a) Add a bullet to require updating of the New London Instruction 5090.25 as appropriate to include new sites and to strengthen the document to avoid the breaches of the instruction that have occurred during this review period. It appears that, as an example, personnel training requirements need to be added and enforced. This document as it currently exists is not working well enough.
  - b) The Navy is now developing (or has developed) LUC RDs for some sites. Please clarify if the intent is to begin managing sites with the LUC RD in lieu of the New London Instruction 5090.25 or if the New London Instruction will incorporate the LUC RDs as they are developed. If several LUC RDs are developed in addition to the New London Instruction, then the Navy will have to disseminate several documents to ensure that the proper instructions are available to appropriate personnel. Please clarify the intended interconnection between the LUC RDs and the New London Instruction. Note also that the LUC RDs are reactive as they do not impose pre-conditions as the New London Instruction does, but call for inspections to determine if a problem has been created.
  - c) The last bullet does not specifically mention the Pier 1 sediment and Zone 4 sediment sites that are not apparently a component of any of the mentioned sites. These two sites have not apparently been formally assigned site numbers. Please also mention them in Section 18.2.1.
- Table 18-1 It is not apparent why Site 18 should be “NO” for “Discontinue Five-Year Reviews.” Other listed sites with NFA Decisions in place have “YES” for “Discontinue Five-Year Reviews.” Please correct.
- Appendix C.1
- a) p. 625/702: box is checked stating that the site map is attached (to checklist), but it is not attached.
  - b) p. 627/702: For III.1 please supplement the remarks to indicate where the O&M Manual, as-built drawings, and maintenance logs are kept to confirm they are readily available. Did the inspectors review at the

maintenance logs to confirm that they are current?

c) p. 627/702: For III.7 please supplement the remarks to indicate where the groundwater monitoring records are kept to confirm they are readily available. Did the inspectors review the groundwater monitoring records to confirm that they are current?

Appendix C.2

p. 638/702: box is checked stating that the site map is attached (to checklist), but it is not attached.

Appendix C.3

a) p. 649/702: box is checked stating that the site map is attached (to checklist), but it is not attached.

b) p. 651/702: For III.1 please indicate where the O&M Manual, as-built drawings, and maintenance logs are kept to demonstrate that they are readily available. Did the inspectors review the maintenance logs to confirm that they are current?

c) p. 651/702: For III.7 please indicate where the groundwater monitoring records are kept to demonstrate that they are readily available. Did the inspectors review the groundwater monitoring records to confirm that they are current?

Appendix C.4

a) p. 660/702: box is checked stating that the site map is attached (to checklist), but it is not attached.

b) p. 662/702: For III.1 please indicate where the O&M Manual, as-built drawings, and maintenance logs are kept to demonstrate that they are readily available. Did the inspectors review the maintenance logs to confirm that they are current?

c) p. 662/702: For III.7 please supplement the remarks to indicate where the groundwater monitoring records are kept to demonstrate that they are readily available. Did the inspectors review the groundwater monitoring records to confirm that they are current?

Appendix C.5

a) p. 672/702: box is checked stating that the site map is attached (to checklist), but it is not attached.

b) p. 674/702: For III.1 please supplement the remarks to indicate where the O&M Manual, as-built drawings, and maintenance logs are kept to demonstrate that they are readily available. Did the review the maintenance logs to confirm that they are current?

c) p. 674/702: For III.7 please supplement the remarks to indicate where the groundwater monitoring records are kept to demonstrate that they are readily available. Did the inspectors review the groundwater monitoring records to confirm that they are current?

d) p. 676/702: C.2: Clearly, the institutional controls are inadequate when such a significant breach of the New London Instruction can occur.

#### Appendix C.6

This checklist could greatly benefit from rewording the questions so that all the answers in each section are consistent. When a deviation is noted, it will therefore more clearly stand out. Please reword the questions under the Inspection Questionnaire section so that all answers are NO unless a deviation has occurred.