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U S NAVY RESPONSES TO U S EPA REGION I COMMENTS ON THE DRAFT FOCUSED
FEASIBILITY STUDY FOR SITE 7 FORMER SEWAGE TREATMENT PLANT NAS SOUTH
WEYMOUTH MA
7/21/2015
NAVFAC MID ATLANTIC

**JULY 21, 2015 RESPONSE TO UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS DATED JUNE 2015 (TRANSMITTED JULY 2, 2015) FOR THE DRAFT FOCUSED FEASIBILITY STUDY; SITE 7, FORMER SEWAGE TREATMENT PLANT DATED JUNE 8, 2015
FORMER NAVAL AIR STATION SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS**

Note that where the comment response provides revised text, original text is shown in italics, text additions are shown in bold italics, and deleted text is shown as strikethrough.

GENERAL COMMENTS:

1. **Comment:** The reference to the "2014-2015 remedial action" is confusing and misleading. The document should be amended to more clearly indicate that this most recent field effort was a continuation of remedial activities that began in 2009 (and not a separate "remedial action").

Response: The Navy will revise the document to clearly indicate that the 2009 and 2014-2015 events were separate mobilizations of the same remedial action as discussed during the July 7, 2015 meeting between the EPA, MassDEP, and the Navy.

2. **Comment:** The ROD Amendment must include any and all changes/revisions/amendments to the remedy as set forth in the 2008 ROD. These include, but may not be limited to, the list of COCs, PRGs, and site feature (i.e., wetland, extent of contamination, etc.) boundaries.

Response: The Navy intends to document all changes to the remedy presented in the 2008 ROD in the Rod Amendment.

3. **Comment:** Contrary to statements made throughout the draft document, the 2008 ROD required additional groundwater and sediment characterization activities prior to, and following implementation of the soil and sediment remedy, to verify that groundwater and surface water were not media of concern for the Site. (Groundwater and sediment were not outright dismissed as a potential media of concern as suggested by the current text.) EPA believes that annual groundwater and sediment monitoring should be included in the limited action alternative to verify that "impacted subsurface soils remaining at depth" do not affect groundwater and confirm that post-remediation COC concentrations do not rebound in Site sediment (see 2008 ROD, Pages 18 and 19 of 56, Section X, Paragraph C).

Response: The Navy plans to implement the remedy as described in the ROD, which includes a provision for pre and post remedy sampling for groundwater, post remedy sampling for sediment, and pre remedy sampling for surface water to verify that both surface water and groundwater were not media of concern. The Navy completed the pre sampling event for surface water and groundwater and presented the results in the 2009 Pre Design Investigation Report. The report concluded that surface water was not a media of concern. The Navy will complete the post remedy groundwater sampling event and the post remedy sediment monitoring event as described in the 2008 ROD. In addition to this, the Navy will incorporate a long term monitoring component into Alternative 2 that will include three annual groundwater and sediment sampling events to verify that groundwater and sediment do not become impacted from the disturbances caused by the implementation of the remedy. This approach was agreed upon by the EPA, MassDEP and the Navy during the July 7, 2015 Project Manager meeting.

PAGE-SPECIFIC COMMENTS:

4. **Comment:** Page 7, Section 1.5, Record of Decision, ¶ 3 – Since it laid the foundation for all investigatory and remedial activities performed to date, the ROD description should be brief, but thorough. As such, please delete the current text and replace it with the following: “The ROD set forth the selected remedy for the Site and included the following components: (1) a pre-design investigation (PDI) (to further delineate the types and extents of COCs (i.e. arsenic, 4,4'-DDT, dieldrin, benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene in surface soils and arsenic, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, and potentially methyl mercury in sediments)), (2) excavation of contaminated soil and sediment (containing COC concentrations exceeding preliminary remediation goals (PRGs)), (3) off-site disposal or recycling by asphalt batching, (4) a tiered monitoring program (to verify that post-remediation COC concentrations do not rebound in sediment) and (5) pre- and post-remediation groundwater monitoring (to confirm that groundwater is not a medium of concern). Since the ROD assumed that that the Site would be remediated to levels that would render the Site suitable for unrestricted use and unlimited exposure (because residual risks for current and future use scenarios would be within acceptable ranges), no groundwater and land use restrictions, or five-year reviews were required. (The remedy was subsequently modified in 2010, as described in an Explanation of Significant Differences (ESD), to permit use of the excavated materials from the Site as subgrade fill in the construction of the West Gate Landfill cover system.)”

Response: Requested change will be made.

5. **Comment:** Page 7, Section 1.5, PDI, ¶ 4 – Please add the following to the end of the paragraph, “The PDI field activities were completed in February 2008; the final PDI Report was issued in February 2009 (LFR, 2009).”

Response: Requested change will be made.

6. **Comment:** Page 7, Section 1.5, Remedial Action, ¶ 5 – This discussion should be expanded to more fully describe the results of the post-excavation, confirmatory sampling performed and the decision to conduct a supplemental PDI. Specifically, please amend the first sentence to read, “Based on results of the PDI, a remedial design was completed and the RA was implemented in 2009 to address COCs in surface soil and sediment in accordance with the 2008 ROD.” In addition, please insert the following text at the end of the paragraph “Confirmatory sampling results revealed COC contamination beyond the planned limits of excavation and a supplemental PDI effort was recommended to address data gaps and further delineate the extent of soil contamination.”

Response: The Navy will revise the document to reflect this change as shown below.

Based on results of the PDI, a remedial design was completed and the RA was implemented in 2009 to address COCs in surface soil and sediment in accordance with the 2008 ROD. The PDI scope of work was presented in the Final Remedial Action Work Plan for Soil Excavation at Site 7, Former Sewage Treatment Plant Location, (TtEC 2009). ~~The RA was conducted to reduce the levels of the contaminants of concern in surface soil and sediment to below the RGs per the selected remedy identified in the ROD (Navy 2008). Following removal of the impacted material, confirmatory samples were collected to document the remaining levels of the contaminants of concern. Confirmatory sampling results revealed COC contamination beyond the planned limits of excavation and a supplemental PDI effort was recommended to address data gaps and further delineate the extent of soil~~

contamination. The work completed during the 2009 mobilization was summarized in the Interim Remedial Action Completion Report for Soil Excavation at Site 7, Former Sewage Treatment Plant Location (TtEC 2011).

7. **Comment:** Page 7, Section 1.5, Remedial Action, ¶ 6 – Please delete this paragraph. It is confusing and unnecessary.

Response: Requested change will be made.

8. **Comment:** Page 7, Section 1.5, PDI, ¶ 7 – EPA recommends that the entire paragraph be revised to more accurately describe the intent and findings of the supplemental field effort. Specifically, please replace the current text with the following: “The Final Supplemental PDI Project Report was issued in May 2012 that presented results of the field effort performed in April and May 2011. Based on the findings, the list of COCs, media of concern, and exposure scenarios had to be expanded from those originally identified in the ROD. A human health risk screening evaluation was performed, consistent with the process used for risk screenings previously completed for other sites at the former NAS South Weymouth, to support the selection of COCs and development of PRGs. Based on results of the risk screening (that identified potential health impacts for a hypothetical resident or industrial worker at the Site), additional CERCLA actions such as focused excavation or institutional controls were recommended.”

Response: Requested change will be made.

9. **Comment:** Page 8, Section 1.5, Test Pit Report and Additional RA, ¶s 2 and 3 – Please expand these paragraphs to include a more thorough description of the activities associated with each of the these efforts.

Response: The Navy will revise the document to add additional information as presented below.

Test Pit Report

*A test pit investigation was completed to investigate former STP **subgrade** structures. The investigation **consisted of the advancement of 11 test pits that targeted piping, connections, vaults, trickling filters, and tanks of the former sewage treatment system.** The investigation identified impacted piping and structures with elevated concentrations of arsenic and polycyclic aromatic hydrocarbon (PAHs). **The test pit report recommended that additional pipes be removed and that chambers that contain elevated levels of Arsenic, along with material in the Former Primary Settling Tanks be removed or cleaned.***

Remedial Action

~~Additional~~ 2014-2015 RA Mobilization, TtEC 2015. The Navy recently completed implementation of ~~an additional~~ **the 2014-2015 mobilization of the** remedial action that included additional excavation of impacted surface soil unsaturated subsurface soil, structures, **and piping in the previously remediated upland area; excavation of headwall soils and piping;** and sediment **within the wetland and the drainage ditch.** The scope of the 2014-2015 ~~remedial action~~ **mobilization** was detailed in the *Final Addendum to Remedial Action Work Plan, Soil Excavation at Site 7 Former STP Location (TtEC 2014b)* and ~~included removal of surface soil impacted COCs at concentrations above PRGs.~~ This work will be summarized in a forthcoming RACR.

10. Comment: Page 11, Section 2.2, ¶ 1 – Because they were not identified as COCs in the 2008 ROD, the ROD Amendment must officially add them to the adds the following contaminants to the list of COCs identified at the site and evaluated in the human health risk evaluation:

- Benzo(k)fluoranthene
- Dibenz(a,h)anthracene
- Aroclor 1016 (the single PCB detection in surface water was considered “an isolated, non-representative result of actual Site conditions” and were therefore not considered COCs in soils and sediments*)
- Aroclor 1260*

Response: The Navy intends to include these COCs in the ROD Amendment.

11. Comment: Page 13, Section 2.3, last ¶ - This discussion seems to contradict text in Table 2-2 and on page 14 of the 2008 ROD, the latter of which states, “The baseline ERA revealed that birds and mammals potentially exposed to COCs in surface soil via ingestion of soil and prey may present an ecological risk based on elevated HQs; and that birds and mammals potentially exposed to COCs in sediment via ingestion of sediment and prey may present an ecological risk based on elevated HQs.” Please amend.

Response: This paragraph in question is taken directly from the 2008 ROD and can be found on page 13, last paragraph of Section VII Subpart B. This paragraph is in agreement with Table 2-2 which does not list 4’4-DDE, dieldrin, or arsenic as ecological chemicals of concern. They were identified as ecological chemicals of concern in sediment, however. Because these chemicals were not determined as ecological chemicals of concern in soil, the statement on page 14 of the 2008 ROD is in agreement with the paragraph in question.

12. Comment: Page 14, Section 2.3, ¶ 3 – Please amend the text to reflect the fact that the 2008 ROD required additional groundwater and sediment characterization activities prior to, and following implementation of the soil and sediment remedy, to verify that groundwater and sediment were not (and don’t continue to be) media of concern for the Site. (Groundwater and sediment were not outright dismissed as a potential media of concern as suggested by the current text.)

Response: The Navy understands that this comment is referring to Section 2.4. Sediment was identified as media of concern. The ROD included a provision for annual monitoring to ensure COC concentrations do not rebound in sediment, post remedy. The Navy will revise the paragraph as presented below.

Groundwater and surface water were studied during previous investigations and were determined to not be media of concern. This determination was documented in the 2008 ROD, which included a provision for pre and post remedy sampling of groundwater and pre-remedy sampling of surface water to confirm that groundwater and surface water are not media of concern. The ROD also included a provision for post remedy sediment monitoring to verify that post remediation COC concentrations do not rebound in Site sediment. The Navy completed the pre remedy surface water sampling event which confirmed that surface water was not a media of concern. Results were presented in the 2009 PDI Report (LFR, 2009). The Navy is currently planning long term monitoring requirements for the Site which will include the post remedy groundwater and sediment sampling.

13. Comment: Page 17, Section 3.4, ¶ 2 – For reasons previously discussed, groundwater and sediment were not dismissed as media of concern in the 2008 ROD. The ROD required that groundwater and sediment be evaluated during remedy implementation to verify that they were not media of concern. The FFS should be revised to either explain why they should not be monitored moving forward or amended to include future groundwater and sediment monitoring.

Response: Based on the response to Comment 3, 12 and 13, the document will be revised as follows:

Groundwater and surface water were not identified as media of concern in the 2008 ROD; however the ROD included a provision for pre and post remedy sampling of groundwater and pre remedy sampling of surface water to confirm that groundwater and surface water are not media of concern. The ROD also included a provision for post remedy sediment monitoring to verify that post remediation COC concentrations do not rebound in Site sediment. The Navy completed the pre remedy surface water sampling event which confirmed that surface water was not a media of concern. Results were presented in the 2009 PDI Report (LFR, 2009). The Navy is currently planning long term monitoring requirements for the Site which will include the post remedy groundwater and sediment sampling.

14. Comment: Page 20, Section 4.1, Page 21, Section 4.2.1, Limited Action, Page 23, Table 23, and Page 24, Section 5.0 – Based on the resolution of earlier comments regarding additional media of concern, the sections will need to be amended to include annual groundwater and surface water monitoring.

Response: The Navy will revise the document to incorporate the annual groundwater and sediment sampling as described in Comment 3 and 13.

JULY 21, 2015 RESPONSE TO MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MassDEP) COMMENTS DATED JULY 2, 2015 FOR THE DRAFT FOCUSED FEASIBILITY STUDY; SITE 7, FORMER SEWAGE TREATMENT PLANT DATED JUNE 8, 2015 FORMER NAVAL AIR STATION SOUTH WEYMOUTH WEYMOUTH, MASSACHUSETTS

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MassDEP COMMENTS:

1. Comment: Section 1.1: MassDEP cannot complete a review of this report until the *Remedial Action Completion Report*, which will summarize the results from the on-going remedial action, is submitted, reviewed, and approved; consequently, all comments provided here are preliminary and subject to revision.

Response: Comment noted.

2. **Comment:** Section 2.4: In addition to the potential contaminant sources identified here, the report should note that structural drawings indicate that a fuel oil UST once located in Building 87 is also a potential source of the PAHs released at the site. The Navy has not located records documenting an acceptable closeout.

Response: Section 2.4, Paragraph 7 will be revised as follows:

*Regarding specific sources of PAHs (and possibly arsenic and pesticides), it is possible that routine urban run-off from adjacent and upstream areas contributed to their presence in surficial media (specifically drainage channels) at the STP. **In addition, structural drawings indicate that an underground storage tank was located in Building 87 that possibly contained fuel oil. This could potentially be a source of the PAH contamination.***

3. **Comment:** Section 3.4: Because remaining site contamination may be attributable to a fuel oil release (refer to previous comment), indoor air is a potential medium of concern in the upland area. Accordingly, Remedial Alternatives 2 and 3 should include a site screening component (e.g., soil gas or groundwater sampling) to assess this potential pathway, or include restrictions that would require on-site buildings be designed and constructed to prevent vapor intrusion.

Response: Consistent with what was discussed during the July 7, 2015 meeting between the EPA, MassDEP, and the Navy, and the MassDEP's follow up email dated July 9, 2015, the Navy will complete groundwater sampling in the upland area as part of the post remedy groundwater sampling event to assess the potential pathway. The Navy does not believe that this should apply for Alternative 3, as all impacted soils would be excavated as part of the Alternative 3 remedy.

4. **Comment:** Section 3.5, Second and Fourth Paragraphs: The cited quantities of soil appear to be inconsistent with the quantities listed in Table 2.

Response: The Navy will adjust the text to match the correct values in the table.

5. **Comment:** Section 3.5, Third Paragraph: Sample "SB-A15" should be corrected Sample "SB-15A".

Response: The Navy will revise the document to read SB-15A.

6. **Comment:** Section 5.1.2, First Bullet: Because construction in the upland area would breach and alter the existing ground surface, the use of the existing soil cover as a barrier to prevent exposure to deeper impacted soil appears to be inconsistent with the assumed future use of the upland portion of the site property (commercial). The report should be clarified to describe the conditions under which soil in the upland area between 0 and 9 feet below grade could be disturbed or altered to allow construction and occupation.

Response: The existing soil cover will be effective in preventing exposure to impacted deeper soil under current conditions. Impacted soils are located at 11 feet bgs. Under the future use scenario, should development occur on the property, the soil cover from 0-9 feet bgs would allow work to be completed in this horizon without restriction (pending the results of the groundwater post remedy sampling/soil gas screening). This would provide a minimum 2 foot buffer between the unrestricted horizon and the impacted soils. To account for potential changes to ground surface, the Land Use Control Implementation Plan (LUCIP) will tie this depth to an elevation referenced by a survey datum. If work were to occur below 9 feet, the work would need to be completed in accordance with a soil management plan (See response to Comment 7), which would require a buffer be maintained above the impacted soil.

7. **Comment:** Section 5.1.2, Second Bullet: The report should identify the party(ies) who would be responsible for developing, approving, and overseeing implementation of the soil management plan.

Response: The Navy's will revise the document to identify that the future property owner would be responsible for completing a soil management plan if development were to occur on the property. The management plan will require approval from the Navy, EPA, and MassDEP.

8. **Comment:** Section 5.2: To ensure that the LUCs can be enforced by MassDEP, the restrictions should also be imposed using the recently developed CERCLA Notice of Activity Use Limitation form.

Response: The Navy will specify the use of the CERCLA Notice of Activity Use Limitation in the *Land Use Control Implementation Plan (LUCIP)*.

9. **Comment:** Section 6.0: After finalization, the *Remedial Action Completion Report* should also be listed here.

Response: The Navy will include the *Remedial Action Completion Report* to Section 6 once finalized.

10. **Comment:** Figure 3 includes the results from many samples collected in areas where subsequent removals were conducted. The figure should be updated to reflect current conditions after the ongoing removal action and associated *Remedial Action Completion Report* are completed.

Response: The sample locations that are shown in previously excavated areas are post-excavation samples.

11. **Comment:** Figure 4 should distinguish the area where access to soil below 2 feet will be restricted from the area where access to soil below 9 feet will be restricted.

Response: The Navy will revise Figure 4 to show these areas.

12. **Comment:** Appendix B: Tables B-2a and B-3a should identify the state risk thresholds (cited in Appendix C) as "TBCs."

Response: The Navy will revise Appendix B accordingly.

13. **Comment:** Appendix B: 310 CMR 40.0111(8) should be cited as an ARAR that applies to implementation of land use controls for Alternative 2.

Response: It is Navy's understanding that the MCP (310 CMR 40) should not be an ARAR on CERCLA sites, as previously negotiated between EPA and MassDEP. .