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LETTER AND U S EPA REGION I COMMENTS ON DRAFT FEASIBILITY STUDY FOR ON-SHORE DERECKTOR SHIPYARD NS NEWPORT RI
2/12/2012
U S EPA REGION I

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I
5 Post Office Square, Suite 100
Boston, MA 02109-3912

February 12, 2013

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

Re: Draft Feasibility Study for On-Shore Derecktor Shipyard

Dear Mr. O'Connor:

Thank you for the opportunity to review the Draft Feasibility Study for Site 19 – On-Shore Derecktor Shipyard, dated December 2012 (referred to as the FS). EPA reviewed the FS in light of EPA's *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA*. The FS presents the development and evaluation of remedial alternatives to mitigate unacceptable human risk associated with chemicals of concern in soil and groundwater at Site 19 – On-Shore Derecktor Shipyard. Detailed comments are provided in Attachment A.

Only one groundwater alternative other than No Action has been developed and it is a passive alternative that relies on monitored natural attenuation (MNA) without a sufficient database to reasonably project when the remedial goals would be achieved or how effective the remedy will be. EPA's Guidance (OSWER Directive 9200.4-17P) states:

> *"...The effectiveness of MNA in both near-term and long-term timeframes should be demonstrated to EPA (or other overseeing regulatory authority) through: 1) sound technical analyses which provide confidence in natural attenuation's ability to achieve remediation objectives; 2) performance monitoring; and 3) contingency (or backup) remedies where appropriate...."*

Accordingly, the FS needs to evaluate treatment remedies that could be implemented as a contingency if the MNA remedy does not perform as required. Because the site has predominantly TCE contamination in one area and metals contamination in other areas, the additional remedies must be able to address all contaminants. An enhanced biodegradation alternative may be appropriate for the TCE plume and chemical injection to adjust the ORP of the aquifer in the metals contaminated areas may be appropriate.

While details of the long-term monitoring program can be established at a later date, this FS should acknowledge the need to collect additional analytical parameters during groundwater monitoring to account for the presence of daughter products of trichloroethene degradation and historic detections of chlorinated hydrocarbons and metals in areas where analysis for these contaminants has not been identified in this FS. EPA's specific comments provide greater details.

Because of the limited groundwater database available and the relatively large area of the site, it is not apparent that the existing well network has adequately characterized the site groundwater. The resulting

uncertainty will need to be resolved when the long-term monitoring program is developed to ensure that any plumes at the site can be adequately monitored.

The FS states that the groundwater remediation goal is to return groundwater to beneficial use as potable water, but the FS uses RIDEM GB groundwater classification leachability values. EPA does not recognize the RI groundwater classifications because RI does not have an approved comprehensive state groundwater protection program. The MCL-based soil screening level for benzo(a)pyrene is 240 µg/L the same as the RI GA criterion. This and other leachability criterion applicable to a potable water supply should be used to be consistent with the groundwater remediation goal used for this FS. (EPA notes that no TCLP/SPLP data is presented in this FS to document the RI leachability criteria have not been exceeded.) Please clarify what impact the consideration of appropriate leachability criteria has on the proposed soil alternatives.

Monitoring well MW-104 had exceedances of several PRGs when last sampled. Vinyl chloride was 100 µg/L; cis-1,2-dichloroethene was 180 µg/L; manganese was 4,300 µg/L; arsenic was 19.8 µg/L; and lead was 14.7 µg/L (the action level is 15 µg/L). Effective monitoring for these contaminants at the Former Building 234 Area is required to support the selected groundwater remedy but also to determine the source of this contamination. EPA notes that MW-08, downgradient of MW-104, is a 5-foot screen set at the upper elevation of the 20-foot screen at MW-104 and is not likely capable of detecting contaminant concentrations representative of MW-104.

Please include the National Recommended Water Quality Criteria as action-specific monitoring standards for surface water and sediment because groundwater migrating to the bay contains concentrations of contaminants that exceed the standards.

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

Sincerely,

Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Pam Crump, RIDEM, Providence, RI
Darlene Ward, NETC, Newport, RI
Bart Hoskins, USEPA, Boston, MA
Ken Finkelstein, NOAA, Boston, MA
Steven Parker, Tetra Tech-NUS, Wilmington, MA

ATTACHMENT A

Page	Comment
Title Page & p. ES- 1, ¶4	Please specify that Derecktor OnShore is Operable Unit 12 of the Naval Education Training Center Superfund Site.
p. ES-1	The risks mentioned for the Former Building 234 Area do not include residential risk from subsurface soil. However, the text in Section 2.3.1.1 on page 2-6 states that unacceptable risk to residential receptors was identified for surface and subsurface soil at the Former Building 234 Area. Please correct here and elsewhere as appropriate. The bulleted list at the top of the page does not identify the vapor intrusion risk for the site. Please add this risk where applicable. The remedial action objectives (RAOs) presented do not differentiate between residential and industrial receptors, although the risks for these receptors are different. Please refine the RAOs to accurately identify the intent and the targeted receptors.
p. ES-2, ¶4	In the third sentence, replace "A wide area of *mixed metals above PRGs in dissolution* (i.e., not a plume)" with "A wide area where mixed metals exceed groundwater cleanup standards." In the fourth sentence, remove "and Newport/site-specific background levels" since "cleanup levels" are based on either background or regulatory/risk-based standards.
p. ES-3, bullet 6	Change the groundwater RAO to the text agreed to for Tank Farm 4: "Prevent site use of groundwater until risk-based and ARAR-based groundwater PRGs, as described elsewhere in this document have been achieved." The Proposed Plan and ROD will need to specify the acceptable exposure levels.
p. ES-3, bullet 8	Add an additional Soil RAO, as agreed to for Tank Farm 4, to: "Prevent future migration of soil contaminants either to groundwater or adjacent waterways at concentrations that cause unacceptable risk."
p. ES-4, bullet 2	After "LUCs" insert "and Monitoring." As described in the text, this alternative also requires the maintenance of the existing paved cover over the areas to meet industrial DEC standards.
p. ES-4, ¶1	Please include at least one active remedial alternative for groundwater.
p. 1-2, §1.1, ¶1	Please incorporate footnote 5 into the body of the text and clarify whether a vapor intrusion risk exists for potential future receptors (*see* Tables 1-7A, 1-7B, and 1-8). Delete the last sentence that states "Indoor air vapor is not directly addressed by this FS."
p. 1-3, §1.1, ¶2	Please delete the first sentence. This FS has selected feasible alternatives to be considered for implementation.
p. 1-3, ¶3	Please list where the AR file is available (*e.g.*, at the Base and at local libraries).

p. 1-6, ¶4	Did the Navy review EPA inspection and enforcement records for the former Derecktor facility, including documentation of violations of RCRA, TSCA, Clean Water Act and asbestos standards at the facility? For example, in 1983 and 1984 EPA inspectors identified RCRA violations at two hazardous waste storage areas (the North and South Storage areas where waste were stored for over 90 days) at the Derecktor facility. The Navy should identify whether these two areas correspond to areas of investigation and whether sampling data exist to determine whether the areas meet applicable closure standards for hazardous waste storage facilities. In addition, enforcement/inspection records document that Derecktor operations released asbestos on the Site.
p. 1-6, ¶5	In the second sentence insert "CERCLA" before "removal action." Was there confirmatory sampling before backfilling? What was the cleanup standard used? Was the material beneath the backfill resampled as part of the RI?
p. 1-7, ¶2	In the first sentence insert "CERCLA" before "removal action."
p. 1-7, bullet 1	Was confirmatory sampling conducted once the berm material was removed and before the restoration work? Specifiy the cleanup standard used.
p. 1-7, bullet 2	Specifiy the cleanup standard used.
p. 1-7, bullet 3	Was confirmatory sampling conducted once the sump and associated material was removed? Specifiy the cleanup standard used.
p. 1-7, bullet 4	Was confirmatory sampling conducted after the hot spot material was removed? Specifiy the cleanup standard used.
p. 1-7, bullet 5	Was confirmatory sampling conducted after the PCB contaminated material was removed? What was the cleanup standard used (residential cleanup at 1ppm PCBs)?
p. 1-8, bullet 1	Was confirmatory sampling conducted after the grit material was removed? Specifiy the cleanup standard used.
p. 1-8, ¶1	Regarding the fourth sentence , was the area developed for satellite parking and wharf construction pre-screened to determine that no contamination above regulatory levels for commercial uses were present? Regarding the fifth sentence, was the area developed for exercise paths pre-screened to determine that no contamination above regulatory levels for unrestricted use were present? Is access from the area of the exercise paths to the areas of identified contamination above unrestricted risk levels restricted?
p. 1-8, ¶2	In the third sentence, please note that TPH-DRO and GRO are not regulated under CERCLA and instead will be addressed under state regulatory authority.
p. 1-10, ¶3	Replace the last sentence with: "Under federal groundwater standards the groundwater is regulated as potable, except in areas where the groundwater is saline."
p. 1-10, ¶6	Add a new second sentence: "The 100-year coastal flood zone extends up to an elevation of ____, which includes approximately ___% of the site."

p. 1-11, ¶3	Revise this paragraph since State leachability standards need to be evaluated to protect the federally designated potable aquifer (remove all mention of the State's GB classification since it does not apply to the Site). Groundwater criteria are based on MCLs, non-zero MCLGs, federal risk-based standards and any more stringent State standards.
p. 1-11, ¶5	In the third sentence, replace "A wide area of *mixed metals above PRGs in dissolution* (*i.e.,* not a plume)" with "A wide area where mixed metals exceed groundwater cleanup standards."
p. 1-11, ¶6	In the first sentence insert ", PAHs and PCBs" after "manganese)" and remove "and Newport/site-specific background levels" since "PRGs" are based on either background or regulatory/risk-based standards.
p. 1-12, §1.5.2	The "Upgradient Area" is not previously discussed. It is not identified as an area requiring further remediation, but the text appears to identify exceedances of soil arsenic standards. The first sentence says that subsurface soil was collected at MW01 and the third sentence says it wasn't.
p. 1-13, ¶5	The second sentence states that contamination was addressed by the removal action but does not discuss what the contaminants were, what the cleanup levels for the removal action were, or if confirmatory sampling was done to confirm that all contamination above unrestricted use standards was removed.
p. 1-14, §1.5.4	Identify whether the criteria cited are residential vs. commercial, direct contact vs. leachability, or soil vapor). Unless the removal action removed all soil exceeding unrestricted use standards, there needs to be confirmation of the remaining levels of contamination. The TSCA risk-based soil standard for unrestricted use for PCBs is 1 ppm not 10 ppm.
p. 1-14, §1.5.5	Identify what criteria are cited (residential vs. commercial, direct contact vs. leachability, soil vapor). Unless the removal action removed all soil exceeding unrestricted use standards there needs to be confirmation of the remaining levels of contamination. The TSCA risk-based soil PCB standard for unrestricted use is 1 ppm.
p. 1-15, §1.5.6	The first paragraph discusses inspections, but not sampling. Specify whether any sampling for potential contaminants was conducted and, if not, why would visual inspections be considered sufficient? Identify what criteria are cited (residential vs. commercial, direct contact vs. leachability, soil vapor).
p. 1-16, §1.5.7	Identify what criteria are cited (residential vs. commercial, direct contact vs. leachability). Explain why exceedances are considered background. Explain why groundwater was not sampled.
p. 1-17, ¶3	Earlier text stated that there is an area of unrestricted (open to all base personnel or guests) exercise trails on part of the Site where residential standards apply.

p. 1-17, ¶4 The second sentence is only accurate if the removal actions removed all of the source contamination to unrestricted use levels.

p. 1-20, ¶2 Please clarify whether the Navy has identified any potential, future CERCLA soil gas risk that would be a basis for placing CERCLA restrictions on future building development within the Site.

p. 2-3, ¶4 In the third sentence remove "as determined by the federal lead agency." In the fourth sentence change "TBCs" to "Standards developed using TBCs…"

p. 2-4, §2.2.2.1 From this and other text in the document, it is unclear whether there are no exceedances of Industrial DECs in the surface or subsurface soils of the Site or if the State's remedial standards are met because there is a sufficient asphalt cover over the areas. The Navy needs to identify if the numeric standards are exceeded in the surface or subsurface soil in this section (and identify the exceedances in the bulleted summaries on pages ES-3 and 1-19). If there are exceedances, then the presence of an asphalt cover (and its long-term O&M) needs to be incorporated into the remedial soil alternatives. In addition, RIDEM's Remediation Regulations (November 2011) specify that leachability criteria are applicable throughout the vadose zone. The leachability criteria to protect potable groundwater apply.

p. 2-4, §2.2.2.2 Please replace the first sentence with: " … State groundwater criteria that are more stringent than federal criteria have been identified …." Delete the last two sentences in the first paragraph because Rhode Island does not have an EPA-approved comprehensive state groundwater protection program and insert: "Under federal groundwater standards the groundwater is regulated as potable, except in areas where the groundwater is saline."

In the second paragraph change "slope factors and reference doses" to "slope factors, reference doses, and health advisories."

p. 2-6, §2.3.1.1 See previous questions concerning the level of site assessment within each area, in particular the assumption about industrial DEC standards (*see* comment to §2.2.2.1), and potential exceedances of leachability standards.

p. 2-6, §2.3.1.1, ¶3 Please edit the last sentence to clarify if soil beneath the foundation would create excess risk in the absence of the foundation. If so, at a minimum, as part of the soil alternatives, a land use control is needed to address that.

p. 2-6, §2.3.1.3 Please clarify whether contaminant levels in groundwater were identified that pose a potential future vapor risk if building were to be constructed on the Site. The Navy needs to establish a basis for requiring soil vapor LUCs under the CERCLA remedy (even though there is no current exposure pathway). See also EPA's comment at page 1-20, ¶2

p. 2-8, §2.4 In the first full paragraph, delete the first part of the third sentence that begins with "In accordance with …" and begin that sentence with "The RIDEM DECs …."

Edit the first sentence in the second full paragraph to read: "Finally, PRGs are adjusted so that they do not exceed applicable background conditions."

p. 2-8, §2.5	The RAOs presented do not differentiate between residential and industrial receptors, although the risks for these receptors are not the same in each area. Please refine the RAOs to more accurately identify the intent and the pertinent receptors. Change the groundwater RAO to: "Prevent site use of groundwater until risk-based and ARAR-based groundwater PRGs, as described elsewhere in this document have been achieved." Add an additional Soil RAO, as agreed to for Tank Farm 4, to: "Prevent future migration of soil contaminants either to groundwater or adjacent waterways at concentrations that cause unacceptable risk."
p. 2-9, §2.6	Estimates of volumes potentially need to be adjusted depending on whether all contaminated media are properly identified.
p. 2-9, §2.6.1	Please correct the penultimate sentence to refer to subsurface soil.
p. 2-9, §2.6.2	Please correct the first sentence to refer to "… risk associated with exposure to COCs …."
p. 2-9, §2.6.2	Regarding the establishment of attainment areas, the FS should recognize that achievement of all the PRGs will be required to satisfy the remedial action objectives.
p. 2-10, §2.6.2	Owing to the limited available groundwater database, as acknowledged in the first paragraph, the Navy does not have enough information to state that a plume of metals contamination does not exist. For example, the arsenic concentration of 75 µg/L at MW-219, screened in silty sand, is suspicious. Please acknowledge this uncertainty. Please replace the last sentence with: "Based on the limited groundwater data, a reasonable estimate of the volume of groundwater impacted by metals concentration in excess of the PRGs cannot be made."
p. 3-2	Engineered Controls (*i.e.,* maintaining pavement cover over contaminated subsurface soils) should be discussed in the "Limited Action" paragraph.
p. 3-5, bullet 2	At the end of the sentence, add: "except for conducting statutorily required five-year reviews."
p. 3-5, bullet 3	At the end of the sentence, add: "except the cost to conduct five-year reviews.
p. 3-7, bullet 1	Discuss how LUCs may also involve maintaining engineered covers.
p. 3-8, bullets 2&3	Discuss how the implementability and cost of the LUCs would increase if they include monitoring and maintaining existing engineered covers on the Site.
p. 3-9, <u>Conclusion</u>	Clarify the difference between the existing pavement acting as an Engineered Control and an "asphalt/concrete cap?"
p. 3-13, §3.4	Include at least one groundwater treatment option.
p. 3-13, §3.4.1	The analysis of the No Action option needs to state that five-year reviews will be conducted.

p. 3-14, §3.4.2.1, ¶1 Please state that LUCs are established through development of an LUC RD.

p. 3-15, §3.4.2.2 Please edit the Implementability discussion to delete the third sentence that refers to permits. No permits need to be obtained for on-site remedial action under CERCLA.

p. 3-16, §3.4.2.3 Please delete "*significant*" from the first sentence in the first full paragraph. The TCE concentration changes observed are not significant.

Regarding the Effectiveness bullet, natural attenuation would only be effective if it can meet EPA guidance standards for monitored natural attenuation.

p. 3-19, §3.5.1 Alternative S-2 also needs to include long-term monitoring and possible O&M of engineered controls (asphalt covers).

p. 3-19, §3.5.2 Include at least one groundwater treatment alternative.

p. 3-23, §3.6.2 Please edit the last paragraph to acknowledge that state and community acceptance are assessed during the public comment period on the Proposed Plan.

p. 4-1, §4.0 The description for the alternatives needs to address whether there are exceedances of industrial DECs (and requirements to maintain engineered asphalt cover) and/or leachability standards to protect potable groundwater. In addition, in areas where Derecktor operated hazardous waste storage areas, depending on remaining levels of contamination, the alternatives may need to address hazardous waste closure/post closure requirements. Finally, enforcement/inspection records for the Derecktor facility indicate there may be areas where asbestos was released (in addition to any potential asbestos released from Navy infrastructure, such as steam pipes).

Alternative S-2 needs to include long-term monitoring and O&M of engineered controls (asphalt covers).

p. 4-1, §4.1.1 The analysis of the No Action alternative needs to state that five-year reviews will be conducted.

p. 4-2, §4.1.2 Soil alternative SO-2 is a limited action remedy with land use controls, but no depiction of the land use control area is presented. Please include figures showing the proposed limits of the land use control. Alternative S-2 needs to include long-term monitoring and possible O&M of engineered controls (asphalt covers).

p. 4-3, §4.1.3 See previous comments (pages 1-6 and 1-7) about remaining contaminant levels after removal actions in other areas of the Site. Clarify whether additional soil removal is required in these areas to achieve unrestricted use standards.

Please edit the third paragraph to read: "After evaluating verification samples to confirm that the respective ...."

p. 4-3, §4.1.3.2 Regarding the third paragraph, if there are inaccessible areas of contaminated soils exceeding unrestricted use standards in the vicinity of the railroad tracks then ICs, with long-term monitoring and five-year reviews need to be included in the alternative.

p. 4-3, §4.2.1	The analysis of the No Action alternative needs to state that five-year reviews will be required.
p. 4-6, §4.2.2	See previous comments about Alternative S-2 and incorporate them here.
p. 4-6, §4.2.2.2	This alternative would not meet soil leachability standards, if applicable, unless areas of existing asphalt covers are sufficient to be protective under state leachability standards. LUCs only would not meet hazardous waste closure standards, if applicable to any of the former Derecktor hazardous waste storage areas. Finally, asbestos standard were not identified as ARARs even though there are documented releases from Derecktor operations and there is the possibility of releases from Navy operations.
p. 4-6, §4.2.2.3	Discuss whether there is any need for LUCs in the area of the exercise path (if contamination is present about unrestricted use levels the path would have to be shut down or the contamination remediated to achieve residential standards.
p. 4-8, §4.2.3	Please clarify whether soil contamination is located beneath the concrete slab that would cause excess risk in the absence of the concrete slab at Former Building 234. If so, a land use control will be required to maintain the concrete slab and long-term monitoring, as well as five-year reviews, will be required. LUCs, long-term monitoring and five-year reviews would also be required for any area of inaccessible contaminated soil along the railroad tracks.
p. 4-11, §4.3	The comparative analysis of Alternative S-2 needs to incorporate the previous comments/issues concerning the alternative (*i.e.*, some areas may not meet ARARs standards).
p. 5-1, §5.0	Add a treatment alternative.
p. 5-1, §5.1.1	Include five-year reviews.
p. 5-2, §5.1.2	Please delete "*significant*" from the first sentence in the last paragraph. The TCE concentration changes observed are not significant.
p. 5-3, §5.1.2, ¶1	Please supplement the first sentence by adding: "…; however, cis-1,2-dichloroethene and vinyl chloride are daughter products of trichloroethene degradation and have been detected in this area in historic groundwater samples."
p. 5-3, §5.1.2, ¶2	Please add the following before the sentence that begins with "Accurately modeling ….": "Trichloroethene and its daughter products have been detected in historic groundwater sampling in the Former Building 234 Area that could account for the elevated metals concentrations in solution."
p. 5-3, §5.1.2, ¶3	Land use controls are specified for groundwater alternative G-2 but no depiction of the land use control area is presented. Please include figures showing the proposed limits of the land use control.
p. 5-4, §5.1.2	Please replace the first sentence in the third full paragraph with: "… and analyzed for TCE and its daughter products, metals, and natural …" because the daughter products and metals have been detected in excess of PRGs in historic groundwater samples.

Please replace the penultimate sentence in the third full paragraph with: "… and analyzed for manganese, chlorinated hydrocarbons, and natural attenuation parameters." because daughter products of TCE have been detected in excess of PRGs in historic groundwater samples immediately upgradient of the Former Building 234."

p. 5-5, §5.2 — See previous comments regarding the addition of a groundwater treatment alternative and questions about the analysis of the MNA alternative.

p. 5-5, §5.2.1 — Include five-year reviews.

p. 5-6, §5.2.2 — See previous comments about whether this alternative meets EPA MNA standards. Discuss potential future vapor risk.p. 5-8, §5.2.4 This section states that "natural attenuation is not assured." If that is the case the alternative is not protective and does not meet ARARs. Also, remove the last sentence.

p. 5-9, §5.3 — A comparative analysis is not complete without including a treatment alternative. See previous comments concerning Alternatives G-1 and G-2.

Tables 1-7A, 1-7B, 1-B — These tables show a basis for including remedial vapor controls as a component of the groundwater alternative(s).

Table 2-1, p. 1 — Remove the TSCA citation since it is already correctly included in the action-specific tables.

For the MCL citation change to: "42 U.S.C. §300f *et seq.*; 40 C.F.R. 141, Subparts B and G."

Identify guidance(s) used for assessing vapor risks.

Table 2-1, p. 2 — Add to the federal standards:

Recommendations of the Technical Review Workgroup for Lead for an approach to Assessing Risks Associated with Adult Exposure to Lead In Soil	EPA-540-R-03-001 (January 2003)	To Be Considered	EPA Guidance for evaluating risks posed by lead in soil.	Risks from lead assessed under this guidance will be addressed through remediation measures.

For the Remediation Regulations citation, insert "s 8.01," after "Section."

Table 2-2 Change the Floodplain Management line in the first row and insert two additional federal ARARs:

Floodplain Management and Protection of Wetlands	44 C.F.R. 9	Relevant and Appropriate	Implements Executive Order 11990 (Protection of Wetlands) and Executive Order 11988 (Floodplain Management). Prohibits activities that adversely affect federally-regulated resource areas unless there is no practicable alternative and the proposed action includes all practicable measures to minimize harm to wetlands and floodplains that may result from such use.	The effects of installing and maintaining any components of the remedy within federally designated 500-year coastal floodplain or jurisdictional wetlands will be evaluated. All practicable means will be used to minimize harm to the protected resources. Public comment concerning potential impacts will be solicited in the Proposed Plan.
Endangered Species Act	16 U.S.C. 1531 et seq.; 50 CFR Parts 200 and 402	Applicable	Regulates activities affecting federally listed endangered or threatened species or their critical habitat.	The federally-listed Atlantic sturgeon, loggerhead turtle and Kemps-ridley turtle occur in the waters of Narragansett Bay. Appropriate federal agencies will be consulted to find ways to minimize adverse effects from contamination migrating from the Site to coastal waters.

Add the following State ARAR:

Coastal Resources Management	RIGL 46-23-1 *et seq.*	Applicable	Sets standards for management and protection of coastal resources.	The entire site is located in a coastal resource management area. Therefore, applicable coastal resource management requirements need to be addressed.

Table 2-3, p. 1 Change the text for the TSCA "Consideration" to: "The development of risk-based cleanup standards for PCBs in soil and the development and implementation of protective handling/management/disposal measures for PCB contaminated material will meet these standards."

For the Groundwater guidance "Consideration" text, remove at the end ", and/or risk-based standards in the groundwater"

Table 2-3, p. 2 Change the text for the NRWQC "Consideration" to: "These standards will be used to develop monitoring standards for surface waters during the remedial action or during any long-term O&M."

For the NPDES "Citation" change to: "33 U.S.C. §1342; 40 C.F.R. Parts 122-125, 131."

Add the following federal ARARs:

Clean Air Act (CAA), National Emission Standards for Hazardous Air Pollutants (NESHAPS)	42 USC 7411, 7412; 40 CFR Part 61	Applicable	NESHAPS are a set of emission standards for specific chemicals, including asbestos, arsenic, cadmium, chromium, lead, mercury, nickel, PCBs, and hexachlorobenzene. Certain activities are regulated including site remediation.	Monitoring of air emissions during remedial activities will be used to assess compliance with these standards if threshold levels are reached. Operation and maintenance activities will be carried out in a manner that will minimize potential air releases.
Management of Undesirable Plants on Federal Lands	7 U.S.C. 2814	Relevant and Appropriate	Requires federal agencies to establish integrated management systems to control or contain undesirable plant species on federal lands under the agency's jurisdiction.	Measures will be taken to control the establishment of *Phragmites*, purple loosestrife or other invasive plants within all remediated areas. An invasive species control plan will be developed as part of the long-term O&M for this site. The responsibility of control will be transitioned to NAVSTA after (1) the remedy is in place, and (2) NAVSTA develops a base-wide program for controlling undesirable plants.
Framework for Investigating Asbestos-contaminated Superfund Sites	OSWER Directive #9200.0-68 (Sept. 2008)	To be Considered	Guidance on Investigating and Characterizing the potential human exposure from asbestos contamination in outdoor soil at Superfund sites.	Guidance allows response actions at a site without further characterization, after review of historical and current information, if review of the site conditions supports a response.

Table 2-3, p. 3 Add the following State standard at the end of the table:

General Requirements for all Facilities and Operational Requirements for Treatment, Storage, and Disposal Facilities	Rules and Regulations for Hazardous Waste Management, RIGL 23-19.1 et seq.; CRIR 12-030-003 Rule 8.04G, R & T, 8.05 9.03, 9.05, 9.16, 9.17, 9.20, and 9.23.	Applicable	Standards for the maintenance and closure of former hazardous waste storage facilities.	Any hazardous waste storage areas operated by the former tenant (Derecktor) that were regulated under these standards need to meet closure and other requirements pertaining to hazardous waste storage facilities.

Table 2-3, p. 4 State pretreatment regulations are included, but the text does not discuss the need to dewater excavated soil. If there will be treatment, it needs to be incorporated into the text, including the NCP analysis. In addition to the State pretreatment standards, federal standards would then also be included (assuming water from the dewatering process is discharged to a POTW).

Add the following State ARARs:

Water Pollution Control Water Quality	RIGL 42-16 *et seq.*; CRIR 12-190-001	Applicable	Establishes water use classification and water quality criteria for waters of the state.	Groundwater concentrations will be compared against these criteria during the long-term monitoring events.

Tables 2-4 & 2-5 State GB leachability standards, rather than GA, are cited in the tables.

Table 2-6 Please add PRGs for cis-1,2-dichlorethene and vinyl chloride which are daughter products of trichloroethene degradation and they also have been detected in the North Waterfront Area and other areas of the site in historical samples.

Tables 3-1 to 3-4 Modify based on comments to the Ch. 3 text, above.

Table 4-1 Modify based on comments to the Ch. 4 text, above.

Make changes to the Ch. 4 ARARs tables based on the changes made to the Ch. 2 ARARs tables and comments made to the text concerning ARARs.

Tables 4-2 to 4-4 Label "S-1" not "S-2" and Table 4-1 should explain why the No Action Alternative does not meet the ARARs and TBC chemical-specific standards.

There need to be S-2 chemical-specific, location-specific, and action-specific tables. It not possible to completely identify the ARARs for S-2 because it is not clear (see text comments, above) whether the LUCs include engineering controls (maintaining and monitoring asphalt cover), whether hazardous waste closure standards are applicable to the former Derecktor waste storage areas on the Site, whether asbestos is still present after historic releases documented at the Site, and whether GA leachability standards are exceeded (in addition to other questions/comments made concerning the alternative in the text).

Tables 4-5 to 4-7 It is not possible to completely identify the ARARs for S-3 because it is not known whether some inaccessible contaminated soils will be left in place under the foundation and along the railroad tracks. The ARARs need to be modified based on comments in the text and changes made to the Chapter 2 Action-specific ARARs tables.

Table 4-8 It is not possible to comment on this table until the issues raised in the text regarding the soil alternatives and modifications to the Chapter 2 ARARs tables are addressed.

Table 5-1 Make modifications to the tables based on comments to the Ch. 5 text, above.

The details for the long-term monitoring program can be resolved later, however, EPA expects all wells to be analyzed for chlorinated hydrocarbons and metals because of the limited amount of available groundwater data, the historic presence of contaminants

throughout the site, and the nature of the degradation products and impacts of natural attenuation on groundwater chemistry.

EPA does not anticipate removing contaminants from the monitoring program if their concentrations are below the PRGs for two consecutive sampling events owing to the limited available database and the need to monitor any natural attenuation. Changes to the monitoring program will be discussed later. Please delete the referenced sentence.

Add a chemical-specific ARAR table for Alternative G-1 that identifies why the No Action Alternative does not meet the ARARs and TBC chemical-specific standards.

Tables 5-2 to 5-3	Renumber and incorporate the changes made to the Table 2 ARARs that pertain to groundwater, as well as comments to the Ch. 5 text, into the Tables.
Table 5-2	For the "Action to be Taken" text for each ARAR and TBC, state that the drinking water, federal risk-based, and more stringent Standards will be achieved by the alternative (not just that they are used to develop PRGs and as a basis for establishing LUCs). The "Action to be Taken" for the Remediation Regulations should discuss the GA standards instead.
Table 5-3	There are location-specific ARARs for the alternative pertaining to installing and maintaining monitoring wells within the coastal zone, coastal floodplain, and possibly within the intertidal shoreline.
Table 5-4, p. 1	The MNA Guidance "Action to be Taken" text needs to identify how long it will take to achieve all drinking water, federal risk-based, and more stringent State groundwater standards within the Site.
Table 5-4, p. 3	Why are the State's Pretreatment Standards cited? Does the Navy plan to discharge groundwater samples from the monitoring wells into a POTW?
	Develop ARARs tables for a groundwater treatment alternative.
Table 5-5	EPA will comment on this table after the issues raised in the text regarding the groundwater alternatives and modifications to the Chapter 2 ARARs tables pertaining to groundwater are addressed. In particular, a treatment alternative needs to be developed in order to compare it with the proposed MNA alternative.
Figure 1-2	Please show the 100-year and 500-year floodplains. Also please show the locations of the former Derecktor hazardous waste storage areas either on this or another figure.
Figure 1-4	Please add the water level elevation for MW-11A.
	The screen for MW-11A was set without screening data and the boring shown is only for MW-11. Please either show MW-11 or add a note referring to the MW-11 boring.
	Correct the ID for MW-218.
	Provide the well screen interval, boring depth, and water elevation for MW-12.

Add wells MW-03, MW-04, MW-05, MW-220, and MW-219 as offset wells for context or else run the cross-section through them on Figure 1-3 and include them directly to the cross-section.

The screen interval for MW-11A is 5 to 10 feet below ground surface whereas the screen for MW-11 was set at 19 to 29 feet below ground surface. Field GC screening in 1996 of the 5 to 10 foot depth interval at MW-11 detected no TCE. TCE was detected in 2011 at MW-11A. In 1996 TCE was not detected at MW-11 but DCE was. Consequently, remedial monitoring in the Northern Waterfront will need to be able to detect chlorinated hydrocarbon contamination in shallow and deep groundwater.

Figure 1-5 Please include groundwater contamination in wells other than those in the Northern Waterfront Area.

Figures 2-2 & 2-3 Please specify whether the samples posed a risk because they don't exceed promulgated unrestricted use standards or if the presence of the asphalt cover factored in assessing the potential human health risk. If the latter, the figure text is not accurate. There are PRGs for the area and ARARs apply.

Include a Figure to show the extent of the Alternative S-2 LUCs.

Figure 5-1 Is the groundwater in the South Waterfront Area potable and meets all federal drinking water, risk-based, and more stringent State groundwater standards?

Appendix C-1 The cost table for Soil Alternative S-2 has mistakenly used a discount rate of 2.3% rather than 2.0% rate. The 2.0% rate is the current applicable rate and is the rate discussed in the FS. Please correct the costs using the 2.0% discount rate.