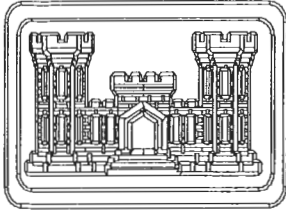
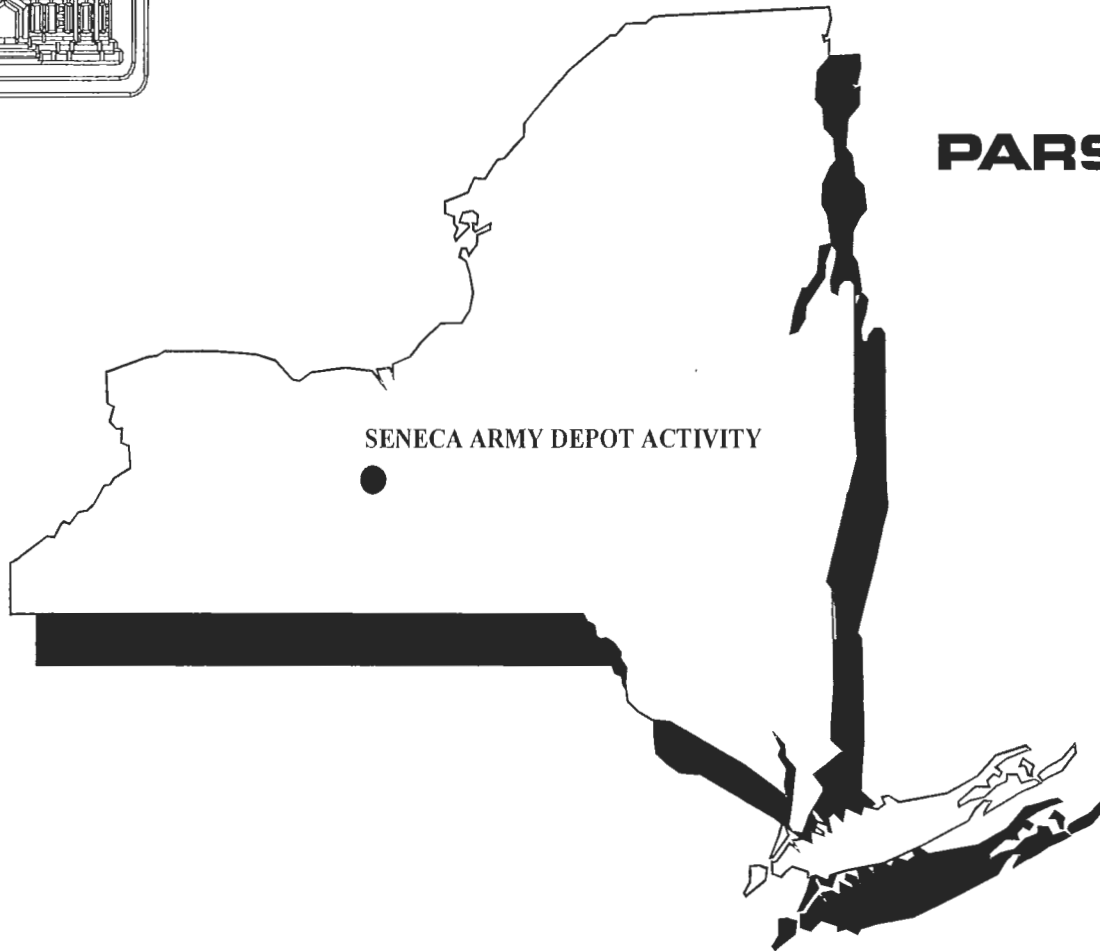


U.S. ARMY ENGINEER DIVISION
HUNTSVILLE, ALABAMA



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DRAFT FINAL - APPENDIX E

**RECORD OF DECISION (ROD)
THE FIRE TRAINING AND DEMONSTRATION PAD (SEAD 25)
AND THE FIRE TRAINING PIT AND AREA (SEAD 26)
SENECA ARMY DEPOT ACTIVITY (SEDA)**

MAY 2003

APPENDIX E

RESPONSE TO COMMENTS

Response to Comments from the United States Environmental Protection Agency

Subject: Draft Record of Decision (ROD) for SEAD-25, 26
Seneca Army Depot
Romulus, New York

Comments Dated: January 24, 2003

Date of Comment Response: May 19, 2003

General Comments:

Comment 1: The preferred remedies proposed for these sites include a temporary groundwater monitoring program to allow for contaminant levels to naturally attenuate. However, none of these remedies provide a contingency for contaminants levels that do not decrease according to model, nor do they address the completion stage of the action whenever levels reach cleanup goals. Please add a contingency strategy to trigger more active groundwater actions, as well as an exit strategy to be part of the proposed groundwater remedies for these sites.

Response 1: Acknowledged. The purpose of 5-year reviews is to review the success of the selected remedial alternative and to assess whether that alternative is effective in achieving the remediation goals. If it is determined that the selected remedy is not effective, then an alternative remediation plan may be developed and implemented. The remedy will include a statement that a contingency plan of air sparging or other alternative may be implemented if the selected technology is not shown to be effective. Trigger values, statistic parameters, and other data quality parameters will be specified in the Remedial Design Plan in accordance with EPA guidance documents *Data Quality Objectives Process for Hazardous Waste Site investigations (QA/G-4HW)* (January 2000), and *Guidance for Data Quality Assessment: Practical Methods for Data Analysis (QA/G-9)* (July 2000). A statement on the exit strategy will be included that states that the temporary groundwater restrictions will be removed once groundwater cleanup goals are achieved.

Comment 2: Furthermore, the preferred remedies proposed include institutional controls (ICs). Please insert the following text at the end of Section 11, Selected Remedy.

“The Army will establish mechanisms and procedures to be used to implement, maintain, monitor, and enforce Institutional Controls (ICs). The ICs should be an element of the monitoring program or similar document developed by the Army for institutionalizing how to achieve each IC and to ensure future users are aware of the necessary restrictions and precautions that should be taken. Such document or sections thereof for the ICs in this ROD will be submitted as an enforceable component of and be subject to the same review periods and procedures as the Remedial Design or Remedial Action Workplans for Operable Unit 3 (OU-3) and will contain the following:

- Identification of the Army point'(s) of contact who will be responsible for implementing and maintaining the ICs, who will be responsible for monitoring and reporting on the integrity and effectiveness of the ICs, and who will enforce such restrictions;
- Identification of each OU-specific IC objective (e.g., to restrict use of groundwater, to restrict disturbance of landfill caps, to restrict excavation or other development of the landfills) and the area affected by the IC (e.g., maps); a description of the mechanisms through which the ICs will be implemented, (e.g., notice of restriction in deed, base master plan or equivalent document); a description of the specific actions required to achieve each OU-specific objective (e.g., install/maintain a fence, post warning signs, record notice of restriction in appropriate document); date when it is anticipated the restrictions will be created and their anticipated duration; the frequency of IC monitoring;
- Provision for the submission of IC Monitoring Reports on the status of the ICs to be submitted to USEPA and NYSDEC on a regular basis for review; the Monitoring Reports will include a checklist of elements assessed during regularly scheduled on-site inspections;
- Description of procedures to be conducted if and when it is determined that land use has changed and become inconsistent with the IC objectives, including reevaluation of the exposure scenarios for human health and the environment for OU-3, as necessary, and a description of the process for removing or modifying the IC, if appropriate;
- Provisions for notification of USEPA and NYSDEC in the event of a change in land use or land use designation or transfer of property encompassed by OU-3; the Army will notify USEPA and NYSDEC within 72 hours upon discovery of any activity that is inconsistent with the OU specific IC objectives for the site; the Army will notify USEPA and NYSDEC at least six months prior to any transfer, sale or lease of any property subject to ICs so that the regulators can be involved in discussions to ensure that appropriate provisions are included in transfer documents to maintain effective ICs.

Response 2: Acknowledged. The selected remedy for SEAD-26, Alternative RA26-2, has been revised to include excavation of surface soils with total carcinogenic PAH (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene) concentrations above 10 ppm, for an estimated total volume of 1050 cubic yards (CY). According to available data, the total carcinogenic PAH levels in ditch soils and subsurface soils are below 10 ppm. It should be noted that a review of the available site data suggests that the highest concentrations of the greatest contributors to carcinogenic risk (benzo(a)pyrene and dibenz(a,h)anthracene) that would remain on-site following a removal action with 10 ppm as a cleanup goal would be 1200 µg/kg and 410 µg/kg, respectively. The area of excavation is presented

in a revised Figure 11-1. This remedial action will eliminate the need for any permanent land use restrictions at SEAD-26. However, a temporary groundwater use restriction will be imposed on the site until ARARs for groundwater are achieved. The following language on land use controls has been added to the ROD:

Until the contaminant levels in the groundwater meet the cleanup goals, a land use control (or institutional control) in the form of a groundwater use restriction to ensure no withdrawal and/or use of groundwater until ARARs are achieved will be a part of the remedy. The goal of the land use control is to ensure protection of human health and the environment, and to preserve and promote the long-term effective operation of remedial alternatives proposed for the sites. The land use controls would be implemented over the area bounded by the site boundary at SEAD-25, shown in **Figure 6-1**. For this site, the Army's selected land use controls will include supplemental measures that will be documented in an implementation and enforcement plan detailing implementation actions, which will be provided in the Remedial Design Plan. Entities expected to be responsible for implementing and maintaining the remedy are the Army and any other entity (e.g., a transferee) who the Army subsequently identifies to the regulators through timely written notice, which shall include the entity's name, address, and general remedial responsibility. Once groundwater cleanup goals are achieved, the groundwater use restriction may be eliminated and the site may be released for unrestricted use. The five-year reviews, conducted in accordance with 121(c) of CERCLA, are intended to evaluate whether the response actions remain protective of public health and the environment, and they would consist of document review, ARAR review, interviews, inspection/technology review, and reporting.

Details on the implementation and enforcement of the land use controls will be specified in the remedial design plan.

Specific Comments:

Comment 1: Section 1.0: Declaration, page 1-3: The last sentence of the paragraph located below the three bullets on top of the page states that "the site-related contaminants do not contribute to an unacceptable risk at the site." If this would be the case no action would have been necessary. Please purge the sentence from the document.

Response 1: Agreed. The statement has been clarified to state "(I)t should be noted, however, that these site-related contaminants do not contribute to an unacceptable human health risk at the site."

Comment 2: Section 1.0: Declaration, page 1-3: The remedy for SEAD-26 includes a land use restriction of a daycare facility. Since the soil slightly exceed acceptable levels for children, SEAD-26 should include restrictions on any residential use as well.

Response 2: Acknowledged. The preferred remedy for SEAD-26 has been revised to include excavation of soils and ditch soils with total carcinogenic PAH concentrations above 10 ppm, for an estimated total volume of 1050 CY. The area of excavation is presented in a revised Figure 11-1. This remedial action, which received concurrence from the EPA in an email dated 2/20/2003, will eliminate the need for any permanent land use control. Therefore, there will not be a residential or daycare land use restriction at SEAD-26. It should be noted that a temporary groundwater use restriction will be imposed on the site until ARARs for groundwater are achieved. The text has been revised accordingly.

Comment 3: Section 1.0: Declaration, page 1-11: Ms. Jane Kenny, Regional Administrator is the signatory official for EPA.

Response 3: Agreed. The text has been revised.

Comment 4: Section 4.0: Public Participation, page 4-1: Note that EPA is currently consulting with federally-recognized Indian Nations/Tribes as it would with a State, and is requesting other federal agencies (such as DoD) to do the same on all CERCLA decision documents. Please indicate your consultation with Native Americans stakeholders.

Response 4: Agreed. Coordination with Native American stakeholders will be consistent with the programmatic agreements between the State Historic Preservation Office, recognized Native American Tribes, and the Advisory Council for Historic Preservation.

Comment 5: Section 9.0: Description of Alternatives, Page 9-2 & 9-10: The last sentence of the second paragraph of page 9-2 and the last sentence of the second paragraph of page 9-10 mention the permanency of the land use restriction as a day care facility under RA 26-2. See Specific Comment 2 above for additional restriction.

Response 5: Acknowledged. The selected remedy for SEAD-26, Alternative RA26-2, has been revised to include excavation surface soils with total carcinogenic PAH (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene) concentrations above 10 ppm, for an estimated total volume of 1050 cubic yards (CY). According to available data, the total carcinogenic PAH levels in ditch soils and subsurface soils are below 10 ppm. It should be noted that a review of the available site data suggests that the highest concentrations of the greatest contributors to carcinogenic risk (benzo(a)pyrene and dibenz(a,h)anthracene) that would remain on-site following a removal action with 10 ppm as a cleanup goal would be 1200 µg/kg and 410 µg/kg, respectively. The area of excavation is presented in a revised Figure 11-1. This remedial action will eliminate the need for any permanent land use

restrictions at SEAD-26. However, a temporary groundwater use restriction will be imposed on the site until ARARs for groundwater are achieved. It is the Army's understanding that the EPA will not require this recommended language for temporary land use controls, such as a groundwater use restriction.

The text has been revised to state that there would be a permanent land use restriction against a daycare facility and residential use under RA26-3 and RA26-4.

Comment 6: Section 11.0: Selected Remedy, page 11-1 & 11-2: For SEAD-25 in page 11-1, please indicate soil contaminants of concern (COCs) and their cleanup goals. Also, please indicate if removed soils will be acceptable for "beneficial" reuse application(s). For SEAD-26 see Specific Comment 2 above for additional restriction.

Response 6: Agreed. The tables presenting the soil COCs and cleanup goals (**Tables 1-1A and 1-1B**) have been referenced in the text for SEAD-25 and SEAD-26, respectively. As previously noted, the selected remedy for SEAD-26 has been modified such that a permanent land use restriction, as mentioned in Specific Comment 2, is no longer necessary.

Comment 7: Tables: Table 7-2 SEAD-25 Risk, page unnumbered: Please enumerate tables according to the current ROD document. Please insert a table similar to this one for SEAD-26.

Response 7: Agreed. The table numbers have been revised. A table presenting human health risk at SEAD-26, Table 7-4, has been added.

Comment 8: Appendices App. B and App. C Concurrence from NYSDEC & Responsiveness Summary: These appendices were missing from the original Draft ROD document received. Please insert these missing appendices.

Response 8: Agreed. These appendices will be included in the Final ROD.

**Response to Comments from the New York State Department of Environmental Conservation
(NYSDEC) and Health (NYSDOH)**

Subject: Draft Record of Decision (ROD) for the Fire Training and Demonstration Pad (SEAD-25)
and the Fire Training Pit and Area (SEAD-26)
Seneca Army Depot
Romulus, New York

Comments Dated: December 6, 2002

Date of Comment Response: May 19, 2003

General Comments:

Comment 1: It is unclear why quarterly monitoring is proposed for SEAD-25 while annual monitoring is proposed for SEAD-26. Semi-annual monitoring (for example) should be proposed for both SEADs.

Response 1: The Army proposed annual monitoring at SEAD-26 since there was no distinguishable plume, and annual monitoring was sufficient to determine if cleanup goals had been achieved. Quarterly monitoring was proposed at SEAD-25 since there was a plume and more frequent monitoring was required to determine if natural attenuation was occurring. The Army agrees that it is more practical to conduct monitoring at similar intervals. Semi-annual monitoring of the contaminants of concern meets requirements at both sites and is now proposed for SEAD-25 and SEAD-26.

Comment 2: For any deed restriction which may be instituted to ensure that the proposed remedy is adequately protective of human health and the environment, please include a clause compelling the property owner to annually certify to the NYSDEC that the deed restriction is in place, and that the use of the property is consistent with that restriction. This clause should be included in the Statement of Declaration, Remedy Selection, and Description of Alternatives.

Response 2: The selected alternative for SEAD-26, RA26-2 (Institutional Controls and Monitoring of Plume) has been modified since the submission of the Draft ROD in order to eliminate the requirement for permanent land use controls at the site. Based on an agreement between the Army, NYSDEC, and EPA, soils with total carcinogenic PAH (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene) concentrations above 10 ppm will be excavated, for an estimated total volume of 1050 cubic yards (CY). According to available data, the total carcinogenic PAH levels in ditch soils and subsurface soils are below 10 ppm. It should be noted that a review of the available site data suggests that the highest concentrations of the greatest contributors to carcinogenic risk (benzo(a)pyrene and dibenz(a,h)anthracene) that would remain on-site following a removal action

with 10 ppm as a cleanup goal would be 1200 µg/kg and 410 µg/kg, respectively. The area of excavation is presented in a revised Figure 11-1. Land use controls in the form of a groundwater restriction will be an element of the remedy until NYSDEC Class GA groundwater standards are achieved. Details on the implementation and enforcement of the land use controls will be specified in the remedial design plan.

Comment 3: If appropriate, the Army may want to only restrict access to the site groundwater “without proper treatment” until cleanup goals are achieved.

Response 3: Agreed. The areas requiring groundwater use restrictions without proper treatment until ARARs are achieved have been delineated on Figures 6-2 and 11-1 for SEAD-25 and SEAD-26, respectively. The concentrations in the outermost wells within the defined area comply with groundwater ARARs.

Comment 4: The description of the remedy for SEAD-25 does not include the soil and sediment cleanup goals proposed to ensure protection of human health and the environment. Please include.

Response 4: Agreed. Table 1-1A, which presents the soil and ditch soil cleanup goals, has been referenced in the text.

Comment 5: Please revise remedial alternative RA26-2 to reflect that the institutional control of a daycare use restriction is a permanent institutional control, and not an interim one as stated. In addition, a land use restriction to prevent residential use is implied due to the anticipated future use as industrial, yet this restriction is not stated. Please state that the property in question will be restricted to industrial use only.

Response 5: Alternative RA26-2 has been revised (as described in Response 2) to include excavation of surface soils to eliminate the need for any permanent land use restrictions at SEAD-26. However, a temporary groundwater use restriction will be imposed on the site until ARARs for groundwater are achieved. The implementation and enforcement of the groundwater use restriction will be detailed in the remedial design plan. The text has been revised.

Comment 6: It is unclear how there would be a difference between the O&M cost for alternative RA25-3 and RA25-3R, and RA25-4 and RA25-4R where the only significant difference in the remedies is that RA25-3R and RA25-4R call for additional remediation (i.e., excavation of sediment contamination). Please reconcile.

Response 6: The annual O&M cost for non-residential scenarios, which was revised for semi-annual monitoring, includes a \$1500 attorney’s fee to handle issues relating to land use controls. The

unrestricted use scenarios, such as RA25-3R and RA25-4R, do not include the attorney's fee. This accounts for the difference in the O&M costs.

Comment 7: This document should indicate in a figure(s) the extent of deed restrictions, both temporary and permanent, to be implemented.

Response 7: Agreed. There are no permanent land use restrictions, however, there will be temporary groundwater use restrictions at both sites. The areas requiring groundwater use restrictions until ARARs are achieved have been delineated on Figures 6-2 and 11-1 for SEAD-25 and SEAD-26, respectively. The concentrations in the outermost wells within the defined area comply with groundwater ARARs.

Comment 8: New tables that are incorporated in this document as a result of comments issued on the Proposed Plan, are dated months prior to the final Proposed Plan. Please ensure that pages of the document are completely dated so as to avoid confusion.

Response 8: Agreed. The dates on the tables have been updated.

Specific Comments:

Comment 9: Page vi. Acronyms: The Army defines "COC" and "COPC" as a chemical of (potential) concern, however it is applied incorrectly. For instance, on page 9-7, "chemicals of concern (PAHs, metals, and pesticides)," incorrectly defines metals as chemicals. In addition, the Army uses other terms such as "constituents of concern," where COC/COPC should be used. To avoid confusion, the Army should define COC and COPC as "contaminant of (potential) concern", and consistently refer to that definition.

Response 9: Agreed. The text has been revised.

Comment 10: Page 1-1, Declaration of the Record of Decision: The NYSDEC has not "been delegated the authority to approve this Record of Decision (ROD)," but has been consulted with and will presumably concur with the selected remedial action. Please correct.

Response 10: Agreed. The text has been revised.

Comment 11: Page 1-2, Description of the Selected Remedy: For the sixth bulleted item, it should be stated that the Army will conduct groundwater monitoring of the plume "until ARARs are achieved (approximately 10 years)." The word "public" should be removed from the seventh bulleted item. Lastly, for the eighth bulleted item, the Army states that five-year reviews will be completed.

The Army should expand it by stating that “every five years (at a minimum), a review of the selected remedy will be undertaken by the Army and USEPA in accordance with Section 122(c) of the CERCLA.”

The second sentence in the third paragraph beginning with “(T)hese standards are based on USEPA Maximum Contaminant Levels (MCLS),” is incorrect, and should be removed from the text.

Response 11: The text has been revised. The sixth bullet states “Conduct semi-annual groundwater monitoring of the plume for COCs until NYSDEC Class GA groundwater standards are achieved (approximately 10 years);” The eighth bullet states “Complete a review of the selected remedy every five-years (at minimum), in accordance with Section 121(c) of the CERCLA.”

Comment 12: Page 1-3 Description of the Remedy: Under SEAD-25, it should be clarified that it will be noted that the site-related contaminants in the adjacent roadside ditch do not contribute to an unacceptable “human health” risk at the site. Under SEAD-26, the second bulleted item should be revised to read “...until the groundwater clean up goals are met as well as a land use restriction to prohibit use as a daycare facility.”

Response 12: Agreed. The text for SEAD-25 has been revised.

Alternative RA26-2 has been revised to include excavation of soils to eliminate the need for any land use restrictions at SEAD-26; however, a temporary groundwater use restriction will be imposed on the site until ARARs for groundwater are achieved. The text has been revised to add bullets describing the excavation of PAH contaminated soils and the groundwater use restriction.

Comment 13: Page 1-7, Declaration: Because this is the ROD, albeit a draft version, the tense should be changed from future tense to past tense. Also, please note that the NYSDOH forwards their letter of concurrence to the NYSDEC. We then, in turn, forward our concurrence to the USEPA.

Response 13: At the request of EPA, this section has been removed from the text due to redundancy. The following text has been added to the *Concurrence* section on page 1-4: “The New York State Department of Health (NYSDOH) forwarded a letter of concurrence regarding the selection of a remedial action to the New York State Department of Environmental Conservation (NYSDEC), and NYSDEC, in turn, forwarded to the U.S. Environmental Protection Agency (EPA) a letter of concurrence regarding the selection of a remedial action in the future.”

Comment 14: Page 1-9, Declaration: Please indicate the name of the US Army Material Command Chief of Staff who will be signing the document.

Response 14: Acknowledged. The name will be added once the ROD is Final.

Comment 15: Page 2-1, Site Name, Location and Description: First sentence should indicate that SEDA is a “former” military facility. The last statement in this section regarding vehicular access should denote that it is “currently provided to the site via locking gate on 7th Street.”

Response 15: Agreed. The text has been revised.

Comment 16: Page 3-1, Site History and Enforcement Activities: This section should include a statement denoting the closure of the base.

Response 16: Agreed. The following statement has been added at the beginning of the fourth paragraph: “In 1995, SEDA was designated for closure under the Department of Defense’s (DoD’s) Base Realignment and Closure (BRAC) process.”

Comment 17: Page 4-1, Community Participation: The last statement is incorrect, RAB meetings are held on more of a quarterly or bi-monthly basis, not monthly as indicated.

Response 17: Agreed. The text has been revised.

Comment 18: Page 5-1, Scope and Role: The statement that this alternative was selected because it “eliminates sediments that contribute to human health risk,” is misleading because not all contaminated sediments (i.e., the sediments in the ditch to the southeast), are proposed to be removed. The Army should revise this statement. (Also, as a side note, the Army should name the ditch to the southeast for future reference.)

Response 18: Disagree. The post-remediation risk calculations performed in the FS (Table G-32) demonstrate that once the sediment in the northwest ditch is removed, there is no risk from exposure to sediment at SEAD-25. The pre-remediation cancer risk HI for ingestion of sediment for a future resident is 10^{-3} , while the post-remediation HI is 2×10^{-6} . Even though the proposed alternative does not remove all sediment from the site, it does include the removal of all sediment that contributes to unacceptable human health risk.

Comment 19: Page 5-2, Scope and Role: The first sentence on this page states that, “...the groundwater is impacted by relatively low concentrations of volatile organics in the one well on site..” and should be changed to read “in only one well on site.” It is stated that SEAD-26 ranked

higher for, among other criteria, long-term effectiveness. This statement should include a discussion on institutional controls and how it relates to long-term effectiveness.

Response 19: Agreed. The text has been revised. As described above, under the selected remedies, there are no permanent land use controls at SEAD-25 or SEAD-26. Once groundwater ARARs are achieved and the temporary groundwater restrictions are removed from both sites, the selected remedies will become more effective and permanent.

Comment 20: Page 6-3, SEAD-26: The last sentence in Section 6.2 stating “(H)owever, the constituents that exceed NYSDEC GA Standards in the groundwater are no longer found in the soil of SEAD-26,” should be further explained as to why there are no longer soil contaminants at SEAD-26.

Response 20: Agreed. The statement has been revised to clarify that the levels of COCs have already attenuated in the soil.

Comment 21: Page 7-3, SEAD-25: The statement that the “risk analysis for a future on-site resident showed that the excess cancer risk under this exposure scenario is 1×10^{-3} ,” is contrary to that which was stated in the Final Proposed Plan, in that the “...excess cancer risk under this exposure scenario is 1×10^{-4} (revised from 1×10^{-3} in RI/FS).” Please reconcile.

Response 21: In order to be consistent with backup material presented in previous reports, values cited in the text (and their source tables) correspond to calculations presented in the RI/FS. A footnote has been added to Table 7-3, which has been revised to clarify that the risk values presented in this section correspond to calculations from the RI/FS, and the risk values presented in the Proposed Plan will be noted, as well. It should also be noted that the cancer risk calculated for a future on-site resident using the revised EPC is 3×10^{-4} , and not 1×10^{-4} .

Comment 22: Page 7-4, SEAD-26: In the first sentence of the second paragraph, it states that “...the HI for a child slightly exceeds 1...” The Army should state what the HI is for a child resident.

Response 22: Agreed. The HI for a child resident is approximately 1.3. This detail has been added to the text.

Comment 23: Page 7-4, Additional Information on SEAD-25 and SEAD-26 Human Health Risk Assessment: In the third paragraph of this section, the Army provides reasons for considering a residential scenario in the analysis of alternatives, but fails to mention that it is NYS regulation to restore inactive hazardous waste disposal sites to predisposal conditions, to the extent feasible and authorized by law as well as CERCLA’s requirement to analyze a range of alternatives.

Response 23: Agreed. A statement has been added that a residential scenario was also included due to NYSDEC requirement that the site be restored to pre-disposal conditions.

Comment 24: Page 7-5, Section 7.2, Ecological Risk Assessment: In the third sentence of the second paragraph in this section, it states that "(In general, guidelines suggest that..." This sentence --should be expanded to explain whose guidelines are being referenced. In the third sentence of the third paragraph, the phrase "initially suggested" should be replaced with "determined." In the second sentence of the fourth paragraph, "between 10 and 100," should be replaced with "greater than 1."

Response 24: The guidelines referenced are from Step 2 in the screening-level exposure estimate and risk calculation in Ecological risk Assessment Guidance for Superfund (ERAGS): Process for Designing and Conducting ecological Risk Assessments (USEPA 1997). The text has been revised.

Comment 25: Page 8-1, Remedial Action Objectives: In the second paragraph, "guidance documents" should be included in the list of available information that the remedial action objectives are based upon. Also, in the bulleted list, "constituents" should be replaced with "contaminants."

Response 25: Agreed. The text has been revised.

Comment 26: 9-2, Description of Alternatives: Please include a construction time for Alternative RA25-2. Also, under this alternative description, it states that the "cost of this alternative is relatively high since it includes quarterly groundwater monitoring..." However, under the Selected Remedy section for SEAD-26, it calls for conducting annual groundwater monitoring for 20 years. This discrepancy is noted several times in this document, and needs correction.

Response 26: No construction time is required for RA25-2, Institutional Controls and Natural Attenuation of the Plume.

The Army proposed annual monitoring at SEAD-26 since there was no distinguishable plume, and annual monitoring was sufficient to determine if cleanup goals had been achieved. Quarterly monitoring was proposed at SEAD-25 since there was a plume and more frequent monitoring was required to determine if natural attenuation was occurring. The Army agrees that it is more practical to conduct monitoring at similar intervals. Semi-annual monitoring meets requirements at both sites and is now proposed for SEAD-25 and SEAD-26.

Comment 27: Page 9-3, Description of Alternatives: Each alternative should include a specific description of the institutional controls required for that alternative. Since these alternatives call for varying degrees of institutional control requirements, it is inappropriate for each alternative description to refer to a general paragraph at the beginning of this section.

Response 27: Agreed. The type of land use controls included as an element of each alternative will be detailed within the description of that alternative. The details regarding implementation and enforcement of the land use controls will be specified in and implementation and enforcement plan, which will be part of the remedial design plan.

Comment 28: Page 9-5, Alternative RA25-4: The second paragraph does not belong in this document as it pertains to remedial design. Please remove.

Response 28: Agreed. The paragraph has been removed.

Comment 29: Page 9-6, Description of Alternatives: "SPDES" should be defined first.

Response 29: Agreed. SPDES has been defined as "State Pollution Discharge Elimination System" in the text and in the list of acronyms in the Table of Contents.

Comment 30: Page 9-7, Description of Alternatives: Under the Descriptions of Alternative RA25-3R and RA25-3AR, the volume, depth, width, and horizontal extent of contamination proposed to be remediated should be provided.

Response 30: Agreed. The dimensions of the remedial area have been added to the text for Alternative RA25-3R and RA25-3AR. All alternatives have a remedial area in the center of the site that covers approximately 6000 square feet (sf) to a depth of 6 feet and a volume of 1350 cubic yard (CY). For all residential alternatives, an additional remedial area is defined in the northwest ditch, covering approximately 2360 sf, to a depth of 2 feet and with a volume of 175 CY (roughly 787 linear and a width of 3 feet).

Comment 31: Page 9-8, Alternative RA25-3R: It should be phrased that "the air sparging system is estimated to run for about 10 years." The same with the following sentence, where "groundwater is estimated to be monitored for 10 years."

Response 31: Agreed. The text has been revised.

Comment 32: Page 9-8, Alternative RA25-3AR: It should be clarified that "groundwater will be monitored for approximately 15 years."

Response 32: Agreed. The text has been revised.

Comment 33: Page 9-9, Alternative RA26-2: The State is unaware of any “(C)urrent monitoring activities,” that “include quarterly monitoring of a number of wells in place at the site.” Please reconcile.

Response 33: Agreed. Currently, there are no monitoring activities at SEAD-26. This statement has been removed from the text.

Comment 34: Page 9-11, Alternative RA26-4: In the first paragraph it states that “groundwater would pass through a liquid phase carbon unit,” then in the next paragraph it states that “...if carbon is used...” Please reconcile.

Response 34: Agreed. The two references to the carbon unit have been clarified to state that, if necessary, the carbon would be used to polish the liquid phase.

Comment 35: Page 9-10, Description of Alternatives: The statement that “(T)he administrative feasibility of this alternative is good,” not only needs further discussion, but should discuss administrative feasibility as it relates to the institutional control requirements required for this alternative.

Response 35: Agreed. The statement has been modified to include that the implementation of this alternative (RA26-3) may be complicated by the presence of permanent land use controls as an element of the alternative.

Comment 36: Page 10-5, Reduction of Toxicity, Mobility or Volume: The statement regarding RA25-3R and RA25-3AR states that they “received the highest ranking rating because they would permanently destroy all the constituents of concern.” This statement is incorrect, for the COCs would be transferred to the atmosphere, not destroyed. Please revise.

Response 36: Agreed. The statement has been revised to state that RA25-3R and RA25-3AR received the highest ranking because they would remove all the COCs from the media of concern.

Comment 37: Page 10-7, Cost: A sentence should precede the discussion explaining that the highest ranking alternative relates to the lower cost.

Response 37: Agreed. A sentence has been added to the text that states that the highest ranking alternative corresponds to the lowest cost.

Comment 38: Page 10-9, State Acceptance: This section should be replaced with the following: “(S)tate acceptance addresses technical and administrative concerns of the State with regard to

remediation. The NYSDEC has provided input during the preparation of the Proposed Plan and ROD and their concurrence with the selected remedy is given in Appendix B.”

Response 38: Agreed. The text has been revised.

Comment 39: Page 10-9, Community Acceptance: This section should be replaced with the following: “(C)ommunity acceptance addresses public comments received on the Administrative Record and the Proposed Plan. Community comments to the selected remedy were evaluated following the public comment period and are discussed in the Responsiveness Summary (Appendix C).”

Response 39: Agreed. The text has been revised.

Comment 40: Page 10-9, Section 10.2.2 SEAD-26, Overall Protectiveness of Human Health and the Environment: The last sentences of this section, “...ecological risk at this site is negligible,” followed by “the No-action alternative scored poorly for protection of the environment,” are contradictory. Please reconcile.

Response 40: Agreed. The last statement of the section has been removed from the text.

Comment 41: Page 10-11, Implementability: The implementation of institutional controls should be discussed in this section.

Response 41: Agreed. Discussion has been added to the text that states that Alternative RA26-2 is rated favorably since there would be no permanent land use controls to enforce.

Comment 42: Page 10-11, Cost: The first sentence is incorrect, and should be removed from the text. State and community acceptance should be the last two criteria.

Response 42: Agreed. The sentence has been removed from the text.

Comment 43: Page 11-1, Selected Remedy:

- a) In the Final Proposed Plan under “Preferred Alternative” it states that for SEAD-25, “(T)he goal of the remedial action is to have no residual contamination in soil above TAGM levels and to remove the risk to human health.” However, this statement was not carried over to this ROD. Please include.
- b) The sentence preceding the first bulleted item for SEAD-25 should read “(T)he elements that compose the remedy include.” The first bulleted item for SEAD-25 should read that

“(E)xcavate soil at the source in an area approximately 60 feet by 100 feet to a depth of 6 feet, as depicted in Figure 6-2, (approximately 1,350 cubic yards (CY).” The second bulleted item should read “(E)xcavate a volume of sediment approximately 780 feet long, 3 feet wide, and 2 feet deep, as depicted in Figure 6-2, (approximately 175 CY) from the northwest ditch.” Also, an additional bullet should be added to the elements of the remedy that states that the excavated soils will be disposed of at an off-site facility legally allowed to handle such wastes.

- c) Under the second set of bulleted items, the second bulleted item should add a clause to read that the deed restriction will prohibit human or ecological exposure of groundwater from the site “without proper treatment.”

Response 43:

- a) Agreed. The statement has been added to the ROD.
b) Agreed. The text has been revised.
c) Acknowledged. This section has been revised to incorporate more appropriate language on land use controls.

Comment 44: Section 11.0, Selected Remedy, SEADS 25 and 26: Please revise statements “...the deed may prohibit...” to “...the deed will prohibit...”

Response 44: Acknowledged. The section has been revised to incorporate more appropriate language on land use controls and deed restrictions.

Comment 45: Section 11.0, Selected Remedy, SEAD 26: The last sentence should read that “it is estimated” to take longer than other remedies to achieve clean up goals.

Response 45: Agreed. The text has been revised.

Comment 46: Page 12-3, Section 12.2.2, The Selected Remedy Attains ARARs: The statement regarding SEAD-26 that “(O)nce ARARs are achieved from groundwater, land use controls would no longer be required,” is misleading. Although groundwater use restrictions may be lifted, the restriction regarding residential and daycare use will remain in place.

Response 46: As previously noted, the selected remedy for SEAD-26, RA26-2, has been modified; consequently, once the excavation of soils is completed, permanent land use controls would not be required. Therefore, the statement is correct.

Comment 47: Page 12-3, Section 12.2.3, The Selected Remedy is Cost Effective: This section does not discuss the costs of institutional controls to restrict the property from daycare and residential use. Please include.

Response 47: Acknowledged. As mentioned, the remedy has been modified, and permanent land use controls, such as restricting the property from daycare or residential use, are not part of the remedy.

Comment 48: Page 12-4, Section 12.2.5: In the last sentence, it is unclear who the land use controls will be protecting.

Response 48: Agreed. The land use controls would protect potential future receptors from contact with the groundwater.

Comment 49: Figure 6-1: The groundwater flow direction in this figure does not correlate well with the plume sketches on Figure 6-2.

Response 49: Agreed. Figure 6-1 has been modified to more clearly illustrate the direction of groundwater flow. In addition, the following discussion on groundwater flow has been added to the text in Section 6.1.2, *Impacts to Groundwater*:

“The groundwater flow direction is shown in Figure 6-1. Results of groundwater contour mapping indicate that groundwater flow is radial below the pad, with a strong horizontal gradient to the south and west. The radial groundwater flow that has developed below the pad at SEAD-25 is believed to be a local phenomenon that is present because of the influence of the anthropomorphic bedrock topographic mound located below the pad. The mapping also indicated that the groundwater flow in the deeper portion of the aquifer located in the competent shale zone is to the west and southwest.”

Comment 50: Figure 3-2: It would be helpful if this figure included the locations of SEADs 25 and 26.

Response 50: Assuming that the reference is to Figure 3-1, agreed. The location of SEAD-25/26 has been indicated on the map.

Comment 51: Tables: There should be a table indicating the results of the baseline risk assessment performed, in addition to indicating the post remedy human health and ecological calculated risks.

Response 51: Agreed. Table 7-2, which presents the results of the baseline risk assessment (BRA) for human health at SEAD-25 was included in the ROD. In addition, a Table 7-4 presenting the BRA

for human health for SEAD-26 has been added to the document. The post remedy human health risk for both sites is included in Tables 10-1 and 10-2 for SEAD-25 and SEAD-26, respectively.

The Army does not feel that it is appropriate to include tables for ecological risk, since it was determined that ecological risk was negligible. The conclusion that there is no significant ecological risk was resolved by assessing both the numerical values presented in risk tables and by incorporating risk management decisions.

Comment 52: Tables 6-1B through 6-2C: All of these tables should include the footnote that was included in the Proposed Plan denoting that “According to the statistical analysis conducted in Section 6.2.3 of the RI report, lead, selenium, and thallium are the only elements that tend to be greater than the inorganic element concentrations that were detected in the same background media.”

Response 52: Agreed. All tables include that footnote.

Comment 53: Table 6-2B: Please revise the “Metals” asterisk marking to reflect three asterisks instead of the two listed. The footnote for two asterisks regards semi-volatile compounds, not metals.

Response 52: Agreed. The table has been revised.

Comment 54: 6-2C: Is there a footnote #1? If not, footnotes #2 through #4 should be re-numbered accordingly.

Response 54: Agreed. The footnotes have been renumbered.

Comment 55: Table 7-1: The footnote seems to be in error and should be revised.

Response 55: Agreed. The footnote has been revised to state “This value represents the EPC used in risk calculations in the RI/FS. In the RI/FS, the EPC may have been elevated due to the fact that the 95% UCL of the mean was always selected as the EPC, even if it was greater than the maximum concentration detected. Since the completion of the RI/FS, risk values have been recalculated using the lower of the 95% UCL of the mean and the maximum hit.”

Comment 56: Table 8-1B: The first footnote has been segmented. It should read “...From 6 NYCRR Parts 701-705. TOGS 1.1.1, June 1998.”

Response 56: Agreed. The footnote has been revised. It should be noted that in the Draft Final ROD, this table is first referenced in Section 1.0. Consequently, Tables 8-1A and 8-1B have been renamed Tables 1-1A and 1-1B.

Comment 57: Table 10-1: For alternative RA25-4R under Protectiveness of Human Health and the Environment, “risk” has been omitted as the last word in the description regarding exposure pathways. Under Long-term Effectiveness, the treatment criteria for Alternatives RA25-4, RA25-5, RA25-6, RA25-3R, RA25-3AR, and RA25-4R should be to attain the groundwater standards for all contaminants of concern, not just benzene. Please revise. Also, under Implementability and the Ability to Obtain Approvals and Coordinate with Other Agencies, the descriptions refer to requiring agency approvals for final remedy selection and monitoring plan and parathetically refers to NYSDEC and EPA. As stated in NYSDEC TAGM #4030, “(A)ministrative feasibility refers to compliance with applicable rules, regulations, and statutes and the ability to obtain approvals from other offices and agencies.” It is my understanding that administrative feasibility does not include the NYSDEC, USEPA or Army. This table should be revised accordingly. Also, for state and community acceptance, the tense of “will be documented in the ROD” should be changed to reflect that this document in the ROD (this applies to Table 10-2 as well).

Response 57: Agreed. The tables have been revised.

Comment 58: Table 10-2: As stated above, the treatment criteria should be attaining groundwater standards for all contaminants of concern, not just benzene. Please revise all descriptions under permanence that refer to “<1ug/L (benzene)”.

Response 58: Agreed. The table has been revised.

Comment 59: Appendix A: The administrative record is missing. Please include.

Response 59: Agreed. The administrative record has been added to Appendix A.

Comment 60: Page D-6, Section D.2.3, Soil Quality: The statement that “(S)ite Cleanup Goals (SCG) for metals have been determined as either the site background concentration or the NYSDEC TAGM value, whichever is higher,” is misleading, because TAGM 4046 only incorporates background values on specific contaminants that may defer to background numbers. Also, the second sentence should refer to #HWR-92-4046, not 4045.

Response 60: Agreed. The text has been revised as follows: “Site Cleanup Goals (SCG) for metals have been determined based on the TAGM values, which, for some specific inorganics, defers to the site background values.”

Comment 61: Page D-7, New York State: This section should recognize 6 NYCRR Part 375 as a location-specific ARAR.

Response 61: Agreed. The text has been revised.

Comment 62: All of the above should be addressed in all other sections of the document as appropriate. For example, there are several comments that reference the text, but are applicable to the tables as well.

Response 62: Agreed. The document has been revised in accordance with all comments.