



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

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May 15, 1997

Mark Evans, Remedial Project Manager
U.S. Department of the Navy
Naval Facilities Engineering Command
Northern Division
10 Industrial Highway
Code 1823, Mail Stop 82
Lester, PA 19113-2090

Re: Feasibility Study for Defense Reutilization and Marketing Office

Dear Mr. Evans:

Thank you for the opportunity to review the *Feasibility Study for Defense Reutilization and Marketing Office, Naval Submarine Base New London, Groton, Connecticut* ("FS") dated February 1997. EPA reviewed for adequacy in adhering to the National Contingency Plan ("NCP") (40 C.F.R. §§ 300.400 and 300.430) and consistency with relevant EPA guidance. In particular, EPA's review emphasized the process of identifying and screening alternatives as described in the *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*, U.S. EPA, Interim Final, October 1988. EPA also verified the cost estimates in Appendix C for completeness. Detailed comments are provided in Attachment A.

I am concerned that the FS does not include an evaluation of groundwater treatment technologies. During the conference call on November 21, 1996 we agreed to evaluate these options within this FS. From a long-term planning perspective, it is particularly important to develop a comprehensive FS because the Record of Decision ("ROD") may need to contain a contingent remedy. In other words, the groundwater monitoring data may indicate that additional remedial action is required and it would be costly and time-consuming to develop a third FS.

EPA agrees with the Navy that groundwater monitoring and institutional controls should be the remedy selected for DRMO. However, since it is not clear whether the preferred remedy will achieve ARARs and protect the Thames River over the long-term, the Record of Decision must be considered interim at this time. As additional data regarding groundwater quality and the health of the Thames River become available, we will decide upon a final remedy for the site.

As we have discussed, the discussion regarding compliance with ARARs and TBCs is not complete. The FS must clearly describe how each alternative complies with each ARAR or TBC listed. This seems to be a recurring obstacle in recent FSs, and I trust that the Goss Cove FS will be correct. Also, the FS text and ARARs/TBCs should be updated to reflect the recent



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groundwater reclassification. EPA's comments on the ARARs that were submitted on April 28, 1997 are provided in Attachment B.

EPA considered placement of a RCRA C cap as one alternative because hazardous wastes will be left on site, but does not believe that a RCRA C cap is appropriate because the waste at DRMO is already saturated and reducing infiltration will not yield any appreciable environmental benefit. Therefore, RCRA C regulations are relevant, but not appropriate.

The discussions and analysis of the No Action Alternative should address the current condition of the site. Specifically, the FS should explain the presence of a cap over the areas where a prior removal action occurred. Owing to the existence of the cap, the primary difference between Alternatives 1 and 2 is the proposed land use restrictions and groundwater/surface water monitoring. It appears that most of the physical benefits of reducing exposure to surface contaminants has already been achieved by the existing cap. This should be noted in discussions and comparisons regarding Alternative 1.

The FS must discuss administrative feasibility under the implementability criterion. The NCP [40 C.F.R. §300.430 (e)(9)(iii)(F)(2)] states that the ease or difficulty of implementing the alternatives shall be assessed by considering technical feasibility, administrative feasibility, and availability of services and materials.

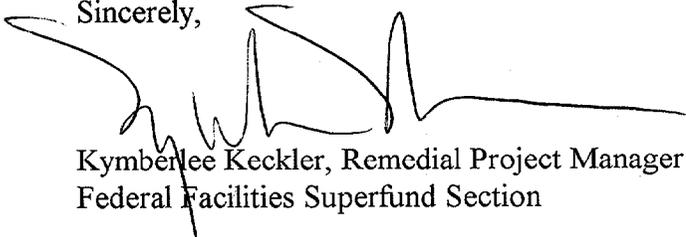
DRMO provides limited habitat for terrestrial ecological receptors and the Time-Critical Removal Action performed in January 1995 essentially eliminated the exposure pathways. The FS, however, should further discuss potential ecological risk to the Thames River. The major ecological concern at DRMO is future transport of contaminated soils or groundwater to the Thames River (*see also* comment for page 2-1). It is critical that these potential cross-media impacts are evaluated during the detailed analysis of alternatives in light of each alternatives' overall protectiveness of human health and the environment. Based on these potential ecological concerns, institutional controls and monitoring are warranted.

Institutional controls and groundwater sampling is proposed to occur quarterly during the first year of monitoring and then annually after baseline conditions have been established. This is not consistent with what was discussed during our negotiations on the *Groundwater Monitoring Plan* dated August 1996. It is possible that one year of quarterly monitoring may not accurately represent baseline conditions. Usually, a minimum of two years of quarterly sampling is required. Additionally, EPA indicated that sampling frequency may be reduced to twice per year only after four consecutive rounds of clean data have been collected. The monitoring plan should include surface water and sediment sampling from the three storm water outfalls identified on Figure 1-3. Sediment chemistry and toxicity testing references were omitted throughout the document and should be included. If surface water or sediment concentrations in the storm water outfalls exceed ecotoxicological benchmarks *or* surface water protection criteria then surface water or sediment toxicity testing may be necessary.

Sediment toxicity tests conducted at T3SD4-02 were significantly more toxic than the control for *Ampelisca abdita*. PAHs and PCBs in DRMO soils could be responsible for the observed toxicity. Therefore, these contaminants should be retained as COCs for sediment monitoring. Major contributors to risk for benthic invertebrates were DDD, heptachlor, mercury, DDT, DDE, copper, endrin aldehyde, lead, and arsenic. Groundwater, surface water, and sediment should be analyzed for all of these contaminants.

I look forward to working with you and the Connecticut Department of Environmental Protection to cleanup the DRMO. Please do not hesitate to call me at (617) 573-5777 to arrange a meeting to discuss these comments and the preferred remedy for the DRMO.

Sincerely,



Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachments

cc: Mark Lewis, CTDEP, Hartford, CT
Andy Stackpole, NSBNL, Groton, CT
David Peterson, USEPA, Boston, MA
Patti Lynne Tyler, USEPA, Boston, MA
Ken Finkelstein, NOAA, Boston, MA
Jennifer Hayes, Gannett Fleming, Harrisburg, PA
Matthew Cochran, Brown & Root, Pittsburgh, PA

ATTACHMENT A

<u>Page</u>	<u>Comment</u>
p. ES-4	Please cite the source (<i>e.g.</i> , risk based, State/federal standard) of the values presented in Table ES-1.
p. ES-5	In the table under Containment/Process Options, should capping be mentioned as one of the options since Alternative 3 will involve recapping the site after hot spot excavation?
p. ES-5, bullet 1	Alternative 1 should acknowledge the existing cap on the site.
pp. ES-5&6	The first two lines of the Alternative 2 bullet are repeated.
p. ES-6, bullet 3, <i>et seq.</i>	Add “and Permanence” after “Long-term Effectiveness.”
p. ES-6, bullet 4, <i>et seq.</i>	Insert “or” after “Mobility.”
p. ES-7, line 1	Delete “including” after “Two other criteria....”
p. ES-7, bullets 1&2	The Alternative 1 assessment should note that the existing cap provides limited protection of human health and the environment.
p. ES-7, bullet 3	Please change the name of this criterion to “Long-term Effectiveness and Permanence.”
p. ES-8, line 2	The mere removal of contaminated soils under Alternative 4 does not satisfy this criterion.
p. ES-8, bullet 1	Alternative 4 poses potential short-term risks to workers from air emissions. Are there any short-term air emission risks to the community (such as are noted for fugitive dust)?
p. ES-8, bullet 2	Please note potential site difficulties (<i>e.g.</i> , excavating below groundwater levels and adjacent to a tidal river) for Alternative 3 and 4.
p. 1-3, §1.2.2, ¶4	The NSB was placed on the NPL on August 30, 1990.

- p. 1-10, §1.2.8 *et seq.* Please update to reflect that the groundwater at the NSB was reclassified to GB on March 5, 1997 (*see also* page 1-34, footnote 5; page 1-36, ¶2; page 2-11, last ¶).
- p. 1-15, ¶1 Is more recent census data available?
- p. 1-16, §1.2.10.3 This section should discuss whether the NSB - and particularly the DRMO - provides critical habitat to threatened or endangered species. It should also discuss whether the DRMO (or planned remedial activities at the DRMO) jeopardizes any threatened or endangered species present in the vicinity of the site.
- p. 1-26, §1.3.3.4, ¶3 Please specify whether the cap meets the RCRA C requirements.
- p. 1-30 *et seq.*,
Table 1-1 Please indicate the dates that the sampling occurred.
- p. 1-44, ¶5 It is unclear why the groundwater data was compared to MCLs. Was this comparison intended merely as a screening tool?
- p. 1-47, §1.4.3 This section should also address the potential for migration of contaminants in the DRMO to migrate and adversely affect ecological receptors in the Thames River. Toxicity data from the Thames River adjacent to the DRMO should also be discussed.
- p. 1-54, Bullet 1, ¶1 Delete the last sentence. While infiltration usually contributes to contaminant leaching, it is somewhat inconsequential at the DRMO site where the majority of the contaminated soils are in the water table.
- p. 1-54, Bullet 2 Please discuss potential ecological risks to the Thames River.
- p. 2-1, §2.1.1, ¶1 This FS should also discuss groundwater as previously agreed.
- p. 2-1, §2.1.1 One of the purposes of the groundwater monitoring is to evaluate whether the groundwater discharging to the Thames River has been contaminated from soils in the DRMO and is causing an adverse ecological effect (*see* EPA's letter dated October 1, 1996). Accordingly, please include an RAO that addresses protection of ecological receptors in the Thames River. This RAO should include the COCs present at the DRMO, the exposure route (groundwater), and the ecological receptors in the river. (*See also* page ES-2.) The groundwater monitoring plan should evaluate whether cross-media impacts are occurring.

- p. 2-1, §2.1.1
Bullet 1 The NCP states that "...the assumption of future residential land use may not be justifiable if the probability that the site will support residential use in the future is small..." It is therefore unclear why a future residential land use scenario is part of the RAO. This is also not consistent with Section 4.2.2. (*See also* page ES-2.)
- p. 2-1, §2.1.1,
Bullet 2 The requirement for the remedy to meet ARARs is not an objective, it is mandatory. Please delete this RAO. (*See also* page ES-2.)
- p. 2-1, §2.1.1 Please address potential groundwater contamination.
- p. 2-11, §2.1.4.1 Please correct the date that the public hearing for groundwater reclassification was held.
- p. 2-14, Table 2-3 Table 2-4 does not include PCBs in the list of chemicals of concern ("COCs"). Since PCBs were detected at elevated levels in surface and subsurface soil samples, they should be included.
- p. 2-20 Please specify the media that these PRGs are relevant to. How do the PRGs compare to the CTDEP RSR?
- p. 2-20, §2.2.1.1 PRGs were developed by selecting COCs that contributed at least 1×10^{-6} to the incremental cancer risks ("ICRs") or a 0.1 HI for non-carcinogenic risk. However, it appears that not all of the chemicals meeting these criteria were included as COCs. Appendix A identified COCs with ICRs of 1×10^{-6} or greater: Benzo(a)pyrene, benzo(b)fluoranthene, arsenic, and beryllium have ICRs of 1×10^{-6} or greater for full-time employees and were not used in the calculations of PRGs. Please check that PRG development includes all chemicals contributing to an unacceptable risk level.
- p. 2-21, §2.2.1.4 Change "and" to "or."
- p. 2-23 Table 2-7 should identify which PRG was selected (*e.g.*, highlight the lowest number or add a new column).
- p. 2-28, Table 2-8 OSHA requirements (29 C.F.R. Part 1910) must be met. The ARARs tables, however, should not list these requirements because they are not environmental standards.
- p. 3-1, §3.1 EPA's Vendor Information System for Innovative Treatment Technologies database may also provide useful information. Please evaluate to determine whether additional alternatives should be added.

- p. 3-7, §3.3.1 The description of the No Action alternative should acknowledge that the area is already partially covered with a cap.
- p. 3-8, §3.3.1 Under Effectiveness, please explain whether (and to what degree) the existing cap meets the remedial action objectives for the site.
- p. 3-8, §3.3.1 The Conclusion section should state whether the existing cap is sufficient.
- p. 3-8, §3.3.2 Should potential problems associated with excavating below groundwater levels be discussed in the Effectiveness section?
- p. 3-9, §3.3.3 It is unclear from this section what actions have already been done as part of the cap installation and what additional measures may be proposed. For example, the second paragraph says "During the installation of the GCL cap, surface water drainage channels were installed...." In the next paragraph under Effectiveness, the text states "Surface water controls would be effective in the collection...." It is unclear throughout this section whether the present surface water controls are being discussed, or additional controls that need to be constructed. Under Cost it says that surface water control costs would be low to moderate, but under Conclusion it says that no additional controls are required. Please clarify.
- p. 3-9, §3.3.3 If areas of the site are excavated under Alternatives 3 and 4, the damaged cap and surface water/erosion control structures should be replaced.
- p. 3-11, §3.3.4 In the Effectiveness section, please describe the difficulties of excavating below groundwater level, adjacent to a tidal river.
- p. 3-12, last ¶ What is known about the risk posed by solidified materials to human health or the environment? Have toxicity studies been performed?
- p. 3-22, §3.4 Please explain that recapping may be required under Alternative 3 to restore the existing cap.
- p. 4-4, ¶ after bullet 3 Delete "...or industrial." What is an industrial community and how would there be exposure to future residents within it?
- p. 4-4, §4.2.4 It is important to definitively identify the future land use of the DRMO. The PRGs should be based upon the future land use scenario selected.
- p. 4-6, §4.3.1 Please note that the No Action alternative does include the existing cap over part of the site that is providing some benefits.

- p. 4-6, §4.3.3 Should restoration of the cap be included in the list of components?
- p. 4-6, §4.3.2 As we have discussed, the groundwater monitoring plan should establish a tiered approach to evaluating potential ecological effects. As a result, sediment chemistry and toxicity testing should be included. Also, please refer to the groundwater monitoring plan in the text.
- p. 4-7, §4.3.4 In the title and in the first sentence, change “Contaminated” to “Treated.”
- p. 4-7, §4.3.4 It is unclear whether the concentrations of organic contaminants are high enough to justify a thermal desorption chemical fixation/solidification combination. The cost of the thermal desorption treatment option is 20% of the total cost for the alternative, while chemical fixation/solidification generally can treat soil contaminated with relatively immobile organics, such as PCBs and PAHs. Please evaluate chemical fixation/solidification without thermal desorption.
- p. 5-2, #2 Replace “variance or exemption” with “waiver.”
- p. 5-4, §5.2.1 The No Action alternative should address the partial benefits already in place because of the existing cap.
- p. 5-6, §5.2.2.1, ¶1 Would this alternative be equally operative if the site was owned by someone other than the Navy, but maintained privately for industrial purposes? All institutional controls should be incorporated into any property transfer (*e.g.*, deed restrictions, maintaining monitoring requirements).
- p. 5-6, §5.2.2.1 A description of the well upgrades and new monitoring wells, that will be installed during excavation, should be included. These upgrades and new monitoring wells are identified in the cost estimate in Appendix C but not discussed in the text.
- As mentioned previously, sediment monitoring should also be conducted and a minimum of two years of quarterly sampling may be needed to establish baseline conditions.
- p. 5-9, §5.2.2.1 The FS only includes the potential collection of surface water samples if contaminants in groundwater samples exceed the established criteria. Sediment samples should also be collected.
- p. 5-11, ¶4 The cost estimate provided in Appendix C does not include the cost of surface water monitoring. The text states that groundwater and surface

water monitoring will identify any exceedance of PRGs for surface water. The cost estimate in Appendix C should include costs for surface water monitoring.

p. 5-12

Describe the potential exposure to workers during well installation, monitoring, and maintenance under Short-term Effectiveness.

p. 5-13, §5.2.3.1

Would the entire cap be removed or just in the area of the “hot spots?” Please explain that any disturbed portions of the cap will be repaired.

p. 5-13, §5.2.3.1

The cost estimate, Appendix C, only includes costs for confirmation samples for PCBs. Samples should be analyzed for all of the COCs identified for the industrial land use scenario.

The monitoring component of the alternative is not described in the text. Please discuss the type of monitoring that would occur, the frequency, and the duration.

Does the estimated completion time for construction include mobilization/demobilization and procuring a contractor?

p. 5-13, ¶6

“Hot spot” excavations are planned to be backfilled with clean material. How do you plan to verify whether the backfill is “clean?” If tests are proposed, the costs associated with such tests should be included in the cost estimate, Appendix C.

p. 5-17, ¶1

Excavations at depth may require the installation of sheet piling. The presence of sheet piling may preclude the collection of samples along the excavation sidewall to confirm PRGs. Please identify how the deep excavations will be performed and how confirmation samples will be collected if sheet piling is installed.

The text should discuss how wastewater will be pretreated and any testing that will occur before discharge into the sewer. Please develop a contingency plan in case the wastewater cannot be discharged to the sewer system.

p. 5-17, ¶1

Please describe in greater detail what will happen to the groundwater that enters the “hot spot” areas. Where will it be discharged? Will it become contaminated and require treatment?

p. 5-17, §5.2.3.2

This criterion may not be satisfied if groundwater entering the “hot spot” areas becomes contaminated and is discharged untreated.

- p. 5-18 The Long-term Effectiveness and Permanence section must address the adequacy and reliability of controls. Please enhance the discussion.
- p. 5-19 Under Short-Term Effectiveness, insert “including the installation and maintenance of monitoring wells” after “during monitoring...” Replace “should” with “will” in the second sentence.
- If groundwater entering the “hot spot” areas becomes contaminated, there may be short-term risks to workers, and the effectiveness and reliability of measures to handle large volumes of potentially contaminated groundwater must be addressed. Also, opening the existing cap will increase short-term infiltration.
- p. 5-19 Under Implementability, please discuss whether the city of Groton’s treatment plant has the capacity to handle the groundwater discharge pumped from the excavations. It may be difficult to treat large volumes of groundwater if it becomes contaminated from flowing into the “hot spot” excavations (*see also* page 5-28).
- p. 5-19, ¶3 Under Implementability, please explain how excavation over a period of five months can be limited to periods of low tide.
- p. 5-20, §5.2.4 Alternative 4 should include groundwater monitoring. Since some wastes would be left onsite, residual risks will remain.
- p. 5-21, ¶1 Describe how the existing monitoring wells affect the implementability of this alternative. Since the entire capped area of the DRMO would be excavated in this alternative, excavation would occur in areas where monitoring wells are located. Please discuss whether excavation will occur around the wells, thereby requiring careful planning that may lead to delays, or if the wells would be decommissioned and removed.
- p. 5-21 The description of Component 1 should address what will happen to groundwater that enters the excavations.
- p. 5-21 In paragraph 2 of Component 2, please explain whether the water from the dewatering pad will be treated differently from the groundwater that is pumped out of the excavation.
- p. 5-25, §5.2.4.2, ¶2 There may also be short-term exposure to groundwater contaminated during the dewatering process and from pumping out the excavation.

- p. 5-27 Under Short-term Effectiveness, please discuss the risks from contaminating large volumes of groundwater during the dewatering process and pumping out the excavation. Potential impacts to workers and the effectiveness and reliability of groundwater treatment should be addressed.
- p. 6-1, §6.1.1, ¶2 Please explain that the existing cap provides limited protection of human health and the environment.
- p. 6-1, §6.1.1, ¶3
& p. 6-2, ¶1 Please expand the discussion regarding Overall Protection of Human Health and the Environment for Alternative 2. Please discuss the potential adverse effects to human health and the environment from excavating in the groundwater table for both Alternatives 3 and 4. In Table 6-1, please indicate that the cap also prevents direct human exposure to the soils.
- p. 6-2, §6.1.2 Since Alternative 1 includes an existing cap, it also partially complies with chemical-specific ARARs.
- p. 6-2, §6.1.2, ¶2 There are many location-specific and action-specific ARARs that apply to Alternative 2.

Delete “that apply” from the last sentence.
- p. 6-2, §6.1.2, ¶3 Delete “that apply” from the last sentence.
- p. 6-2, §6.1.3, ¶2 If the form of passive remediation discussed in the sentence is the presence of a cap, replace “except” with “including” before “Alternative 1.”
- p. 6-4, §6.1.5 The description of Alternatives 3 and 4 should address potential problems associated with handling groundwater that may become contaminated during the dewatering process or through the pumping out of excavations.
- p. 6-4, §6.1.6 With respect to groundwater handling under Alternatives 3 and 4, the city of Groton’s treatment plant may not have the capacity to handle the volume of water produced by the pumping and dewatering processes. Please discuss this and any implementability issues involved with treating the groundwater removed during the operations.
- p. 6-8, Table 6-1 The Implementability summary for Alternative 2 seems to conflict with the text on page 3-8. Which is correct?

Appendix C

Alternatives 2, 3, 4: The estimates for O&M cost should consider inflation. It is not likely that an O&M cost would remain constant over 30 years.

Alternative 2: Please include costs for institutional controls (e.g., signs and deed restrictions).

Alternative 3: Please include the costs for institutional controls, waste testing before offsite disposal, and sampling of wastewater before disposal in the sewer.

Alternative 4: The cost estimate does not include costs for testing wastewater before discharge to the sewer, a treatability study, sampling of waste before disposal, sampling of waste before solidification, and disposal of residual waste produced by off-gas controls. Please include these costs.

The assumptions for the cost estimate state that the alternative would take nine months to complete. However, the text on page 5-26, §5.2.4.2 states that seven months would be needed. Which is correct?

ATTACHMENT B

TABLE 2-A

ASSESSMENT OF CHEMICAL-SPECIFIC ARARs AND TBCs
FOR ALTERNATIVE 2 - INSTITUTIONAL CONTROLS AND MONITORING
DEFENSE REUTILIZATION AND MARKETING OFFICE
NSB-NLON, GROTON, CONNECTICUT
PAGE xiv OF 1

Requirement	Citation	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
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FEDERAL

There are no federal specific ARARs.

STATE OF
CONNECTICUT

There are no state chemical-specific ARARs.

TABLE 2-B

ASSESSMENT OF CHEMICAL-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 3 - HOT SPOT EXCAVATION, OFFSITE DISPOSAL,
 INSTITUTIONAL CONTROLS, AND MONITORING
 DEFENSE REUTILIZATION AND MARKETING OFFICE
 NSB-NLON, GROTON, CONNECTICUT
 PAGE xv OF 1

Requirement	Citation	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
FEDERAL				
Cancer Slope Factors (CSF)		To be considered	These are guidance values used in risk assessment to evaluate the potential carcinogenic or non-carcinogenic hazard caused by exposure to contaminants.	"Hot spot" contaminated soils are to be excavated and removed from the site. Remaining contaminated soils are to be recapped to minimize exposure to potential receptors.
Reference Dose (RfD)		To be considered	These are guidance values used in risk assessment to evaluate the potential carcinogenic or non-carcinogenic hazard caused by exposure to contaminants.	"Hot spot" contaminated soils are to be excavated and removed from the site. Remaining contaminated soils are to be recapped to minimize exposure to potential receptors

STATE OF CONNECTICUT

There are no state chemical-specific ARARs.

TABLE 2-C

ASSESSMENT OF CHEMICAL-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 4 - EXCAVATION, TREATMENT, AND OFFSITE DISPOSAL OF CONTAMINATED SOIL
 DEFENSE REUTILIZATION AND MARKETING OFFICE
 NSB-NLON, GROTON, CONNECTICUT
 PAGE xvi OF 1

Requirement	Citation	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
FEDERAL				
Cancer Slope Factors (CSF)		To be considered	These are guidance values used in risk assessment to evaluate the potential carcinogenic or non-carcinogenic hazard caused by exposure to contaminants.	Contaminated soils are to be excavated, treated and removed. Remaining soils will pose no hazard to potential receptors.
Reference Dose (RfD)		To be considered	These are guidance values used in risk assessment to evaluate the potential carcinogenic or non-carcinogenic hazard caused by exposure to contaminants.	Contaminated soils are to be excavated, treated and removed. Remaining soils will pose no hazard to potential receptors.

STATE OF CONNECTICUT

There are no Connecticut Chemical-specific ARARs

TABLE 2-D

ASSESSMENT OF LOCATION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 2 - INSTITUTIONAL CONTROLS AND MONITORING
 DEFENSE REUTILIZATION AND MARKETING OFFICE
 NSB-NLON, GROTON, CONNECTICUT
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Requirement	Citation	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
FEDERAL				
Executive Order 11988 Re: Floodplain Management	Executive Order 11988	Applicable	This order requires Federal agencies, wherever possible, to avoid or minimize adverse impacts upon floodplains. Requires reduction of risk of flood loss, minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values of the floodplains.	Monitoring well installation and groundwater monitoring activities within the 100-year floodplain will be carried out to minimize impacts to floodplain resources.
Coastal Zone Management Act	16 USC Parts 1451 <i>et seq.</i>	Applicable	Requires that any actions must be conducted in a manner consistent with state approved management programs.	This site is located in a state coastal flood zone (within the 100 year floodplain). Therefore, applicable state coastal zone management requirements will be addressed
Fish and Wildlife Coordination Act	16 USC 661 <i>et seq.</i> ; 40 CFR § 6.302	Applicable	Requires action to be taken to protect fish and wildlife from projects affecting streams or rivers. Consultation with U.S. Fish & Wildlife Service to develop measures to prevent and mitigate loss.	If monitoring wells are required to be installed in the river or its tidal zone, the U.S. Fish & Wildlife Service will be consulted as to measures required to protect fish and wildlife resources.

TABLE 2-D

ASSESSMENT OF LOCATION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 2 - INSTITUTIONAL CONTROLS AND MONITORING
 DEFENSE REUTILIZATION AND MARKETING OFFICE
 NSB-NLON, GROTON, CONNECTICUT
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STATE OF CONNECTICUT				
Coastal Management	CGS §§22a-92 and 94	Applicable	Requires projects within a state designated coastal zone to minimize adverse impacts on natural coastal resources.	Monitoring well installation and groundwater monitoring activities within the 100-year coastal floodplain will be carried out to minimize impacts to coastal resources.
Tidal Wetlands	RCSA §§ 22a-30-1 thru 17	Applicable	Activities within or affecting tidal wetlands are regulated.	If monitoring wells are required to be installed in the river or its tidal zone monitoring and maintenance activities will be implemented so as to not negatively impact tidal resources.
CT Endangered Species Act	CGS §§ 26-303 thru 314	Applicable	Regulates activities affecting state-listed endangered or threatened species or their critical habitat.	The state-threatened Atlantic sturgeon inhabits the Thames River. If monitoring wells are required to be installed in the river or its tidal zone monitoring and maintenance activities will be implemented so as to not negatively impact the sturgeon or any of its critical habitat which may occur within the River.

TABLE 2-E

ASSESSMENT OF LOCATION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 3 - HOT SPOT EXCAVATION, OFFSITE DISPOSAL,
 INSTITUTIONAL CONTROLS, AND MONITORING
 DEFENSE REUTILIZATION AND MARKETING OFFICE
 NSB-NLON, GROTON, CONNECTICUT
 PAGE xix OF 2

STATE OF CONNECTICUT

Requirement	Citation	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
FEDERAL				
Fish and Wildlife Coordination Act	16 USC 661 <i>et seq.</i> ; 40 CFR § 6.302	Applicable	Requires action to be taken to protect fish and wildlife from projects affecting streams or rivers. Consultation with U.S. Fish & Wildlife Service to develop measures to prevent and mitigate loss.	If monitoring wells are required to be installed in the river or its tidal zone, the U.S. Fish & Wildlife Service will be consulted as to measures required to protect fish and wildlife resources.
Executive Order 11988 Re: Floodplain Management	Executive Order 11988	Applicable	This order requires Federal agencies, wherever possible, to avoid or minimize adverse impacts upon floodplains. Requires reduction of risk of flood loss, minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values of the floodplains.	Measures will be taken to minimize impacts to floodplains of Thames River during excavation/backfilling and installation of monitoring wells. Removal of sections of the existing asphalt/GLC cap located within the 100-year floodplain will be replaced, monitored and maintained. Site excavation, monitoring well installation, and groundwater monitoring activities will not take place during times of potential flooding.
Coastal Zone Management Act	16 USC Parts 1451 <i>et seq.</i>	Applicable	Requires that any actions must be conducted in a manner consistent with state approved management programs.	This site is located in a coastal zone management area, therefore, applicable coastal zone management requirements need to be addressed.

TABLE 2-E

ASSESSMENT OF LOCATION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 3 - HOT SPOT EXCAVATION, OFFSITE DISPOSAL,
 INSTITUTIONAL CONTROLS, AND MONITORING
 DEFENSE REUTILIZATION AND MARKETING OFFICE
 NSB-NLON, GROTON, CONNECTICUT
 PAGE xx OF 2

STATE OF CONNECTICUT

Coastal Zone Management	CGS §§22a-92 and 94	Applicable	Federal facilities are required to file a coastal zone consistency determination under these rules.	Excavation and removal of contaminated soils, replacement of the asphalt/GLC cap, monitoring well installation and groundwater monitoring activities within the 100-year coastal floodplain will be carried out to minimize impacts to coastal resources.
Tidal Wetlands	RCSA § 22a-30-1 thru 17	Applicable	Activities within or affecting tidal wetlands are regulated.	If monitoring wells are required to be installed in the river or its tidal zone monitoring and maintenance activities will be implemented so as to not negatively impact tidal resources. Dewatering of excavated material and removal of groundwater entering the excavations will not be discharged into tidal wetlands.
CT State Endangered Species Act	CGS § 26-303-314	Relevant and appropriate	Regulates activities affecting state-listed endangered or threatened species or their critical habitat.	The state-threatened Atlantic sturgeon inhabits the Thames River. If monitoring wells are required to be installed in the river or its tidal zone monitoring and maintenance activities will be implemented so as to not negatively impact the sturgeon or any of its critical habitat which may occur within the River. Dewatering of excavated material and removal of groundwater entering the excavations will not be discharged into the River.

TABLE 2-F

ASSESSMENT OF LOCATION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 4 - EXCAVATION, TREATMENT, AND OFFSITE DISPOSAL OF CONTAMINATED SOIL
 DEFENSE REUTILIZATION AND MARKETING OFFICE
 NSB-NLON, GROTON, CONNECTICUT
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Requirement	Citation	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
FEDERAL				
Executive Order 11988 Re: Floodplain Management	Executive Order 11988	Applicable	This order requires Federal agencies, wherever possible, to avoid or minimize adverse impacts upon floodplains. Requires reduction of risk of flood loss, minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values of the floodplains.	Measures will be taken to minimize impacts to floodplains of Thames River during remedial activities. Site excavation and treatment activities will not take place during times of potential flooding. Contaminants are to be treated and removed from the site.

TABLE 2-F

ASSESSMENT OF LOCATION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 4 - EXCAVATION, TREATMENT, AND OFFSITE DISPOSAL OF CONTAMINATED SOIL
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Coastal Zone Management Act	16 USC Parts 1451 <i>et seq.</i>	Applicable	Requires that any actions must be conducted in a manner consistent with state approved management programs.	This site is located in a coastal zone management area, therefore, applicable state coastal zone management requirements need to be addressed.
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Coastal Zone Management	CGS §§22a-92 and 94	Applicable	Requires projects within a state designated coastal zone to minimize adverse impacts on natural coastal resources.	The site occurs within the coastal 100 year flood zone. The proposed thermal desorption unit will be located to minimize impacts to coastal resources. If contaminated soil is temporarily exposed or placed below the 100 year flood elevation, measures will be taken to protect coastal resources. Site excavation will not take place during times of potential flooding. Contaminants are to be treated and removed from the site.
Tidal Wetlands	RCSA § 22a-30-1 thru 17	Relevant and appropriate	Activities within or affecting tidal wetlands are regulated.	Dewatering of excavated material and removal of groundwater entering the excavations will be treated if necessary and not discharged into tidal wetlands.
Hazardous Waste Management - Floodplain	RCSA § 22a-449(c)104	Applicable	The standards of 40 CFR § 264 are incorporated by reference.	Regulates the siting and operation of the thermal desorption unit within the coastal 100 year flood plain.
CT State Endangered Species Act	CGS § 26-303-314	Relevant and appropriate	Regulates activities affecting state-listed endangered or threatened species or their critical habitat.	The state-threatened Atlantic sturgeon inhabits the Thames River. Dewatering of excavated material and removal of groundwater from excavations will not discharged into the River.

TABLE 2-G

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 2 - INSTITUTIONAL CONTROLS AND MONITORING
 DEFENSE REUTILIZATION AND MARKETING OFFICE
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Requirement	Citation	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
FEDERAL				
Guidance on Remedial Actions for Superfund Sites with PCB Contamination	OSWER Directive 9355.4-01	To be considered	This guidance describes how to address PCB contamination issues as part of remedial actions.	This guidance document will be considered in evaluating PCB issues as part of the remedial action. Low levels of PCBs (47.2 ppm or less) are present within soils at the site.
STATE OF CONNECTICUT				
Hazardous Waste Management: Generator and Handler Requirements	RCSA § 22a-449 (c) 100-101	Applicable	These sections establish standards for listing and identification of hazardous waste. The standards of 40 CFR 260-261 are incorporated by reference.	For any materials generated during monitoring well installation, hazardous waste determinations will be performed, and the wastes would be managed in accordance with requirements of these regulations, if necessary.
Hazardous Waste Management: TSDF Standards	RCSA § 22a-449 (c) 104	Applicable	This section establishes standards for groundwater monitoring and post-closure. The standards of 40 CFR 264 are incorporated by reference.	The remedy would comply with the post-closure requirements of this section through groundwater monitoring and institutional controls at the Site.
Control of Noise Regulations	RCSA § 22a-69-1 through 7.4	Applicable	These regulations establish allowable noise levels. Noise levels from construction activities are exempt from these requirements.	Noise generated by installation of monitoring wells will meet these regulations. This alternative involves drilling and monitoring activities which are not anticipated to generate excessive noise.

TABLE 2-G

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 2 - INSTITUTIONAL CONTROLS AND MONITORING
 DEFENSE REUTILIZATION AND MARKETING OFFICE
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Guidelines for Soil Erosion and Sediment Control	The Connecticut Council on Soil and Water Conservation	To be considered	The guidelines provide technical and administrative guidance for the development, adoption, and implementation of erosion and sediment control program.	Erosion and sediment control measures would be implemented during well installation.
Water Quality Standards	CGS 22a-426	Relevant and appropriate	Connecticut's Water Quality Standards establish specific numeric criteria, designated uses, and anti-degradation policies for groundwater and surface water.	Standards will be used to evaluate monitoring results to determine if further remedial action is required to protect resources.

TABLE 2-G

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
FOR ALTERNATIVE 2 - INSTITUTIONAL CONTROLS AND MONITORING
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Ground-water Remediation Standards	RCSA § 22a-133k-3	Relevant and appropriate	These regulations provide cleanup criteria for groundwater plumes for a wide variety of pollutants. These include volatilization criteria and surface water protection criteria.	Although no groundwater plume has been identified at this site, the proposed groundwater monitoring will be conducted to determine if any contaminants of concern are migrating offsite at levels above CTDEP surface water protection or volatilization standards for GB groundwater.
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TABLE 2-H

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 3 - HOT SPOT EXCAVATION, OFFSITE DISPOSAL,
 INSTITUTIONAL CONTROLS, AND MONITORING
 DEFENSE REUTILIZATION AND MARKETING OFFICE
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Requirement	Citation	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
FEDERAL				
Clean Water Act, National Pollution Discharge Elimination System (NPDES)	40 CFR Parts 122 through 125, 131	Relevant and appropriate	NPDES (National Pollution Discharge Elimination System) permits are required for any discharges to navigable waters. If remedial activities include such a discharge, the NPDES standards would be ARARs.	Only applicable if the dewatering of material or the removal of groundwater from excavations will discharge into a navigable water. As proposed, discharges will be routed into the Groton POTW. However, if the Groton POTW is not in compliance with its NPDES permit or can not handle the volume of discharge from the project an alternative discharge route will be required. Any alternative which will discharge into the River or any navigable water will require compliance with these regulations including treatment, if necessary.
Clean Water Act, General Pretreatment Regulations for Existing and New Sources of Pollution	40 CFR Part 403	Applicable	Regulates the direct discharge of groundwater into a POTW.	It is proposed that dewatering of excavated material and pumping out groundwater from excavations be discharged into the Groton POTW. The Groton POTW must be in compliance with its NPDES permit to accept the discharge. Discharges are required to meet treatment standards.
PCB Regulations Under TSCA	40 CFR §§ 761.60 thru 761.71	Relevant and appropriate	The regulations govern the storage, transportation and disposal of PCBs, and the cleanup of PCB spills. For the most part, these standards only apply to PCB items with concentrations above 50 ppm or to materials contaminated from such items.	These regulations are not applicable because PCB levels at the site have been measured at no greater than 47.2 ppm. However, if PCBs are detected at greater than 50 ppm any activities regarding storage, transportation, and disposal of such PCB-contaminated soil would be conducted in compliance with these standards.

TABLE 2-H

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 3 - HOT SPOT EXCAVATION, OFFSITE DISPOSAL,
 INSTITUTIONAL CONTROLS, AND MONITORING
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Guidance on Remedial Actions for Superfund Sites with PCB Contamination	OSWER Directive 9355.4-01	To be considered	This guidance describes how to address PCB contamination issues as part of remedial actions.	This guidance document will be considered in evaluating PCB issues as part of the remedial action. Low levels of PCBs (47.2 ppm or less) are present within soils at the site.
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STATE OF CONNECTICUT

Solid Waste Management	RCSA § 22a-209-1 through 13 RCSA	Applicable	These standards establish closure standards for solid waste disposal areas (SWDAs).	After contaminated soil from the "hot spots" are removed the existing cap will be replaced in accordance with these requirements.
Hazardous Waste Management: Generator and Handler Requirements	RCSA § 22a-449(c) 100-101	Applicable	These sections establish standards for listing and identification of hazardous waste. The standards of 40 CFR 260-261 are incorporated by reference.	For all soils excavated from the "hot spots" and generated during monitoring well installation, hazardous waste determinations will be performed, and the wastes will be managed in accordance with requirements of these regulations, if necessary.
Hazardous Waste Management: TSDF Standards	RCSA § 22a-449 (c) 104	Applicable	This section establishes standards for post closure and groundwater monitoring. The standards of 40 CFR 264 are incorporated by reference.	Any hazardous waste which is temporarily stored on this site as part of the "hot spot" excavation or monitoring well installation will be managed in accordance with the requirements of this section. The remedy will comply with the post-closure requirements of this section through groundwater monitoring and institutional controls at the Site.
Hazardous Waste Management: Generator Standards	RCSA § 22a-449(c)-102	Applicable	This section establishes standards for various classes of generators. The standards of 40 CFR 262 are incorporated by reference. Storage requirements given at 40 CFR 265.15 are also included.	Any hazardous waste generated through excavation, monitoring well installation, or other activities will be managed in accordance with the substantive requirements of these regulations.

TABLE 2-H

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 3 - HOT SPOT EXCAVATION, OFFSITE DISPOSAL,
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Air Pollution Control	RCSA § 22a-174-1 through	Applicable	These regulations require permits to construct and to operate specified types of emission sources and contain emission standards that must be met prior to issuance of a permit. Pollutant abatement controls may be required. Specific standards pertain to fugitive dust (18b) and control of odors (23) .	Emission standards for fugitive dust will be met with dust control measures during excavation, transportation and offsite disposal to comply with substantive requirements.
Control of Noise Regulations	RCSA § 22a-69-1 through 7.4	Relevant and appropriate	These regulations establish allowable noise levels. Noise levels from construction activities are exempt from these requirements.	Noise generated by any remedial actions other than construction will meet the standards of these regulations. This alternative involves excavation and monitoring activities which are not anticipated to generate excessive noise.
Guidelines for Soil Erosion and Sediment Control	The Connecticut Council on Soil and Water Conservation	To be considered	The guidelines provide technical and administrative guidance for the development, adoption, and implementation of erosion and sediment control program.	These guidelines would be incorporated into any remedial designs for this site. Erosion and sediment control measures would be implemented during excavation, recapping, and well installation activities.

TABLE 2-H

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 3 - HOT SPOT EXCAVATION, OFFSITE DISPOSAL,
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Water Pollution Control	RCSA § 22a-430-1 through 8	Applicable	These rules establish permitting requirements and criteria for water discharge to surface water, groundwater, and POTWs.	Any discharges, including storm water, will meet the substantive requirements of this section. It is proposed that dewatering of material or removing groundwater from excavations will be discharged into the Groton POTW. If the Groton POTW is not in compliance with its NPDES permit or can not handle the volume of discharge from the project, alternative discharge routes will be required to meet the substantive requirements of these regulations including treatment, if necessary.
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TABLE 2-H

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 3 - HOT SPOT EXCAVATION, OFFSITE DISPOSAL,
 INSTITUTIONAL CONTROLS, AND MONITORING
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Ground-water Remediation Standards	RCSA § 22a-133k-3	Relevant and appropriate	These regulations provide cleanup criteria for groundwater plumes for a wide variety of pollutants. These include volatilization criteria and surface water protection criteria.	Although no groundwater plume has been identified at this site, the proposed groundwater monitoring will be conducted to determine if any contaminants of concern are migrating offsite at levels above CTDEP surface water protection or volatilization standards for GB groundwater.
Water Quality Standards	CGS 22a-426	Applicable	Connecticut's Water Quality Standards establish specific numeric criteria, designated uses, and anti-degradation policies for groundwater and surface water.	Standards will be used to evaluate monitoring results to determine if further remedial action is required to protect resources. Remedial activities, including the disposal and potential treatment of groundwater from dewatering and removal from excavations, will be undertaken in a manner which is consistent with the antidegradation policy in the Water Quality Standards.
Disposition of PCBs	CGS § 22a-467	Applicable	This section regulates the disposal or destruction of PCBs in a manner not inconsistent with the Requirements of the Toxic Substances Control Act (TSCA), listed at 40 CFR Part 761.	Disposition of low levels of PCBs (47.2 ppm or less) are present within soils at the site. PCB contaminated soil will be conducted in compliance with this statute.

TABLE 2-H

**ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
FOR ALTERNATIVE 3 - HOT SPOT EXCAVATION, OFFSITE DISPOSAL,
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TABLE 2-1

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 4 - EXCAVATION, TREATMENT, AND OFFSITE
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Requirement	Citation	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
FEDERAL				
Clean Water Act, National Pollution Discharge Elimination System (NPDES)	40 CFR Parts 122 through 125, & 131	Relevant and appropriate	NPDES (National Pollution Discharge Elimination System) permits are required for any discharges to navigable waters. If remedial activities include such a discharge, the NPDES standards would be ARARs.	Only applicable if the dewatering of material or the removal of groundwater from excavations will discharge into a navigable water. As proposed, discharges will be routed into the Groton POTW. However, if the Groton POTW is not in compliance with its NPDES permit or can not handle the volume of discharge from the project an alternative discharge route will be required. Any alternative which will discharge into the River or any navigable water will require compliance with these regulations including treatment, if necessary.
Clean Water Act, General Pretreatment Regulations for Existing and New Sources of Pollution	40 CFR Part 403	Applicable	Regulates the direct discharge of groundwater into a POTW.	It is proposed that dewatering of excavated material and pumping out groundwater from excavations be discharged into the Groton POTW. The Groton POTW must be in compliance with its NPDES permit to accept the discharge. Discharges are required to meet treatment standards.
Clean Air Act National Emission Standards for Hazardous Air Pollutants (NESHAPs)	40 CFR Part 61	Applicable	NESHAPs are a set of emissions standards for specific chemicals from specific production activities.	Emissions of hazardous air pollutants would be minimized by fugitive dust control and off gas treatment from the thermal desorption facility.

TABLE 2-1

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 4 - EXCAVATION, TREATMENT, AND OFFSITE
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RCRA, Treatment Standards for Hazardous Debris - Thermal Desorption	40 CFR §268.45	Applicable	Sets treatment standards for utilizing thermal desorption	Thermal desorption will be operated in compliance with treatment standards.
PCB Regulations Under TSCA	40 CFR §§ 761.60 thru 761.71	Relevant and appropriate	The regulations govern the storage, transportation and disposal of PCBs, and the cleanup of PCB spills. For the most part, these standards only apply to PCB items with concentrations above 50 ppm or to materials contaminated from such items.	These regulations are not applicable because PCB levels at the site have been measured at no greater than 47.2 ppm. However, if PCBs are detected at greater than 50 ppm any activities regarding storage, transportation, and disposal of such PCB-contaminated soil would be conducted in compliance with these standards.
Guidance on Remedial Actions for Superfund Sites with PCB Contamination	OSWER Directive 9355.4-01	To be considered	This guidance describes how to address PCB contamination issues as part of remedial actions.	Low levels of PCBs (47.2 ppm or less) are present within soils at the site. This guidance document will be considered in evaluating PCB issues as part of the remedial action.
Air/Superfund National Technical Guidance	EPA Guidance: EPA/450/1-89/001- EPA/450/1-89/004	To be considered	This guidance describes methodologies for predicting risks due to air release at a Superfund site.	These guidance documents will be considered when risks due to air releases from fugitive dust and thermal desorption are being evaluated.

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Solid Waste Management	RCSA § 22a-209-1 through 13 RCSA	Applicable	These standards establish operating and closure standards for solid waste disposal areas (SWDAs) including closure, post-closure, and groundwater monitoring requirements.	After contaminated soils are treated and removed from the site the area will be closed in accordance with these requirements.
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TABLE 2-I

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 4 - EXCAVATION, TREATMENT, AND OFFSITE
 DISPOSAL OF CONTAMINATED SOIL
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Hazardous Waste Management: Generator and Handler Requirements	RCSA § 22a-449(c) 100-101	Applicable	These sections establish standards for listing and identification of hazardous waste. The standards of 40 CFR 260-261 are incorporated by reference.	For all soils excavated hazardous waste determinations will be performed, and the wastes would be managed in accordance with requirements of these regulations, if necessary.
Hazardous Waste Management: TSDF Standards	RCSA § 22a-449 (c) 104	Applicable	This section establishes standards for treatment, storage, and disposal facilities. The standards of 40 CFR 264 are incorporated by reference.	Any hazardous waste which is treated or temporarily stored of on this site as part of the remedy will be managed in accordance with the requirements of this section.
Hazardous Waste Management: Generator Standards	RCSA § 22a-449(c)-102	Applicable	This section establishes standards for various classes of generators. The standards of 40 CFR 262 are incorporated by reference. Storage requirements given at 40 CFR 265.15 are also included.	Any hazardous waste generated through excavation, treatment or other activities will be managed in accordance with the substantive requirements of these regulations.
Hazardous Waste Management Facility Siting Regulations	CGS 22a-117-123; RCSA § 22a-116B-1 thru 11	Applicable	Requires certificate of public safety and necessity from the CT Siting Counsel prior to construction of any new hazardous waste disposal facility	The requirements are applicable to this alternative's on-site-treatment of wastes through thermal desorption. The substantive requirements of these regulations will be met.

TABLE 2-1

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 4 - EXCAVATION, TREATMENT, AND OFFSITE
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Control of Noise Regulations	RCSA § 22a-69-1 through 7.4	Applicable	These regulations establish allowable noise levels. Noise levels from construction activities are exempt from these requirements.	Noise generated by any remedial actions other than construction will meet the standards of these regulations. Noise generated by the thermal desorption unit will have to meet the standards in these regulations. Noise from excavation activities is not expected to exceed these standards.
Air Pollution Control	RCSA § 22a-174-1 through	Applicable	These regulations require permits to construct and to operate specified types of emission sources and contain emission standards that must be met prior to issuance of a permit. Pollutant abatement controls may be required. Specific standards include fugitive dust (18b), incineration (18c), emissions of sulfur compounds (19a), emissions of organic compounds (20f), control of odors (23), and allowable stack concentrations (29).	The thermal desorption unit, which produces an air discharge, be designed to meet the substantive requirements of the regulations. Emission standards for fugitive dust would be met with dust control measures during excavation, transportation and offsite disposal to comply with substantive requirements.

TABLE 2-I

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 4 - EXCAVATION, TREATMENT, AND OFFSITE
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Guidelines for Soil Erosion and Sediment Control	The Connecticut Council on Soil and Water Conservation	To be considered	The guidelines provide technical and administrative guidance for the development, adoption, and implementation of erosion and sediment control program.	These guidelines would be incorporated into any remedial designs for this site. Erosion and sediment control measures would be implemented during excavation activities.
Water Pollution Control	RCSA § 22a-430-1 through 8	Applicable	These rules establish permitting requirements and criteria for water discharge to surface water, groundwater, and POTWs.	Any discharges, including storm water, will meet the substantive requirements of this section. It is proposed that dewatering of material or removing groundwater from excavations be discharged into the Groton POTW. If the Groton POTW is not in compliance with its NPDES permit or can not handle the volume of discharge from the project, alternative discharge routes will be required to meet the substantive requirements of these regulations including treatment, if necessary.

TABLE 2-I

ASSESSMENT OF ACTION-SPECIFIC ARARs AND TBCs
 FOR ALTERNATIVE 4 - EXCAVATION, TREATMENT, AND OFFSITE
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Water Quality Standards	CGS 22a-426	Applicable	Connecticut's Water Quality Standards establish specific numeric criteria, designated uses, and anti-degradation policies for groundwater and surface water.	Remedial activities would be undertaken in a manner which is consistent with the antidegradation policy in the Water Quality Standards.
Disposition of PCBs	CGS 22a-467	Applicable	This section regulates the disposal or destruction of PCBs in a manner not inconsistent with the Requirements of the Toxic Substances Control Act (TSCA), listed at 40 CFR Part 761.	Disposition of low levels of PCBs (47.2 ppm or less) are present within soils at the site. PCB contaminated soil will be conducted in compliance with this statute. All PCB-contaminated materials would be handled in accordance with the substantive requirements of this statute.