

February 14, 1995

Mr. Mark R. Lewis
Environmental Analyst 2
Connecticut Department of Environmental Protection
Bureau of Water Management
Permitting, Enforcement, and Remediation Division
79 Elm Street
Hartford, CT 06106-5127

RE: Area A Landfill Revised Draft FFS
Naval Submarine Base-New London
Groton, Connecticut
Atlantic Project No. 2072-01-02

Dear Mr. Lewis:

Enclosed please find the Navy's responses to your comments dated January 5, 1995 regarding the revised draft FFS. These responses reflect our discussions regarding your comments during a meeting on January 4, 1995 at U.S. EPA's offices in Boston, Massachusetts.

Should you have any questions or desire to discuss any of these responses, please feel free to contact Mark Evans or me. Once we have an indication that you agree with the responses, the draft final FFS will be finalized and submitted for your review and approval.

Sincerely,

ATLANTIC ENVIRONMENTAL
SERVICES, INC.



Barry L. Giroux, P.E.
Project Manager

BG:sjg
Enclosures

cc: ~~Mark Evans - NORDIV~~
Kymberlee Keckler - U.S. EPA Region I
Jean-Luc Glorieux - HNUS

**CTDEP COMMENTS ON
REVISED DRAFT FOCUSED FEASIBILITY STUDY
AREA A LANDFILL
NAVAL SUBMARINE BASE NEW LONDON
GROTON, CONNECTICUT**

General Comments

The Navy proposes in the FFS to establish a target cleanup level of 10 mg/kg for PCBs in surface soil. All soils "hot spots" with PCBs above this concentration would be excavated and disposed of off site, while soils remaining under the cap would have an average PCB concentration of 2 mg/kg. All remaining soils with PCB concentrations exceeding 2 mg/kg would be consolidated beneath the cap. This is the same approach agreed to by the Department for the DRMO site. This approach is also acceptable for the Area A Landfill, provided that long term operation and maintenance of the cap and groundwater monitoring will be carried out.

The FFS notes that several constituents, most notably lead, in the Area A Landfill soils, exceed TBC values for soil. The TBC value for lead in soil is derived from the Department's Proposal for the Connecticut Cleanup Standard Regulations, which was released in its final form in December 1994. The purpose of the standard is to protect ground water from the potential threat posed by contaminants which migrate from soils. Since this FFS focuses directly on reducing risks posed by direct contact with contaminated soils, rather than on risks to ground water quality, these exceedances are not addressed. This is acceptable to the Department with the understanding that when the final Phase II remedy is carried out, soils will be remediated to the standards specified in the proposed Cleanup Standard Regulations. All other contaminants, in addition to lead, which exceed the Department's Cleanup Standard Regulations, must also be addressed at that time. It is expected that these regulations will have been adopted and thus constitute ARARs by the time the final Phase II remedy is carried out. A copy of the final proposal has been previously provided to you.

The Navy understands that closure of the Area A Landfill will have to comply with cleanup standard regulations developed by the CTDEP in the future. As you are aware, the present (December 1994) draft of these regulations does allow capping of materials in place in limited circumstances, provided a set of stringent criteria are met.

The ARARs tables state repeatedly that the cap will be constructed so that its limits will remain outside the wetlands. For this reason, State and Federal wetland related ARARs would not apply. This contradicts information elsewhere in the report which indicates that some excavation and/or filling may be required at the margins of the wetlands. It is the Department's position that the proposed landfill cap must adequately cover all contaminated soils and landfill materials, including those which may be located at the immediate edge of, or within the landfill. The cap design must consider all available sources of information regarding the extent of landfill waste, including the recently completed wetland/landfill interface sampling. Any necessary excavation or filling of the wetlands must be performed in compliance with all wetland related ARARs,

including the Inland Wetlands and Watercourses Act (CGS §§ 22a-36 to 45 and RCSA §§ 22a-39-1 to 15), Section 404 of the Federal Clean Water Act, and Federal Executive Order 11990, regarding Protection of Wetlands. All of these requirements are properly cited in the ARARs tables, but are listed as non-applicable.

The Department has several specific concerns regarding the wetlands. The wetlands area to be affected by the remedy must be clearly identified, and an environmental analysis of the effects upon the wetlands and water resources must be conducted. In addition, it is the Department's policy that a minimum of one-to-one compensation must be provided for any wetlands which are impacted. The most preferable option for mitigation is to restore or enhance degraded wetlands. Other options, in order of decreasing preferability are: (1) acquisition or preservation by deed restriction or easement of existing wetlands or monetary contributions toward acquisition or preservation; (2) creation of wetlands within the watershed where the impacts will occur; or (3) creation of wetlands outside the watershed.

If the samples of the wetland/landfill interface indicate that materials within the wetland are contaminated, wetland requirements will become ARARs because wetland soils will either have to be covered or removed. If this is the case, the FFS will be revised as appropriate to indicate the necessary items required to comply with wetland ARARs, including mitigation requirements. Specific wetland mitigation procedures also have to be agreed upon between CTDEP, EPA, and the Navy. These specific procedures, however, are outside the scope of the FFS.

The various tables of Applicable or Relevant and Appropriate Requirements (ARARs), state that Connecticut's Water Diversion Policy Act (CGS §§22a-365 to 378) is not an ARAR. The tables state that rerouting of upgradient surface water and overburden ground water are not subject to the requirements of the Act. The Department disagrees with this interpretation. All non-exempt diversions of greater than 50,000 gallons per day require a permit. The amount of water to be diverted or withdrawn has not yet been identified.

The exact amount of water that the interceptor trench will collect has not been quantified; however, it is probably safe to assume that during certain times of the year, it will be greater than 50,000 gallons per day. As you are aware, CERCLA Section 121(e) exempts any remedial activity conducted entirely on site from having to obtain permits where the activity is carried out in compliance with Section 121. However, on-site remedial activities must comply with any substantive requirements or conditions that a permit, if issued, would have required. Previous conversations with Gary Leavitt in CTDEP's Water Bureau indicated that the water diversion requirements would probably not apply to the groundwater interception trench. The Navy or I will contact you by phone to further discuss this issue. If, after these further discussions, it is determined that this requirement is an ARAR, the Navy will categorize it as such and meet any substantive requirements.

Various portions of the text discuss the use of deed restrictions to limit access to the landfill and prevent damage to the cap by unauthorized excavation. The text notes that deed restrictions would not be put into place unless the site is transferred to private ownership. Since this is unlikely to occur in the near future, steps must be taken to ensure that the cap remains

undisturbed as long as the base remains under the control of the Navy. The text should be revised to reflect this practical consideration.

The text will be revised to indicate that institutional controls rather than deed restrictions will be implemented to limit access and activities at the Area A Landfill.

Specific Comments

Section 1.6.4, Limits of Landfill, Page 42, Section 3. The first sentence should state that boring 2WMW3S is located at the eastern, rather than the western end of the landfill.

The sentence will be revised to indicate that boring 2WMW3S is located in the western end of the landfill.

Section 2.2.1.2, Target Levels for PCBs in Soils, Page 77. The explanation of the selected target level for PCBs is confusing and requires clarification. The text should more carefully explain how using a 10 mg/kg target level for PCBs in surface soils and a 50 mg/kg target level for subsurface levels will result in a site wide average of less than 2 mg/kg. The terms "site" and "site wide average" should be defined more clearly. The text should clarify whether the term "site" applies to the entire base or only to the Area A Landfill.

It should be noted that under the Department's Draft Proposal for the Connecticut Cleanup Standard Regulations (December 1994), the Pollutant Mobility Criteria for PCBs in soil is 2 mg/kg. This constitutes a TBC value for this site.

The text will be revised to clarify the derivation of the PCB target levels and how achieving these standards results in a site-wide average below 2 ppm. The term "site" refers to the Area A Landfill, not the Subase.

The CTDEP cleanup standard of 2 ppm has been identified as a TBC in Table 2-7.

Section 2.2.2. ARAR/TBC Remediation Goals

- **Page 79, Chemical Specific ARARs - Table of Constituents Exceeding ARAR or TBC Values in Soils.** In the final version of the Proposal for the Connecticut Clean-up Standard Regulations, the Pollutant Mobility Criteria for selenium in soils has been raised from 10 ug/l to 36 ug/l in areas with a ground water quality goal of GA, measured by TCLP. The table of Constituents Exceeding the TBC Values in Soils should be updated to reflect this fact.

This table also correctly lists 2,000 ppb as our To-Be-Considered (TBC) value for PCBs in soil based on the Department's Guidance dated April 22, 1994. It should be noted that this concentration has been included as the pollutant mobility criteria for PCBs in the final Proposal for the Connecticut Cleanup Standard Regulations. This standard would require the use of mass analysis for determining PCB concentrations.

All TBC values in the FFS will be revised to reflect values presented in CTDEP's December 1994 "Proposal for the Connecticut Cleanup Standard Regulations".

- **Page 82, Table 2-2 - State Chemical Specific ARARs and TBCs, Air Pollution Control.** In the discussion regarding Actions to be Taken under the State's Air Pollution Control Regulations (RCSA §§ 22a-174-1 to 20), the table states that pollution controls would be required if there are emissions from the selected alternative. Under §22a-174-3(a)(1)(K), a permit would be required for any landfill which emits greater than 5 tons per year of any particular air pollutant, including methane. Best Available Control Technology requirements mandate that the landfill be provided with an active gas collection system with appropriate treatment. Significant concentrations of methane have been detected at the Area A Landfill. This issue was also raised in our November 23, 1994 Comment letter regarding the Action Memorandum for the DRMO. This position is more fully explained in a June 20, 1994 memo from our Air Management Bureau, regarding air quality requirements in landfill closures. This document was provided to you previously. However, for you convenience, a copy is attached to this letter.

The ARAR evaluations for the capping alternative (Table 4-12) state that the cap alternative does include emissions of landfill gas (methane) and that air pollution controls may be required. This table and other ARAR tables for alternatives with emission (all except no action) will be revised to state that air pollution controls will only be required if emissions are greater than the 5 tons per year limit and state that best available control technology requirement may mandate that the landfill be provided with an active gas collection system. As remedial actions are to be carried out on site in compliance with Section 121 of CERCLA, an actual permit is not required.

- **Page 85, Table 2-4 - State Location Specific ARARs and TBCs, Hazardous Waste Management.** In the "Synopsis" column, the text refers to Table 3-3. The reference should be to Table 2-3.

The table reference will be corrected to 2-3.

- **Page 89, Table 2-6 - State Action Specific ARARs and TBCs.** In the discussions regarding Hazardous Waste Management and Safe Storage and Transportation of Chemicals, all references to Table 3-5 should be changed to 2-5.

All table references will be corrected to 2-5.

- **Page 91, Chemical Specific ARARs - Table of Constituents Exceeding ARAR or TBC Values in Groundwater.** The table lists 75 ppb as the ARAR and TBC value for 1,4-dichlorobenzene based on the U.S. EPA Maximum Contaminant Level (MCL). Under the final version of the Proposal for the Connecticut Cleanup Standard Regulations, the Ground Water Protection Criteria for this compound will be 1.5 ppb. This value should be listed as a TBCs.

Here and elsewhere when CTDEP's proposed groundwater protection criteria are less than MCLs or other ARAR values, they will be listed as TBC.

Section 4.3.3. Alternative 2L-1 - Compliance With ARARs

- **Page 137, Table 4-1 - Federal Chemical Specific ARARs.** In the discussion regarding the Solid Waste Disposal Act, the reference to 40 USC §§6901 *et seq* should be changed to 42 USC. This change should also be made in Table 4-14 on page 166, Table 4-21 on page 183, and Table 2-1 on page 80.

Incorrect references to 40 USC will be changed to 42 USC.

- **Page 140, Table 4-3 - Federal Location Specific ARARs.** The title of this table refers to the Area A Downstream/OBDA sites, rather than the Area A Landfill. The title should be changed to refer to the Area A Landfill. This will make the table consistent with all other tables in the FFS.

The title will be corrected to read Area A Landfill.

- **Page 144, Table 4-6 State Action Specific ARARs.** Connecticut's Solid Waste Management Regulations should be cited as RCSA §§ 22a-209 1 to 13. This change should be made in Table 4-12 on page 157, Table 4-15 on page 168, Table 4-19 on page 174, Table 4-26 on page 190, and Table 2-6 on page 89.

CTDEP Solid Waste Management regulation citation will be changed to §§ 22a-209 1 to 13.

- **Page 145, Table 4-6 - State Action Specific ARARs.** Under Connecticut OSHA, the text refers to Table 5-5. The reference should be to Table 4-5. This comment applies also to Table 4-12 on page 158, Table 4-19 on page 175, Table 4-26 on page 191, and Table 2-6 on page 90.

The cited table references will be corrected.

Section 4.4.1. Alternative 2L-3 - Compliance With ARARs.

- **Page 148, Figure 4-1, Alternative 2L-3 Cap.** The plan of the landfill in Figure 4-1 depicts the limits of the landfill. However, it does not show the proposed limits of the cap, or the location of the wetland boundary. These should be included as part of this figure. The State understands that the exact extent of the landfill material and thus of the cap are subject to revision based on the results of the wetland/landfill interface sampling. This comment also applies to Figure 4-2 on page 164.

The wetland boundary will be added to the figure as will be the cap limits. In Figure 4-1, the limits of the landfill are also the cap limits.

- **Page 153, Table 4-9 - Federal Location Specific ARARs, and Page 154, Table 4-10 - State Location Specific ARARs.** Under Clean Water Action Section 404, Executive Order 11990, and State Inland Wetland and Watercourses Act, these tables state that the cap would be constructed so its limits are outside the wetlands. As discussed above under General Comments, the State is concerned that the proposed cap must cover all contaminated soils or landfill materials. The proposed cap must also comply with all wetlands related ARARs. This comment applies to Table 4-10 on page 154, Table 4-16 on page 170, Table 4-17 on page 171, Table 4-23 on page 186, and Table 4-24 on page 187.

See previous response above regarding this issue.

- **Page 158, Table 4-12 - State Action Specific ARARs.** The table states that the Connecticut Water Diversion Policy Act would not apply to the proposed diversions of upgradient surface and ground water. As stated above under General Comments, the Department disagrees with this interpretation. It is the Department's position that all non-exempt diversions of the waters of the State are subject to the Act. Since the flow rate and exact nature of the diversions has not been determined, it cannot yet be determined whether the exemption would apply to either the surface water or groundwater diversions.

See previous response above regarding this issue.