



**STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION**



November 29, 1994

Mr. Mark Evans  
US Navy  
Northern Division, Naval Facilities Engineering Command, Code 1823  
10 Industrial Way, Mail Stop 82  
Lester, PA 19113-2090

Re: Draft Site Inspection Report, Pier 33 and Berth 16/Former Incinerator,  
Installation Restoration Program  
Naval Submarine Base- New London  
Groton, Connecticut, July 1994

Dear Mr. Evans:

Staff of the Permitting, Enforcement, and Remediation Division of the Bureau of Water Management have reviewed the report entitled "Draft Site Inspection Report, Pier 33 and Berth 16/Former Incinerator, Installation Restoration Program, Naval Submarine Base- New London, Groton, Connecticut" dated July 1994. The report was prepared by Atlantic Environmental Services, Inc. on behalf of Northern Division Naval Facilities Engineering Command.

The Department concurs with Atlantic's conclusion that the high lead concentrations detected in soil samples from the Berth 16/ Former incinerator site justify a Remedial Investigation/ Feasibility Study (RI/FS). Further investigation and remediation of this soil will be required. Lead concentrations detected in soil samples from the Pier 33 site were considerably lower, but still exceeded the To Be Considered (TBC) value of 15 parts per billion (ppb) using TCLP. It is the Department's position that any soils which leach metals in excess of drinking water standards as measured by TCLP constitute a potential source of pollution to the waters of the State. Investigation and remediation of such areas would be required. However, the report does not recommend any further action regarding lead contaminated soil in this area. The RI/FS should be extended to include this area also.

The Department uses two separate criteria in evaluating whether contaminated soil will require remediation. The first is a Direct Exposure Cleanup Criteria, which is used to protect human health and the environment from the risks associated with direct exposure to soil contaminants. The second is a Pollutant Mobility Soil Cleanup Criteria, which is used to protect ground water quality from pollutants that migrate from the soil to the ground water. Both criteria must be satisfied by any proposed remediation. In cases where the two criteria are different, cleanup to the more stringent criteria is required.

The report does not explicitly state a target level for remediation of lead contaminated soil. However, it appears to use 500 parts per million (ppm) total lead as an implicit benchmark for

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determining whether further action is warranted. While this is an appropriate level to evaluate whether the soil represents a direct contact risk, soils with lead at this concentration would be considered a potential source of pollution to the waters of the state, requiring investigation and remediation. Plates 1 and 2 use a symbol to highlight soil samples with total lead concentrations exceeding 500 ppm, or TCLP lead concentrations exceeding 100 ppm. On page 138 the report compares TCLP lead levels detected in soil samples collected at the Pier 33 site to the 500 ppm total lead interim cleanup level which was selected for the DRMO site. On page 141 the report notes that lead concentrations detected in soil samples recovered during the installation of two monitoring wells at the Berth 16 / Former Incinerator site exceed the RCRA hazardous level of 5 ppm, as measured by TCLP. None of these criteria are appropriate for determining the required extent of soil excavation.

The 500 ppm total lead interim cleanup level agreed to by the State for the DRMO site was specific to that site, and does not constitute an agreement by the State regarding cleanup levels at any other site. As noted in our comment letter of July 26, 1994, regarding the DRMO Focused Feasibility Study, the 500 ppm cleanup level represents a compromise between the 1000 ppm total lead level proposed by the Navy, and the 0.015 ppm TCLP lead level requested by the State. The State's support for the 500 ppm interim cleanup level at the DRMO site was conditioned on all soil exceeding this lead level being included beneath the cap, and upon implementation of a long term maintenance and ground water monitoring program. Capping of the DRMO site is an interim remedy which is only intended to address the immediate threats to human health posed by direct contact with contaminated soils. It does not address the threat to ground water quality posed by these materials.

At other sites on the base, the State has continued to contest the use of the 500 ppm total lead cleanup level, except as a Direct Exposure Soil Cleanup Criteria. The 500 ppm total lead criteria is inappropriate for use as a Pollutant Mobility Soil Cleanup Criteria. This position is stated in our July 26, 1994 comment letter regarding the Draft Focused Feasibility Study for the Spent Acid Storage and Disposal Area. The State feels that a cleanup level of 0.015 ppm as measured by TCLP should be applied to lead contaminated soils at the Pier 33 and Berth 16/Former Incinerator sites.

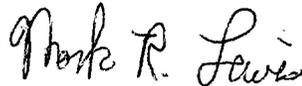
Since any remedial measures selected would presumably be final, it is important that the selected remedy comply with all current Applicable or Relevant and Appropriate Requirements (ARARs), and with those which can be expected to take effect before the Record of Decision (ROD) for this site is signed. The 0.015 ppm TCLP lead level is currently a To Be Considered (TBC) value, as noted in Table 4-1 on page 74 of the Draft Site Inspection Report. This value is derived from the US EPA Action Level for Drinking Water. Under the Proposal for the Connecticut Cleanup Standard Regulations, this would also be the drinking water protection criteria for lead. Thus it would constitute an ARAR if the Cleanup Standard Regulations are adopted before the ROD for this site is signed. The State would also require a long term monitoring program to

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ensure the continuing effectiveness of the selected remedy.

If you have any questions regarding this letter, please contact me at (203) 424-3768.

Sincerely,



Mark R. Lewis  
Environmental Analyst 2  
Permitting, Enforcement & Remediation Division  
Bureau of Water Management

cc: Ms. Kimberlee Keckler, US EPA Region 1  
Mr. Barry Giroux, Atlantic Environmental Services, Inc.  
Mr. Andy Stackpole, Naval Submarine Base New London Environmental Department