



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



March 16, 1995

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

Re: State Comments Regarding Draft Historical Radiological Assessment, Naval Submarine Base
New London, December, 1994

Dear Mr. Evans:

Staff of the Monitoring and Radiation Division of the Bureau of Air Management have reviewed the report entitled "Draft Historical Radiological Assessment, Naval Submarine Base New London", dated December 1994. It was prepared by B. M. Olsen of the Portsmouth Naval Shipyard Radiological Controls Office. This document was submitted for our review by the U.S. Department of the Navy, Northern Division, Naval Engineering Facilities Command (North Div). It was received by the Department on January 3, 1995.

I have enclosed a copy of the comments prepared by Kevin Scott of the Monitoring and Radiation Division.

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

Sincerely,

A handwritten signature in cursive script that reads "Mark R. Lewis".

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

cc: Ms. Kymberlee Keckler, US EPA Region 1, Federal Facilities Section
Mr. Andy Stackpole, NSBNL Environmental Department
B. M. Olsen, Portsmouth Naval Shipyard, Radiological Controls Office
Mr. Kevin Scott, CTDEP, Bureau of Air Management, Monitoring & Radiation



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TO: Mark Lewis, Environmental Analyst, Superfund Program
FROM: Kevin Scott, Radiation Control Physicist, Monitoring and Radiation
SUBJECT: Draft Historical Radiological Assessment U.S. Subase, Comments/Questions.
DATE: February 24, 1995

Questions on Volume #I

- 1) pg 2-2 sect. 2.3.1 What type of gamma spectroscopy system has been utilized in this analysis?
- 2) pg 2-4 sect. 2.3.3 Have any non-naval personnel been interviewed?
- 3) pg 3-15 sect. 3.2.3 Have any spills occurred during any off-hull resin discharges?
- 4) pg 3-16 sect. 3.3.1 Are the release surveys for bldg 174 available for review?
- 5) pg 3-24 sect. 3.3.3.1 What is the possibility of any radioactive material having been dumped in the Goss Cove landfill?
- 6) pg 3-31 sect. 3.3.3.5 Have any of the wells noted under glacial outwash aquifers been screened for radionuclides?
- 7) pg 3-34 "Groundwater Flow in the Vicinity of Subase", is any radionuclide analysis being conducted on the groundwater flow as part of the ongoing IR study?
- 8) pg 4-5 sect. 4.4 para 4 Have there been any spills associated with radiological controls barge YRR-14?
- 9) pg 5-3 "Policy Details" is a copy of "Handbook 52" available for review.
- 10) pg 5-7 sect. 5.1.2 Is the value 1×10^{-9} uCi/ml for gamma, beta-gamma, beta, alpha?
- 11) pg 5-10 sect. 5.1.2 Is a copy of the software program COMPLY available for review?

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Questions on subase HRA draft volume I & II

- 12) pg 5-10 sect. 5.1.3 Is there any incident report documents for the time frame prior to 1968?
- 13) pg 5-18 sect. 5.2.1 Is a copy of "Radioactive Waste Disposal From U.S. Naval Nuclear Powered Ships" Jan. '59 available for review?
- 14) pg 5-19 sect. 5.2.2 Is a copy of the aerial radiological survey conducted by EG&G available for review?
- 15) pg 5-21 sect. 5.4 Has any analysis for alpha or beta radiation or contamination been performed on these release surveys?
- 16) pg 6-2 table 6-1 1970-1993 and 1966-1969 The graph lists "total bottom area with Co-60 energy range activity >3pCi/g per km²".
 - a) Is this to be interpreted as 1000x1000 meters ?
 - b) How is that average value obtained?
 - c) Is there an allowance for hot spots?
 - d) What is the total number of samples per grid?
- 17) pg 6-6 para 1 Please define "very long".
- 18) pg 6-9 para 4 Is this activity attributed to past practices involving naval nuclear propulsion plants?
- 19) pg 6-17 Is a copy of the most recent DAMOS available for review?
- 20) pg 6-28 How is a PRM-5N/SPA-3 calibrated to distinguish between natural and non-naturally occurring radioactivity?
- 21) pg 8-1 sect. 8.1 Has there been a study of the average depth of public consumption wells to the north and east to support the statement being "upgradient"?

GENERAL COMMENTS

- A) Does the subase participate in the federal facilities compliance act with the State of Connecticut?
- B) Is subase claiming, that the annual Department of Environmental Protection Thames river sampling in the vicinity of Electric Boat, be interpreted as a confirmatory survey for environmental monitoring around subase?

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Questions on subase HRA volume I & II

Questions on volume II

- 1) pg 2-3 sect. 2.3.3 What was the total number of employee's interviewed and what was their affiliation?
- 2) pg 4-4 sect. 4.4.1 Are the surveys conducted for the release of these facilities available for review?
- 3) pg 4-6 sect. 4.4.3 Is there any possibility of G-RAM having been dumped on site?
- 4) pg 5-2 sect. 5.1.3 Are the surveys that were conducted to release NUMI available for review?
- 5) pg 5-4 table 5-1 Has the final disposition of the "mock I-125" source ever been determined?
- 6) pg 5-4 table 5-1 Has the final disposition of the "spot markers" ever been determined?
- 7) pg 5-4 table 5-1 Who was the solid waste hauler at subase during the time frame when the above mentioned sources were discovered missing?
- 8) pg 5-6 Please define "gross radiological screening parameters" and "large quantities of gamma emitting radioactive material".
- 9) pg 6-1 sect. 6.1.1 Is a copy of "Disposal of Radioactive Waste From U.S. Naval Nuclear Powered Ships and Their Support Facilities" NT-67-3, available for review?
- 10) pg 6-1 sect. 6.1.1 Why was weekly sampling required in 1964?
- 11) pg 6-6 table 6-2 Does "Uranium Series" mean total uranium or the transuranics series?
- 12) pg 6-6 table 6-2 Does thorium series mean total thorium or thorium plus its decay daughters?
- 13) pg 6-9 sect. 6.1.1 Is subase assuming the environmental monitoring around Electric Boat can be used as confirmatory purposes around subase?
- 14) pg 6-12 sect. 6.1.4 Why wasn't Co-60 included in the core analysis?