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LETTER AND COMMENTS REGARDING DRAFT GROUNDWATER SAMPLING FOR
RADIONUCLIDES NSY PORTSMOUTH ME
7/21/1998
LEPAGE ENVIRONMENTAL SERVICES

Lepage Environmental Services, Inc.

P. O. Box 1195 • Auburn, Maine 04211-1195 • 207-777-1049 • Fax: 207-777-1370

July 21, 1998

Peter Vandermark
Seacoast Anti-Pollution League
P. O. Box 1136
Portsmouth, New Hampshire 03802

Subject: Review Comments, *Draft Groundwater Sampling for Radionuclides*

Dear Mr. Vandermark:

As you requested, I have reviewed the June 1998 *Draft Groundwater Sampling for Radionuclides* plan. The plan was prepared by the Navy in response to a question raised during review of the August 1997 document, *Historical Radiological Assessment*. Although the Navy does not believe there are indications of residual radioactivity in soils at the Shipyard that would affect groundwater, the Navy now intends to collect one round of environmental (not just groundwater - see comment 1) samples. Comments are as follows:

- 1. Page 1, Section 1.** Although the title of the document (*Groundwater Sampling for Radionuclides*) and the purpose stated in Section 1 indicate that the plan is specific to the collection of groundwater samples, the Navy is also proposing to collect surface water, sediment, and biota samples. The title and the purpose should reflect that a variety of environmental samples, not just groundwater samples, will be collected.
- 2. Pages 1 & 2, Section 2.** What is the Navy's experience with analyzing environmental samples with the equipment and methods described in Section 2? Why were cobalt-60 and radium-226 selected for analysis? Are there other radioactive isotopes or materials used or in use at the Shipyard? Are daughter products of concern?
- 3. Page 2, Section 2.** How is the minimum detectable concentration (MCD) determined? How does the Navy's proposed MCD compare with regulatory action levels?
- 4. Page 3, Section 3.** Who certifies a contractor for low-flow sampling? It appears that the contractor would collect groundwater samples using low-flow techniques. What sampling protocol or plan will be followed? Will both the EPA and the DEP be collecting split samples?

5. **Page 3, Section 3.** How will the surface water samples be collected? Is turbidity a potential problem? Why were the extreme east and west ends of the two ponds selected for sampling locations?
6. **Page 3, Section 3.** How will the biota samples be collected? What biota will be sampled? What are the criteria for selecting which biota to sample?
7. **Page 4, Section 5.** Why is a tidally-influenced water level a criteria for selecting a background well location?
8. **Page 5, Section 5.** While cobalt-60 does not exist in nature, it is appropriate to analyze samples collected from background wells for it to determine if the background location has been affected by industrial activity.
9. **Page 6, Section 6.** Because the sample collection methods have not been described in sufficient detail, it is not clear if appropriate quality control samples will be collected. For example, if sampling equipment will be decontaminated between use, quality control samples to check for cross-contamination should be collected.
10. **Page 7, Section 8.** It is not clear how the results of the sampling will be communicated to the Restoration Advisory Board. Please clarify.

If you have any questions regarding the comments above, please give me a call at 207-777-1049.

Sincerely,



Carolyn A. Lepage, C.G.
President



cc: Iver McLeod, MEDEP
Meghan Cassidy, EPA
✓ Marty Raymond, PNS
Jeffrey Brann, PNS