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LETTER AND COMMENTS ON BEHALF OF SEACOAST ANTI POLLUTION LEAGUE
REGARDING SECTIONS 3 AND 5 OF THE INTERIM OFFSHORE MONITORING PLAN FOR
OPERABLE UNIT 4 (OU 4) NSY PORTSMOUTH ME
8/25/1999
LEPAGE ENVIRONMENTAL SERVICES

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August 25, 1999

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

Subject: Comments on Sections 3 and 5 of the July 1999 *Interim Offshore Monitoring Plan for Operable Unit 4*

Dear Mr. Vandermark:

As you requested, we are transmitting comments to the Seacoast Anti-Pollution League (SAPL) concerning Sections 3 and 5 of the July 1999 *Interim Offshore Monitoring Plan for Operable Unit 4*. Our comments on the remaining portions of the report will be submitted next week. Our comments on Sections 3 and 5 are as follows:

1. Page 3-5, Section 3.1.1 Sampling and Analysis Rationale, Sediment. As we noted in comment 21 in our April 4th letter on the January 1999 *Draft Interim Offshore Monitoring Plan*, contaminant concentrations are not at acceptable levels. We suggested the Navy alter the wording to read "...monitoring will be conducted to determine whether current and future concentrations (over the course of the interim monitoring) are at acceptable levels." The Navy responded by changing the text on page 3-1. A similar text change is needed in the paragraph at the top of page 3-5.

2. Page 3-5, Section 3.1.1 Sampling and Analysis Rationale, Sediment. *"In addition, monitoring of surficial sediment will provide data to determine whether PNS onshore sites are a continued source of contamination to the offshore (e.g., increasing contaminant concentration trend)."* As we stated in comment 22 of our April 4th letter, with regard to determining if onshore sites are continuing sources of contamination to the offshore, sampling seeps would provide that information. What is the rationale for only an **increasing** concentration trend to demonstrate on-going contaminant inputs from onshore to offshore? A relatively stable or even a decreasing trend could still indicate contamination is migrating to the offshore areas.

The Navy's responded that the seeps have significant tidal influence as indicated by high salinity readings, and suggested that the contaminants from other than Shipyard sources. Contaminants in the seeps may be due to "backwash" of surface water, through the sediment, and back out the seep. We find this response confusing, as it implies that surface water quality is much more of a

problem in the offshore environment than the Navy is currently contending. What is the technical basis and data to support “backwash” of non-Shipyard contamination as a source for contaminants found in seeps and sediment? The Navy’s response did not address the issue of assuming that only increasing trends indicate an on-going source of contamination. This point still needs to be addressed and the text revised appropriately.

3. Page 3-5, Section 3.1.1 Sampling and Analysis Rationale, Sediment. *“Sediment will be collected from all monitoring stations where sediment is available. It is anticipated that the only area where sediment will not be present is in the DRMO Storage yard AOC.”* Given the Navy’s July 1999 sampling results that revealed lead concentrations in an area of eroding soil at the Defense Reutilization and Marketing Office (DRMO) are as high as 110,000 ppm, it is critical to understand where the soil eroded from the DRMO ended up and what potential impacts might be. It is possible that measurable amounts have migrated along the shore and ended up in depositional areas. How will the *Offshore Monitoring Plan* address this possibility?

4. Page 3-9, Table 3-2. We note that the Representative Pesticides listed in this table in the January 1999 *Draft Monitoring Plan* included Mirex. Why was Mirex dropped from the list in the current Plan?

5. Page 3-23, Section 3.1.2 Monitoring Station, Sampling and Reference Station Locations. *“Stations should represent the kind of contaminant exposures that estuarine biota would experience without PNS as a source and should be located in an area that experiences exposure from existing non-PNS sources.”* We remain concerned that the lack of understanding of local contaminant inputs at reference locations is likely to lead to misinterpretation of contaminant concentration trends at both reference and Shipyard locations. The reference locations were to reflect exposure to **general** conditions without Shipyard inputs. Please clarify.

6. Page 3-23, Section 3.1.3 Implementation of the Interim Monitoring Program. The January 1999 *Draft Monitoring Plan* discussed replicate samples. However, we were unable to find mention of replicate sampling in the current Plan. Please clarify.

7. Page 3-27, Section 3.3.2 Evaluation of Frequency of Monitoring. *“Historical data ... will not be used for trending since activities have occurred that likely have resulted in a decrease of concentrations in the offshore at PNS, which could mask current trends.”* How does the discovery of erosion of highly-contaminated soil at the DRMO shoreline affect this assumption?

8. Page 3-30, Section 3.3.3 Evaluation for Recommendation for Additional Scrutiny. This section is not clear with regard to continuation of monitoring. Our notes from the June 1999 Data Quality Objectives (DQO) meeting indicate that monitoring would continue at a location even though no additional scrutiny is required for that location. This information needs to be added to this section.

9. Page 3-30, Section 3.3.3 Evaluation for Recommendation for Additional Scrutiny. *“In addition, concentration trend lines for the reference data will also be plotted and compared to the trend lines for each monitoring station.”* As we have noted previously (comment 33 of our April 4th letter, for example), we are concerned with comparing data from Shipyard monitoring locations with data from the reference locations. How will the Navy determine if the depositional environments are comparable? How will the Navy determine the reasons for and significance of increasing or decreasing trends at the various reference locations, and how these can be related to trends in Shipyard AOC (Areas of Concern) data? What are the assumptions regarding the significance of higher contaminant concentrations at reference locations, particularly with regard to local inputs? How will these assumptions be tested? How will the Navy demonstrate that trends in data at reference locations are applicable to monitoring locations adjacent to the Shipyard?

10. Page 3-33, Section 3.3.3 Evaluation for Recommendation for Additional Scrutiny. For Cases B and E, the trends will be compared with the reference station trend in order to decide if there should be additional scrutiny at the monitoring location. Several questions pertinent to this data comparison and subsequent decision are noted in comment 9, above. The trend of data at the reference locations may have nothing to do with the data trend at Shipyard monitoring locations. This comment also applies to the ANOVA testing described at the bottom of page 3-35.

11. Page 3-34, Section 3.3.4 Statistical Treatment of Data. With regard to the discussion at the bottom of the page, we have noted in our review of other documents that the numerical detection limit can be significantly higher than the Method Detection limit (MDL), and can exceed screening criteria. (See for example, comment 63 in our July 29, 1999, letter regarding the *Site Screening Report for Sites 30, 31, and 32.*) This can lead to underestimating the number of times action levels or other criteria are exceeded. How will the Navy address a situation similar to that in the Site Screening Report where there were a significant number of non-detect results at detection levels higher than the action levels, resulting in potential underestimation of number of exceedances? Are there measures that could be implemented, such as collecting additional sample volume, that would reduce the number of non-detects exceeding MDLs?

12. Page 3-36, Section 3.3.4 Statistical Treatment of Data. *“Data from the same habitat type across monitoring/reference stations will be compared to data from other habitats.”* As noted in several comments above, we have concerns regarding the comparison of reference location data with monitoring station data. It would be appropriate to focus on Shipyard inputs separately, and compare data from the habitats at the monitoring stations only.

12. Page 3-36, Section 3.3.5 Data Reporting. The sampling event reports should include the results of the “less vigorous” data review and assessment described on page 7-7 in Section 7.4.

13. Page 3-38, Section 3.3.6 Schedule of Deliverables. We had commented in our April 4th letter that the timeframes provided in this section seem overly long, particularly the 8 months required for the baseline and 5-year reports. The Navy's response stated that the major reason was the 2-month turnaround time for laboratory results, and then the time needed for data validation, compilation, and evaluation. We are especially concerned with the effect the long time to prepare the baseline report will have on the third-year sampling. The results of the baseline monitoring (sampling two times a year for the first two years) will be used to determine the preferred season for collecting samples thereafter. It is possible to miss the preferred season in the third year if it takes 8 months to prepare the baseline report. Please clarify.

14. Page 5-1 +, Section 5.1.1 Sediment Sample Collection and subsequent sections. The specific Standard Operating Procedures (SOPs) we recently reviewed should be cited in the text. Comments in our August 21, 1999, letter on these SOPs also apply.

15. Page 5-6, Section 5.2 Sample Round Identifier. Sample identifier codes for the Source Water and Trip Blanks (described on page 7-6) should be included with those of the other three field QC samples.

16. Page 5-9, Section 5.4 EQUIPMENT DECONTAMINATION. Is the sample decontamination process listed at the end of the page the same procedure that will be used in SOPs 1.01 through 1.05 that we just reviewed?

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, Department of Environmental Protection
Meghan Cassidy, Environmental Protection Agency
Marty Raymond, Portsmouth Naval Shipyard