U. S. Department of Commerce
National Oceanic and Atmospheric Administration

Date: May 8, 1987 June 12, 1987 Mtg. @ EPA.

Subject: Response to Navy's Comments on our Work Plan Recommendations

To: Charlotte Head, EPA

From: Sharon K. Christopherson, NOAA Coastal Resource Coordinator

General Comments

The historical disposal practices documented for the Sites at the Brunswick NAS, as well as the limited data from the previous assessments, clearly indicate that the risks to NOAA resources from toxic substances associated with those Sites is not negligible. The substances of primary concern to NOAA include the acid/base/neutral organic compounds, pesticides, PCB and toxic elements (trace metals). In contrast to the volatile organic compounds (VOCs), the persistent substances tend to accumulate in biota and sediments and hence are most likely to be transported to, and accumulate in, Harpswell Cove and the Androscoggin River in concentrations that may injure NOAA resources. Even at these concentrations, because of their low solubility and typical laboratory detection limits, these substances are difficult to detect in water samples. This latter aspect may account, in part, for the lack of detection of these substances in previous off-site studies.

The on- and off-site studies that have been performed to date and that are being pursued currently have been too limited overall and too strongly focused on problems that might be associated with the VOCs in the groundwater. Additional characterization of the distribution of non-volatile substances at each of the Sites is badly needed. However, of more direct concern to NOAA is the need to establish whether or not any persistent, non-volatile substances have been transported from the Sites to areas that lead to exposure to NOAA resources.

We can understand the reluctance to perform an extensive off-site evaluation when the data available do not clearly demonstrate that major off-site transport has occurred. Therefore, we are only requesting at this time minimal sampling of sediments in the adjacent surface streams. This sampling (more specific recommendations given below) should be able to confirm whether or not the Sites are sources of toxic substances of the type and quantity to be of concern to NOAA. NOAA will defer more definitive sampling of off-site wetland areas and biota until the results from this sampling round are available.

Specific Sampling Recommendations.

The comments below are in reference to the sampling locations proposed on figures 4, 6, and 7 of the Pollution Abatement Confirmation Study (Step 1A-Verification Addendum Report). These same figures were used in the Work Plan for the Pollution Abatement Confirmation Study (Step 1B - Characterization) that we have reviewed.

First, we would like to re-emphasize that the characteristics of the sediment sampling locations should include: a) areas that are depositional and may have trapped material transported from the Sites and b) areas with sediments that are as fined-grained and as organic-rich as possible. Samples from the upper few centimeters (2-10 cm) of sediment should be collected from each of the sampling locations.

Second, the sediments should be analyzed for the full set of organic and trace element priority pollutants, as well as for grain-size and total organic carbon. We feel that the full priority pollutant scan is necessary because of our concerns over the initial site contamination characterization. Grain size and total organic carbon parameters are important in correctly interpreting the potential for off site migration of many of the compounds which are most likely to impact natural resources.

Sites 1, 2, and 3.

Figure 4 of the Pollution Abatement Confirmation Study confirmation Study (Step 1B-Characterization) indicated three sampling location proposed for surface water sampling only (SW-015, SW-013 and SW-014). To address the potential for off-site migration of contaminants which can impact natural resources, sediments at these locations should also be sampled. We also recommend that the sediment sample at SW-015 be taken from the deeper areas of Beaver Pond rather than at the inlet. This pond should be a depositional area for fine-grained sediments that is effective in accumulating persistent substances originating from Sites 1,2 and/or 3. Sediments collected from SW-013 and SW-014 should also be from ponded areas where deposition is likely to have occurred.

Site 8.

Figure 7 of the Pollution Abatement Confirmation Study confirmation Study (Step 1B-Characterization) indicated five sampling locations proposed for surface water and sediment sampling (SW-017, SW-018, SW-019, SW-020 and SW-021). If samples SW-017 and SW-018 indicates off-site migration on contaminants, additional samples downstream to where the unnamed tributary flows into the Androscoggin River would be necessary. Also, to help the Navy in interpreting their results, we would recommend a control sediment sample. Toxic substances may enter the stream from street runoff and from the railroad right-of-way. A local control station is recommended, perhaps in the small tributary below the railroad tracks east of the stream that drains directly from Site 8. The control sample should be collected from a location that has sediments similar to those sampled for contamination in the Site 8 drainage.

Site 9.

Figure 6 of the Pollution Abatement Confirmation Study confirmation Study (Step 1B-Characterization) indicated two sampling locations proposed for surface water and sediment sampling (SW-015 and SW-016). The site maps indicate that contaminants from Site 9, if any, as well as inputs from Sites 4 and 7 would end up in the pond located near New Meadow Cemetery. We would recommend one additional sediment sample be collected from this pond. As with Beaver Pond, the sample should be collected from the deeper portion of the pond containing the finer-grained sediments.