



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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NAS BRUNSWICK
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ANGUS S. KING, JR.
GOVERNOR

MARTHA KIRKPATRICK
COMMISSIONER

June 14, 2001

Mr. Orlando Monaco
Code 1821 LM
Department of the Navy, Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop 82
Lester, PA 19113-2090

Re: Site 7 Work Plan for Groundwater and Soil Investigation
Naval Air Station, Brunswick, Maine

Dear Mr. Monaco:

The Maine Department of Environmental Protection (MEDEP or Department) has reviewed the report entitled Revised Final Letter Work Plan for Ground-Water and Soil Investigation at Site 7, dated June 1, 2001, prepared by EA Engineering, Science and Technology. Based on that review the Department has the following comments and issues.

General Comments:

1. MEDEP appreciates the incorporation of most of its recommendations outlined in our comment letter of February 20, 2001. However, the MEDEP feels that there is a some possibility that the Work Plan may not result in full identification or delineation of the source of cadmium, and further site investigation may be needed. However, we concur that the revised work plan represents a logical step in understanding why cadmium levels in shallow groundwater exceed regulatory guidelines for clean water. (NR)
2. The Navy continues to speculate that the source of cadmium is likely from natural causes, rather than from past disposals, based on elevated bicarbonate and total organic carbon data for local groundwater. The Navy should be aware that bedrock is very shallow beneath the area of interest, and that MEDEP's best interpretation of geologic data and of the recently revised geologic map suggests that the Cape Elizabeth Fault crosses Site 7 near the cadmium "hotspot", running NNE-SSW. How or if this ties in with the elevated cadmium levels at Site 7 is unclear. (NR)

Specific Comments:

3. Phase 2, Step 1, Installation of Temporary Sampling Points, p. 3 and Figure 3:

The first sentence provides distances of the temporary sampling points from MW-MASB-094. These distances appear different when scaled on Figure 3. MEDEP assumes that the text gives the intended distances. (ED)

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4. Phase 2, Step 1, Installation of Temporary Sampling Points, p. 3 and Figure 3:

Three temporary sampling points are described for installation at various distances downgradient of the cadmium-contaminated well, and the Navy has added a fourth sampling point. MEDEP stands by its original comment requesting two additional upgradient sampling locations, however if the Navy is unwilling to install an additional location, the MEDEP recommends relocating TEMP-04. Upon studying Figure 3 and the monitoring well data, MEDEP recommends relocating TEMP-04 approximately 25 feet due north of its Figure 3 position. Our rationale is:

- while the 70.8 foot contour honors the groundwater elevations shown, it is unlikely that groundwater actually flows due east to MW-NASB-094, and then abruptly turns southeast. The west direction does not fit well with the larger scale of groundwater flow in this part of the base (based on prior contouring at the Old Fuel Farm). Furthermore, because MW-NASB-93 is screened deeper relative to the other wells used in Figure 3, its reliability is questioned. This well is very close to a groundwater divide, its water elevation is likely lower than if a shallower screen were present, due to steeply downward decreasing heads around divides. A water elevation few tenths of a foot higher at MW-NASB-93 would straighten the 70.8 foot contour and require flow to the southeast, instead of to the east.
- Figure 9-12 of the RI/FS report shows that the approximate location of the acid/caustic pit is northwest of MW-NASB-094, not west. To test whether the speculated pit location has cadmium in groundwater, a sampling point should be located along a flowline that intercepts the pit and the MW-NASB-094, between both features. Granted, the location of the pit was not confirmed by past test pitting and some doubt was cast on this location. (RR)

5. Phase 2, Step 2, Complete Excavation and Visual Survey, page 5, 2nd indentation:

"If cadmium is detected below the State of Maine Department of Environmental Protection Residential Guideline of 27 mg/kg, or if the visual survey indicates a potential source, excavated soil will be segregated and stockpiled on plastic sheeting."

This appears to be a mis-statement and is contradicted by the following indentation. Does the Navy mean "If cadmium is detected below the State of Maine Department of Environmental Protection Residential Guideline of 27 mg/kg, ~~or~~ *and* if the visual survey indicates *no* a potential source, excavated soil will be segregated and stockpiled on plastic sheeting."? (ED)

6. Phase 2, Step 2, Complete Excavation and Visual Survey, page 6, 2nd bullet:

As stated in MEDEP's comment letter dated February 20, 2001 comment #5 (in part) "The stabilization of new subsurface chemical conditions encompassing cadmium may require months therefore, the Department will want the Navy to do confirmation groundwater sampling at some later date, before site closure can be accepted. (RR)

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Thank you for the opportunity to review this report. If you have any questions or comments please call me at (207) 287-7713.

Respectfully,

A handwritten signature in cursive script that reads "Claudia Sait". The signature is written in black ink and is positioned to the right of the word "Respectfully,".

Claudia Sait
Project Manager-Federal Facilities
Bureau of Remediation & Waste Management

Cf: File
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