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NSY PORTSMOUTH
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LETTER AND COMMENTS FROM MAINE DEPARTMENT OF ENVIRONMENTAL
PROTECTION ON U S NAVY RESPONSE TO COMMENTS REGARDING DRAFT SITE
SCREENING REPORT FOR SITES 30, 31 AND 32 NSY PORTSMOUTH ME
7/16/1999
MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANGUS S. KING, JR.
GOVERNOR

MARTHA KIRKPATRICK
COMMISSIONER

July 16, 1999

Mr. Fred Evans
Department of the Navy
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mailstop 82
Lester, PA 19113-2090

re: Response to Comments, Draft Site Screening Report, Site 30, 31, and 32, Portsmouth Naval Shipyard, Kittery, Maine

Dear Fred:

The Maine Department of Environmental Protection has reviewed the document referenced above. The Department's comments follow, retaining the same numbers as MEDEP's initial comments.

General Comments

3) Groundwater Level Measurements:

The main point of the Department's original comment was that the measured levels in the monitoring wells likely are a mix of absolute highest levels attained during the tide cycle at some wells and levels that are perhaps over 0.5 feet from their absolute highs at other wells. As the Navy acknowledged, different wells may fluctuate with different tidal-influence time lags due to locational differences. We agree that if the timing of the cycles are known for each well, then all water level measurements at a site can be adjusted for a selected tide stage in the aquifer, and measurements do not have to represent the maxima (although that would be preferable). Therefore, measuring wells at a site randomly in time without knowing the time of absolute highs in each well will likely give a warped view of the true potentiometric surface that contouring attempts to replicate. MEDEP does not agree with the Navy's assertion that "If ... 0.5 to 1.0 foot differences exist ... the general groundwater flow directions would not be greatly affected; only the amount of elevation would be changed". We believe that enough difference could result so that an existing "downgradient" well may not be in a plume pathway.

In future groundwater level monitoring in strongly affect tidal sites, we will expect that the Navy will use transducers and data loggers. Only when this is done will the potential for misinterpretation of one point-in-time water levels be determinable.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 764-1507

Specific Comments

10) Navy Response: "The Navy believes groundwater collected using low-flow sampling techniques is relatively homogenous in nature and thus using the average concentration of field duplicates is representative of actual groundwater conditions and is also the process used when performing risk assessments."

The State of Maine's risk assessment guidance indicates that both average and maximum concentrations should be evaluated for risk assessment purposes. The MEDEP believes that the highest concentration of a duplicate pair should be used for VOCs, in lieu of averaging as the Navy has done. If the in situ groundwater is nearly homogeneous, it is difficult to explain why the highest value is less reliable than the lower value. Conversely, several explanations can be advanced for a loss of concentration during handling and laboratory analysis.

16) Navy Response: "The general groundwater flow direction is still to the north."

The MEDEP is not comfortable with this statement. In order to characterize a site adequately and thus feel comfortable that downgradient wells are actually within the most likely flowpath, contours and flowlines have to be more accurately determined than inferring a general direction. This will often require two or three wells in the general downgradient direction.

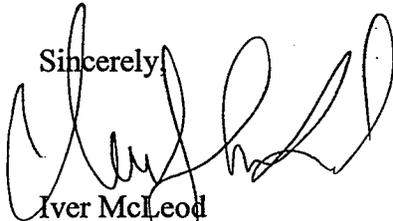
31) Figures 5-5 and 5-6, Potentiometric Surface Maps,

Navy Response: "Water level measurements of the FA-01 cluster were not included because only water levels in newly installed wells were measured."

The FA-01 cluster shouldn't have been omitted simply because they were not newly installed wells. In the future, all existing wells at a site should be used to generate potentiometric maps, if those wells are of similar depth and the geology is compatible.

Please feel free to contact me at (207) 287-8010 if you have any questions.

Sincerely,



Iver McLeod
Project Manager
Bureau of Remediation and Waste Management

pc:

Denise Messier, MEDEP
Mark Hyland, MEDEP
Larry Dearborn, MEDEP
Katie Zeeman, MEDEP
Harrison Bispham, MEDEP
Meghan Cassidy, USEPA
Marty Raymond, PNS
Linda Klink, TtNUS
Debbie Cohen, TtNUS
Ken Finkelstein, NOAA
Ken Munney, USFWS
Jeff Clifford, RAB

Doug Bogen, RAB
Don Card, RAB
Michele Dionne, RAB
Mary Marshall, RAB
Phil McCarthy, RAB
Jack McKenna, RAB
Onil Roy, RAB
Roger Wells, RAB
Mary Menconi, RAB
Peter Van der Mark, TAG Representative
Carolyn Lepage, TAG Advisor