



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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August 8, 2000

Mr. Brian Helland
Code 1811/BH
Department of the Navy, Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail 82
Lester, PA 19113

Re: Quarterly Progress Report of Soil Vapor Extraction/Aquifer Air Sparging Remedial System Operations for the Period 1 January through 31 March 2000, Navy Exchange Service Station, Naval Air Station, Brunswick, Maine

Concurrence for Reduction in Soil Vapor Extraction/Aquifer Air Sparging Monitoring

Dear Mr. Helland:

The Maine Department of Environmental Protection (MEDEP or Department) has reviewed the report entitled Quarterly Progress Report of Soil Vapor Extraction/Aquifer Sparging Remedial System Operations for the Period 1 January through 31 March 2000, Navy Exchange Service Station, dated April 2000, prepared by EA Engineering, Science and Technology. Based on that review the Department has the following comments and issues.

General Comments:

1. The removal rate and mass dropped off greatly since August 1999, and appears on Figure 2 as approaching zero. The scale resolution of the vertical axes does not allow for reading the actual rates. The data plotted in Figure 2 needs to be derived in a table to be included in the report. (RR)
2. The Department concurs to the reduction in monitoring for the soil vapor extraction and aquifer sparging from quarterly to semi-annually as proposed in the Navy's letter dated August 1, 2000. However DEP would like to discuss the change in site remediation since the SVE/AS appears no longer effective. The Navy should be aware that once a different remedy is in place the monitoring program including

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frequency may need to be revised. The MEDEP would like to discuss this matter further with the Navy this winter. (RR & MTG))

Specific Comments:

3. Soil Vapor Extraction System Performance, p. 2, bottom of 1st para:

“For calculation of the daily total volatile hydrocarbon removal rate, it was assumed that the daily flow rate remained constant in individual SVE influent lines.”

MEDEP asked under Comment 6a of its review of the 3rd quarter report the following: “*Over what time period does this assumption apply?*”

The Navy replied that the following statement would be added as the second to last sentence of the first paragraph: “*The flow rate recorded during the monthly operations visit will be used to calculate the removal rate during that month of operation.*”

This sentence was not added to the 4th quarter 1999 nor the 1st quarter 2000 report. This oversight must be corrected; please insert the above sentence in the next report. (ED)

4. Soil vapor extraction/aquifer air sparging (SVE/AAS) treatment system performance, Figure 2:

Figure 2 shows that the removal rate for the 4th quarter in 1999 and 1st quarter 2000 was very low compared to most historic quarters. In view of the current groundwater concentrations that are well in excess of DRO and GRO guidelines, a considerable amount of contamination needs to be removed. The effectiveness of the present remedial system has been declining since June 1999. According to the Navy's letter dated August 1, 2000 the Navy is considering in-situ chemical oxidation for this site. The Department looks forward to discussing this matter with the Navy. (MTG)

5. Summary of water quality indicator parameter measurements, Table 4:

This quarter field pH values were nearly the same in January and March, whereas dissolved oxygen values were all much higher in March: greatest change recorded is at MW-NASB-226 (2.1 to 8.5). The Navy needs to consider what environmental or operational changes could have caused this much difference and how much is seasonal as a result of snowmelt infiltration. (RR)

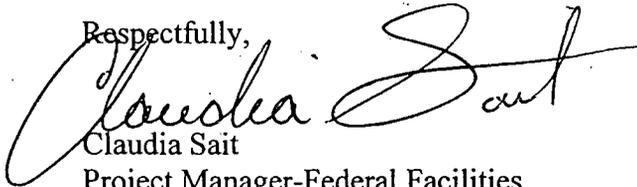
6. Quarterly Ground-Water Sampling, p. 4, last para:

“Remedial system influence in the area around MW-NASB-226 is limited to volatilization and capture of dissolved-phase petroleum hydrocarbon compounds in ground water traveling in the direction of MW-NASB-226.”

MEDEP does not understand the meaning of this statement. Figure 4 shows that, in March 2000, MW-NASB-226 had levels of total BTEX, GRO and DRO that are higher than in the two upgradient wells which are close to, or within, the current source area. Given the treatment system performance trend shown in Figure 2, one could argue that during the past year mass removal is insignificant and the core of the plume has now migrated to the MW-NASB-226 area. Please elaborate on how the remedial system has had a beneficial influence in the area around MW-NASB-226, or else delete the above statement. (RR)

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

Respectfully,



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

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