UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
1 CONGRESS STREET, SUITE 1100 (HBT)
BOSTON, MASSACHUSETTS 02114-2023

April 10, 2000

Art Coccoli (coccoliaa@efdnorth.northdiv.navy.mil)
Northern Division, Naval Facilities Engineering Command
Code 1822/AC
10 Industrial Highway, Mailstop 82
Lester, PA 19113-2090

Re: Draft 1999 Annual Monitoring Report, Site 9, Naval Air Station, Brunswick, Maine

Dear Mr. Coccoli:

Thank you for the opportunity to review the above report. Upon our review, we generally concur with the findings and conclusions. Natural attenuation by dechlorination and diffusion appears to be occurring at site 9 and with Institutional Controls, the remedy is protective. However, the EPA has several concerns, most notably that source control has been an ongoing problem that has been difficult to resolve at site 9. We remain committed to keeping monitoring results in the context of the expected 20 year duration of the remedy.

Please see more specific general and specific comments in the attachment. To aid in response, comments are coded as below. General and specific comments have also been combined.

(RR)	Response requested.
(NR)	Means no response required, usually an observation or note.
(ED)	Means editorial comment or suspected typographical/format error.
(/MTG)	Means comment should be discussed prior to response.

If you have any questions, please contact me at 617-918-1344 or barry.michael@epa.gov.

Sincerely,

Michael S. Barry
Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc. Ed Benedikt/Brunswick Conservation Commission
Tom Fusco/BACSE
Carolyn LePage/LePage Environmental (clepagegeo@aol.com)
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Attachment

1. (RR/MTG). Regarding rising VOC concentrations. It is true that vinyl chloride concentrations will rise due to higher parent DCE concentration as dechlorination occurs. However, incoming vinyl chloride concentrations rose in wells MW-69 & 80 and seem to roughly track with DCE concentrations. Perhaps the air sparging remedy at the upgradient NEX site has some influence upon this. If VOC's continue to rise, at some point enough potential risk would be presented to require some type of source control action (barrier wall, phyto remediation, or actual source location to name a few). Section 3.1.2, second bullet, second dash refers.

2. (RR/MTG). Regarding VOC's detected in surface water and sediment at SW/SD-010. We concur with further monitoring as current levels are below risk screening levels. However, because of expected dilution by volatization there presence is a concern. Consideration should be given to using water diffusion samplers to characterizing local groundwater discharge.

3. (NR/MTG). Natural attenuation of 1,2-dichloroethylene (DCE) to vinyl chloride is clearly occurring due to the high portion of vinyl chloride in many wells of about 50% and the rising ratio of vinyl chloride to DCE. As successful as the dechlorination of VOC's is though, a constant inflow of new VOC's into the area will slow the removal of VOC's.

4. (RR/MTG). The NEX site petroleum remediation system and the degradation of BTEX compounds may be causing low dissolved oxygen and EH readings at site 9 (except for downgradient of the landfill). This actually presents ideal conditions for dechlorination of the VOC's at site 9. Because of the remedial system in operation and that BTEX compounds degrade so readily it's not surprising that they are not detected at site 9. But, is it possible that the BTEX compounds at the NEX are "masking" the low level VOC's migrating to site 9 by the current testing methods? It's also an interesting coincidence that rising VOC's in MW-69 & 80 were detected about the same time the remedial system and the NEX began operation. Section 3.1.2, third bullet refers.

5. (NR/MTG). Several mitigating factors at site 9 imply that inflow of VOC's is more an issue of how much time will be required to clean up the groundwater versus effectiveness of the remedy.

   a. The groundwater and surface water in the outflow area is also well characterized in nature and extent and has not been impacted by a level of VOC's that could cause a risk to human health or the environment to date. In fact, a moderate amount of VOC discharge will probably be not measurable in the ponds or surface water and

   b. Because of volatization of VOC's a significant discharge would probably be needed to present a risk (Such as at the McKin site) by exceeding the ambient water quality criteria or presenting a vapor hazard to human health.

   c. Though EPA prefers destruction of VOC's through dechlorination, dispersion and diffusion are valid natural attenuation mechanisms and are currently utilized at several superfund sites. Further, dispersion by volatization are maximized since the downgradient wells have higher percentages of vinyl chloride.

6. (NR/MTG) The VOC contamination detected in MW-227 appears to be of different character

because of the presence of TCE and PCE. Since an aircraft maintenance area is upgradient of this well, it is possible for there to be either a historical or current undetected source. Evaluating this source should be in context of other issues at site 9 and the current contamination levels at MW-227 (below the MCL). True, they will decay to vinyl chloride above the MEG, but this area is hydraulically contained within site 9. Section 3.1.2, fourth bullet refers.

7. (ED) Section 1.2, paragraph 2. Delete "proposed" as the remedy is now final since the ROD has been signed.

8. (ED/MTG) We didn't received the updated cross section (Figure 2.1 to the 1998 final report) referred to in the responses to comments for events 14 and 15. This figure should be included in the annual reports as it greatly aids in understanding the three dimensional hydrogeology of site 9. We concur with omitting the rest of the detailed geological information out of the annual reports.

9. (ED) LT-901 graphs don't have any 1999 data. Also what was the VOC source in 12/98; was it a lab artifact?

10. (ED) Good note on the graphs with the caveats acetone and methylene chloride artifacts not included in total VOC's.

11. (ED) Merge the two MW-227 graphs on pages 4 and 34 of 49 into one graph.

Comment Table

Number	RR	ED	NR	MTG	Refers to
1	X			X	Rising VOC's
2	X			X	VOC's in SW/SD
3			X	X	Natural Attenuation
4	X			X	NEX Site Affects
5			X	X	Mitigating Factors
6			X	X	MW-227 VOC's
7		X			Text Edit
8		X		X	Geological Cross Section
9		X			LT-901 Graphs
10		X			----
11		X			Merge MW-227 Graphs