



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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NAS BRUNSWICK  
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JOHN ELIAS BALDACCI  
GOVERNOR

DAVID P. LITTELL  
COMMISSIONER

January 2, 2008

Mr. Orlando Monaco  
Department of Navy  
Base Realignment and Closure  
Program Management Office-Northeast  
4911 South-Broad Street  
Philadelphia, PA 19112-1303

Re: Site 9, Monitoring Event 30 Report-April 2007  
Naval Air Station, Brunswick, Maine

Dear Mr. Monaco:

Pursuant to Section VI of the Naval Air Station, Brunswick, Maine Federal Facility Agreement (Oct 1990), as amended, the Maine Department of Environmental Protection (MEDEP) has reviewed the draft "Site 9, Monitoring Event 30 Report, April 2007", dated August 2007, prepared by Environmental Chemical Corporation. Based on that review MEDEP has the following comments and issues.

General Comments:

1. Conclusions based on this monitoring event (ME) are limited by the lack of data for wells decommissioned due to the ash landfill excavation, and by data gaps identified in previous ME reports, specifically in the vicinity of MW-NASB-076 and in the southwest corner of the site. Efforts to close these gaps are completed or planned for the near future, and the ash landfill removal north of Neptune Drive should be completed in the upcoming year. Pending identification of ash south of Neptune Drive that may trigger additional soil removal, MEDEP expects the monitoring network will be re-established as soon as the ash removal and site restoration is complete, hopefully in 2008.
2. The data collected are generally consistent with previous rounds, with low chlorinated VOC detections at MW-NASB-074 and MW-NASB-227 and DRO detected at MW-NASB-074 and MW-NASB-076 near the impoundment ponds at the southern end of the site. The DRO detections exceed the Maine Maximum Exposure Guideline (MEG) of 50 µg/L, but are less than 100 µg/L. No vinyl chloride was detected this round. The Analytical Data Quality Review indicates that overall the data were acceptable this round, and were qualified as needed.
3. Based on the data from the ash landfill removal stakeholders should consider whether metals should be included in the Long Term Monitoring.

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
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) 760-3143

Specific Comments:

4. Section 1.0: The Navy must note that four out of the twelve monitoring wells for this site have been decommissioned as part of the ash landfill removal and that this reduced monitoring limits the effectiveness of the long term monitoring, but these wells will be re-established once the removal is complete.
5. Section 1.2, Figure 1-3, and Table 1-1, 1-2 and 1-3:
  - a.) MEDEP appreciates the inclusion of the NEX wells in the gauging program. If possible MEDEP would appreciate if a figure could be included showing the water elevations across both the sites.
  - b.) Based on MEDEP's understanding of the excavation extent and from the ME-28 Table 1-1, MW-NASB-081 was decommissioned to make room for soil removal. The well is omitted from Table 1-1 this round, but it appears on Table 1-2 with the groundwater elevation data. It is possible the elevation data reported for MW-NASB -081 is actually from MW-NASB-020, please confirm and revise the tables and figure, as needed.
6. Section 1.4 and 1.5 and Table 1-1:
  - a.) Please fill in the metals analyses category for the seep/surface water/sediment locations.
  - b.) Please revise to show that MW-NASB-022, MW-NASB-072 and MW-NASB-227 were sampled by aqueous diffusion sample (ADS) methods.
7. Section 1.7: "No apparent matrix bias for constituents..."

This is a poorly constructed sentence and lacks a verb. Please revise.
7. Figure 2-1: Please revise the figure to include a longer time range of data and revise the title to indicate the years or Monitoring Events displayed on the figure.
8. Section 2.2 and Tables 1-4 and 1-5, Appendix A:
  - a.) Please note in Table 1-4 that MW-NASB-022, MW-NASB-072 and MW-NASB-227 were sampled by ADS only, not low-flow.
  - b.) It is notable that there is a very wide range of values for some field parameters. Temperature in groundwater ranges from 4.8 to 12.5 degrees C, and dissolved oxygen ranges from much less than 1 to greater than 16 mg/L. Calibration logs indicate nothing notable, and the variable readings are not traceable to different sample methods (low-flow or aqueous diffusion sample ADS). The field notes do indicate snow was falling during at least a portion of the sampling, it is possible the meters or flow-through cell were affected by the precipitation. Readings were generally similar between wells in the previous round.
9. Section 2.3.1,  $\Sigma$ 1,2 dichloroethene (DCE) and  $\Sigma$ vinyl chloride graphic:
  - a.) Please revise the figure to include trichloroethene (TCE) data and add a notation to the text and figure indicating when MW-NASB-069 was removed. Since MW-NASB-069 was the well with vinyl chloride concentrations far above any other well, it is disingenuous to indicate a trend when the wells sampled are changing through time.

b.) The detection of vinyl chloride at MW-NASB-076 (January 2006, 1.2 µg/L) is missing from the figure, please revise.

c.) As noted in MEDEP's ME29 comments, this figure would be improved by looking at individual locations and additional VOCs such as TCE.

d.) Para 3; "The current active wells have non-detect results for vinyl chloride."

While this may be true, it should also be noted that 8260B SIM is not being used to gain the lowest detection limit which still is not low enough to meet the Maine Maximum Exposure Guideline of 0.15 µg/L. Therefore please cite the detection limit being used.

10. Section 2.3.1, well chemical summaries: Please revise the text for the DRO detections. Please put the units in mg/L, so the values for MW-NASB-074 and MW-NASB-076 are easily discerned to be over the MEG.
11. Section 3.1:
  - a.) The report must clearly indicate that due to the number of wells decommissioned as part of the ash landfill removal action that the effectiveness of the long term monitoring is limited until such time as the monitoring network can be re-established.
  - b.) The objectives as written do not follow the Record of Decision goals which are reiterated in the current Long Term Monitoring Plan (October 2005). The objectives must closely mimic the goals in these documents. Please revise in this report and all future ME reports.
12. Section 3.1, Bullets 1 and 2: MEDEP can not fully agree these objectives are completely met at present based on the potential pathways near MW-NASB-076 and near S9-B10 leaving data gaps. These potential data gaps are noteworthy, and MEDEP expects they will be rectified shortly.
13. Section 3.1, Bullet 4: MEDEP anticipates the ongoing ash and soil removal will greatly enhance the attenuation of the vinyl chloride migrating across the central part of the site. As noted, the direct push investigation and the new screen at depth near MW-NASB-076 will provide data to support this evaluation.
14. Section 3.1, Bullet 5: The data for Site 9 indicate that screening criteria are exceeded for several metals in surface water, sediment and seeps associated with the site. This is the case at several other sites at NASB, and stakeholders will eventually need to discuss whether these sorts of exceedences require additional corrective measures, or if the background study indicates it is typical groundwater to surface water discharge chemistry.
15. Section 3.2, Bullet 1: MEDEP agrees with the conclusion with the additional possibility that the pending Site 9 investigation may generate data that indicates other revisions to the monitoring are needed.
16. Section 3.2, Bullet 2: The statement must be revised to reflect that the soil and ash removal to date has been north of Neptune Drive.
17. Table 2-1 and Appendix B: The reporting limit for diesel-range organics for sample MW-NASB-075 (0.08 mg/L) exceeds the Maine MEG of 0.05 mg/L, although the detection limit is listed in the appendix as 0.05 mg/L. This value contradicts the electronic data deliverable that reported 0.04 mg/L as the reporting limit. Please confirm the detection limits and reporting was for these analysis and revise the table as needed.

18. Table 2-1: The total VOC (TVOC) value for wells with detections of cis 1,2 dichloroethene is incorrect, because the table also lists total 1,2 dichloroethene. As a result the detection is "double-counted" in the TVOC calculation. This also affects the trend graphs for those wells. Please revise the table and figures.
19. Appendix A and Table 1-2: The field notes indicate a reading was taken at both staff gauges, however table 1-2 only lists a depth to water for SG-1C. Also the depth to water in the same table does not match the field notation for SG-1C. Please explain and revise the table and text, as needed.
19. Appendix D: The trend graphs are improved with the new format, but where applicable for all wells trans 1,2 DCE should be dropped from the graphs and total 1,2 DCE added. MEDEP made similar comments on the ME29 report. Trichlorofluoromethane should be added to the graphs for MW-NASB-075 and MW-NASB-072, to clarify the total VOC values plotted. The graphs for MW-NASB-022 and MW-NASB-227 need to be corrected to show the data were collected by ADS not low-flow.

Please contact me at (207) 287-7713 or [claudia.b.sait@maine.gov](mailto:claudia.b.sait@maine.gov), if you have any questions or comments.

Respectfully,



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

Cf: File  
Chris Evans-MEDEP  
Mike Fagan-BNAS  
Mike Daly-EPA - EPA  
Carolyn Lepage-Lepage Environmental  
Al Easterday-ECC  
Ed Benedikt  
David Chipman (email only)  
Jeff Donovan-ECC (email only)  
Carol Warren-(email only)  
Helen Cavanagh-ECC (email only)  
Gina Calderone-ECC (email only)  
Neal Williams-ECC (email only)  
Mary Johanson-ECC (email only)  
Jackson Kiker-ECC (email only)  
Amy Van Dercook-Mid Lant (email only)