



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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NAS BRUNSWICK
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April 12, 2004

Mr. Orlando Monaco
Department of Navy
Engineering Field Activity-Northeast
Code 1823/OM
10 Industrial Highway, Mailstop 82
Lester, PA 19113-2090

Re: Sites 1, 3 & Eastern Plume, Quality Assurance Project Plan
Naval Air Station, Brunswick, Maine

Dear Mr. Monaco:

The Maine Department of Environmental Protection (MEDEP) has reviewed the Quality Assurance Project Plan for Sites 1, 3 and the Eastern Plume, dated March 2004, prepared by EA Engineering, Science and Technology. Since it is MEDEP's understanding that an EPA chemist will also be reviewing the document for general issues, MEDEP concentrated its efforts on issues specific to the State of Maine. Based on that review MEDEP has the following comments and issues.

QAPP Comments:

1. Section 5 tables are useful to understand possible contaminants for this site; however sediment sample results are confusing because there is no distinction between samples collected from leachate seep sediments and surface water sediments. Sediments should be divided according to location type. (ED)
2. Section 7 tables are need to be revised as outlined below.
 - Sites 1 & 3 sampling includes sampling for groundwater, surface water and sediment from streams, as well as, seeps and seep sediment. Each of these media have different media protection standards. Chapter 7 should have separate summary sheets for each medium showing the appropriate media protection standard to be used as a "project action limit." At a minimum this would include 1992 Maximum Exposure Guidelines (MEGs) and current Maximum Contaminant Levels (MCLs) for groundwater, Maine and USEPA ambient water quality criteria for surface water [Mere Brook]. Quantitation limits provided in table 7-2-S1/3 will be accepted as since project action limits for sediments remains a site-specific risk assessment issue. One caution, the quantitation limit for Toxaphene is 170 ppb and the NOAA sediment criterion is 20 ppb for human health and 10 ppb for benthic aquatic life chronic toxicity. (ED)

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- Section 7 tables should be organized by media rather than by site unless separate Project Action Limits (PAL) are set by site. The PAL listed in the QAPP are used to determine suitability of chosen analytical methods/ lab reporting/detection limits, therefore specific laboratory limits must be provided and reviewed prior to sample collection. (ED)
- There are a number of factual errors in the MEG/MCL listed in tables. These need to be reviewed and corrected. MEG/MCL listed in **bold** are corrections from table 7-1-S1/3. MEDEP used the 1992 Maine MEG list and current EPA web site <http://www.epa.gov/safewater/mcl.html#mcls> for the MCL list. Other tables have similar errors.

CAS	Compound	MEG ug/L	MCL ug/L
95-50-1	1,2-Dichlorobenzene	85	600
107-06-2	1,2-Dichloroethane	5	70
541-73-1	1,3-Dichlorobenzene	85	nc
106-46-7	1,4-Dichlorobenzene	27	75
75-27-4	Bromodichloromethane	100^d	80 ^c
75-25-2	Bromoform	100^d	80 ^c
56-23-5	Carbon-tetrachloride	2.7	5
67-66-3	Chloroform	100^d	80 ^c
10061-01-5	cis-1,3-dichloropropene	2^e	nc
124-48-1	Dibromochloromethane	100^d	80^c
75-09-2	Methylene-chloride	48	5
10061-02-6	trans-1,3-dichloropropene	2^e	nc

c note that there are 4 THM compounds included in TTHM [only 3 listed in table 7-1]

d TTHM cannot exceed 100ug/L [MEG]

e total 1,3-dichloropropene cannot exceed 2 ug/L [MEG]

- Analytes chosen for monitoring are those from the CLP target analyte list; however most analytical laboratories include about twice the number of 8260 analytes. The additional 8260 analytes need to be included in standard laboratory analysis. (RR)
 - Soil/ Sediment method reference on table 7-3-S2 [and similar tables for other sites] is given as 5030B/8260B. This needs to be changed to 5035A/8260B, and changed on all related tables throughout the QAPP. Soil and sediment sampling for VOC must be changed to a sampling method that will best preserve the integrity of the samples. (ED)
 - Sensitivity Measurement Performance Criteria (MPC) on table 7-4-S1/3 [and similar tables] is given as below PAL or meet quantitation limits in table 12-1-S2. Table 12-1-S2 quantitation limits have not been entered in the QAPP. Further, there should be an on-going check on instrument sensitivity. Often a laboratory will run a control sample at the level of the lowest calibration standard and make sure sample recovery is within a certain range [this may be up to ±100% recovery]. (ED)
3. Section 8 does not include a discussion of sampling for sediment. Several sediment sampling locations have been identified; however sampling design rationale has not been discussed in this section. Please provide. (RR)
 4. Tables 9-1-S1/3 & EP need to list special handling samples for acid reactive VOC. Vinyl chloride and styrene are considered acid reactive, and have been detected at this site. Special handling includes taking non-acidified samples, storing them for a maximum holding time of 7 days at 4 C until analyzed. (RR)

5. The sample handling section of the sampling SOP as referenced in Chapter 10 mentioned that samples would be shipped daily to Katahdin Analytical Services laboratory. However, most of the QAPP lists the laboratory as yet to be chosen. The laboratory must be selected and relevant sections of the QAPP completed and reviewed prior to the sample analysis. (RR)
6. Table 12-3-S2 [and similar tables] should reference SW846 5035A/8260B for VOC in sediment/ soil. (ED)
7. MEDEP did not find the Audit of Field Activities form as referenced in section 16 of the QAPP. The field audit has not been included in table 16-1. This section was originally written in December 2003 and was not included in the March 2004 update. Please provide. (RR)
8. Table 17-1 does not include QA management reports from some of the assessments described in section 16. This table should include the audit report from field activity audits as well as the data quality review procedures assessment. This section was originally written in December 2003, however MEDEP did not receive a March 2004 update.

Thank you for the opportunity to review these is report. If you have any questions or comments please call me at (207) 287-7713 or email me at claudia.b.sait@maine.gov.

Respectfully,



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(RR = Response Required, ED = Edit)