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May 20, 2003

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

Re: Topsham Annex-Work Plan
Topsham, Maine

Dear Mr. Helland:

The Maine Department of Environmental Protection (MEDEP) has reviewed the work plan entitled Draft Work Plan for Investigation Activities at the Topsham Annex, Naval Air Station, Brunswick, Maine, dated April 2003, prepared by EA Engineering, Science and Technology. Based on that review MEDEP has the following comments and issues.

General Comments:

1. Federal facilities are generally required to submit a detailed Quality Assurance Project Plan [QAPP] for all site work. The QAPP must contain all required elements as listed in EPA document QA/R-5, Requirements for Quality Assurance Project Plans for Environmental Data Operations. Guidance for producing a QAPP is given in the Region I, EPA-New England Compendium of Quality Assurance Project Plan Requirements and Guidance, October 1999. While it may not be necessary to go to the effort of a full blown QAPP it is necessary to provide a basic document which ensures that the data gathered for this project is of sufficient quality to make regulatory decisions and verify clean up.

   Analytes of interest should be identified, and project action limits given. Project action limits are any regulatory limits that may be applicable to the given situation. These are given solely to assess whether laboratory reporting limits are low enough to allow appropriate evaluation of the site.

   Sample locations should be defined, and sample procedures described. Standard Operating Procedures [SOP] should be included for all sampling to be completed in the investigation. Sample preservation procedures should be given here as well. Field QC samples should be defined, frequencies and evaluation criteria set. In most cases field or equipment blanks, and field duplicates are used. Frequency should be given in terms of percentage of samples, and batches of samples. For example a field duplicate may be taken for every 20 samples [5%] but also for each "batch", so if only 5 samples are taken for a given media, there should still be 1 field duplicate for that media even though that is more than 5%.

Sample handling procedures, including sample holding times, and how samples will be delivered to the analytical laboratory must be described.

Analytical information should include: Analytical Laboratory; Analytical Methods and Laboratory SOPs; Laboratory reporting limits and MDLs; Lab QC requirements/ method performance criteria; and Lab data reduction/ review/ reporting. Although MEDEP is not recommending that Performance Evaluation [PE] samples be required for every analytical batch of samples, MEDEP does recommend that the analytical laboratory participate in routine PE studies for the analytes of interest, and that results of these PE studies be evaluated prior to starting the analytical work.

Data validation: It is recommended that 3rd party data validation by EPA Region 1 guidelines Tier II be completed on data collected for regulatory purposes.

In addition it is recommended that some mechanism for verifying that all project workers are aware of the sampling and analytical requirements of the project be developed.

2. While it may not be necessary to notify the public of the investigation the Navy in conjunction with the Maine School Administration 75 should be ready to hold a public informational meeting after the data has been collected and evaluated.

3. MEDEP would like to be notified at least two weeks prior to the initiation of this investigation so that staff can, if possible, be on site during the investigative work. MEDEP would also like to be present and have input into the locations of the final sampling points.

4. Please remember that a Maine Certified Geologist must oversee the field activities being proposed, as well as be included in this design of the work plan.

5. This work plan does not include collection of groundwater elevation data for Area B, which may be used for contouring and flow direction mapping. This task was performed in November 2001, and groundwater flow pattern was interpreted by MEDEP. The proposed work should include a confirmation of the November 2001 pattern, and determine if any significant difference exist. Water levels in the existing temporary wells (flush-mounted and/or slightly buried) should be measured to document if the return to more normal precipitation has altered groundwater flow. Therefore, the installation of temporary small-diameter, plastic-pipe, screened wells is recommended to enhance groundwater elevation contouring and provide access if later resampling becomes necessary. The size of the area of investigation in Area B (Building 369 in Parcel 2) is substantially larger than that previously contoured, and therefore the existing wells will not adequately define the water table. Also, past experience is that the soils have low permeability in some localities, thus requiring several days for representative water levels to be attained.

Specific Comments:

6. Title page:

"Work plan for Investigation Activities at the Topsham Annex, Naval Air Station, Brunswick, Maine"

While Topsham Annex is operated as part of the Brunswick Naval Air Station, it is not located, as the title would indicate, in Brunswick, Maine. The title must clearly indicate that Topsham Annex is located in Topsham, Maine. If the reference to the Naval Air Station must be included, please separate it from the main title, reduce the size of the font, and indicate the reason for the inclusion such as, prepared for Naval Air Station, Brunswick.

7. Page 1, Section 1, para 2:

   "The locations of Parcels 1 and 2 are provided on Figure 2."

   Please add Parcels 1 and 2 to Figure 2, as stated.

8. Page 2, Section 1,Introduction, bullets:

   The following references should be added and summarized: September 2000 - Phase 2 Environmental Site Assessment, Parcel 2 by GZA GeoEnvironmental, Inc. and Remedial Actions for PCB Characterization and Removal at Building 335 (DECA Commissary) Transformer Pad in 2002 by Foster Wheeler.

9. Page 6, Section 2.1.2, Building 369 (Area B):

   MEDEP recommends that additional groundwater sampling be performed using existing temporary wells in order to tie present plume configuration with that defined by the last site work in November 2001. At a minimum, the following wells should be sampled: DP-103, DP-105, DP-106, DP-107.

10. Page 7, Section 2.1.4, Building 380, para 2:

    The United States Navy,as the lead agency, is required under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (NCP) to attain State and Federal ARARs. To ensure that these ARARs are met, sampling must be of a quality and quantity to allow MEDEP to concur with the Environmental Baseline Survey. With that in mind it might be a better idea to have a separate workplan for the investigation of the skeet range to ensure that a proper investigation is performed.

    A skeet range layout is typically results in a fan-shaped shotfall zone. It is unclear from the text how the proposed sampling locations were chosen. If not already performed, field observations should be made to determine where the lead shot appears to be most concentrated and the rough vertical and horizontal limits of the area where the shot is present. It may be advantageous to screen the potential area with a portable x-ray flourescence (XRF) prior to laboratory sampling. To obtain representative soil samples a mining-based sample collection is recommended rather than point sampling. MEDEP recommends that the Navy refer to Technical/Regulatory Guidelines-Characterization and Remediation of Soils at Closed Small Arms Firing Ranges by Interstate Technology Regulatory Council (January 2003).

11. Page 7, Section 2.1.5, Buildings 1099, 1108, and 1114 (Areas D and E), para 1:

    "Furthermore, the reported concentrations of TPH-DRO ranged from only 130 μg/L to 1,700 μg/L in the ground-water samples."

    The word "only" does not seem appropriate when the Maximum Exposure Guidelines (MEG) for DRO is 50 μg/L. Please delete this word.

12. Page 8, Section 2.1.5, Buildings 1099, 1108, and 1114 (Areas D and E), p. 8, bullet 1:

    Figure 8 shows the locations of 14 proposed direct-push soil borings, the building footprints, and the locations of three prior groundwater-sampling points. For MEDEP to agree or disagree with the proposed locations, the inferred westerly direction(s) of groundwater flow, the locations of former leaking fuel oil tanks, and the geologic nature of the site also needs to be added to figure 8. Also, the DRO concentrations should be shown, or else matched with the map locations in the text.

13. Page 8, Section 2.1.6, TOP.1 (Filled Area):

    Again, the United States Navy as the lead agency is required under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (NCP) to attain State and Federal ARARs. Since this is an area of unknown fill, in addition to DRO, GRO and metals, analyticals should also include VOC's, SVOC's and PCBs for soil and VOC's and SVOCs for groundwater.

14. Page 9, Section 2.1.7, TOP.2 (Former Oil/Water Separator):

    The last paragraph (immediately after the three bullets) does not belong in this section, and needs to be moved under Section 2.2 (Field Investigation Procedures).

15. Page 11, Section 2.2.2, Direct-Push Ground-Water Sampling, top:

    "Ground-water samples will be extracted using dedicated polyethylene sample tubing and a variable speed peristaltic pump."

    To collect representative results when sampling groundwater that may contain highly volatile compounds, such as vinyl chloride, MEDEP prefers that the samples be collected using a bladder pump.

16. Page 11, Section 2.2.3, Test Trench Soil and Water Sampling, para 1and 2:

    These paragraphs describe that a backhoe will be used to collect samples from the test trenches, rather than have field personnel enter the trench. Particularly if the drain pipe is intact, fluid in the pipe could be lost to the ground when breaking and retrieving a section for sample collection. MEDEP stresses that it is important to properly collect samples. The Navy should consider stepped (terraced) side walls and Level C PPE if necessary.

    Also, please add that a PID/FID instrument will be used to monitor and record volatile vapors that could exist.

17. Page 11, Section 2.2.3, Test Trench Soil and Water Sampling, 2nd paragraph, last sentence:

    "The exceedances will be completed carefully to minimize the potential for exposing any liquids in the pipe to site soil or ground water."

    Does the Navy mean to say "*excavations*", rather than "exceedances"? Please check and correct as necessary.

18. Figure 7:

    Figure 7 should include the locations of the concrete structures and launching posts if different in relationship to the proposed sampling locations. (See comment 10 above.)

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

Cf: File
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