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DEPARTMENT OF ENVIRONMENTAL PROTECTION

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October 18, 1994

Mr. Fred Evans
Project Manager, Code 1821
Department of the Navy, Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mailstop 82
Lester, Penn. 19112-2090

RE: **Draft Final Work Plan for Site 9, Naval Air Station,
Brunswick.**

Dear Fred:

The Department has received and reviewed the Draft Final Work Plan for Site 9, dated September 1994. The Department's comments are provided below.

General Comments

1. A thorough discussion of the potential source areas should be included at the beginning of this work plan. Section 3 should perhaps be included at the start of the work plan rather than in the middle. Consider including more figures for easy reference to boring, monitoring well, and test pit locations.

Specific Comments

2. Figure 3-1:

This figure is not adequate. The printing on the figure is too small and is very difficult to read. This figure should include but does not show Building 201, the streams, the Flightline, and areas east of Building 215. In addition to making this figure readable, perhaps another figure should be included that provides a broader perspective.

3. Section 3.2 Exploration Methods, Page 3-5, Para 1, Sentence

"Waste disposed at this location (incinerator or ash landfill?) reportedly included solvents which were burned on the ground, paint sludges, and possibly wastes from the metal shop." Is there any information available to clarify if the "location" in the previous sentence refers to the

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incinerator or the ash land fill? Based on the Final Technical Memorandum¹, we are aware of only terra probes being performed at the alleged former incinerator location. Has any characterization of soil or groundwater quality been done here?

4. Section 3.2 Exploration Methods, Page 3-6, Building 201, Sentence 1

Provide the specific information included with the historical data and aerial photographs which indicates the potential source of contamination.

5. Section 3.2 Exploration Methods, Page 3-6, Unnamed Stream

Provide a qualitative summary of previous surface water, leachate, and sediment analytical results.

6. Section 3.2 Exploration Methods, Summary of Investigations, Page 3-7, Para 2

Is information available through the NAS waste water treatment facility which might indicate whether Building 201 has contributed organic solvents to the basewide sewer system since it was connected in 1972?

7. Section 3.2 Exploration Methods, Summary of Investigations, Page 3-8

The attached table summarizes the explorations proposed in this work plan. A reviewed and revised version of this table should be included in the final work plan to add clarification to the projects objectives.

Section 3.2.1 Soil Borings, Page 3-9

8. Para 1, Sentence 3

The proposed test boring associated with MW-914 is not shown of Figure 3-1.

9. Para 1, Sentence 4

Change "fuel soaked oil" to "fuel soaked soil" throughout report.

10. Para 2, Sentence 3

"If no PI meter readings are detected above background in soil collected from the test boring associated with T-23

¹ABB Environmental Services, Inc., Final Technical Memorandum, Site 9 - Neptune Drive Disposal Site, May 1994,

then a sample will be collected between 8 to 10 feet bgs." However, field notes for T-23 included in Appendix A of the Final Technical Memorandum² read as follows,

"fuel odor to sample at retrieval - very heavy odor; gray very well sorted fine sand - looks natural - no (8'-10' sample) gritty texture while pushing"

Does this mean that no sample was collected from the 8' to 10' interval? If so, at what interval was the "fuel odor" sample collected from?

Section 3.2.1 Soil Borings, Page 3-10

11. Para 1, Sentence 1

Fuel soaked soil was observed on the lead auger as it was removed from the test boring associated with MW-914. Lead augers are typically 5 to 6 feet in length which indicates the "fuel soaked soil" occurred at a depth between 11 and 17 feet bgs. Please clarify.

12. Para 1, Sentence 2

Soil samples will be analyzed using MDEP Method 4.1.2 or equivalent. Specify which equivalent method might be used in place of Method 4.1.2.

13. Para 1, Sentence 4

The boring log for MW-916 was not included in Appendix A of the Final Technical Memorandum³.

14. 3.2.2 Monitoring Well Installation, Page 3-11, Bullet 3

In the interest of obtaining the most information possible, it makes sense to install the proposed background monitoring well at a location further upgradient (north) than is shown in Figure 3-1. Locating the well near the southern end of Buildings 213 and 214 would provide better spatial coverage for the assessment of groundwater flow patterns between the NEX service station and Site 9.

15. 3.2.2 Monitoring Well Installation, Page 3-12, Sentence 3

"The well screens will be placed at depths with the highest PI meter readings and will be long enough to accommodate seasonal fluctuations in the water table but short enough to allow discrete sampling." What does this mean? What range

²ABB Environmental Services, op. cit.

³ABB Environmental Services, Inc., op.cit.

of seasonal fluctuation is expected based on previous water level measurements? How short does a well screen have to be to allow for discrete sampling?

16. 3.2.3 Test Pitting, Page 3-14, Para 2, Sentence 3

"The "dump area" identified on an engineering drawing is larger than the ash landfill delineated in earlier investigations." Please provide a reference for this engineering drawing including (but not limited to) title, company responsible for the preparation of the drawing, and date.

3.2.3 Test Pitting, Page 3-15,

17. Para 1, Bullet 4

Will the location of the former drain pipe be identified using the engineering drawing only? Does it make sense to survey the area with a GPR prior to excavating to aid in locating the pipe or pipe trench?

18. Para 2, Sentence 1

What criteria will be used to determine the presence of natural soil?

19. 3.2.4 Soil and Groundwater Sampling, Page 3-18, Para 4

Please indicate the total number of MW-900 series wells being sampled including duplicate samples.

3.2.4 Soil and Groundwater Sampling, Page 3-19,

20. Para 1, Sentence 4

"At least three well volumes will be purged from the monitoring wells prior to sampling, and in situ parameters (i.e. pH, temperature, DO, turbidity, and specific conductance) will be monitored until each variable stabilizes." There is no indication of how the well purging will be performed. Groundwater must be purged using approved low-flow methods to properly perform measurement of the above mentioned in-situ parameters ⁴.

21. Para 2, Sentence 3

Please identify the criteria used for defining a "desired sample depth."

⁴EPA, RCRA Ground-Water Monitoring: Draft Technical Guidance, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M. Street, S.W., Washington, DC. 20460, November 1992.

22. 4.1 Laboratory Analytical Program Summary, Page 4-1, Sentence 2.

Soils and groundwater collected from each new exploration need to be assessed for the presence of PCBs/Pesticides. Previous analytical results of leachate samples taken at the former discharge location of the 42"-drain pipe indicate the presence of 4,4-DDE, 4,4-DDD, and 4,4-DDT. Explorations upgradient of the leachate sample, in particular the test pit/trench and monitoring well located in the vicinity of the former pipe, need to be assessed for the presence of these pesticides.

23. Table 4-1. Summary of Off-Site Analytical Methods, METPH Fuel Oil in Soil 4.1.2

Groundwater samples collected from the MW-900 series and NEX service station wells must be analyzed for Total Fuel Oil in Water using MEDEP 4.1.1.

Please call with any questions or comments.

Sincerely,



Nancy Beardsley
Project Manager, Federal Facilities Unit
Office of the Commissioner

attachment: Site 9 Summary of Explorations

pc: Robert Lim, USEPA
Jim Caruthers, NAS Brunswick
Carolyn Lepage, R.G. Gerber Inc.
Beth Walter, ABB ES
Rene Bernier, Topsham
Sam Butcher, Harpswell
Susan Weddie, Brunswick
Topsham Water District
Steven Mierzykowski, USFW
Mark Hyland, MDEP
Richard Heath, MDEP
Marianne Hubert, MDEP

NEPTUNE DRIVE DISPOSAL AREA - SITE 9
SUMMARY OF EXPLORATIONS
DRAFT FINAL WORK PLAN - SEPTEMBER 1994

Area of Concern	Exploration	Rational	Field Screening	Laboratory Sample Type	Parameters Analyzed	Comments
Ash Landfill/Demo Debris Area						
Terraprobe T-23	(1) Test Boring	Better characterize subsurface soils associated with "fuel odor"	Continuous sampling - field screening using PID/headspace	(1) Soil	VOC, SVOC, Inorganics, Fuel Oil	Drilled to depth of 17 feet using HSA
MW-914	(1) Test Boring	Better characterize subsurface soils associated with "fuel soaked soil"	Continuous sampling - field screening using PID/headspace	(1) Soil	VOC, SVOC, Inorganics, Fuel Oil	Drilled to depth of 17 ft using HSA
	(1) Hydropunch	Assess groundwater quality beneath well screen and above clay layer		(1) Groundwater	VOC, SVOC, Inorganics, Fuel Oil	Collected at a depth greater than 17 ft bgs and above clay strata.
MW-915	(1) Hydropunch	Assess groundwater quality beneath well screen and above clay layer		(1) Groundwater	VOC, SVOC, Inorganics, Fuel Oil	Collected at a depth greater than 17 ft bgs and above clay strata.
Upgradient of Ash Landfill and MW-916	(1) Monitoring Well/ Test Boring	Evaluate background groundwater quality	Continuous sampling - field screening using PID/headspace	(1) Groundwater (1) Soil	VOC, SVOC, Inorganics, Fuel Oil	Well screen installed at depth with highest PID headspace value
Potential Dump Area						
Southwest of Bldg 216	(1) Monitoring Well/ Test Boring	Characterize groundwater flow west of Ash Landfill	Continuous sampling - field screening using PID/headspace	(1) Groundwater (1) Soil	VOC, SVOC, Inorganics, Fuel Oil	Well screen installed at depth with highest PID headspace value
Potential Dump Area - Vicinity of Bldgs. 216, 217, and 218	(3) Test Pits	Assess for the Presence or absence of landfill material	(4) Soil per Test Pit PID/headspace	(1) Soil per Test Pit	VOC, SVOC, Inorganics, Fuel Oil	Excavated to depth of natural soil or groundwater
Former Pipe Line						
Former 42" Drain Pipe - upgradient of Ash Landfill	(1) Test Pit/Trench	Assess for the presence of pipe and assist in locating Monitoring Well	(4) Soil PID/headspace	(1) Soil	VOC, SVOC, Inorganics, Fuel Oil	Excavated to depth of natural soil or groundwater
	(1) Monitoring Well/ Test Boring	Evaluate groundwater quality - potential preferential pathway for contamination migration	Continuous sampling - field screening using PID/headspace	(1) Groundwater (1) Soil	VOC, SVOC, Inorganics, Fuel Oil	Well screen installed at depth with highest PID headspace value

Notes:

- 1) Groundwater samples will be collected from all (16) MW-900 series wells and 10 wells associated with the NEX gas station and analyzed for TCL VOCs, SVOCs, TAL inorganics, and Total Fuel Oil in Water (DEP 4.1.1).
- 2) The location and elevation of each new exploration will be surveyed and referenced to NAS Brunswick datum.
In addition, the 10 wells installed at the NEX gas station will be surveyed as well as wells MW- 914, -915, and -916.
- 3) Stability will be monitored for pH, temperature, DO, turbidity, and specific conductivity while purging monitoring wells prior to collecting groundwater samples.