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LETTER TRANSMITTING NAVY'S PROPOSAL FOR ALTERNATE SCHEDULE CONCERNING
INVESTIGATION OF REMEDIAL ALTERNATIVES FOR NAVY EXCHANGE SERVICE
STATION DEADLINE AND RESPONSE TO STATE OF TENNESSEE DEPARTMENT OF
ENVIRONMENT AND CONSERVATION'S COMMENTS MILLINGTON SUP
10/1/1992
NSA MID SOUTH

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Code 1846

CERTIFIED MAIL RETURN RECEIPT REQUESTED

01 OCT 1992

Mr. Glenn A. Birdwell
State of Tennessee
Department of Environment and Conservation
Memphis Environmental Field Office
Suite E-645, Perimeter Park
2500 Mt. Moriah
Memphis, TN 38115-1511

INVESTIGATION OF REMEDIATION ALTERNATIVES
NAVAL EXCHANGE SERVICE STATION
NAS MEMPHIS, TN
FACILITY I.D. #9-791 718, SHELBY COUNTY

Dear Mr. Birdwell:

Due to contracting and budget constraints, we cannot comply with your November 11, 1992 deadline and request a time extension.

Enclosure (1) contains our proposal for an alternate schedule and responses to comments in your letter dated September 10, 1992.

If you have any questions, please contact Mr. John Karlyk at (803) 743-0624.

Sincerely,

Encl:
(1) Response to Comments

H. FRASER, P.E.
Head, Petroleum Branch

Copy to: (w/ encl)
NAS Memphis, PWD (Ms. Tonya Barker)
TDEC UST Division, Nashville
USGS (Mr. F. H. Chapelle)

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Response to Comments
TDEC ltr Sep 10, 1992
Naval Exchange Service Station

NAS Memphis, TN
Facility I.D. 9-791718

General comment.

All of the investigations at the Naval Exchange Service Station site were conducted prior to the Division's Environmental Assessment Report (EAR) and Corrective Action Plan (CAP) Guidelines. We are therefore requesting that strict adherence to the requirements of the January 1992 Guidelines be deferred from the upcoming USGS project. Our intent is to follow the CAP Guidelines to the greatest extent possible.

Comment #1:

Page 7-1 of the Final Vacuum Extraction Pilot Study and Remedial Investigation Report dated November 1990 states "Plume movement was not measurably detected." Please provide this office with current information on the hydrogeology of the site as specified in 1a. through 1f. of this Division's EAR Guidelines.

Response :

Our most current data is the Quarterly Ground Water Sampling Report of May 1991. Ground water sampling was performed October 1990 and January 1991. The data obtained during this sampling period confirmed the conclusions in the above referred to report that there was no substantial movement of the contamination plume. A copy of the Quarterly Ground Water Sampling Report can be supplied if requested.

The USGS Proposal SC92J shall be revised to include resampling the existing 23 wells at this site to verify plume status.

Discussion on the pump test, slug test, and permeability is included in the response to comment #2.

Comment #2

Page 4-1 of the Vacuum Extraction Pilot Study and Remedial Investigation Report refers to soil permeability testing. What type of tests were run? Section 1.E. "Procedure for Determining Soil Permeability" in the Environmental Assessment Guidelines must be followed to determine the appropriate soil cleanup level.

Response:

The Contamination Assessment Report dated May 1987 included slug testing on three ground water monitoring wells. The test were

performed per Bower and Rise, 1976. Data is included in enclosure (1a).

The referred to Vacuum Extraction Pilot Study and Remedial Investigation Report, section 4.4.2 (page 4-4) discusses the pump test and includes backup data.

Appendix III of same study/report contains data on horizontal and vertical permeabilities. The evaluations were done by Professional Services, Inc. out of Memphis, TN per Army Corps of Engineers Method EM 1110-2-1906, Falling Head Permeability. Also, appendix VII contains data on air permeability and transmissivity.

Comment #3

Page 7-2 of the Vacuum Extraction Pilot Study and Remedial Investigation Report contains a reference to a third area of contamination near Building 341 and adjacent to Old Navy Road where 3 USTs may have been (or are currently) located. It is recommended an investigation be initiated to determine if a source of contamination still exists at this location.

Response:

The three USTs were permanently closed in place in 1969. They were filled with sand. The closure eliminated the source of contamination. This method of closure is acceptable per TDEC Chapter 1200-1-15-07.2.b.

Subsequent road construction widened the Old Navy Road from 2 lanes to 5 lanes. The closed in place USTs are now located under the Old Navy Road pavement.

The above referred to Vacuum Extraction Pilot Study and Remedial Investigation Report determined the vertical and horizontal contamination plume. The concentration contour maps are included in Fig.6-6 and Appendix IV.

The bioremediation investigation outlined in USGS proposal SC92J includes this section of the Navy Exchange site. There is no apparent reason for an additional investigation at this time because the source has been eliminated with the closure in place of the (3) UST's, the plume was defined in the Vacuum Extraction Pilot Study and Remedial Investigation Report and we are planning to award a contract to explore the bioremediation technique at this site.

Comment #4

Page 2 of the referenced USGS Proposal only referred to a 1986 release of approximately 5,000 gallons of unleaded gasoline. Minutes of the meeting held August 2, 1990, as provided by G. C. Bradley, P. E. of the Remedial Actions Branch of the Department of the Navy, Southern Division, refer to "more than one source of

contamination is suspected at this time." This should be clarified.

Response:

The 5,000 gallon release of unleaded gasoline is the result of pipeline leaks of 1986 at pump island No.4. The other suspected sources of contamination are the tank area presently serving the Exchange and the 3 UST's that were closed in place at the old service station, Bldg. 341.

The contamination source near the old service station, Bldg. 341, was removed by the closure of the 3 UST's. The contamination plumes are defined in Fig. 6-6 and appendix IV in the Vacuum Extraction Pilot Study and Remedial Investigation Report.

USGS Proposal SC92J

Comment #1

Applicable cleanup levels must be defined at this site by conducting Groundwater Classification and Soil Permeability tests in accordance with the Environmental Assessment Guidelines in the Tennessee UST Reference Handbook.

Response:

Applicable cleanup levels will be defined using data from both the Vacuum Extraction Pilot Study and Remedial Investigation Report and the Environmental Assessment Report dated September 1992.

Per the Vacuum Extraction Pilot Study and Remedial Investigation Report the vertical permeability is 4.13×10^{-7} cm/sec and the horizontal permeability is 3.4×10^{-7} cm/sec.

Ground water classification was accomplished in the Environmental Assessment Report of September 1992 for the Firefighting Training Facility, tank system 1489 and 1508 at NAS Memphis. This facility is adjacent to the Naval Exchange Service Station and the ground water classification data is applicable. A site map and ground water classification information is included in enclosure (2).

Based on data in the Environmental Assessment Report for the adjoining Aircraft Firefighting Training Facility, the shallow ground water in the vicinity of the site is a "non-drinking water supply."

Per TDEC-UST regulations Chapter 1200-1-15, appendices 3 and 4, the ground water cleanup level for benzene is 0.07 ppm and for TPH 1.0 ppm. The soil cleanup level for BTX is 500ppm and for TPH 1000ppm.

**USGS Proposal SC92J
Comment #2**

A Corrective Action Plan (CAP) must be submitted which follows this Division's CAP Guidelines no later than November 11, 1992.

Response:

Federal Acquisition Regulations and budget constraints make it impossible for us to meet the Nov. 11 deadline for the CAP. Funding to accomplish the bioremediation investigation per USGS Proposal SC92J will not be available until the first quarter of fiscal year 1993, which begins October 1, 1992. We anticipate that the contract will be awarded in November 1992. Four months are required to complete the project. At that time, a draft CAP will be submitted to TDEC for review. Should bioremediation prove to be a viable remedial technique at this site, a contract to bioremediate the site should be awarded September 1993. See alternate schedule for details.

ALTERNATE SCHEDULE FOR THE BIOREMEDIATION
CORRECTIVE ACTION PLAN
NAVAL EXCHANGE SERVICE STATION
NAS MEMPHIS, TN

ACTION	COMPLETION DATE
1. Budget funds Revise USGS proposal per TDEC letter Award contract to USGS.....	Dec 1, 1992
2. Draft report/CAP.....	Apr 1, 1993
3. TDEC review draft report/CAP.....	May 1
4. Navy review draft report/CAP.....	May 1
5. Submit final CAP, TDEC/Navy	Jun 1
6. Advertise and solicit proposals.....	Jul 1
7. Review proposals / award remediation contract.....	Sep 18

ENCLOSURE (/)