



# THE MEMPHIS DEPOT TENNESSEE

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## ADMINISTRATIVE RECORD COVER SHEET

AR File Number 541

# **The Former Memphis Depot, Tennessee**

## **Meeting Minutes BRAC Cleanup Team**

**December 2, 1998**

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BRAC Cleanup Team  
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**Attendees**

<b>Name</b>	<b>Organization</b>	<b>Phone</b>
Greg Underberg	CH2M HILL	(423) 483-9032
Tom Beisel	CH2M HILL	(770) 604-9182
John Garrison Jr.	RAB Member	(901) 754-7672
Shawn Phillips	DDSP-FE	(901) 544-0611
Brian T. Deeken	TDEC-DSF	(901) 368-7955
Jordan English	TDEC-DSF	(901) 368-7953
Turpin Ballard	EPA Region IV	(404) 562-8553
Alma Black Moore	Frontline	(901) 544-0613
Denise K. Cooper	DDSP-FE	(901) 544-0610
Greg Jenkins	Venture Capital	(256) 464-6405
Scott Bradley	CEHNC	(256) 895-1637
Dorothy Richards	CEHNC PM-ED	(256) 895-1463
Terry Flynn	Frontline	(888) 848-9898

**Review of October Meeting Minutes**

There was discussion between the BCT members regarding the need to provide text in the meeting minutes summarizing the disposition of comments on the previous months meeting minutes. It was determined that comments on the previous months meeting minutes would be made in the draft meeting minutes. Documentation of the changes would not be made in the minutes for the meeting in which the preceding meeting minutes were discussed.

**December BCT Meeting Action Items**

<b>Action</b>	<b>Responsibility</b>	<b>Suspense Date</b>
Discuss format and content of "Comfort Letter" regarding the status of proposed no further action sites with James Covington/DRC	DDSP-F	TBD
Provide comments on the draft Basis for No Further Action document	TDEC/EPA	TBD
Provide written comments or statement that there are no comments on the community relations plan	TDEC/EPA	12/31/98

Provide the Public Information Plan for the Ogden, Utah, DLA Site to DDMT	CEHNC	January BCT
Discuss specific language for the Parcel 3 FOSL	BCT	12/3/98
Prepare groundwater presentation for January RAB. Submit to CEHNC, EPA, TDEC, DDSP-FE for review	CH2M HILL	1/8/99
Submit Draft RI Report text on one functional unit for BCT review prior to February BCT	CH2M HILL	2/9/99
Provide schedule for lead-based paint removal in Parcel 2 to DDSP-FE	CESAM	12/31/99
Submit draft Post Removal Reports for Housing and Cafeteria	OHM	12/31/98
Submit draft Dunn Field RI workplan addendum for BCT review	CH2M Hill	1/14/99
Perform initial review of draft Dunn Field RI workplan addendum	EPA, TDEC, DDSP-F	1/21/99
Review letter of intent with City of Memphis to determine necessary actions regarding installation of the permanent groundwater transfer system at Dunn Field	CEHNC, DDSP-F	TBD
Obtain concurrence on ECP category change for Parcels 4.6 and 4.7 due to UST closure acceptance	DDSP-F	12/31/98

### **DDMT Web Site**

Shawn Phillips said that due to DLA requirements, the web site will be updated and maintained by the Defense Logistics Agency rather than a local internet service provider. The site will be hosted on a computer server in New Cumberland. The site will be updated quarterly with input from Frontline Communications. There will be an undetermined schedule slip due to this change. The administrative record index will be maintained on the New Cumberland server. Jordan English warned against preliminary release of data on the web, prior to review by the regulators.

### **Golf Course (Parcel 3) Remedial Action**

Turpin Ballard pointed out that institutional controls may be put in place at the golf course prior to achieving a Record of Decision. The golf course may be provisionally operated with the institutional controls in affect.

### **No Further Action Site Comfort Letter**

Shawn Phillips discussed the scope of the "comfort letter" to be issued for the proposed No Further Action (NFA) sites. Mr. Phillips reiterated that the purpose of the letter is to

indicate the BCT's intent that these sites do not need further investigation prior to the final NFA determination. The purpose of the comfort letter is to provide a basis for preparing Findings of Suitability to Lease (FOSL) or Transfer (FOST) that are as unencumbered with land use restrictions as possible. Shawn proposed that the BCT meet with James Covington/DRC to discuss the format and content of the comfort level.

### **Comments on the Community Relations Plan**

Formal comments on the community relations plan are outstanding from TDEC. TDEC's office reported that the plan looks fine and no comments are needed; however a formal, written statement that TDEC has no comments is required. Written comments are needed from both TDEC and EPA.

### **Results of "Magazine Site" Environmental Sampling**

Greg Underberg presented the results of the borings taken at the two golf course sites referenced by the U.S. Army Corps of Engineers Topographic Engineering Center (TEC) as magazine sites. With the exception of one duplicate sample that exceeded the arsenic background concentration, all constituents were below background or BCT criteria. Jordan English asked if explosive constituents were analyzed. Greg Underberg stated that they were not and discussed the process that determined that explosives were not likely stored at the magazine sites. A review of the records and discussion with Mr. Truitt indicated that ammunition was likely stored at these locations; therefore, metals (lead) were analyzed to determine potential releases to the environment from bullets.

### **Presentation of Dunn Field Soil Gas Results**

Tom Beisel presented the results of the soil gas survey at Dunn Field. Plots of tetrachloroethylene, trichloroethene, 1,2-dichloroethene, carbon tetrachloride, chloroform were presented from the first and second phase of shallow soil gas characterization. The second phase of sampling expanded the soil gas coverage from the western perimeter of Dunn Field throughout most of Dunn Field. The second phase showed the extent of the organics, largely chloroform and tetrachloroethylene, expanded further to the east than was determined in the first phase.

Moderate (0.3 – 3.0 micrograms) quantities of organics were found that, according to the manufacturer of the Gore Sorber®, are indicative of organic concentrations in the soil. CH2M HILL will review the distribution of the organics in soil and base the Dunn Field sampling plan addendum on the information provided. Organic soil samples from borings will be located based on the mapped organics in soil. Sampling for other constituents, principally metals and pesticides, will be based on the information provided in the original sampling plan.

Dorothy Richards proposed an on-board review of the Dunn Field sampling plan addendum associated with the January BCT meeting. Shawn Phillips suggested that this should be a separate meeting, perhaps the Friday following the BCT Meeting. CH2M HILL will complete the Dunn Field workplan addendum and have it ready for review by January 21st

Jordan English asked if the hazardous waste investigations performed by CH2M HILL would be coordinated with the CWM removal efforts scheduled to begin in April, 1999. Scott Bradley replied that in the past CEHNC has tried to coordinate hazardous waste investigations and removals with CWM removals and the effort has not been successful due to the complexities and additional requirements of CWM removals.

Scott Bradley will contact the Ogden, Utah, DLA site and request a copy of their Public Information Plan for review by DDSP-FE staff. Shawn Phillips proposed that the BCT travel to Ogden to evaluate the protective equipment (containment structures) that Ogden uses during removal of CWM materials. Similar structures will be in-place at Dunn Field. Viewing the structures and the removal procedures would assist the BCT in reviewing the removal plans at DDMT and informing the public of the safeguards that will be employed.

### **Update on Dieldrin Treatability Studies**

Greg Jenkins with Venture Capital Associates presented the status of the treatability studies for bioremediation of dieldrin in soils. Mr. Jenkins is working with Dr. Dennis Focht of the University of California at Riverside developing bioremediation technologies for xenobiotic compounds including PCB, DDT, DDE, and dieldrin. The process of bioremediation of dieldrin and other xenobiotic compounds is based on cometabolism wherein a compound such as dieldrin, which is not normally degraded by microorganisms, is degraded by proteins that are released by microorganisms as they degrade other molecules. The technology used to bioremediate dieldrin involves identifying these natural molecules and developing a treatment strategy by concentrating the molecules to promote the desired cometabolism of dieldrin. Laboratory studies were conducted using soil samples from DDMT that were spiked with dieldrin to 100 ppm. Culture tests evaluated 10 microbial isolates that are known xenobiotic compound degraders. Two microbial isolates reproducibly degraded dieldrin. However, the best results were achieved using DDMT soils that were treated with cultures to promote dieldrin breakdown by indigenous microbes. Several cultures applied to DDMT soils resulted in about 40% degradation of dieldrin in natural, DDMT soils. The specific treatment used was not discussed pending a patent from the State of California.

These tests confirmed that there is a strong potential for degradation of dieldrin by indigenous microorganisms. Early indications are that DDMT soils seem amenable to treatment through bioremediation. Mr. Jenkins proposed the following recommendations for further work:

- The remediation strategy should include methods to deliver the treatment and keep the treated soil moist and warm for optimal performance of the biodegradation.
- Field tests should be performed to evaluate the effect of temperature and moisture.
- Pilot scale tests are proposed to evaluate effects of repeated treatments, using covers, warming treatments, varying concentrations, atmospheric exposure, and the engineering aspects of the delivery of the treatment.
- Three months should be allowed for completion of the treatment
- Field tests should be performed during hot months.

To allow an early evaluation of the effectiveness of the treatments, a field test will be performed that extracts a large, undisturbed block of soil for transferred to a warm greenhouse-type environment. The soil bioremediation will be performed in a warm environment (biodegradation is not effective in the winter months) to determine the effectiveness of treatment on native soils that have not been significantly physically disturbed. The results of this test will be made available in February.

Jordan English expressed some concern about metabolites that may be produced during bioremediation that could be more toxic than dieldrin. Shawn Phillips said that aldrin has higher toxicity than dieldrin and is a product of dieldrin decomposition. Mr. Jenkins replied that the chemical structure of dieldrin and aldrin can change in the natural environment and the compounds can transform into each other, but typically aldrin transforms to dieldrin.

On December 17th Greg Jenkins is scheduled to collect the undisturbed soil samples at DDMT for testing as described above. Results should be available by the end of March. The field tests can follow between April and June. Shawn Phillips wants to be able to implement the treatment in the summer of 1999.

Denise Cooper recommended a caveat in the Parcel 3 FOSL that we can come onsite and implement the bioremediation after the golf course area is leased. Turpin Ballard warned about going public with potential bioremediation information. This action could be construed as pre-selection of a remedy before the CERCLA process is complete. The BCT will meet to discuss the language of the Parcel 3 FOSL.

### **Submittal of an Example Functional Unit**

Greg Underberg proposed that due to some changes in the risk assessment discussed with the BCT and the project risk assessors, the risk assessment and remedial investigation portions of a single functional unit be submitted to the BCT for an onboard review prior to completing the entire RI Report. The purpose of the review will be to identify any issues with the functional unit approach and risk assessment before the full RI Report is completed. A draft copy of the example functional unit will be distributed to the BCT on February 9th for subsequent review in the February BCT Meeting. The functional unit section will include the full risk assessment and the annotated text outline.

### **Aquatic Risk Assessment**

Shawn Phillips indicated that the recent results from the fish sampling of DDMT ponds should be included in the RI. Kurt Braun provided the latest data to Greg Underberg. Mr. Phillips recommended that the Pickering data describing the turnover of the ponds be included in the historic investigations section of the RI report.

### **Lead-Based Paint (LBP) Abatement**

OHM will receive the modification for the LBP abatement action this week. The LBP abatement at the housing areas is scheduled to be completed by March. A schedule and Health and Safety plan for completion of the LBP abatement is due to DDMT by December 31st. DDMT requested a schedule for submittal of the post remedial reports from OHM. There was some discussion whether the report for the dieldrin removal at the housing areas can be submitted now, or must wait completion of the LBP abatement. Shawn Phillips requested that the report of the dieldrin removal action be submitted by OHM as soon as possible.

### **Dunn Field Groundwater Extraction System Operations and Maintenance (O&M)**

The O&M contract has been awarded to OHM for a six month operation period. The existing connection of the groundwater pump system to the City of Memphis sewer is temporary. The original contract with the City required that a permanent sewer connection begin to be installed within 6 months. Since the flows from the system are less than designed, Greg Underberg suggested meeting with the City to determine if there is still a need for this connection. It is not certain that the City must complete the design themselves. Dorothy Richards and Shawn Phillips will review the letter of intent written to the City of Memphis and determine if a permanent connection is necessary and if the design must be completed by the City of Memphis. Ms. Richards indicated that CEHNC may use the Memphis Corps Office to assist in this work.

### **Environmental Condition of Property (ECP) Status**


The ECP status of subparcels 4.6, Heating Fuel Storage (Building T254) and 4.7, Gas Station (Building 257) was discussed. Tanks at these subparcels were remediated under the UST program. DDMT desired to change the status of these subparcels from a 6 to a level appropriate to the tank removal. DDMT will submit to TDEC a copy of the closure reports and review the status of these units. A change in ECP Category will be proposed with TDEC's concurrence.

### **Groundwater Presentation**

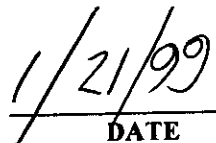
Greg Underberg will prepare a presentation for the January RAB Meeting that summarizes the status of groundwater characterization and the performance of the



Dunn Field groundwater extraction system. The presentation will be about 15 minutes in length. Slides for the presentation will be submitted on January 8th to the BCT and will be reviewed and discussed in a conference call on January 14th with the BCT members.



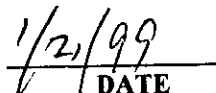
SHAWN PHILLIPS  
Memphis Depot Caretaker  
BRAC Environmental Coordinator (Acting)



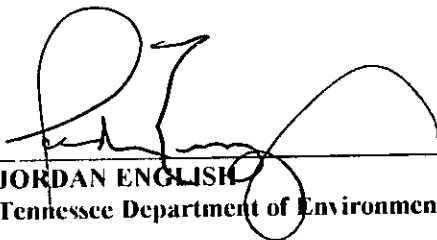
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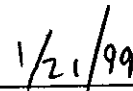
TURPIN BALLARD  
Environmental Protection Agency



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Tennessee Department of Environment and Conservation



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