

The Memphis Depot
Building 144,
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Memphis, TN 38114

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FOR YOUR INFORMATION.....

The Information Repositories are at the following locations:

The Depot, 2163 Airways Blvd., Bldg. 144,
Memphis, TN (901) 544-0613

The Community Outreach Room is located in Building
144. Please call ahead for an appointment to ensure
that we are available to help you.

Memphis/Shelby County Health
Department, Pollution Control Division
814 Jefferson Ave., Memphis, TN
(901) 576-7775

The Pollution Control Division is open Monday
to Friday from 7:30 a.m. to 4:30 p.m.

Memphis/Shelby County Public Library,
Cherokee Branch, 3300 Sharpe Ave.,
Memphis, TN (901) 743-3655
The Cherokee Branch is open Monday to Thursday
from 10 a.m. to 6 p.m. and Saturday from 10 a.m. to
6 p.m. Closed on Friday & Sunday.

HOW TO REACH US....

If you have any questions or comments about the Depot's environmental cleanup program,
please feel free to contact any one of the following:

Mike Dobbs
BRAC Environmental
Coordinator
The Memphis Depot
2163 Airways Blvd.,
Bldg. 144
Memphis, TN 38114
(717) 770-6950

Turpin Ballard
United States
Environmental
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61 Forsyth St., SW
Atlanta, GA 30303
(404) 562-8553

Jim Morrison
Tennessee Department
of Environment and
Conservation
401 Church St.,
4th Floor, L&C Annex
Nashville, TN 37243
(615) 532-0910

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Memphis, TN 38106
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EnviroNews is published by the Memphis Depot to
update the public on the environmental cleanup
program. If you have comments, questions, or
suggestions for future articles, please call
Ms. Alma Black Moore at (901) 544-0613.

Visit the Depot's website at www.ddc.dla.mil/memphis



EnviroNews

Spring 2004



FOST #3 clears more Depot property for transfer

The public is asked to comment on the third Finding of Suitability to Transfer (FOST) prepared by the Defense Logistics Agency (DLA) and the Department of the Army for surplus property at the former Defense Distribution Depot. A 30-day public comment period began March 25, 2004.

FOST #3 consists of 65 buildings and 249.21 acres of open land areas on the former Main Installation, which is now known as the Memphis Depot Business Park. It also includes 37.45 acres of recreational property, which includes the former Depot golf course.

The FOST process is a requirement of the Base Realignment and Closure (BRAC) Act to transfer the ownership of federal property for community redevelopment. FOST #3 includes a report that details the historic uses of the property and buildings proposed

for transfer, as well as any environmental issues and cleanup remedies that may have been required.

The report concludes that, in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Memphis Depot Business Park area is suitable for transfer to the Memphis Depot Redevelopment Corporation (DRC) while the golf course area is suitable for transfer to the City of Memphis.

The Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation (TDEC) have reviewed FOST #3. It is now available for review in the Depot's Information Repositories at the Cherokee Branch Library, Memphis/Shelby County Health Department, and the Memphis Depot Community Outreach Room.

PUBLIC COMMENT PERIOD

MARCH 25-
APRIL 26, 2004

Written comments can be sent to:

Mr. Mike Dobbs
BRAC Environmental Coordinator
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2163 Airways Blvd., Building 144
Memphis, TN 38114-5210
Email: michael.dobbs@dlc.mil

You may also provide verbal
comments by phone at
(901) 544-0613.

For more information about FOST
#3 or the ongoing environmental
restoration program at the former
Memphis Depot, call the Community
Relations Office at (901) 544-0613.

Goodbye John!



The Defense
Logistics Agency
and the Memphis
Depot
environmental
team bid a fond
farewell to John

De Back who left the Depot at the end
of March to take a position at the
Pentagon.

Mr. De Back joined the Depot team in
1993 as the Base Transition
Coordinator. In that role, he managed
the closure of the Depot and acted as a
liaison between the Memphis Depot
Redevelopment Corporation (DRC)
and the environmental cleanup team to
ensure that cleanup issues related to the
DRC's plans for reuse were addressed.

He took on additional duties as the
Depot Site Manager in 1999 and the

Base Realignment and Closure
(BRAC) Environmental Coordinator
(BEC) in 2001. As the BEC, he was
responsible for overseeing the cleanup
program at the Depot and working
with regulators as a member of the
BRAC Cleanup Team (BCT). He
also served as the Facility Co-Chair
of the Restoration Advisory Board.

"I've enjoyed working together with
the RAB, the community and the
environmental team over the years as
the cleanup program has progressed,"
said Mr. De Back. "It is gratifying to
me to see so much of the Main
Installation already being reused by
the community, and the
environmental team preparing to
start the final Remedial Action
phase of the cleanup program at
both the MI and Dunn Field." □

COMMUNITY CONTACTS

Please contact us if you have any
questions or comments about the
environmental cleanup program
or the former Memphis Depot:

COMMUNITY INFORMATION LINE
(901) 544-0613

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Focus on the Future: Cleanup milestones for 2004 and beyond

The goal of the Memphis Depot cleanup program is to restore the Depot property and ensure it is safe for community reuse. The environmental team will start the final stages of the cleanup program – as set out in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) – this spring. The following have been set as targets for reaching cleanup program milestones in 2004 and beyond:

Spring 2004

Dunn Field Record of Decision (ROD)

The Record of Decision provides the justification for the proposed cleanup actions chosen for soil and groundwater at Dunn Field, according to standards approved by the Environmental Protection Agency (EPA). It contains a complete site history and description, and details of the environmental investigation and conditions. The ROD also includes a Responsiveness Summary that addresses community questions and concerns about the site. The ROD is available for public review in the Depot's Information Repositories (IRs).

Remedial Design (RD), Main Installation (MI)

The RD is a technical analysis of the selected cleanup remedy for soil and groundwater at the MI. It will include a detailed set of plans for implementing the cleanup remedies and any ongoing, long-term monitoring or other land-use controls that may be required.

RD Work Plan, Dunn Field

The RD Work Plan will document the environmental contractor's detailed plans for conducting the technical analysis of the selected cleanup remedies for Dunn Field.

Summer 2004

Zero-Valent Iron (ZVI) Pilot Test Results, Dunn Field

The Depot's environmental contractor conducted a treatability study on Dunn Field in 2003 to pilot test the effectiveness of environmental cleanup technologies proposed for the site. ZVI is one of the recommended treatments for groundwater in the shallow aquifer at Dunn Field, and the results of the pilot test will determine if it is effective at breaking down the volatile organic compounds in the groundwater at Dunn Field into safe compounds that will be naturally degraded over time.

Fall 2004

Remedial Action (RA) Work Plan, MI

The RA Work Plan will document the environmental contractor's detailed plans for implementing the selected cleanup remedies for soil and groundwater at the Main Installation. These remedies will ensure the MI, now known as the Memphis Depot Business Park, remains safe for current and future use. The selected remedy for groundwater at the MI is enhanced

bioremediation. The selected remedy for soil is excavation and off-site disposal. Once the remedies are completed, institutional controls for the MI will ensure future use of the property continues to be protective of human health. The selected remedies are detailed in the MI ROD, which is available for public review in the Depot's IRs.

Winter 2004/2005

RD, Dunn Field

The RD Report is a technical analysis of the selected cleanup remedies for soil and groundwater at Dunn Field. It will include a detailed set of plans for implementing these remedies, and any ongoing, long-term monitoring or other land-use controls that may be required. The selected remedies for Dunn Field are:

- Excavation and offsite disposal of affected soil and debris from the disposal sites
- Soil Vapor Extraction (SVE) of soil containing solvents
- Institutional controls for surface soil on the west side of Dunn Field
- Zero-Valent Iron (ZVI) injection, Permeable Reactive Barrier (PRB), and Monitored Natural Attenuation with institutional controls for groundwater

Spring 2005

Finding of Suitability to Transfer (FOST) #4 Public Comment Period, Dunn Field

The FOST process is a requirement of the Base Realignment and Closure (BRAC) Act and includes a public comment period to allow the public to provide their input on the Depot's plans to transfer the ownership of federal property for community redevelopment. FOST #4 will include a report that details the historic uses of the property at Dunn Field that is proposed for transfer, as well as any environmental issues and cleanup remedies that may have been required.

Summer 2005

RA Work Plan, Dunn Field

The RA Work Plan will document the environmental contractor's detailed plans for implementing the selected cleanup remedies for soil and groundwater at Dunn Field.

*Dates are based on current projections and are subject to change.



The pre-design investigation of 17 disposal sites on Dunn Field was completed in the winter of 2004. The investigation confirmed the locations, contents and conditions of buried waste, and the results will be used in the Dunn Field Remedial Design. Shown here are an exploratory excavation trench (top) and examples of excavated materials such as tins containing C-rations (bottom) and dental impression clay.



Introducing . . . AFCEE and MACTEC

The Defense Logistics Agency (DLA) welcomes two new members to the environmental restoration team at the former Memphis Depot – the Air Force Center for Environmental Excellence (AFCEE) and MACTEC Engineering and Consulting.

AFCEE has joined the team as the service agent for the environmental restoration program. Jesse Perez, Program Manager with AFCEE, is the point of contact between DLA and Depot staff and the environmental companies contracted on behalf of DLA to complete the construction and operation of the selected cleanup actions.

AFCEE is located at Brooks City Base in San Antonio, TX. Since it was formed in 1991, AFCEE has been the principal environmental services agency for the United States Air Force. In 2001, DLA hired AFCEE to review and evaluate several of its ongoing environmental restoration programs to ensure they were moving efficiently and effectively towards cleanup. In 2003, AFCEE took over as service agent at DLA sites in Richmond and Memphis.

Headquartered in Atlanta, MACTEC Engineering and Consulting is a leader in the engineering, environmental and remedial construction industries. The company has more than 100 U.S. offices and 4,000 employees with specialists in more than 50 scientific and engineering disciplines. The company has been working with DLA since 1990 on the environmental restoration program at the Defense Supply

Center in Richmond, Virginia. MACTEC joined the Memphis environmental team in 2003.

“We are the remedial action contractor for the Memphis cleanup program,” explained Tom Holmes, MACTEC's project manager in Memphis. “What that means is we will be assisting CH2M HILL to complete the remedial design for the cleanup remedies in the Records of Decision for the MI and Dunn Field. Once that phase is completed, we'll create a work plan and implement the remedy as required for close-out of the site. We have also taken over the operation and maintenance of the pump and treat system, and will be responsible for ongoing monitoring.”

Holmes, an environmental professional since 1980 with a background in geology, is familiar with Base Realignment and Closure (BRAC) sites. He was part of the MACTEC team that helped close out and transfer the former Bergstrom Air Force Base in Texas, which is now the Austin-Bergstrom International Airport. Joining him on the MACTEC team is Greg Wrenn, MACTEC's lead engineer on the Depot project, who will be onsite regularly to oversee the implementation of the remedial actions.

MACTEC will also be assisting with overall program management throughout the completion of the environmental program at the Depot. □

Pilot study proves enhanced bioremediation works at MI

The tiny natural organisms living in the groundwater beneath the Depot's Main Installation prefer sodium lactate to vegetable oil.

It's an important finding for the Depot's environmental team as they complete a one-year pilot study to determine the effectiveness of enhanced bioremediation as a cleanup remedy for groundwater at the Main Installation (MI).

Naturally occurring organisms present in the environment help to break down, or degrade, chemicals, such as the chlorinated solvents found in the groundwater at the MI, into safe, natural compounds. This process is called bioremediation. Enhanced bioremediation involves injecting natural nutrients into the groundwater as an additional “food” source for these organisms that “enhances” or speeds up the natural bioremediation process by encouraging the growth and development of more organisms.

According to David Nelson, a Project Manager with the Depot's environmental contractor, CH2M HILL, two study areas were set up at the MI. Vegetable oil was added to the groundwater through injection wells at Study Area 1 in the southwest corner of the MI. Another organic nutrient, sodium lactate, was added to the groundwater at Study Area 2 in the southeast corner of the MI.

“Tests showed that the conditions at both sites had changed favorably to support the organisms needed to breakdown the chlorinated chemicals found in the groundwater,” said Nelson. “But the most dramatic changes occurred at Study Area 2.”

At Study Area 1, concentrations of trichloroethene (TCE) and tetrachloroethene (PCE) declined faster than would have occurred naturally. But the process took place slowly over the course of a year, and

the study's results indicate that some of the solvents were actually absorbed by the vegetable oil rather than degraded.

At Study Area 2, the concentrations of TCE and PCE declined significantly within three months of the first lactate injection. The rate of decline appeared to slow down as the lactate was depleted or diluted, but additional lactate injections resulted in a continuing decline and TCE and PCE were eventually reduced within the study area.

Importantly, another chlorinated chemical in the groundwater in Study Area 2, carbon tetrachloride, was completely removed during the study period. Dichloroethene (DCE), a chemical byproduct that commonly results during the breakdown of TCE and PCE, was not successfully removed in either area. But Nelson says this may be because the sampling period ended before further breakdown could occur.

Based on these results, CH2M HILL's report recommends that a full-scale treatment program for the MI be designed using multiple injections of lactate to remove TCE and PCE from the groundwater.

CH2M HILL estimates it would take approximately two years to treat the most affected areas of the MI using both enhanced bioremediation and natural attenuation. These results will now be incorporated in the Remedial Design (RD) Report for the MI. The report will include a detailed set of plans for implementing the enhanced bioremediation as the preferred cleanup remedy.

For more information on the results of the enhanced bioremediation pilot study, or the Depot's ongoing cleanup program, call the Community Relations office at (901) 544-0613. □