The Former Memphis Depot
2241 Truitt Street
Memphis, TN 38114

PRESORTED
FIRST CLASS
U.S. POSTAGE
PAID
OMAHA, NE
PERMIT NO. 983

DATED MATERIALS - PLEASE DELIVER THIS IMMEDIATELY

For Your Information

Former Memphis Depot Information Repository

Tennessee Department of Environment and Conservation (TDEC)
8383 Wolf Lake Dr.
Bartlett, TN 38133-4119
(901) 371-3000
Please call ahead for an appointment!
The TDEC staff will assist you in viewing documents.

New Documents

- Fourth Five-Year Review
- 2018 Site Management Plan
- 2017 Annual Long-Term Monitoring Report
- Supplemental Remedial Investigation Phases 1 and 2 Report
- Supplemental Remedial Investigation Phase 3 Work Plan
- Main Installation Vapor Intrusion Study Work Plan
- Off-Depot AS/SVE System Annual Operations Report, Year Six

How to reach us...

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

Joan Hutton
CALIBRE
The Former Memphis Depot
2241 Truitt St.
Memphis, TN 38114
(901) 774-3683
joan.hutton@calibresys.com

Diedre Lloyd
United States Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, GA 30303-8960
(404) 562-8855
lloyd.diedre@epa.gov

Jamie Woods
Tennessee Department of Environment and Conservation
8383 Wolf Lake Dr.
Bartlett, TN 38133-4119
(901) 371-3041
jamie.woods@state.tn.us

EnviroNews is published by the former Memphis Depot to update the public on the environmental cleanup program. If you have comments, questions or suggestions for future articles, please call and leave a message on the Community Involvement Line at (901) 774-3683.

FORMER DEPOT

Winter 2018/2019

EnviroNews

Depot Cleanup Actions Making Progress toward Objectives

Cleanup actions at the former Memphis Depot have made great progress toward meeting the cleanup objectives, but more work is needed for Main Installation groundwater and for a small area in the Off Depot Groundwater area.

Main Installation soil cleanup actions were completed in 2001. Groundwater cleanup actions using enhanced bioremediation were conducted between 2006 and 2014. Long term groundwater monitoring shows cleanup actions lowered groundwater contaminant levels in treatment areas, but contaminant levels remain above cleanup objectives in the treatment areas and other locations throughout the Main Installation. In addition, contaminants from off-site sources are moving onto the Main Installation at a few locations. The Army will continue the Supplemental Remedial Investigation to better define areas that need more cleanup to meet the objectives and areas where contamination is moving on site from off-site sources.

The Army currently conducts cleanup activities at the Main Installation, Dunn Field Source Areas, and the Off Depot Groundwater area. The only operating cleanup system is in the Off Depot Groundwater area. Investigation continues on the Main Installation to find a more effective cleanup action for groundwater and to study possible vapor intrusion. Dunn Field cleanup actions are complete with no further action currently necessary. Groundwater monitoring will continue in all three areas until the cleanup objectives are met.

The Army completed soil cleanup actions on Dunn Field in 2009 and met the soil cleanup objectives by excavation of about 12,000 cubic yards of soil from several areas and soil vapor extraction, combined with heating soil in the treatment areas, that removed about 16,500 pounds of contaminants. Long term groundwater monitoring shows that contaminant levels meet the cleanup objective throughout Dunn Field except along the northern boundary and in a small area on the western boundary. The groundwater contamination on the northern boundary is suspected to come from a source north of Dunn Field, while the area on the western boundary comes from remaining contamination in the treatment area. Additional cleanup action is not necessary in these areas at this time, but additional investigation is planned north of Dunn Field.

The Off Depot Groundwater cleanup action has removed about 86 pounds of contaminants from groundwater west of Dunn Field. Groundwater monitoring in the Off Depot area shows that the cleanup objectives have been meet at all but one well. The Army is currently seeking property access from MLGW to increase the size of the Off Depot Groundwater cleanup system in order to complete the cleanup action.

Where can I find the information presented in this EnviroNews?

Reports documenting the cleanup actions and long term monitoring are available to the public in the Information Repository located within the Tennessee Department of Environment and Conservation (TDEC) office at 8383 Wolf Lake Dr., Bartlett, TN 38133-4119. Please call (901) 371-3000 for an appointment! The TDEC staff will assist you in viewing documents. The *2018 Site Management Plan* provides the history, current conditions and plans for the Depot's environmental cleanup program.

Are you on the Mailing List?

If you received this EnviroNews, YES you are on the mailing list! If NO, please call (901) 774-3683 and leave a message with your name and address. Please share your EnviroNews with a neighbor and encourage them to get on the list!

Definitions

Air Sparging/Soil Vapor Extraction (AS/SVE): A cleanup action that removes contaminants from groundwater. Air sparging uses wells to pump air underground into groundwater. The air carries the contaminants into soil vapor above the groundwater. Soil Vapor Extraction uses wells to pull the vapors from the soil.

Aquifer: An underground geological formation, or group of formations, containing water. Aquifers are sources of groundwater for wells and springs.

Bioremediation: Bioremediation is the use of microbes to cleanup contaminated soil and groundwater. Microbes are very small organisms, such as bacteria, that live naturally in the environment. Bioremediation stimulates the growth of certain microbes that use contaminants as a source of food and energy.

Cleanup: The process of removing, treating, or disposing of contaminants at a site and restoring the site to a condition that is not dangerous to people or the environment.

Cleanup Objective: Also known as the Remedial Action Objective. A medium-specific (such as groundwater and soil) or area-specific goal for protecting human health and the environment. Cleanup objectives are identified in Records of Decision.

Contaminant: Any chemical substance found in air, water, soil, or biological matter that has a harmful effect on human health and the environment.

Contaminant Level: A measure of how much of a contaminant is present in soil, water or soil vapor.

Groundwater: Water found beneath the earth's surface, usually in aquifers, which supply wells and springs.

Information Repository: A set of current information, technical reports, and reference documents regarding a Superfund site made available to the public.

Monitor: Observe and check the progress or quality of something over a period of time; keep under systematic review.

Public Health Assessment: A review of available information about contaminants at a site and evaluation of whether exposure to them might cause harm to residents in the surrounding community. A public health assessment is required by law to be conducted for every Superfund site.

Risk: The chance that contaminants from a site will cause health and ecological problems.

Record of Decision: A public document that explains which cleanup alternative(s) will be used at a Superfund site.

Record of Decision (ROD) Amendment: A public document that explains significant changes from the original Record of Decision (ROD), such as the use of a new technology to address contamination or the discovery of a new contaminated medium (e.g., contaminated soil, groundwater, etc.).

Source: The starting point or origin of a contaminant entering the environment.

Vapors: Gases that form when chemicals evaporate.

Vapor Intrusion: Occurs when vapors from a contaminant source below ground surface move into a building.

Five-Year Review: Cleanup Actions Currently Protective

U.S. Environmental Protection Agency (EPA) approved the Fourth Five-Year Review of environmental cleanup actions at the former Memphis Depot. On April 15, 2018, the notice ran in the *Commercial Appeal* saying the review was approved and available to the public in the Information Repository.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, requires that environmental cleanup sites conduct Five-Year Reviews to make sure the selected cleanup actions protect human health and the environment. At the beginning of the review in March 2017, the Army ran a notice in the *Commercial Appeal* and contacted local officials and former Restoration Advisory Board (RAB) members asking for input about the cleanup actions. The Army received no comments from the public, local officials, or former RAB members.

The review found that cleanup actions currently protect human health and the environment. The review stated additional action is required on the Main Installation so that the cleanup will continue to be protective over the long term. The Main Installation cleanup action needs to be improved so that groundwater contaminant levels will be below drinking water standards in a reasonable period of time. The review also required the Army to complete a vapor intrusion study following Army, EPA and TDEC requirements.

The Army began the Supplemental Remedial Investigation in 2015 to determine what changes to the Main Installation cleanup action are needed and began the vapor intrusion study in 2017. The Army, EPA, and TDEC meet regularly to discuss the status of all environmental activities at the Depot. Documents describing the Depot cleanup activities are available to the public in the Information Repository.

Superfund Cleanup Process at the former Memphis Depot

Preliminary Assessment/Site Investigation: Assess and investigate a site to determine the potential for a release of hazardous substances, if the release is a threat to human health and the environment, and if hazards should be cleaned up immediately or if more information should be collected. The site receives a Hazard Ranking System (HRS) score and EPA uses the score to identify sites for the National Priorities List. The Preliminary Assessment/Site Investigation of the Depot occurred in 1990.

National Priorities List (NPL): Also known as Superfund, the NPL identifies sites where the HRS shows a need for environmental cleanup to protect human health and the environment. EPA publishes a notice in the Federal Register when a site is placed on the NPL. The Depot was added to the NPL in October 1992.

Remedial Investigation/Feasibility Study: Remedial Investigation is conducted to discover the type and extent of contamination and the potential threats to human health and the environment. Feasibility Study describes the cleanup action alternatives including estimated performance, schedule and cost. During this phase, the Agency for Toxic Substances and Disease Registry (ATSDR) or a state public health department conducts public health assessments. ATSDR issued Public Health Assessments for the Depot in 1995 and 2000. EPA and TDEC approved the Main Installation Remedial Investigation Report in 2000 and the Dunn Field Remedial Investigation Report in 2002. EPA and TDEC approved the Main Installation Groundwater and Soil Feasibility Studies in 2002 and the Dunn Field Feasibility Study in 2003. A Supplemental Remedial Investigation is being performed to provide data needed to improve the cleanup action for the Main Installation.

Record of Decision (ROD): Documents the selected cleanup action to be used at a Superfund site following regulatory agency approval. A Proposed Plan is provided to the public during a comment period before the final ROD is issued. EPA and TDEC approved the Interim Remedial Action ROD for Dunn Field groundwater in 1996, the Main Installation ROD in 2000, the Dunn Field ROD in 2004, and the Dunn Field ROD Amendment in 2009.

Remedial Design/Remedial Action: Remedial Design includes development of engineering drawings and specifications for each cleanup action selected in the ROD. Remedial Action involves construction of the designed cleanup action, operation and maintenance of equipment installed for the cleanup and monitoring performance of the cleanup action. EPA and TDEC approved the Main Installation Remedial Design and the Dunn Field Disposal Sites Remedial Design in 2004, the Dunn Field Source Areas Remedial Design in 2007, and the Dunn Field Off Depot Groundwater Remedial Design in 2007. Remedial action is still being conducted for Off Depot Groundwater, and additional remedial action is planned for the Main Installation.

Construction Completion: Construction completion at a Superfund site documents physical construction of all cleanup actions at a site. EPA approved the Construction Complete status for the Depot in 2010.

Post Construction Completion: Describes activities to make sure the cleanup actions provide for the long-term protection of human health and the environment. The activities include operation, maintenance and monitoring of the cleanup system; groundwater monitoring; land use controls; and five-year reviews. The Depot is currently in this stage with some cleanup actions completed and some cleanup actions currently operating or planned. Post-construction activities will continue until the cleanup objectives are met.

National Priorities List Deletion: Once a Superfund site has documented that cleanup objectives are met and are fully protective of human health and the environment, the site can be deleted from the NPL.

Superfund Environmental Cleanup Process