United States Department of Agriculture

Agricultural Research Service

Beltsville Agricultural Research Center
BARC 12: Chemical Disposal Pits Site

April 2010

The U.S. Department of Agriculture's Agricultural Research Service (ARS) is undertaking a Remedial Investigation at a site designated at the Chemical Disposal Pits (BARC 12), located in the far northeastern portion of BARC. An RI is involves collecting air, water and/or soil samples, analyzing them for environmental contamination, and then evaluating the potential risks that any contaminants found in those samples may pose to human health and the environment. In addition, an RI determines whether or not a long-term cleanup effort (i.e., remedial action) is needed and assesses the potential scope of any required remedial action.

Background

The Chemical Disposal Pits site was used as early as 1943 for storage, burning, and disposal of solvents and other hazardous substances. In the late 1970s, ARS, the Maryland Environmental Service and the Washington Suburban Sanitary Commission conducted a pilot sludge composting operation at the site.

Several environmental investigations, beginning in 1991, identified a number of chemicals and metals at elevated levels in soil, surface water, and groundwater. A Site Screening Process investigation in 1998 concluded there was sufficient evidence to warrant a more detailed Remedial Investigation. RI sampling and analysis activities began in March 2000.

Remedial Investigation Objectives

The objectives of the Remedial Investigation:

- Determine the nature and extent of suspected contamination in soil and groundwater.
- Determine groundwater flow patterns and estimate the rate of any potential contaminant migration in groundwater.
- Locate any buried materials in the areas of the suspected former disposal pits.
- Assess potential risks to human health and the environment from groundwater, soil, and surface water/sediment contamination.
- Determine the need for, and potential scope of, remedial action (i.e., site cleanup).

Remedial Investigation Activities

Twelve groundwater monitoring wells were installed to sample groundwater and determine groundwater flow characteristics at the site, along with an additional six multi-channel wells to help to assess contaminant migration, fate, and transport.

Surface and subsurface soil samples were also collected to characterize site geology and to identify and quantify soil contamination. In addition, seventeen test pits were also excavated in an effort to locate and identify the specific contents of former disposal pits. Test pit locations were determined based on a review of historical aerial photographs, a comprehensive soil gas studies to better delineate volatile organic compound (VOC) contamination, and electromagnetic surveys. Surface water and sediments in a nearby storm water retention pond and in nearby streams were also sampled to determine if any site contaminants were discharging to these surface water bodies.

A human health risk assessment was also prepared. Although the human health risk assessment did not identify any risks to current populations, the potential for exposure to contaminants under possible future uses was determined to be of concern. Potential risks to ecological receptors were also assessed. A few locations where soil contamination will need to be cleaned up were identified.

Ongoing and Future Activities

To date, the RI has not been able to identify the location of the actual disposal pits. Additional studies using sophisticated analytical methods are being done to locate the pits. In addition, further historical analysis has determined that contamination associated with the stormwater collection pond on the site is not related to the contamination from the remainder of the site. It will be separately assessed.

Once these studies are completed, a Feasibility Study will be prepared to identify an appropriate cleanup method. A Proposed Plan (PP) will then be publicly announced that will identify an alternative acceptable to ARS and EPA to address contaminated soil and groundwater. It will outline pertinent information from the RI/FS and provide a summary of the alternatives that ARS and EPA evaluated. When the PP is issued, a public comment period will be held. After the public comments have been reviewed, ARS and EPA will make any needed changes. Then a Record of Decision (ROD) that documents the selected remedial action for the Chemical Disposal Pits site will be completed.

For More Information:

Contact Kim Kaplan, ARS Information Staff, 301-504-1637, Kim.Kaplan@ars.usda.gov, or visit the ARS Information Repository located in Room 121, Building 003, 10300 Baltimore Avenue, Beltsville, MD. The Information Repository is open to the public Monday through Friday, 8:30 am to 4:30 pm.

The Information Repository is also available at the Prince George's County Memorial Library at 4319 Sellman Road. The library's hours of operation are Monday and Tuesday, 1 pm to 9 pm; Wednesday through Friday, 10 am to 6 pm; and Saturday, 10 am to 5 pm.

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