BELTSVILLE AGRICULTURAL RESEARCH CENTER
MD-053
Beltsville, Prince Georges County, Maryland
(National Priorities List Site)

Site Location

The Beltsville Agricultural Research Center Superfund site (BARC) is a 6,600-acre parcel of property in northwestern Prince George's County near Beltsville, Maryland. BARC is divided into five separate administrative units known as "Farms": the North, South, Linkage, Central, and East Farms.

Site History

In 1910, the United States Department of Agriculture (USDA) purchased a 475-acre farm in order to conduct agricultural research. The facility expanded to a maximum of 12,000 acres and is now at its present size of 6,600 acres. Research at BARC involves soil, water, and air conservation, plant sciences, animal sciences, commodity conversion and delivery, and human nutrition. In addition, research is done on pesticides, herbicides, insecticides, and fungicides. On-site laboratories are equipped with numerous chemicals, solvents, cleaners, and low-level radioactive chemicals for laboratory studies. Solid wastes generated at BARC included manure, waste bedding, animal carcasses, vegetative cuttings, wood, paper, scrap metal, laboratory waste, construction debris, and pesticide-, herbicide-, insecticide-, and fungicide-derived wastes.

Environmental Investigations

In 1991, a Preliminary Assessment/Site Investigation (PA/SI) report was submitted to the Environmental Protection Agency (EPA), that identified 44 potential areas of concern (AOCs). In 1994, the Beltsville Agricultural Research Center (BARC) was placed on the National Priorities List (NPL). In 1998 the USDA-Agricultural Research Center entered into a Federal Facility agreement (FFA) with the EPA, as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Later studies by the EPA and environmental subcontractors identified an additional 122 AOCs. After additional investigations, the number of AOCs was reduced. Currently, out of over 60 AOCs identified, 27 are considered to be "no further action", 23 require additional sampling and/or a removal action, six are in negotiation with the EPA on site disposition, and four sites were put in the CERCLA Remedial Investigation/Feasibility Study (RI/FS) process (described below).

The Biodegradable Site (BARC 6) is a 3-4 acre landfill used until the mid-1970s for disposal of construction debris, laboratory waste, and biodegradable plant material. This site is now part of a parcel of land leased to the Washington Metropolitan Area transit authority (WMATA) for use as a rail maintenance yard, with the future goal of transferring ownership of this property to WMATA. In 1993, a removal action resulted in 70,000 cubic yards of landfill material removed and replaced with clean backfill.

The College Park Landfill (BARC 22) is a 30-acre landfill, active from 1954 to 1978. It was operated by BARC, the City of College Park, and the City of Greenbelt for disposal of residential wastes, construction debris, and chemical wastes from greenhouses in BARC. Currently, there are two softball fields on top of the landfill. No cap was constructed on top of the landfill and no groundwater monitoring system was implemented.

The Chemical Disposal Pits (BARC 12) were initially identified for a PA/SI report in 1991. In historical aerial photography, the site was identified as an open burning/disposal area as early as 1943. Chemical disposal in an estimated 100 pits, measuring 10x10x12 feet, began in 1965. In the late 1970s and early 1980s, the USDA conducted a pilot sludge composting operation in this area. Presently, the site is used as an equipment and bulk materials marshalling yard for BARC. Site characterization sampling has identified volatile organic compounds, metals, and pesticides as contaminants of concern.

The Beaver Dam Road Landfill (BARC 27) was identified in the 1991 PA/SI as a 3-1/2 acre landfill used to dispose of construction rubble, furniture and other debris as early as 1943. Landfill operations ceased in 1990 and groundwater monitoring wells were installed for landfill permit requirements. Closure activities at the site included the construction of a clay cap with a geo-synthetic liner underneath. Groundwater sampling at the 4 monitoring wells as well as surface water sampling (Beaver Dam Creek and a tributary) showed elevated concentrations of volatile organic compounds and metals.

The Low-Level Radiation Burial Site (BARC 18) is an inactive 1.5-acre landfill used from the late 1940s to 1987. Radioactive isotopes, scintillation tubes, metals, glass, plastic, and animal waste were disposed at the site. BARC records indicate that a total of 50 10x12x10 feet deep pits were dug and five feet of clean backfill to grade covered the debris. 33,00 cubic feet of waste is estimated to be at this site. A hydrogeologic characterization report in 1994 and the implemented work plan of June, 1997 found groundwater contamination with chloroform, radium 226/228, and C-14.

Current Status

With the discovery of a groundwater plume of perchloroethylene, originating off-site from the W.P. Ballard Company, a dry cleaning supplier, the Biodegradable Site (BARC 6) RI report is being revised. The final RI report is anticipated in mid 2004.

The College Park Landfill (BARC 22) RI Work Plan was approved in December, 1999, but the RI report was put on hold due to the EPA's rejection of a presumptive remedy. Instead, a pilot study was designed and presented to MDE in March 2003. The pilot study, conceptual in design, will be used to focus the RI/FS, which is due to be completed in 2006.

The Chemical Disposal Pits (BARC 12) RI Work Plan was approved in February, 2000. A draft RI report on this operable unit is scheduled for mid 2004.

The Beaver Dam Road Landfill (BARC 27) RI Work Plan was submitted in July, 2002. Fieldwork for that RI began in March, 2002. Estimated completion of the RI is Spring, 2004.

CERCLA and the Nuclear Regulatory Commission (NRC) monitor the Low-Level Radiation Burial site (BARC 18). A "non-time critical" removal action was deemed to be necessary at the site by EPA. An engineering evaluation/cost analysis (EE/CC) report for the non-time critical removal, which will entail excavation of radiological waste from the landfill and proper treatment and disposal of these wastes, was prepared and submitted in September, 2002. A draft characterization plan was submitted in April, 2003. A follow-up Decommissioning Plan and a Site Investigation report are to be submitted later at an undetermined time, depending on future funding.

An updated Site Management Plan is maintained for the entire facility. In addition, the site-wide Human Health Baseline Risk Assessment and a Baseline Ecological Risk Assessment are ongoing.

Facility Contacts

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