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Fact Sheet

March 2016

West Lake Landfill Superfund Site

Bridgeton, Missouri

INTRODUCTION

This fact sheet provides a historical overview of the West Lake Landfill Superfund Site, its current state, and work being done to protect the public from potential health risks associated with the site.

BACKGROUND

The West Lake Landfill Superfund Site is located in Bridgeton, Mo. The site consists of several inactive landfills, including the West Lake Landfill and the Bridgeton Landfill. Originally used for agriculture, the land became a limestone quarrying and crushing operation in 1939. Beginning in the early 1950s, portions of the quarried areas and adjacent areas were used to dispose of municipal refuse, industrial solid wastes, and construction/demolition debris. In 1973, around 8,700 tons of leached barium sulfate from the Manhattan Project, a World War II nuclear bomb development program, was mixed with approximately 38,000 tons of soil and used to cover trash being dumped during daily operations.

In 1990 the U.S. Environmental Protection Agency listed the site on the National Priorities List under the Comprehensive Environmental, Response, Compensation and Liability Act of 1980 (Superfund law). The Agency listed the entire 200-acre facility and has since divided it into two areas referred to as Operable Units. Operable Unit 1 (OU-1) contains radiologically-impacted material (RIM).

The adjacent Bridgeton Landfill, which is a part of OU-2, is part of the Superfund Site, but remains under the regulatory authority and oversight of the Missouri Department of Natural Resources.

COMMUNITY HEALTH

Since 1990, EPA has overseen numerous air, soil and groundwater tests related to the West Lake Landfill. The scientific data demonstrates that the wastes at the landfill do not currently pose an off-site health risk to the surrounding community. The recent Agency for Toxic Substances and Disease Registry's (ATSDR) health consultation confirmed previous EPA and MDNR assessments that show groundwater, air, and soil data do not indicate a current health risk to communities surrounding the West Lake Landfill.

In its health consultation, ATSDR expressed concern regarding the health impacts of radon gas to any past, current, and future on-site workers of the landfill. If landfill surface disturbances occurred at certain locations in OU-1, dust particles containing uranium and thorium decay products could have been released to the atmosphere. In December 2015, EPA ordered the responsible parties to take steps to cover those areas at the landfill where radiological material was at or near the surface. This cover will alleviate the concerns regarding landfill surface disturbances.

Additionally, there have been a number of significant assessments to determine if radiological material has migrated offsite, into the surrounding community; tests included off-site air and soil sampling, as well as groundwater monitoring. The Missouri Department of Natural Resources regularly publishes air monitoring results and the Missouri Department of Health and Senior Services continues to review the data collected for any health concerns.

There is no known exposure pathway to contaminated groundwater beneath the site. Without a pathway, the water will not harm people's health. The water currently flows away from residential areas and is not being used as a public water supply. If you have health-related questions or concerns, please talk with your physician, or contact Lieutenant Commander Erin Evans, U.S. Public Health Service, at isb5@cdc.gov.

THE CONTAMINATION

In 1990 the EPA listed the site on the National Priorities List. The agency listed the entirety of the 200-acre West Lake Landfill due to the presence of radioactive waste in an area now known as Operable Unit 1 (OU-1). The portion of the landfill that does not contain radiological material is now known as Operable Unit 2 (OU-2). The adjacent Bridgeton Landfill remains under the oversight of the Missouri Department of Natural Resources.

Within OU-1, radioactive material has been found in two areas. At the time of the 2000 Remedial Investigation, Area 1 encompassed approximately 10 acres southeast of the main entrance road to the West Lake Landfill property. Area 2 encompassed approximately 30 acres along the northern boundary of the West Lake

Landfill property. Additional investigations performed in Area 1 throughout 2014 and 2015 have improved our understanding of the OU-1 boundary.

GOING FORWARD

Isolation System

In December 2010, Bridgeton Landfill LLC notified Missouri Department of Natural Resources (MDNR) that it found elevated temperatures in its south quarry. The company and MDNR eventually determined this to be an underground smoldering event. A subsurface smoldering event (SSE) is a high-temperature, self-sustaining (without the need for oxygen), chemical reaction that is consuming the buried waste (accelerating decomposition).

The most recent testing data indicate the SSE has not migrated past the area referred to as the "neck" which lies between the Bridgeton Landfill North and South Quarries. A series of temperature monitoring probes and gas extraction wells, in addition to visual observation and other methods, provide data to monitor the SSE.

On Dec. 31, 2015, EPA announced its decision to proceed with the installation of an isolation barrier. The decision calls for the installation of additional engineering controls, such as cooling loops, to prevent potential impacts that could result if a SSE were to come into contact with radioactive materials contained in the West Lake Landfill.

EPA will continue to work closely with MDNR with expert support from the Army Corps of Engineers. EPA will release additional information, such as location of the barrier, once plans are finalized.

Surface Fire Prevention

EPA issued a Unilateral Administrative Order (UAO) on December 9, 2015, for a time-critical removal action to reduce or prevent the risk of surface fires in areas where RIM is located at or near the surface. A UAO is an enforceable order requiring the completion of specified actions.

A surface fire could potentially lead to a release of radionuclides near areas where radiologically impacted materials are located at or near the surface, creating an on-site hazard for workers at the site. To mitigate this risk, the UAO requires the Potentially Responsible Parties (PRPs) to:

--Implement engineering measures to mitigate the risk of a surface fire within the boundary of the West Lake Landfill site coming in contact with radiologically impacted material at or near the surface, and

--Develop an incident management plan that will be used to coordinate with local emergency responders.

This work is expected to be completed in late spring of 2016.

Long-Term Remedy

The results of additional site characterization and assessments will be used in a revised evaluation of various remedial options, including the 2008 selected remedy, partial excavation, and full excavation. By the end of 2016, EPA will present its proposed decision on whether or not to make changes to the 2008 Record of Decision to the community with an opportunity to comment. After the public comment period closes, EPA will release its final remedy decision.

ADDITIONAL INFORMATION

Technical documents, maps, and other site related information is available online at: http://www3.epa.gov/region07/cleanup/west_lake_landfill/index.htm.

Concerned residents may also contact Ben Washburn, EPA Region 7 Community Involvement Coordinator, at (913) 551-7364 or washburn.ben@epa.gov.