US EPA ARCHIVE DOCUMENT

West Lake Update

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EPA Releases Off-Site Air Data Summary Reports

Since last May, EPA has conducted off-site air monitoring in five areas around the West Lake Landfill to document baseline conditions prior to any potential on-site construction or work. EPA's efforts to monitor the air and conduct a thorough scientific analysis are vital to be able to ensure any construction activities are protective of public health. EPA recently released two reports that focus on two types of contamination that are of particular importance to the Agency's work at West Lake Landfill--radiation and volatile organic compounds (VOCs).

What the data show EPA scientists is that the people around West Lake Landfill are not being exposed to levels of radiation or VOCs at concentrations greater than what is found in similar industrial cities including St. Louis. It's important to note that while it's consistent with other cities, the air monitoring data isn't quite a success story when it comes to meeting air quality standards. St. Louis, like other industrialized cities, has work to do regarding air quality, and EPA, working with its state partners, remains committed to implementing the Clean Air Act and its regulations to improve air quality for all people living in and around St. Louis.

The main effort of EPA's monitoring system was to sample for alpha, beta, and gamma radiation, and typical solid waste landfill gases, including VOCs.

The radiation levels measured by EPA are consistent with other Midwest cities. For alpha and beta radiation, all monitored median values were consistent with median values for the air monitor placed in St. Charles. EPA placed this monitor in St. Charles to act as a reference for the monitors placed in the immediate area of the West Lake Landfill. Gamma radiation monitors around West Lake Landfill showed values that were also consistent with the variability of natural geological radiation sources in the area.

According to EPA air scientists, EPA also conducted in the field monitoring for sulfur dioxide, carbon monoxide, and hydrogen sulfide; however, the Agency did not produce reports on these compounds. EPA's processing and review of the data for these compounds is ongoing. Due to limitations in the field methodology and equipment used, the data collected by EPA for these three compounds cannot be used to compare with health-based standards. The Missouri Department of Natural Resources' (MDNR) on-site sampling system and methods for these compounds offer the most reliable and accurate data.

While the data demonstrating that the levels of radiation and VOCs in the air is similar to other cities may be encouraging for people living in the area, the Agency recognizes that people there live with odor issues related to the Bridgeton Landfill – and that at many times the odors have serious impacts on their quality of life.

The state of Missouri, through the MDNR and the Attorney General's office, has taken strong action to mitigate odors emanating from the South Quarry of the Bridgeton Landfill, such as requiring the installation of a vinyl cover to trap fugitive gases escaping from the landfill and the construction of a leachate collection system. These efforts, among others, have reduced the amount and intensity of offensive odors escaping the Bridgeton Landfill.

MDNR's on-site air monitoring network, which includes monitoring at the Bridgeton Landfill for VOCs, gamma radiation, and sulfate compounds, remains active. In addition to the state's air monitoring network, Republic Services is expected to begin operation of an additional on-site air monitoring network consisting of 13 locations. EPA will perform oversight of the PRP's new air monitoring system. EPA has reviewed and approved the workplan for this monitoring and installation of the network is currently underway.

Since EPA has collected the required baseline VOC data, four of the five stations will cease operating in February. The Agency will operate the monitor in Spanish Village for radiological contaminants only for the next few months, until it has one full year of radiation data at that location. At that time, EPA will reevaluate the need for further monitoring at the Spanish Village location. EPA is confident that the results of the radiation and VOC data to date provide a sufficient baseline from which to compare any future off-site air monitoring for those compounds.

The air monitoring reports are available on EPA Region 7's West Lake Landfill website: www.epa.gov/region7/cleanup/west_lake_landfill/

Additional RIM Characterization Coming Soon

In late 2013 and early 2014, the Potentially Responsible Parties (PRPs) at the West Lake Landfill conducted Gamma Cone Penetrometer Testing (GCPT) and core sampling in an effort to identify known locations of the radiologically impacted material (RIM) in Operable Unit 1, Area 1. The results of this testing indicated the presence of RIM in previously unidentified locations, necessitating the need for additional characterization work.

On January 15, EPA sent a letter to the PRPs requesting that they conduct additional GCPT work. Specifically, the additional work requested by EPA would include the performance of a statistically-derived sampling plan in order to fully delineate the nature and extent of the RIM south and west of the previously defined boundaries of Operable Unit 1, Area 1.

The letter also outlines EPA's intent to conduct testing of RIM in previously collected samples under anticipated Subsurface Smoldering Event (SSE) conditions. This testing will assist EPA in its ongoing analysis of any potential exposures and risks associated with the RIM coming into contact with an SSE. EPA Region 7 is currently working with the Office of Research and Development and the U.S. Army Corps of Engineers to define the testing methods. EPA expects to perform this testing at the same time as the PRPs conduct the above-referenced RIM characterization activities.

The letter to the PRPs requesting this additional work is available on EPA Region 7's West Lake Landfill website: www.epa.gov/region7/cleanup/west_lake_landfill/

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