

DHSS Follow-Up Review of Air Monitoring Data from the Bridgeton Landfill Area, May 22, 2017 – May 25, 2017

The Department of Health and Senior Services (DHSS) has reviewed air quality monitoring data collected by the Department of Natural Resources (DNR) at Bridgeton Landfill from the afternoon of **May 22, 2017** to the afternoon of **May 25, 2017**.

DNR provides continuous monitoring of reduced sulfur compounds (reported as hydrogen sulfide), sulfur dioxide, carbon monoxide, and total volatile organic compounds (VOCs) at three fixed locations as well as routine, twice daily, surveillance of hydrogen sulfide, benzene, and odor levels around the entire periphery of the landfill. DNR was not able to collect the AreaRAE data due to technical difficulties that occurred during this time period. However, DNR continued to collect data using handheld meters. DHSS has reviewed the routine surveillance data from the hand-held meters to identify potential public health concerns for short-term health effects. Generally, samples are collected near the property boundary and dispersion is expected to reduce exposure downwind of the sample locations.

Odors

DNR reported occasional light odors at various locations during this time period. DHSS continues to recommend that during periods of objectionable odor, sensitive individuals should stay indoors as much as possible, avoid outdoor exercise, and seek medical advice for any acute symptoms. Symptoms associated with exposure to strong odors include headache, nausea, and fatigue, as well as respiratory symptoms particularly in asthmatics or other sensitive individuals. Symptoms generally associated with strong odors typically disappear once the odors dissipate.

Hydrogen Sulfide and Other Reduced Sulfur Compounds

Hydrogen sulfide concentrations were below levels of public health concern. Hydrogen sulfide levels are measured by the highly sensitive Jerome meter, which detects hydrogen sulfide specifically. Concentrations of other reduced sulfur compounds in ambient air near the landfill are not known, due to technical difficulties that occurred during this time period.

Sulfur Dioxide

Concentrations of sulfur dioxide in ambient air near the landfill are not known, due to technical difficulties that occurred during this time period.

Benzene and Total VOCs

Benzene was not detected in ambient air at any of the surveillance locations around the landfill during this time period. There are no health-based screening values for total VOCs. However, total VOC data are used to identify the need for compound-specific sampling. To be proactive, DNR is performing weekly VOC compound-specific

sampling in locations upwind and downwind of the landfill. The laboratory results are submitted for DHSS review of public health concerns and that analysis is regularly posted online.

Carbon Monoxide

Concentrations of carbon monoxide in ambient air near the landfill are not known, due to technical difficulties that occurred during this time period.

Radiation Rates

Gamma radiation rates are not known, due to technical difficulties that occurred during this time period.