

DHSS Review of Air Sample Data from the Bridgeton Landfill Area, August 18, 2015

The Department of Health and Senior Services (DHSS) has reviewed air sample data collected for the Department of Natural Resources (DNR) near Bridgeton Landfill on August 18, 2015. Samples were collected at one location upwind of the landfill and two locations downwind of the landfill for laboratory determination of concentrations of volatile organic compounds (VOCs). Samples were also collected at one location upwind of the landfill and one location downwind of the landfill for laboratory determination of concentrations of total reduced sulfur compounds (TRS). DHSS has reviewed this data for evaluation of potential public health concerns of short-term health effects.

VOCs

Concentrations of VOCs were well below levels of public health concern. Downwind of the landfill, 24 VOCs were detected in ambient air in concentrations that generally exceeded concentrations detected upwind of the landfill. Downwind VOC concentrations ranged from 0.16 parts per billion (ppb) to 94 ppb and did not exceed health-based screening levels for acute exposure.

Hydrogen Sulfide and Other Reduced Sulfur Compounds

Hydrogen sulfide and other reduced sulfur compounds were not detected in the upwind or downwind laboratory air samples and total reduced sulfur compounds were also not detected by AreaRae monitors during routine monitoring on the same day. While low concentrations of hydrogen sulfide were detected by the Jerome meter during routine monitoring on the same day, those concentrations were below levels of public health concern and were less than the detection limits of the laboratory analysis.

Sulfur Dioxide

Sulfur dioxide is also included in the analysis method for TRS, but was not detected in the upwind or downwind laboratory samples and was also not detected by AreaRae monitors during routine monitoring on the same day.