

DHSS Review of Air Sample Data from the Bridgeton Landfill Area, June 9, 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 June 9, 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 reduced sulfur compounds and sulfur dioxide. DHSS has reviewed these 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, 8 VOCs were detected in ambient air in concentrations that ranged from 0.18 parts per billion (ppb) to 6.2 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. 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. In addition, while total reduced sulfur compounds were periodically detected by AreaRAE monitors on the same day, concentrations of individual compounds that contributed to those total concentrations were apparently less than the detection limits of the laboratory analysis.

Sulfur Dioxide

Sulfur dioxide was not detected in the upwind or downwind laboratory samples. While low concentrations of sulfur dioxide were detected by AreaRae monitors during routine monitoring on the same day, average concentrations were below levels of public health concern and were less than the detection limits of the laboratory analysis.