

# What's in the air?

*In June and July, the Virginia Department of Environmental Quality and the EPA to test the air in communities around the landfills. The EPA reported that the samples didn't show anything posing an "immediate risk to human health," but did show low levels of a number of toxic substances and other harmful chemicals. Below are the pollutants that the air samples detected.*

*The health impacts and risks of exposure to each vary widely depending on a variety of factors, including the amount of the substance, the length and frequency of the exposure, the individual's personal health history, conditions in the surrounding environment, and more.*

## **Hydrogen sulfide: a colorless, toxic, flammable gas**

- Acute exposure can cause nausea, headaches, delirium, disturbed equilibrium, tremors, convulsions, skin and eye irritation
- Repeated or prolonged exposure can cause low blood pressure, headache, nausea, appetite and weight loss, ataxia (lack of muscle coordination), eye-membrane inflammation, chronic cough
- Chronic exposure has been associated with neurologic symptoms, including psychological disorders

## **Volatile organic compounds (VOCs): chemicals present in a slew of man-made products, including gasoline and aerosol sprays. The VOCs detected include:**

- **Benzene**
  - Acute exposure can cause drowsiness, dizziness, rapid or irregular heartbeat, headaches, tremors, confusion
  - Chronic exposure can cause anemia, excessive bleeding, immune symptom dysfunction and leukemia.
  - Chronic exposure in women has also been associated with irregular menstrual periods and shrinkage in ovary size.
- **Toluene**
  - Breathing in small amounts can cause mild headache, dizziness, drowsiness, nausea, and skin, eye, and lung irritation. Exposure to high concentrations can cause headaches, lightheadedness, dizziness, confusion, nausea, impaired judgment, impaired gait, and blurred vision.
  - Chronic exposure at levels below 200 parts per million is associated with headache, fatigue, and nausea
- **Xylenes**
  - Acute exposure can cause: eye, nose, skin, and throat irritation; headaches, dizziness, confusion, and loss of muscle coordination
  - Chronic exposure can cause: nervous symptom impacts, such as headaches, lack of coordination. dizziness, confusion, changes in one's sense of balance
- **Ethylbenzene**
  - Acute exposure can cause: eye and throat irritation; at higher levels, vertigo and dizziness
  - Chronic exposure may cause cancer

## **Ammonia: a pungent, toxic gas or liquid**

- Acute exposure to high levels can cause: irritation or burns to the skin, mouth, throat, lungs, and eyes
- Chronic or repeated exposure may cause: chronic irritation of the respiratory tract or eye membrane, chronic cough, asthma, lung fibrosis, headaches, excessive sleepiness, dermatitis

## **Methyl mercaptan: a colorless gas that smells like "rotten cabbage"**

- Acute exposure can cause: coughing, chest tightness, skin and eye irritation, respiratory impairment, headache, dizziness, staggering gait. Exposure is also associated with noncardiogenic pulmonary edema
- Chronic exposure can cause: dermatitis