

Arkansas Department of Health  
Review of Hydrogen Sulfide Air Monitoring Data in Crossett, AR

**Special Data Review Announcement: March 30 – 31, 2015**

Continuous hydrogen sulfide (*or*, H<sub>2</sub>S) air quality monitoring has been conducted by the TRC Environmental Corporation (TRC) on behalf of the Georgia-Pacific Crossett Mill in Crossett, AR. Arkansas Department of Health (ADH) has reviewed the air quality monitoring data from the TRC database and determined that higher than average readings occurred from approximately 11:00 p.m. on March 30, 2015, to approximately 2:00 a.m. on March 31, 2015. The continuous air quality monitoring data suggests this was an isolated (single) event, since average hydrogen sulfide readings have returned to background levels.

As consistent with the original agreement made before the air quality monitoring began, personnel from the Georgia-Pacific Crossett Mill notified ADH of the higher than average readings the morning of March 31, 2015. The initial information received from personnel at the Georgia-Pacific Crossett Mill states that due to a loss of power, an odor control compound at one of the plant's effluent sewers was not operational for approximately six hours (March 30, 2015.) According to data after the 24-hour calibration process (to ensure validation of data), the times of the higher than average readings of hydrogen sulfide were consistent with the times of the related plant power outage. This incident is being investigated further.

The health screening levels used in this review apply to the general public, including sensitive individuals, such as people with asthma or other chronic respiratory conditions. The screening values are intended to provide health-based standards for interpreting air monitoring data. Monitoring data may be used as a tool to help determine whether a facility is controlling hydrogen sulfide releases. See the figure below for a picture of the higher concentration spike reported from the air quality monitoring data as compared to the screening value.

The higher concentrations of hydrogen sulfide detected at the monitoring station happened in the late evening and early hours of the morning when most people would have been indoors. The possible health effects were likely to have been temporary and more likely to have occurred in sensitive individuals, such as people with asthma and other chronic respiratory conditions. Should anyone feel they are experiencing possible health effects related to this event, please contact a physician or health care professional.

Odors can alert people that something may be harmful, but generally you can smell many chemicals before they are at levels that are harmful to your health. People usually can smell hydrogen sulfide at low concentrations in air, usually at levels much lower than the health screening levels set to determine health effects.

Hydrogen sulfide is a heavier-than-air, colorless gas with an odor of rotten eggs. The lowest level a person can smell a substance (*or*, odor threshold) for hydrogen sulfide is lower than the health screening level. People can generally smell hydrogen sulfide at very low levels before they are known to cause a health effect.

For more information, see the Agency for Toxic Substances and Disease Registry (ATSDR) Hydrogen Sulfide fact sheet [linked to this website]. It is important to note that hydrogen sulfide exposures at low levels have not been shown to result in any lasting health effects. Hydrogen sulfide is not known to cause cancer.

Although the continuous air quality monitoring ended March 31, ADH will further analyze all hydrogen sulfide air monitoring data reported over the six-month period and report on the collective review at a later date. For inquiries related to the hydrogen sulfide air quality monitoring, contact the ADH Office of Health Communications and Marketing at (501) 661 – 2150.

