

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

Special Data Review Announcement: February 26 – 27, 2016 and February 29, 2016

Continuous hydrogen sulfide (*or*, H₂S) 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 initially from approximately 10:45 p.m. on Friday, February 26, 2016 to approximately 6:45 a.m. on Saturday, February 27, 2016, and then a second time from approximately 8:00 a.m. to approximately 8:30 a.m. on Monday, February 29, 2016. The continuous air quality monitoring data suggests this was an isolated event due to plant conditions. Average hydrogen sulfide readings have returned to background levels.

Personnel from the Georgia-Pacific Crossett Mill notified ADH of the higher than average readings on Monday, February 29, 2016. A 24-hour calibration process was used in order to validate these data. According to Georgia-Pacific personnel, the pulp mill and bleach plant were stopped during a controlled shut-down on Friday, February 26, 2016, due to an unplanned event. This caused additional sulfide-containing process streams to be sent to the effluent treatment system. The paper mill was slowed throughout Friday and stabilized on Saturday, February 27, 2016.

On Monday, February 29, 2016, the mill continued to have above average sulfides in the wastewater treatment system from process operations. Georgia-Pacific personnel continue to investigate and develop potential solutions to mitigate the elevated levels. In addition, a potential contributing source may have been solids that accumulated in the east ash settling basin which are being worked on to remove.

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 figures below for pictures of the higher concentration spikes 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 hours of night into the early hours of the morning when many people may 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.

Hydrogen sulfide is a heavier-than-air, colorless gas with an odor of rotten eggs. 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.

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.

For more information, see the Agency for Toxic Substances and Disease Registry (ATSDR) Hydrogen Sulfide fact sheet [linked to this website]. For inquiries related to the hydrogen sulfide air quality monitoring, contact the ADH Office of Health Communications and Marketing at (501) 280 – 4768.

