



Weekly Safety Meeting

H₂S Safety Starts with Awareness

H₂S is a colorless, flammable, explosive and highly toxic gas. It may have a rotten egg odor, but it can also become odorless because it deadens your sense of smell, and you may not notice it after prolonged or repeated exposure. H₂S can be found in many industries, including the petroleum (oil/gas/drilling/refining), agriculture, pulp and paper, and wastewater treatment industries as well as landfills, food processing plants and breweries.

Recent Incident and Subsequent Citations

Recently, OSHA cited Prospect Ranch, LLC in Keenesburg, CO \$132, 406 after the deaths of 6 workers within 1 hour when a manure water and hydrogen gas pipe disconnected in a manure management pipeline. The company was cited for serious violations including failure to protect workers from atmospheric hazards, failure to have a written HazCom program, and failure to train workers on methods to detect hazardous gases. The workers were overcome before they even knew what hit them.

Proactive Measures

In general, companies should be doing a lot more to protect workers from the hazards of H₂S, where present. Many fatalities have occurred without the victims being aware of their potentially dangerous exposure or proximity to H₂S (from an unexpected leak, ruptured pipeline, or unlabeled gas line). Because of what the gas does – reacts with enzymes in the blood to restrict oxygen's getting to the cells—it can essentially shut down the lungs and cause death within minutes.

Early warning and detection systems would save lives and money – a win-win for employers and employees. For workers in industries where H₂S is found, it would make sense to equip workers with a portable H₂S gas detector/hydrogen sulfide monitor. This is an investment, but there are personal H₂S monitors available for around \$300. It is an investment in the trained workforce and in the health and safety of people who are doing important, dangerous work. Companies can potentially avoid many lawsuits, penalties and fines for incidents with a little more prevention.

Safety & Preventative Measures

There are several things that employers can do to keep workers as safe as possible in work sites or locations where exposure to H₂S is a possibility.

- First, employers should provide adequate training and onboarding to new employees, and annual refresher training to current employees.

- Employers should show employees who need to don PPE how, when, and where to use it and make sure it is correctly fitted and easily accessible in case of an emergency.
- Employers should have written emergency procedures that employees are trained on, including what to do and where to go when an alarm sounds for emergency evacuation.
- Proper ventilation is a key preventative measure that should be used in confined spaces where H₂S gas is likely to build up; ventilation is an engineering control that physically alters the environment to remove contaminants.
- Finally, fixed H₂S monitors should be constantly running in areas where there may be leaks, pipes or production of H₂S; continual monitoring is an administrative control and an important safety indicator.

BE AWARE NEAR H₂S...CARRY DETECTION AND/OR PROTECTION!

