

OCCUPATIONAL HEALTH BRANCH

Occupational Health Watch: March 2016

Sudden Deaths Among Oil and Gas Extraction Workers

A 21-year-old male oil and gas worker died while "gauging" a crude oil production tank on a well site alone and at night in North Dakota in 2012. The death was initially attributed to cardiovascular disease, and then later to exposure to hazardous levels of hydrocarbon gases and vapors (HGV). A California occupational health physician subsequently identified a second worker who died in 2010 while performing tank gauging. He contacted the National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA) about the similarity of the two deaths.

Oil and gas workers often manually "gauge" the level of fluid or collect a sample from storage tanks containing process fluids. They climb to the top of the tanks, open a hatch, and insert either a device to measure fluid level or a tube to collect liquid samples. A Centers for Disease Control and Prevention (CDC) report identified nine oil and gas worker tank gauging deaths, from 2010 to 2015. Death from exposure to HGV, hydrogen sulfide, or heat accounted for almost one in ten fatalities in the oil and gas extraction industry in California and the rest of the country from 2003 to 2014, according to NIOSH. Other ways workers in this industry have been killed on the job include transportation incidents, contact with objects or equipment, fires/explosions, or falls.

A joint NIOSH and OSHA hazard alert "Health and Safety Risks for Workers Involved in Manual Tank Gauging and Sampling at Oil and Gas Extraction Sites," explains how employers can protect workers from tank gauging hazards.

Resources

Sudden Deaths among Oil and Gas Extraction Workers Resulting from Oxygen Deficiency and Inhalation of Hydrocarbon Gases and Vapors

Health and Safety Risks for Workers Involved in Manual Tank Gauging and Sampling at Oil and Gas Extraction Sites

Natural Gas Symposium Panel: Workplace Safety and Public Health Safety Related to Oil and Gas Activities; Denver, CO, 2015

Email Occupational Health Watch (OHW@cdph.ca.gov) with feedback or change of address.

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