

BEWARE OF MANURE GAS

A confined-space hazard that often claims multiple lives — before anyone realizes there is a danger — is manure gas. Manure pits can be oxygen-deficient, toxic and explosive. There are four gases in manure pits that are of primary concern:

- Hydrogen Sulfide is a highly toxic gas that is heavier than air. It can cause dizziness, unconsciousness and death. At low concentrations it may smell like rotten eggs, but at higher concentrations it deadens the sense of smell so that no odor can be detected.
 - Carbon dioxide is an odorless, tasteless gas that is heavier than air. It displaces the oxygen supply in the bloodstream, which can cause unconsciousness and death.
 - Ammonia is a gas that is lighter than air. It has a pungent smell and can irritate the eyes and respiratory tract. Ammonia also displaces oxygen in the bloodstream.
 - Methane is also a gas that is lighter than air. The primary hazard of methane gas is that can create an explosive atmosphere. This gas also displaces oxygen.
-
- Never enter a manure pit alone.
 - Label the manure pit and manure storage areas to warn of the gas hazards.
 - Obtain and use monitoring equipment to determine the level of gases present in the manure storage area.
 - A self-contained breathing apparatus must be worn when entering a manure storage area and the person wearing it should be trained in its use. A safety harness should also be worn and personnel should be available outside the storage area to monitor the entrant's progress.

Inspection

Is pit access restricted by fences/metal-grill covers?
Are manure gas warning labels near pit?

While the information and recommendations contained here have been compiled from sources believed to be reliable, the National Safety Council makes no guarantee as to, and assumes no responsibility for, the correctness, sufficiency, or completeness of such information or recommendations. Other or additional safety measures may be required under particular circumstances. Obtaining copyright permission is not necessary for information re-distributed for educational purposes (and must display the credit line: Permission to reprint granted by the National Safety Council, a membership organization dedicated to protecting life and promoting health.) or as expressly authorized along with the information presented. "Fact Sheets" from the Online Resources area of our website may be used to advance education on safety and health issues (commercial use must be approved). Questions and comments may be directed by e-mail to webmaster@nsc.org.



**National
Safety
Council**®

Information supplied by The National Safety Council's Agricultural Division, 1121 Spring Lake Drive, Itasca, IL 60143, (630) 775-2023, www.nsc.org