

Farm Safety Tip – Death in Manure Pits

Like he had done hundreds of times before, a 34-year-old farmer climbed into a manure pit to unclog a pipe. This time, however, he was quickly overcome by toxic fumes. A hired hand immediately went in to rescue him and also passed out. Another employee alerted the farmer's wife who rushed to the pit with her 9- and 11-year-old daughters. All three also succumbed. "It was very, very quick," said one investigator of the deaths.

Methane is only one of four dangerous gases that can form in manure pits. Carbon dioxide, ammonia, and hydrogen sulfide can also be present. At high concentrations, hydrogen sulfide can paralyze the sense of smell, cause rapid loss of consciousness, diaphragm paralysis at first breath and asphyxiation.

Here are some safety tips for working around manure pits:

#1 Post hazard signs on all manure pits which say DO NOT ENTER and DEADLY GASES POSSIBLE.

#2 Fit all openings to manure pits with substantial metal grill covers to provide some ventilation and to prevent accidental falls or entries into the pits.

#3 Equip manure pits with a powered, continuous fresh air ventilation system.

#4 Never enter a manure pit during or just after agitation.

#5 Always assume hydrogen sulfide is present. It's heavier than air and hangs in low-lying, unventilated areas. Because of that, levels may remain high in some confined places even with ventilation.

#6 A standby person should be in constant contact and ready to lift the worker to safety with mechanical lifting equipment (winch, hoist, or pulley).

#7 Anyone entering a manure pit should wear a safety belt or harness with a lifeline tied to the mechanical lifting device.

For more detailed information, see:

<http://www.manuremanagement.cornell.edu/Docs/H2S%20Safety%20fact%20sheet%20FINAL%204-30-07.htm>

<http://www.cdc.gov/nasd/docs/d001001-d001100/d001019/d001019.html>

<http://www.cdc.gov/niosh/90-103.html>