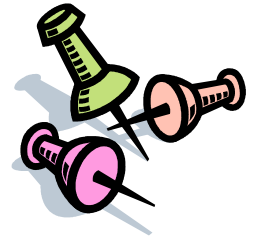




# Safety Note

UNIVERSITY OF CALIFORNIA  
AGRICULTURE AND NATURAL RESOURCES  
ENVIRONMENTAL HEALTH AND SAFETY



Safety Note #39

## CONFINED SPACE AWARENESS



Photograph Courtesy of  
Kearney REC

Data available from the Bureau of Labor Statistics indicate annually an average of 96 fatalities occurred, between 1992 and 2002, due to oxygen deficient atmospheres. Confined spaces are primary locations where oxygen deficient atmospheres develop. Information published by the National Institute for Occupational Safety and Health (NIOSH) indicates more than 60% of confined space fatalities occur among would-be rescuers. **A safety video that addresses confined space is available for loan from the ANR Environmental Health & Safety Library at (530) 752-3933.**

### Confined Space Definitions

- California Code of Regulations (CCR) Title 8, Section 5157 (b) provides the following confined space definitions:
  1. A **confined space** is a space that: (1) Is large enough and so configured that an employee can bodily enter and perform assigned work; and (2) Has limited or restricted means for entry or exit; and (3) Is not designed for continuous employee occupancy.
  2. A **permit-required confined space** is a confined space that (1) Contains or has the potential to contain a hazardous atmosphere; (2) Contains a material that has the potential for engulfing an entrant; (3) Has an internal configuration that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a small cross-section; or (4) Contains any other recognized safety or health hazard.
  3. A **non-permit confined space** is a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious harm.

### Confined Space Awareness at Agriculture and Natural Resources (ANR) Facilities

- Atmospheric confined space hazards include those due oxygen deficiency or the presence of toxic or flammable/explosive gases.
- Physical confined space hazards include those associated with mechanical or electrical energy, temperature, engulfment, falling objects, and wet surfaces or standing/moving water.
- Examples of ANR permit-required confined spaces include cotton cyclones, feed mixers, septic tanks and lift stations, manure pits, irrigation/drinking/stock/rinse/recycling water tanks, water tank trucks, unventilated lysimeter vaults, silos, feed storage bins, liquid feed tanks, and external equipment wash facility cone and rinse tanks.
- Examples of ANR non-permit confined spaces include ventilated lysimeter vaults, concrete standpipes, walk-in coolers, air filter/cooling plenums, ventilation motor housings, attic/basement crawl spaces, storage containers, and irrigation/pump sumps.

***This safety note is to be used in conjunction with confined space video and where available, with individual notebooks (and CDs) that describe confined space policies and procedures and incorporate site-specific confined space inventories.***