Data from the Bureau of Labor Statistics indicate an average of 96 fatalities occurred annually between 1992 and 2002, due to oxygen deficient atmospheres. Confined spaces are primary locations where oxygen deficient and sometimes toxic 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. The following is provided to prevent injuries and fatalities.

Confined Space

- Large enough for an employee to bodily enter and perform assigned work
- Has limited or restricted means for entry or exit
- Not designed for continuous employee occupancy

Permit-required Confined Space

- Contains or has the potential to contain a hazardous atmosphere
- Contains a material that has the potential to overpower an entrant
- Has an internal configuration that can trap an entrant, asphyxiated by inwardly converging walls or by a floor that slopes downward and narrows to a small cross-section
- Contains any other recognized safety or health hazard

Non-permit Confined Space

- Does not contain atmospheric hazards, or has the potential to contain any hazard capable of causing death or serious harm (Note: Can become permit space if hazards are brought into it)

Confined Space Awareness at Campus Locations & Field Research Centers

- Atmospheric confined space hazards include those due to 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 possibility of drowning
- Examples of permit-required confined spaces include sewers, septic tanks, water tanks, unventilated vaults, hoppers/ silos, and ventilation plenums with fan motor/ blades
- Examples of non-permit confined spaces include storm drains, ventilated vaults, concrete standpipes, attic/ basement crawl spaces, storage containers, and irrigation/ pump sumps

Confined Space Entry & Rescue

- Only authorized and trained employees can participate in a permit-required entry
- On-site rescue capabilities must be planned and in place before permit-required entry

This fact sheet is to be used in conjunction with confined space entry training that describes confined space policies and procedures, and incorporates department owned/controlled site-specific confined space inventories. Visit www.ehs.ucr.edu for additional information or call EH&S at 827-5528 if you have any questions.