



HIGHLANDER SAFETY TEAM

ENVIRONMENTAL HEALTH & SAFETY

WEEKLY SAFETY TOPICS

STEAM TUNNEL SAFETY

CONFINED SPACE



ARE STEAM TUNNELS ARE CONFINED SPACES ?

Recent OSHA interpretation has moved to consider tunnels with limited exits as confined spaces. Limited access can mean things like by way of a ladder, through a small opening, or a distance over 150 feet. It is difficult to define the entire system as a confined space, and it is equally difficult to identify specific areas or passages as confined spaces. Furthermore, and more importantly, normal permit-required confined space entry procedures are both impractical and do little to protect the health and safety of employees entering the steam tunnel system. UCR has developed a system that provides a structure and procedural safeguards to protect the UCR employees working in these areas, and only if additional high hazards are introduced will the tunnels require a permit for entry.

Tunnels are considered non-permit required confined spaces at UCR

Protocols for maintaining the steam tunnel system as a non-permit entry space.

1. The tunnels are a controlled access work area. Only trained and authorized persons may enter.
2. Communication is required. All entrants must check-in and out every time (even for breaks) with the Central Plant control room on radio channel X or by telephone at (951) 827-4678. If you are not going to exit when planned, call again to update.
3. The tunnels shall not be used for general passage as a short-cut. Tunnel entry is for inspection, maintenance, and repair of tunnel systems and equipment only.
4. All tasks to be performed in the tunnels must follow an existing standard procedure and training. For shut-down and non-typical tasks, the supervisor must conduct a hazard assessment and develop a work plan. A pre-job safety briefing is required to review the work plan, PPE requirements, and review safety protocols.
5. There must be an exit plan. If working near a vault, set up a ladder and open the vault to provide a quick exit route. Make sure to barricade the opening on the topside.
6. Check out a 4-gas meter from Central Plant if chemicals are being used. This will provide a warning if the oxygen level dips or another or a flammable atmosphere develops. If the meter alarms exit immediately.
7. If hazards arise during an entry (a steam leak occurs, disturbed asbestos, excessive water pools on the floor, gas leaks, etc.):
 - All employees must immediately leave the tunnel
 - Contact a supervisor, Central Plant, and EH&S to review and evaluate the hazardous situation
 - Implement controls necessary to keep employees from the entering
 - If hazard can not be controlled a permit-required entry will be required
 - Contact EH&S for assistance in determining the hazards and developing appropriate controls