

CONFINED SPACE RESCUE

Size-Up of The Incident

Determining the hazards that exist

Ask the facility contact person for the initial entry permit if one was issued. This document will reveal all of the initial atmospheric monitoring results, the equipment in the space, how many entrants are in the space, the initial entrant's entry time, the reason for the entry

Atmospheric Monitoring

Mandatory component of your confined space program.

OSHA clearly requires that atmospheric monitoring be completed prior to entry and continuously and periodically while entrants are within the space.

Must be done at all levels due to the possibility of stratified layers of hazardous gases

Readings be done in four foot increments. Top first, bottom second and then middle levels

Monitoring will assist you to determine survival profile of the victim as well as the development of the ventilation program.

Monitoring results must be documented on the permit or checklist.

Ventilation

Mandatory component of confined space entries

Ventilation will be initiated prior to entry and be continued until all entrants are out of the space

Process of either natural, forced supply, forced exhaust or combo of forced supply and exhaust ventilation

Increase survival profile of the victim as well as make the environment more tenable for rescuers

The Entry Permit

Checklist to assist in remembering all things that need to be done. Use is mandatory, in addition canceling the permit is mandatory. Canceling the permit is the act of signing and dating it at the completion of the operation. Filed for one year

Communications

must be provided between the entrant and the attendant

Primary communication plan and back-up plan be identified during the pre-entry briefing

Portable radios,

Electronic hardwire systems, voice and hand signals, rope signals, light signals, personal alarm devices, tapping and rapping codes

Respiratory Protection

Not listed as a mandatory component of confined space entry programs, the regulation was basically written for routine entries, this means that the expectation is that you will not be making entries into hazardous, or for that matter, even potentially hazardous environments. For routine entries this thorough process makes sense, why require respiratory protection when no one should be entering a space that is hazardous. The problem is that we are entering for the purpose of "rescue". **Must be on supplied air**

Proper Harness

Class III harness with the connection point at the top of the back, at the shoulders or above the head with a spreader bar

"The entrant must be attached in a manner such that if they were to become unresponsive, they would create the smallest possible profile in the opening".

Retrieval Lines

Whenever we place a person in a confined space that they should be attached to a retrieval line.

Mechanical Device

Mechanical device to be provided to assist in hoisting the victim when entries are made five feet or more below grade.

Cable winches with fall restraint, rope and pulley mechanical advantage systems in a z-rig fashion

Lighting

Not directly considered to be a mandatory compliance issue,

Whenever you put an electronic device in a confined space you should confirm that there is not a flammable atmosphere and or preferably use intrinsically safe equipment.

Pre-Entry Briefing

Know the following things before beginning task:

1. The hazards they may face in the space.
2. A confirmation of the equipment needed to complete the task
3. A review of the communications plan and back-up plan
4. Self rescue plans as well as the objective to be met while in the space.

The Mandatory Positions

Legal entry, certain positions must be filled, the minimum:

- **Entry Supervisor**
- **Attendant**
- **Entrant**
- **Back-Up Entrant**

Other Positions Would Be:

- Rigger; develop and manage the raise/lower system
- Air supply officer; manage the respiratory system
- Monitoring officer; manage the monitoring and documentation of such
- Line tenders; manage all of the air, communications and retrieval lines