

CONFINED SPACE ENTRY PERMIT

PROJECT NAME: _____ PROJECT LOCATION: _____
PROJECT MANAGER: _____

DESCRIPTION OF CONFINED SPACE: _____
NATURE OF WORK/REASON FOR ENTRY: _____
KNOWN CHEMICAL OR ATMOSPHERIC HAZARDS: _____

EMERGENCY PHONE NUMBERS AND CONTACT INFORMATION

HOSPITAL: _____ AMBULANCE: _____

POLICE: _____ FIRE: _____

HOSPITAL NAME AND ADDRESS: _____

RESCUE AND EMERGENCY SERVICE: _____
PHONE NO.: _____

LOCATION OF NEAREST PHONE: _____

ENTRY SUPERVISOR'S VERIFICATION CHECKLIST

*"X" indicates that the item applies and/or is under control, "NA" indicates that the item is not applicable.

GENERAL:

- Is entry necessary - if the task can be accomplished without entry, entry is prohibited.
- Have appropriate action levels been established
- Are appropriate monitoring instruments available
- Are the instruments selected approved for use in flammable atmospheres
- Have all instruments been properly calibrated

ATMOSPHERIC HAZARD DETERMINATION/IDENTIFICATION

- Are monitoring locations specified (i.e. top, middle, and bottom)
- Are monitoring frequencies specified (i.e. continuously/periodically)
- Is the oxygen level acceptable (i.e., >20% AND <23.5%)
- Are combustible (i.e. <10% of LEL/LFL)
- Are chemical contaminants below the set action levels (check if O.K.)
 - Hydrogen sulfide Carbon Monoxide Methane
 - VOC's/BTEX Other _____

VENTILATION

- Has pre-entry ventilation been performed in accordance with this Program
- Is ventilation equipment approved for use in flammable atmospheres
- Is the ventilation equipment positioned to achieve the most efficient movement of air based upon the vapor density and exhaust locations

VENTILATION (CONTINUED)

- Is ventilation to be performed for entire duration of the entry
- Is the air intake positioned away from potential sources of contaminants
- If ventilated after being found unacceptable, has the air been retested after ventilation

OTHER HAZARDS

- Have temperature extremes been eliminated or controlled
- Have engulfment hazards been eliminated or controlled
- Have slick/wet surfaces or other slip/trip/fall hazards been eliminated or controlled
- Have overhead/falling objects hazards been eliminated or controlled
- If hot-work (welding/cutting/brazing) is to be performed in the space, have the associated fire/explosion/atmospheric hazards been identified and controlled
- If cleaning solvents or other chemicals are to be used in the space, have the associated fire/explosion/atmospheric hazards been identified and controlled
- If tools or mechanical equipment are to be used have the associated fire/explosion/atmospheric hazards been identified and controlled

LOCKOUT/TAGOUT

- Have all sources of potentially hazardous energy release been identified, eliminated or controlled
- Have all requirements of EMU's *Lockout/Tagout Program* been satisfied

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Have all requirements for PPE been determined
 - Hardhats
 - Glasses/goggles
 - Coveralls (type) _____
 - Boots (type) _____
 - Gloves (type) _____
 - Other _____
- Has appropriate respiratory protection been determined
- Have all requirements of EMU's *Respiratory Protection Program* been satisfied
- Have all limitations associated with the use of respiratory protection/PPE been accounted for (i.e., is the hole big enough to fit through wearing the selected PPE)

RESCUE AND RETRIEVAL

- Have all authorized entrants been equipped with a full body harness and retrieval line/lanyard
- Have retrieval lines/lanyards been secured to a fixed point or mechanical device located outside the permit space
- Have methods been specified to enable the outside attendant to maintain visual, verbal, or signal contact with the authorized entrants in the space
- Have rescue services, personnel and assignments, including emergency first aid/medical personnel, phone numbers and other contact information been established and communicated

EMPLOYEE INFORMATION AND TRAINING

- Have affected employees received training required for assigned duties, including the additional requirements for: respiratory protection, first aid/CPR, site specific confined space briefing, emergency rescue procedures, etc.)

AIR MONITORING AND OTHER PRECAUTIONARY REQUIREMENTS

1. Has the confined space been adequately cleaned to prevent physical contact with hazardous materials?
 ___Yes (if yes, proceed to step 2) ___No (if no, safety coordinator/designee must evaluate space and issue permit)
2. **Confined Space Atmospheric Testing:** With all artificial ventilation off, test internal atmosphere for (at a minimum):

Direct Reading Instrument Measurement

- a. Flammable/Explosive Atmospheres: (result) _____
 (Entry **NOT ALLOWED** if over 10% of LEL/LFL)
 - b. Oxygen Content: (result) _____
 (if <20%, retest with ventilation on; if repeated measurements <19.5% oxygen, supplied air respirators required for entry)
 - c. Toxicity: (result) _____
 Measurements above the chemical-specific PEL/TLV requires the use of appropriate respiratory protection.
3. Confined space entry equipment requirements. case 1: spaces never containing hazardous materials; case 2: other conditions.

	case 1	case 2
a. Standby personnel present during entire entry	X	X
b. Powered equipment locked out, tagged, blocked, etc.	X	X
c. Lifeline/lanyard & harness or wristlets worn	X	X
d. Continuous monitoring of LEL/oxygen content in space	X	X
e. Tank Isolation Permit	X	X
f. Ventilation: (type) _____		X

PERSONNEL ASSIGNMENTS

Authorized Entrants

1. Entry time [] Exit time [] Initials []
2. Entry time [] Exit time [] Initials []

Attendants

1. Start time [] End time [] Initials []
2. Start time [] End time [] Initials []

Entry Supervisor

1. Start time [] End time [] Initials []
2. Start time [] End time [] Initials []