

EASTERN MICHIGAN UNIVERSITY CONFINED SPACE ENTRY PERMIT

PROJECT NAME: _____ 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 SERVICES: _____

PHONE #: _____ LOCATION OF NEAREST PHONE: _____

ENTRY SUPERVISOR'S VERIFICATION CHECKLIST

X indicates the item applies and/or is under control. **NA** indicates 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 a flammable atmosphere?
- Have all instruments been properly calibrated?

ATMOSPHERIC HAZARD DETERMINATION/IDENTIFICATION

- Are monitoring locations specified (top, middle and bottom)?
- Are monitoring frequencies specified (continuously, periodically, other)?
- Is the oxygen level acceptable (>19.5 - <22%)?
- Are combustible levels acceptable (< 10% of LEL)?
- Are chemical contaminants below the set action levels?

Carbon Monoxide

Hydrogen Sulfide

Methane

VOC's/BTEX

Other: _____

Other: _____

VENTILATION

- Has pre-entry ventilation been performed in accordance with EMU's Confined Space Entry 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?
- Is ventilation to be performed for entire duration of 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 object hazards been eliminated or controlled?
- If hot-work (welding/cutting/brazing) is to be performed in the space, have the associated fire/explosion/atmosphere hazards been identified and controlled?
- If cleaning solvents or other chemicals are to be used in the space, have the associated fire/explosion/atmosphere hazards been identified and controlled?
- If tools or mechanical equipment are to be used have the associated fire/explosion/atmosphere hazards been identified and controlled?

LOCKOUT/TAGOUT

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

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Have the requirements for PPE been determined?
 - Hardhats Glasses/Goggles Coveralls(type): _____
 - Boots(type): _____ Gloves (type): _____
 - Other: _____ Other: _____
- Has appropriate respiratory protection been determined?
- Have the requirements of EMU's Respiratory Protection Program been satisfied?
- Have the limitations associated with the use of respiratory protection/PPE been accounted for (e.g. 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 if safe)
2. **Confined Space Atmospheric Testing:** With all artificial ventilation **off**, at a minimum, test internal atmosphere for:

Direct Reading Instrument Measurement

- a. Flammable/Explosive Atmosphere: _____
 (Entry **NOT ALLOWED** if over 10% of LEL (list results above))
- b. Oxygen Content: _____
 (list results above)
 (If <20%, retest with ventilation on, if repeated measurements <19.5% oxygen, supplied air respirators are required for entry).
- c. Toxicity: _____
 (list results above)
 Measurements above the chemical specific PEL/TLV requires the use of appropriate respiratory protection (Half mask, full face mask, PAPR, SCBA)

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 and 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: _____

