

University of New Hampshire

Confined Space Work Procedure

The following procedure is required of ALL University personnel, contractors and visiting agencies that plan work in confined spaces on campus. Any questions regarding this procedure should be directed to the Office of Environmental Health and Safety (862-4761).

1. The University of New Hampshire Confined Space Entry Permit must be obtained from the Office of Environmental Health and Safety or its website (<http://www.unh.edu/ehs/occsafety/pf/cspermit.pdf>)
2. The necessary air monitoring equipment, harnesses, tripod, communication radios and trained individuals must be at the entry location.
3. The rescue tripod must be set up at the entry location. Entrants must wear a harness to which the rescue cable is attached prior to entering the confined space. These devices are required as they will assist the Durham Fire Department should a rescue be necessary. It should be noted that the rescue equipment is intended to be redundant and shall not be used as the primary means for accessing the confined space.
4. **For Confined Space Work in the Steam Tunnel**, entrants must wear a harness to which a rescue cable could be attached prior to entering the tunnel. The rescue cable is not required to be secured prior to entry in the steam tunnel since this could create an increased hazard should a rescue be required. If confined space work in the tunnel proceeds 250 feet or more beyond the tripod location, retrieval equipment must be moved to the next closest access point in relation to the work being done.
5. **For Confined Space Work in High Voltage Energized Man Holes**, confined space entry will require the use of a non-conductive retrieval rope system in place of steel cable.
6. **Section A** of the permit must be completed prior to entry and faxed (862-1513) or called (862-1426) to the Durham Fire Department. In addition, the Durham Fire Department must be verbally notified (862-1426) upon commencement and completion of the confined space activities.
7. Air monitoring shall be performed and **Section B** of the permit must be completed with actual air monitoring results. Specific air monitoring and documentation shall occur prior to entry. Subsequent air monitoring must occur during the entry with the time and results documented.

8. If the confined space entry is interrupted at any time due to unsatisfactory atmosphere readings or equipment failure, the permit shall be “cancelled” and the permit process shall begin back at step 1.
 9. Should it happen that any of the “critical” required procedures are not followed (i.e., air monitoring, tripod setup etc.), the Durham Fire Department may require the confined space activities to cease until these required procedures have been completed.
 10. Once the entry has been completed and the site has been secured, the completed confined space entry form(s) must be retained for one calendar year:
 - a. Campus Departments – form(s) shall be retained by the department supervisor
 - b. Contractors – form(s) shall be delivered to the Office of Environmental Health and Safety to be retained.
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29 Code of Federal Regulations Part 1910 General Industry
1910.146 - Permit Required Confined Space

Confined Space means:

- Limited or restricted means of entry and egress.
- Large enough to bodily enter.
- Not intended for human occupancy.

Permit Required Confined Space means:

- Contains or has the potential to contain a hazardous atmosphere.
- Contains a material that has the potential for engulfing an entrant.
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or a floor, which slopes downward and tapers to a smaller cross section.
- Contains any other recognized serious safety or health hazards such as mechanical, electrical, pneumatic, hydraulic, thermal or chemical dangers.

University of New Hampshire CONFINED SPACE ENTRY PERMIT

Once Section A has been completed, it must be faxed to the Durham Fire Department (862-1513) or called in (862-1426).

(Section A)

Date ___/___/___ Work Shift 1st 2nd 3rd Permit Expires ___/___/___

Start Time _____ A.M. P.M.

Permit Space to be Entered (Building/Area #) _____

Purpose of Entry _____

All Competently Trained Individuals:

Entry Supervisor _____

Entry Attendant _____

Authorized Entrant _____

REQUIREMENTS	Yes	No	N/A	REQUIREMENTS	Yes	No	N/A
Communication				Fall Arrest Harness/lifeline/tripod			
Lock Out - De-energize				Intrinsically Safe Lighting			
Lines Broken - Capped or Blanked				Personal Protective Equip.(Goggles, Hard Hat, Gloves)			
Purge - Flush and Vent				Protective Respirator			
Secure Area							

Notify Durham Fire Department .

Contact _____ Time _____ A.M. P.M.

(Section B)

TESTS TAKEN		Test 1	Test 2	Test 3	Test 4
	Permissible Entry Levels	Time:	Time:	Time:	Time:
Percent of Oxygen	19.5% to 21%				
Combustible Gas	Less than 10% LEL				
Hydrogen Sulfide	Less than 10 ppm				
Carbon Monoxide	Less than 25 ppm				
Ammonia	Less than 25 ppm				
Other Substances	To be Determined				

Name/Initials of Tester _____

Additional Permits Required Hot Work Trenching and Shoring

Possible Atmospheric Hazards in the Area to be Entered:

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Lack of Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combustible Gases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combustible Vapors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combustible Dusts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Toxic Gases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other Possible Hazards in the Area to be Entered:

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Toxic Vapors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chemical Contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electrical Hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical Exposures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engulfment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entrapment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PRE-ENTRY CHECKLIST

If any of the following "Needs Action", do not enter site until conditions are corrected.

OK Needs Action

- 1. Prior to initiating the project, the supervisor or designee shall notify the Durham Fire Department 862-1426.
(Name of the person contacted _____)
- 2. A minimum of two employees shall be assigned to work involving confined space entry. One employee shall act as observer and remain outside the confined space at all times.
- 3. The surrounding area shall be surveyed to show it to be free of hazards such as drifting vapors from tanks, piping, sewers, or vehicle exhaust.
- 4. Those responsible for operation of the gas monitor to be used have been trained?
- 5. Has a gas monitor functional test (fresh air calibration) been performed this shift on the gas monitor to be used? If so, by whom?

- 6. Will the atmosphere be continuously monitored while the space is occupied, if required by entry procedure?

Entry Permit Supervisor _____ Time _____ Date _____

Completed Canceled Time _____ Reason _____

CALL 911 FOR ON or OFF CAMPUS EMERGENCIES.