

## Summary – Confined Space Entry Procedures

### Entry procedure for non-permit required confined space

Step	Person	Action
1.	Entrant/Attendant	Evaluate the confined space to determine that it qualifies as non-permit required and that no hazardous work <sup>(see note1)</sup> will be performed in the space. Checklist in tools section can assist with evaluation. Address any concerns with your supervisor.
2.	Entrant/Attendant	Takes precautions, as necessary <ul style="list-style-type: none"><li>• Installs vehicular and pedestrian traffic controls as needed</li><li>• Posts warning signs as necessary at the work location</li><li>• Takes measures to prevent hazards near the confined space</li><li>• Dons any required personal protective equipment for task conducted</li></ul>
3.	Entrant/Attendant	Performs authorized work (minimum two workers required) <ul style="list-style-type: none"><li>• It is recommended that one person remain outside the confined space</li><li>• If a hazardous condition is encountered, evacuates immediately and reports to supervisor</li></ul>

Note 1 - Hazardous work includes painting, cleaning with acids or solvents, welding, brazing, torch cutting, sanding with power tools, sandblasting, breaking utility lines, using cryogenic gases, conducting work that involves reduction-oxidation reactions, or operating valves capable of releasing material, such as water or gas, in a quantity sufficient to engulf a person or cause a hazardous atmosphere.

### Entry procedure for alternate entry and temporarily declassified confined spaces

Step	Person	Action
1.	Entrant / attendant	Evaluate the confined space to determine that it qualifies as an alternate entry or temporarily declassified confined space. Address any concerns with your supervisor.
2.	Confined space entry supervisor	Confirms that entry conditions qualify for the selected entry method <ul style="list-style-type: none"> <li>• Alternate entry confined space procedures and entry form</li> <li>• Temporary declassification form</li> </ul>
3.	Confined space entry supervisor	Ensures that hazards and controls are understood by the entrant(s) and attendant(s)
4.	Entrant / attendant	Secures the work site <ul style="list-style-type: none"> <li>• Installs barriers and/or controls vehicular and pedestrian traffic as needed</li> <li>• Posts warning signs as necessary at the work location</li> <li>• Takes measures to prevent hazards near the confined space</li> </ul>
5.	Entrant / attendant	Ensures hazard is controlled before entry  For alternate entry, ensures atmospheric testing is conducted as necessary to determine that entry conditions remain acceptable, and ensures forced air ventilation is in place (see tools section for checklist describing use of multi-gas monitor). Complete entry form and post  For temporary declassification, ensures hazards are eliminated by appropriate energy isolation procedure or other means. Document actions on entry form.  Dons any required personal protective equipment  Notifies control center when enters space
6.	Entrant / attendant	Performs work as long as hazards are controlled as specified on the form <ul style="list-style-type: none"> <li>• Any change that introduces hazards requires that the space be vacated</li> <li>• New hazards must be re-assessed and a new entry method may apply; no entry is allowed until all hazards are eliminated</li> </ul>
7.	Entrant / attendant	Notifies control center when exits space  Provides completed entry form to their supervisor once the work is finished
8.	Supervisor	Reviews form and keeps form on file for a minimum of two year s

Note 1: These procedures assume that entrants can self-rescue. If for any reason self-rescue may not apply, contact EHS.

## Entry procedure for permit-required confined space

Step	Person	Action
<b>Planning</b>		
1.	Confined space entry supervisor	Determines if non-entry rescue can be performed. If it cannot, entry is prohibited; contacts EHS or makes rescue arrangements with Yale approved rescue service vendor.
2.	Confined space entry supervisor	Determines control measures for hazards associated with the confined space entry
3.	Confined space entry supervisor	Verifies that all required equipment, attendants, and entrants are available
<b>Pre-entry</b>		
4.	Confined space entry supervisor	Documents the pre-entry process with the permit-required confined space procedure and entry permit
5.	Confined space entry supervisor	<p>Ensures that the confined space's atmosphere is ventilated as necessary and tested prior to entry using properly calibrated monitoring equipment. (For assistance with obtaining monitoring equipment, contact EHS. See tools section for checklist describing use of multi-gas monitor)</p> <p>Results for the following must be recorded on the permit</p> <ul style="list-style-type: none"> <li>• Oxygen</li> <li>• Flammability (percent of lower explosive limit)</li> <li>• Hydrogen sulfide</li> <li>• Carbon monoxide</li> <li>• Any other suspected or known atmospheric hazard</li> </ul> <p>If at any time the oxygen concentration or other monitored components in the atmosphere fall out of their designated ranges, the cause must be determined and controls must be in place before entry is allowed. If entry is necessary to correct the deficiency, self-contained breathing apparatus must be worn.            Note: The entrant has the right to witness atmospheric testing.</p>
6.	Confined space entry supervisor	<p>Secures the work site as appropriate</p> <ul style="list-style-type: none"> <li>• Installs barriers and/or controls vehicular and pedestrian traffic as needed</li> <li>• Posts warning signs and any required permit(s) at the work location</li> <li>• Takes measures to prevent hazards near the confined space</li> </ul>
7.	Confined space entry supervisor	<p>Conducts pre-entry briefing for all personnel involved in the entry that includes at minimum these topics</p> <ul style="list-style-type: none"> <li>• Work to be performed</li> <li>• Anticipated hazards, including signs, symptoms and consequences of exposure</li> <li>• Hazard control measures</li> <li>• Prohibited conditions (specified in the permit)</li> <li>• Non-entry rescue procedures; generally these involve using a full-body harness with a retrieval line attached to a mechanical device or fixed point.</li> </ul>
8.	Confined space entry supervisor	<p>Verifies that</p> <ul style="list-style-type: none"> <li>• All control measures, procedures, and equipment specified by the permit are in place</li> <li>• Entry conditions are acceptable</li> </ul>
9.	Confined space entry supervisor	Signs the pre-entry certification section of the permit

Confined space entry		
10.	Entrant	<p>Notifies control center when enters space</p> <p>Dons any required personal protective equipment</p> <p>Enters the permit-required confined space only if</p> <ul style="list-style-type: none"> <li>• Listed on the permit</li> <li>• Entry conditions are acceptable</li> <li>• All control measures and specified non-entry rescue provisions are implemented</li> </ul>
11.	Confined space entry supervisor	<p>Verifies that acceptable entry conditions are maintained and that entry operations remain consistent with terms of the permit and the hazards associated with the planned work</p>
12.	Attendant	<ul style="list-style-type: none"> <li>• Maintains communication with the entrant(s) and performs no other duties that might interfere with his or her ability to observe and protect the entrant(s)</li> <li>• Controls entry by remaining at the work site and keeping an accurate accounting of entrants on the permit</li> <li>• Does not become an entrant unless he/she is both listed as an entrant and has been replaced by a qualified attendant.</li> </ul>
13.	Entrant	<p>Maintains communication with the attendant. Maintains readiness to exit if ordered by attendant.</p>
14.	Attendant	<p>Orders entrant(s) to evacuate the space if one or more of the following occurs:</p> <ul style="list-style-type: none"> <li>• Detects a <i>prohibited condition</i></li> <li>• Observes any behavioral effects of exposure to any hazard</li> <li>• Identifies a nearby situation that may endanger the entrant(s)</li> <li>• Becomes unable to effectively and safely perform all required duties</li> </ul>
Post-entry / documentation		
15.	Confined space entry supervisor	<p>Notifies control center when exits space</p> <p>Conducts a post-entry debriefing with entrants and attendants</p>
16.	Confined space entry supervisor	<p>Closes the permit by dating and initialing the permit expiration date as warranted</p> <ul style="list-style-type: none"> <li>• At the completion of the job</li> <li>• At the end of the work shift</li> <li>• When a change occurs in work conditions or methods that requires additional controls</li> <li>• When a changes occurs that affects acceptable entry conditions</li> </ul> <p>If the permit is closed due to a new hazardous condition, a new permit is required.</p>
17.	Confined space entry supervisor	<p>Document in the comments section any:</p> <ul style="list-style-type: none"> <li>• Lessons learned</li> <li>• Hazards encountered and the means and methods used to control the hazards</li> <li>• Notify all affected employees that the space and/or equipment has been returned to operation, i.e. complete LOTO return to operation procedure</li> </ul>
18.	Confined space entry supervisor	<p>Keeps the form on file for a minimum of two years</p>