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PURPOSE

The University of Illinois at Urbana-Champaign (University), through the Division of Safety and Compliance, Occupational Safety and Health Department (OSH), has established this Confined Space Entry Program to protect the health of university students, faculty, and staff and to assure compliance with State and Federal occupational safety and health standards.

This Program provides the minimum requirements for unit-specific confined space entry programs. It is expected that campus units will utilize this Confined Space Entry Program to develop unit-specific standard operating procedures (SOPs) including completion of Appendix A and providing the first page to OSH.

POLICY

It is the policy of the University to protect its students, faculty and staff from hazards in and around confined spaces. This is accomplished as far as feasible with effective administrative controls, employee training, engineering controls, personal protective equipment (PPE), and rescue and monitoring equipment. In cases where these controls are not adequate, on-scene rescue services must be provided during entry operations.

This Confined Space Entry Program impacts all students, faculty and staff who are required to participate in entry into confined spaces. Additional instructions for protecting employees from confined space hazards may be found in other Programs (e.g., Control of Hazardous Energy or Respiratory Protection).

RESPONSIBILITIES

Occupational Safety and Health (OSH)

OSH is responsible for the administration of this Program. OSH maintains copies of all records for services provided by OSH pertaining to this Program. An OSH program coordinator is designated to provide guidance, regulatory interpretation and oversight for this Program and to review this Program annually.

Deans, Department Heads, and Directors (Campus Units)

Campus Units shall provide the resources necessary to properly implement this Program and Unit-Specific SOPs (Appendix A) and designate a Responsible Person that will be charged with implementing this Program and Unit-Specific SOPs.

Campus Unit Responsible Person

The Responsible Person shall work with Campus Unit Supervisors to identify personnel that may be required to participate in confined space entry operations, ensure that personnel attend appropriate training before entering a confined space, and ensure that Unit-Specific SOPs (Appendix A) are reviewed annually.

Supervisors of Confined Space Entry Operations Personnel (Supervisors)

Supervisors and Principal Investigators (PIs) are responsible for enforcement of this Program and Unit-Specific SOPs (Appendix A). They shall assist in the development and annual review of Unit-Specific SOPs, and ensure that their employees affected by confined space receive appropriate training.



Confined Space Entry Operations Personnel

Affected faculty, staff, and students, herein called confined space entry operations personnel, are responsible for adhering to the provisions of this Program, Unit-Specific SOPs (Appendix A), and manufacturer instructions.

GENERAL REQUIREMENTS

Identification, Evaluation and Classification of Confined Spaces

Each Campus Unit shall conduct a survey of their premises and/or operations to identify confined spaces in the workplace. The survey shall be conducted by a Confined Space Competent Person(s). The Confined Space Competent Person(s) shall evaluate each space and classify each space as "Permit-Required Confined Space" or "Non-Permit Required Confined Space" as defined by this Program using Appendix B - Confined Space Evaluation Form.

Non-Permit Required Confined Spaces

If only non-permit required confined spaces are to be entered, the Campus Unit need only maintain the Confined Space Competent Person completed Appendix B - Confined Space Evaluation Forms. However, all affected employees should be trained on hazard identification. Prior to each entry into a non-permit required confined space, the space must be evaluated for changes to the space that may be hazardous to the entrants. When there are changes in the use or configuration of a non-permit space that could increase the hazards to entrants, a Competent Person must reevaluate the space and reclassify it as permit-required, if necessary.

Permit Required Confined Spaces

If any Permit-Required Confined Spaces are identified, all exposed employees shall be notified of such findings by posting warning signs reading "PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER", or similar language in the vicinity of the space or by some other effective means. If Unit personnel will enter permit spaces, the Unit will implement all elements of this Program. If Unit personnel will not enter the permit spaces then the Campus Unit must take effective measures to prevent such entry.

Reclassification

A permit-required confined space can be reclassified by a Confined Space Competent Person to a non-permit space under the following conditions:

- A. Demonstrate and document that the permit space poses no actual or potential atmospheric hazards and all other hazards can be eliminated without entry into the space; or
- B. Demonstrate and document that previous testing and inspection of the permit-space demonstrates that all hazards within have been eliminated. Procedures for Atmospheric Testing are located in Appendix F.

(Note: control of atmospheric hazards thorough forced air ventilation does not constitute elimination of the hazards.)

A Confined Space Competent Person must document in writing the reclassification process using Appendix C – Non-Permit Entry Reclassification Form.

Duties and Responsibilities of Confined Space Competent Persons

The Campus Unit shall ensure that each Confined Space Competent Person understands the requirements of this Program and Unit-Specific SOPs (Appendix A), and is capable of identifying existing



and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.

The Confined Space Competent Person shall identify, evaluate, classify, and re-classify confined spaces that are entered by Unit confined space entry operations personnel. The Competent Person may utilize drawings, specifications, air monitoring, manufacturer manuals, and other tools.

Duties and Responsibilities of Confined Space Entry Supervisors

The Entry Supervisor must:

- A. Be familiar with and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- B. Verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin;
- C. Terminate the entry and cancels or suspends the permit;
- D. Verify that rescue services are available and that the means for summoning them are operable, and that the employer will be notified as soon as the services become unavailable;
- E. Remove unauthorized individuals who enter or who attempt to enter the permit space during entry operations; and
- F. Determine, whenever responsibility for a permit space entry operation is transferred, and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with terms of the entry permit (Appendix D) and that acceptable entry conditions are maintained.

Duties and Responsibilities of Confined Space Entry Authorized Entrants

Authorized Entrants shall:

- A. Be familiar with and understand the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- B. Properly use equipment required by the entry permit (Appendix D);
- C. Communicate with the attendant as necessary to enable the attendant to assess entrant status and to enable the attendant to alert entrants of the need to evacuate the space;
- D. Alert the attendant whenever:
 1. There is any warning sign or symptom of exposure to a dangerous situation; or
 2. The entrant detects a prohibited condition; and
- E. Exit from the permit space as quickly as possible whenever:
 1. An order to evacuate is given by the attendant or the entry supervisor;
 2. There is any warning sign or symptom of exposure to a dangerous situation;
 3. The entrant detects a prohibited condition; or
 4. An evacuation alarm is activated.

Duties and Responsibilities of Confined Space Entry Attendants

Attendants must:

- A. Be familiar with and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;



- B. Be aware of possible behavioral effects of hazard exposure in authorized entrants;
- C. Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants accurately identifies who is in the permit space;
- D. Remain outside the permit space during entry operations until relieved by another attendant; Communicate with authorized entrants as necessary to assess entrant status and to alert entrants of the need to evacuate the space;
- E. Assess activities and conditions inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - 1. If there is a prohibited condition;
 - 2. If the behavioral effects of hazard exposure are apparent in an authorized entrant;
 - 3. If there is a situation outside the space that could endanger the authorized entrants; or
 - 4. If the attendant cannot effectively and safely perform all the duties required under this section;
- F. Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards;
- G. Take the following actions when unauthorized persons approach or enter a permit space while entry is underway:
 - 1. Warns the unauthorized persons that they must stay away from the permit space;
 - 2. Advises the unauthorized persons that they must exit immediately if they have entered the permit space; and
 - 3. Informs the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space;
- H. Perform non-entry rescues as specified by the employer's rescue procedure; and
- I. Perform no duties that might interfere with the attendant's primary duty to assess and protect the authorized entrants.

PROCEDURES

Entry Permit System

Before entry is allowed into a Permit-Required Confined Space, the Entry Supervisor shall obtain and complete Appendix D - Confined Space Entry Permit. Upon completion of this permit the Entry Supervisor shall sign it to allow entry. The completed permit shall be made available to all authorized entrants or their representative by posting it at the entrance of the confined space or via some other effective means.

The Entry Supervisor shall terminate the entry and cancel the permit when either of the following conditions occurs:

- A. The entry operations covered by the entry permit (Appendix D) have been completed; or
- B. A condition that is not allowed by the permit arises in or near the permit space.

The Campus Unit Responsible Person shall retain a copy of each canceled permit for one year after its termination. Canceled copies will be used in the annual evaluation of the Unit-Specific SOPs (Appendix A) and any special conditions or hazards noted during the entry will be noted on the permit.



Entry Procedures

Each Campus Unit shall develop procedures for entry into their permit-required confined spaces. At a minimum the procedures shall include steps to:

- A. Evaluate the permit space prior to allowing employees to enter and periodically throughout the time an employee occupies the permit space to ensure that acceptable entry conditions are maintained.
- B. Continuously monitor the permit space for acceptable entry conditions when the permit space cannot be isolated (e.g., a sewer system).
- C. Continuously test the atmosphere by testing for oxygen first, then for combustible gases and vapors, and then for toxic gases and vapors.
- D. Provide at least one attendant outside of each permit space.
- E. Designate the responsibilities of the employees involved in the permit space entry.
- F. Develop and implement procedures for summoning rescue and emergency services to the permit space in the event of an emergency and shall instruct unauthorized personnel not to attempt rescue which requires entry into the permit space.
- G. Review the procedures involved in the permit space entry if it is believed the measures taken do not protect employees and revise the procedures as necessary.

Entry Equipment

Campus Units must provide equipment necessary to safely enter a permit space as well as training necessary to ensure the equipment is used properly at no cost to affected employees. Campus Units are also responsible for ensuring proper maintenance of the equipment. Typical equipment that is required to be provide for permit space entry includes:

- A. Atmospheric testing and monitoring equipment;
- B. Forced air ventilation equipment;
- C. Communications equipment;
- D. Lighting equipment needed to enable employees to work safely within the permit space and exit said space quickly in the event of an emergency;
- E. Barriers and shields necessary to prevent pedestrian and vehicular access;
- F. Ladders;
- G. Non-entry rescue equipment such as fall arrest systems and retrieval devices; and
- H. Miscellaneous personal protective equipment such as eye protection, foot protection, head protection, etc. as necessary to work safely within the confined space.

Alternate Entry Procedures

Alternate Procedures may be used for entering a confined space if it can be demonstrated that:

- A. The only hazard faced by employees entering the space is an actual or potential atmospheric hazard;
- B. Continuous forced air ventilation alone is sufficient to maintain the permit space safe for entry; and
- C. Monitoring and inspection data have been developed to support items A and B of this subsection. This information must be documented in writing by the Confined Space Competent Person and made available to all employees required to enter the permit space.



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When Alternate Procedures have been approved for a confined space, the assessment and approval process shall be documented in a written certification by the Confined Space Competent Person using the Alternate Entry Procedures Form (Appendix E). The written certification shall be made before employees are allowed to enter the confined space and shall be made available to each employee who enters.

If only alternate procedures are to be used, the Campus Unit need not complete Appendix A but must comply with the following:

- A. If an initial entry into the confined space is required to verify that alternate procedures can be safely used, such entry shall be performed as a Permit-Required Confined Space requiring all permit entry conditions be met including an Attendant, non-entry retrieval system, completed permit, and continuous monitoring. Any conditions making it unsafe to remove or open an entrance cover shall be eliminated before the cover is removed.
- B. When an entrance cover is removed, the opening shall be promptly guarded by a railing, temporary cover, or other temporary means which prevent people and tools from accidentally falling into the confined space.
- C. Before employees are allowed to enter the confined space, the atmosphere within shall be tested to be certain that it is acceptable. Acceptable atmospheric conditions are listed on the Alternate Entry Procedures form located in Appendix E. The testing instrument shall be a calibrated direct-reading instrument which samples for the following elements in the order given (see Appendix F for additional Procedures for Atmospheric Testing):
 1. Oxygen content,
 2. Flammable/combustible gases and vapors, and
 3. Potential toxic air contaminants.
- D. There may be no atmospheric hazards within the confined space at any time the employee is within.
- E. Continuous forced air ventilation shall be provided using a clean source of air for the entire time the employee is within the confined space. Such ventilation shall be so directed as to ventilate the immediate areas where the employee is and cannot increase or create the hazards within the space.
- F. The atmosphere within the confined space shall be continuously monitored to ensure that an acceptable atmosphere is being maintained.
- G. If at any time an unacceptable atmospheric condition is detected the following shall occur:
 1. Each employee within the space shall leave the space immediately;
 2. The space shall be evaluated to determine the source(s) of the air contaminant;
 3. Actions shall be taken to eliminate or control the source(s) of air contaminants; and
 4. The space shall be re-evaluated and re-classified by a Confined Space Competent Person prior to re-entry. Additional requirements, including entry as a permit-required space, shall be implemented based on re-classification.

An employer who uses alternate entry procedures must train his/her employees as affected employees in accordance with section **Training** below.



Communication and Coordination

Whenever entry into a permit space is performed on campus by contractor personnel a pre-entry meeting must occur between a representative of the Campus Unit that controls the space and the controlling contractor. Information on permit space locations, known and potential hazards, and means of eliminating or controlling hazards shall be discussed.

A post-entry debrief must also occur whereby the controlling contractor communicates to the Campus Unit representative on the permit spaces entered, the program followed, and hazards confronted and created during entry operations.

Campus Unit personnel who perform entry operations into spaces owned by others would be considered a controlling contractor during entry operations. The Unit Confined Space Entry Supervisor must participate in pre- and post-entry meetings with a representative of the host employer and cover topics discussed immediately above.

Non-Entry Rescue

Non-entry rescue is required unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. The employer must designate an entry rescue service whenever non-entry rescue is not selected. Whenever non-entry rescue is selected, the entry employer must ensure that retrieval systems or methods are used whenever an authorized entrant enters a permit space, and must confirm, prior to entry, that emergency assistance would be available in the event that non-entry rescue fails. To facilitate non-entry rescue each authorized entrant and attendant shall be provided and use a retrieval system which meets the following requirements:

- A. Each authorized entrant must use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, above the entrant's head, or at another point which the employer can establish presents a profile small enough for the successful removal of the entrant. Wristlets or anklets may be used in lieu of the chest or full body harness if the employer can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets or anklets is the safest and most effective alternative.
- B. The other end of the retrieval line must be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device must be available to retrieve personnel from vertical type permit spaces more than 5 feet (1.52 meters) deep.
- C. Equipment that is unsuitable for retrieval must not be used, including, but not limited to, retrieval lines that have a reasonable probability of becoming entangled with the retrieval lines used by other authorized entrants, or retrieval lines that will not work due to the internal configuration of the permit space.
- D. If an injured entrant is exposed to a substance for which a Safety Data Sheet (SDS) or other similar written information is required to be kept at the worksite, that SDS or written information must be made available to the medical facility treating the exposed entrant.

Rescue and Emergency Services

Rescue Services must be provided and they must be able to respond to an incident on any shift within 4 minutes. The Rescue Services for the UIUC campus locations are the Champaign and Urbana Fire



Departments depending upon your location on campus. The appropriate fire department should be contacted prior to entry into a permit space. The Urbana Fire Department non-emergency phone is 384-3420 and the Champaign Fire Department non-emergency phone is 403-7200. Rescue procedures will be available for review as requested by the Rescue Service.

Campus Units requiring off-campus rescue services are responsible for identifying, evaluating, and contracting with a rescue service. The selected rescue team shall:

- A. Have the capability to reach the victim(s) within a time frame that is appropriate for the permit space hazard(s) identified;
- B. Be equipped for, and proficient in, performing the needed rescue services;
- C. Agree to notify the employer immediately in the event that the rescue service becomes unavailable;
- D. Inform each rescue team or service of the hazards they may confront when called on to perform rescue at the site; and

The Campus Unit shall provide the rescue service selected with access to all permit spaces from which rescue may be necessary so that the rescue team or service can develop appropriate rescue plans and practice rescue operations.

Training

Training will be provided to all employees affected by this Program on the applicable provisions of this Program and Unit-Specific SOPs (Appendix A) to provide them the understanding, knowledge and skills necessary for the safe performance of their assigned duties.

Training will be provided to all affected employees as follows:

- A. In both a language and vocabulary that the employee can understand;
- B. Before employees are first assigned permit space duties;
- C. Before there is a change in assigned duties;
- D. Whenever there is a change in permit space operations that presents a hazard for which an employee has not previously been trained; and
- E. Whenever the Campus Unit has reason to believe either that there are deviations from the established confined space entry procedures or that there are inadequacies in the employee's knowledge or use of these procedures.
- F. Whenever there is a reclassification of a permit-required confined space, alternative procedure confined space, or a non-permit confined space.
- G. The training will establish employee proficiencies in their required duties and shall introduce new or revised procedures, as necessary. The training content for each employee affected by this Program is listed below.

Authorized Entrants shall be trained on:

- A. The hazards that may be faced during entry;
- B. The routes of exposure (e.g., inhalation, dermal, etc.), signs or symptoms, and consequences of the exposure (refer to the Material Safety Data Sheets);
- C. The use of the following equipment:
 1. Testing and monitoring equipment;



2. Ventilating equipment;
 3. Communications equipment;
 4. Personal protective equipment;
 5. Lighting equipment;
 6. Barriers and shields;
 7. Equipment needed for safe access and egress (e.g., ladders);
 8. Rescue and emergency equipment; and
 9. Any other equipment necessary for safe entry into and rescue from permit spaces;
- D. The duties required of an Authorized Entrant; and
- E. The requirements of the Unit-Specific Confined Space Entry Program.

Attendants shall be trained on:

- A. The hazards that may be faced during entry;
- B. The routes of exposure (e.g., inhalation, dermal, etc.), signs or symptoms, and consequences of the exposure (refer to the Material Safety Data Sheets);
- C. The use of the following equipment:
 1. Testing and monitoring equipment;
 2. Ventilating equipment;
 3. Communications equipment;
 4. Personal protective equipment;
 5. Lighting equipment;
 6. Barriers and shields;
 7. Equipment needed for safe access and egress (i.e. ladders);
 8. Rescue and emergency equipment; and
 9. Any other equipment necessary for safe entry into and rescue from permit spaces;
- D. The behavioral effects of hazard exposure in Authorized Entrants;
- E. Procedures for continuously maintaining an accurate count of Authorized Entrants in the permit space;
- F. Procedures for being relieved Attendant duties;
- G. Communication procedures with Authorized Entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space;
- H. Procedures to monitor activities inside and outside the confined space to determine if it is safe for entrants to remain in the space and to evacuate the Authorized Entrants from the permit space immediately under the following conditions:
 1. The detection of a prohibited condition;
 2. The detection of behavior effects of hazard exposure in an Authorized Entrant; and
 3. The detection of a situation outside the space that could endanger the Authorized Entrants;
- I. Procedures for summoning rescue and other emergency services; and
- J. Procedures for dealing with unauthorized persons that approach or enter a permit space while entry is underway;
- K. The duties required of an Attendant;
- L. The requirements of the Unit-Specific Confined Space SOPs;
- M. Basic first aid;
- N. Cardiopulmonary resuscitation (CPR);
- O. Bloodborne pathogens



- P. Making practice permit space non-entry rescues at least once every 12 months. Practice rescues should include:
1. Training aids that may be used for simulated rescues including dummies, manikins or actual persons from the actual permit spaces or from representative permit spaces.
 2. Representative permit spaces shall, with respect to opening size, configuration and accessibility, simulate the types of permit spaces from which emergency rescue may be performed.

Entry Supervisors shall be trained on:

- A. The hazards that may be faced during entry;
- B. The routes of exposure (e.g., inhalation, dermal, etc.), signs or symptoms, and consequences of the exposure (refer to the Material Safety Data Sheets);
- C. The use of the following equipment:
 1. Testing and monitoring equipment;
 2. Ventilating equipment;
 3. Communications equipment;
 4. Personal protective equipment;
 5. Lighting equipment;
 6. Barriers and shields;
 7. Equipment needed for safe access and egress (e.g., ladders);
 8. Rescue and emergency equipment; and
 9. Any other equipment necessary for safe entry into and rescue from permit spaces;
- D. Entry permit procedures,
- E. The use and limitations of the testing equipment,
- F. The interpretation of the testing results,
- G. The selection of the proper equipment,
- H. Entry permit termination procedures,
- I. Procedures to verify rescue services are available and the means of summoning them are operable;
- J. The duties required of an Entry Supervisor; and
- K. The requirements of the Unit-Specific Confined Space Entry Program.

Rescue Service Employees required to perform entry and/or non-entry rescue shall be trained on:

- A. Proper use of all required rescue equipment;
- B. Proper use of all required personal protective equipment;
- C. Hazards that may be present during entry, including information on the routes of exposure, signs or symptoms and the consequences of the exposure;
- D. Procedures to inform the Entry Supervisor of any hazards confronted or created in a permit space;
- E. Receiving the training required of Authorized Entrants;
- F. Communication procedures (how and when to communicate with the attendant);
- G. Basic first aid;
- H. CPR;
- I. Bloodborne pathogens
- J. Making practice permit space rescues at least once every 12 months. Practice rescues should include:



1. Training aids that may be used for simulated rescues including dummies, manikins or actual persons from the actual permit spaces or from representative permit spaces.
2. Representative permit spaces shall, with respect to opening size, configuration and accessibility, simulate the types of permit spaces from which emergency rescue may be performed.

PROGRAM EVALUATION

This Program will be reviewed annually by OSH. The written Unit-Specific SOPs (Appendix G) shall be reviewed and updated by the respective Campus Unit at least annually and more frequently as hazards, tasks, procedures and/or equipment change.



APPENDIX A – UNIT-SPECIFIC STANDARD OPERATING PROCEDURES



University of Illinois at Urbana-Champaign Confined Space Entry Program

Campus Unit: _____

It is the policy of the above-mentioned unit to comply with the University of Illinois Confined Space Entry Program. The purpose of this document is to complement the University Program with Unit-Specific SOPs.

PROGRAM ADMINISTRATION

OSH and other qualified personnel will assist Campus Units in fulfilling their obligations outlined in the Confined Space Entry Program upon request.

The following individual has responsibility for the administration of entry into confined spaces in the above-mentioned unit. It is the responsibility of this person to identify potential confined spaces and personnel who may enter confined spaces, ensure affected personnel receive proper training, maintain program documentation, and annually review Unit-Specific SOPs.

(Name) (Title)

Equipment Availability and Maintenance

The equipment listed below is available for use by unit personnel. It is located at _____.
Contact _____ at _____
_____ to get access to the equipment.

Description	Manufacturer/Model	Serial #

If you require equipment that is not listed above, contact _____ at _____
_____ to identify a rental company.

All equipment must be inspected daily prior to use in accordance with the manufacturers operator's manual which is located _____. Damaged equipment shall not be used and shall be reported to _____ at _____ immediately.



Recordkeeping

The Unit Responsible Person shall retain records in accordance with the following:

1. Training records to be retained for the length of employment.
2. Practice rescue records for the length of employment.
3. Confined Space Evaluation forms shall be retained until the space is re-evaluated or razed.
4. Non-Permit Entry Re-Classification forms shall be retained until the space is re-evaluated or razed.
5. Entry Permits shall be retained a minimum of year and shall be used for annual evaluation of the Unit-Specific SOPs.
6. Alternate Entry Procedure forms shall be retained a minimum of year and shall be used for annual evaluation of the Unit-Specific SOPs.



APPENDIX B – CONFINED SPACE EVALUATION FORM



University of Illinois at Urbana-Champaign Confined Space Entry Program

Section I	Space Description:		
	Specific Location:		
	Date of Evaluation:		
Section II	Confined Space Identification:	Yes	No
	1. The space is large enough and shaped so an employee can enter and work		
	2. The space has a limited or restricted means of ingress or egress		
	3. The space is NOT designed for continuous employee occupancy		
If ANY answer in Section II is " NO " proceed to Section IV and mark the "Not A Confined Space" box, sign as the evaluator, and give this form to the Unit Responsible Person. If ALL answers in Section II are " YES ", proceed to Section III.			
Section III	Confined Space Evaluation:	Yes	No
	1. Does the space contain or have the potential to contain a hazardous atmosphere? (e.g., oxygen deficiency, flammable vapors or dusts, toxic gases or dusts, volatile chemicals, or other hazardous substance) If yes, specify known or potential hazards:		
	2. Does the space contain a material with the potential for engulfment of a worker? (e.g., grain, sand, or water) If yes, specify known or potential hazards:		
	3. Does the space have an internal shape such that a worker could be trapped or suffocated by inwardly converging walls, floor, or ceiling? If yes, specify known or potential hazards:		
	4. Does the space contain or have the potential to contain any other recognized safety or health hazards? (e.g., mechanical, exposed electrical wires, energized equipment, gas or chemical lines, elevated work, temperature extremes, biological, radioactivity) If yes, specify known or potential hazards:		
Section IV	Confined Space Classification:	✓ Applicable	
	1. If ANY answers in Section II are " NO ", then this is Not A Confined Space .		
	2. If ALL answers in Section III are " NO ", then this is a Non-Permit Required Confined Space .		
	3. If ONLY question 1 in Section III is " YES " and the atmospheric hazard CAN be controlled through use of forced air ventilation, then this is an Alternate Entry Procedures space.		
	4. If question 1 in Section III is " YES " and the atmospheric hazard CAN be controlled through use of forced air ventilation AND if any of questions 2, 3, or 4 are " YES " and CAN be eliminated, then this is an Alternate Entry Procedures space.		
	5. If question 1 in Section III is " YES " but the atmospheric hazard CAN NOT be controlled through use of forced air ventilation or if any of questions 2, 3, or 4 are " YES " but CAN NOT be eliminated, then this is a Permit Required Confined Space .		
Section V	Certification:		
	I certify that I have evaluated this space including all known and potential hazards and have classified it accordingly based on my evaluation.		
	Competent Person:		
	(Signature)	(Print Name)	
	(Phone)	(Date)	



APPENDIX C – NON-PERMIT ENTRY RECLASSIFICATION FORM



University of Illinois at Urbana-Champaign Confined Space Entry Program

Section I	Type of Space:								Date:							
	Specific Location:															
	Purpose of Entry:															
	Known/Potential Hazards:															
Section II	Original Hazard:				Steps Taken to Eliminate Hazard:				Elimination Performed By: (Name)							
Section III	Notes: 1. All hazards must be ELIMINATED. CONTROL of the hazards is not an acceptable reason for reclassification. 2. Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards. If a hazardous atmosphere is the only known or potential hazard and can be controlled through continuous forced air ventilation, see the Alternate Entry Procedures Form. 3. Introduction of a hazard into the space (e.g., paint thinner, hot work, etc.) requires the use of the full permit process.															
	Time Monitoring Recorded:															
	Tests to be Taken		Limit		Test Results											
	% of Oxygen		19.5-23.5 %													
	% of LEL		10%													
	Carbon Monoxide		25 ppm													
	Hydrogen Sulfide		10 ppm													
	Others (List):															
	Monitoring Instrument Name:								Serial #:							
	Date of Calibration:															
	Notes: 1. Monitoring shall be conducted prior to entry. Continuous monitoring shall be conducted during entry. 2. Cal. Date = Date of last documented calibration.															
Section IV	I certify that I have verified the elimination of all known and potential hazards associated with this space.															
	Competent Person:															
	(Signature)								(Print Name)							
	(Phone)								(Date)							



APPENDIX D – ENTRY PERMIT



University of Illinois at Urbana-Champaign Confined Space Entry Program

Section I	Type of Permit-Required Space:				Date:			
	Specific Location:				Start Time:			
	Purpose of Entry:				Scheduled Expiration:			
	Known/Potential Hazards:				Actual Expiration:			
Section II	Special Requirements		Yes	N/A	Special Requirements		Yes	N/A
	Lockout /Tagout				Fire Extinguisher			
	Line Break, Blanked, Double Block & Bleed				Lighting			
	Purge – Flush & Vent				Forced Air Ventilators			
	Hot Work Permit				Barriers			
	First Aid Kit				Personal Protective Equipment			
	Non-Entry Rescue Equipment				Other:			
	Emergency Communication Devices							
	List Required Equipment (be specific):							
	List Required PPE (be specific):							
Air Monitoring Instrument Name:				Serial #:				
Date of Calibration:								
Section IV	Authorized Entrant(s):				Emergency Procedure (Brief Explanation):			
					What will be the means to summon rescue?			
	Safety Attendant(s):							
					Has pre-entry meeting been held? <input type="checkbox"/> Yes <input type="checkbox"/> No			
					Emergency communication operable? <input type="checkbox"/> Yes <input type="checkbox"/> No			
					Emergency: 911		Non-emergency CFD: 403-7200 UFD: 384-2420	
	Note: Use the Permit Space Entry Log Sheet to maintain an accurate account of Authorized Entrants within the space. See Section IV, note 5 on reverse side for additional details.							
Section V	Originator:							
	(Signature)		(Print Name)		(Phone)		(Date)	
	Entry Supervisor:							
	(Signature)		(Print Name)		(Phone)		(Date)	
	Annual Review By:							
(Signature)		(Print Name)		(Phone)		(Date)		



GENERAL

1. Verify that affected personnel are trained and authorized to perform duties assigned.
2. An entry permit must be issued prior to entry for any scheduled work activity into any Permit-Required Confined Space. All people involved in the Confined Space Entry will participate in a safety review of the completed permit. Each individual is responsible for following the requirements of this permit.
3. The permit shall remain at the permit space entrance throughout entry operations.
4. All permits are to be returned to the Entry Supervisor at the end of the shift for which the permit was issued. Expired permits must be returned to the Unit Responsible Person and kept on file for one year.

SECTION I

The permit covers all work to be done by all departments on the job for which it was issued.

1. Type of Permit-Required Space: identify by name (e.g., vault, tank, etc.)
2. Specific Location: designate a specific area of campus (e.g. Area, bldg., floor, room, etc.)
3. Purpose of Entry: specific type of work to be performed (e.g. clean out, weld, burn, repair, etc.)
4. Known/Potential Hazards: examples include engulfment by water, hazardous atmosphere – oxygen deficient and hydrogen sulfide, excessive heat, electrical hazards. If there is potential for a radiation hazard contact the DRS Radiation Safety Section at 333-2755.
5. Permit duration: Permits shall not be open for more than one shift or 12 hours, whichever is shorter.

SECTION II

1. Additional information on PPE, first aid, and fire protection can be found by consulting the appropriate SDS. The attendant shall have immediately available the same PPE as the Entrant.
2. Electrical equipment shall be checked for proper voltage and operations before entry. All portable power equipment must use Ground Fault protection and the Ground Fault Interrupter shall be located outside the Confined Space.

SECTION III

1. Record instrument name, serial #, and last calibration date on the permit.
2. Record test results on the accompanying log sheet.
3. Monitor air prior to initial entry and continuously thereafter. Record initial monitoring results and at a minim of every hour minimum thereafter. Continuous atmospheric monitoring is required during entry.
4. Retesting is required prior to entry after scheduled breaks and non-compliant permit conditions.

SECTION IV

1. An attendant must be appointed to watch the authorized entrant(s) entering the Confined Space. The attendant will have no responsibility except watching the entrant(s). The attendant must have communication equipment to quickly notify rescue personnel of an emergency (e.g. telephone, radio).
2. Entrant shall be attached by a lifeline (with a minimum breaking strength of 3600 lbs.) controlled by the attendant at all times. Entrant(s) must exit without question when instructed by the attendant to do so. Any vertical entry more than 5 feet deep must have a mechanical retrieval system.
3. A rescue plan and equipment must be agreed to prior to initial entry.

SECTION V

1. All permits must be approved by the Entry Supervisor prior to initial entry.
2. Complete signatures and names shall be used.





University of Illinois at Urbana-Champaign Confined Space Entry Program

Date:							
Type of Permit-Required Space:							
Specific Location:							
Job Description:							
Authorized Entrant Name:	Badge/UIN #	Time In	Time Out	Time In	Time Out	Time In	Time Out

Note: Entrants shall document each time they enter and exit the permit space on the Permit Space Entry Log. The Attendant(s) shall maintain the Permit Space Entry Log as a means to meet their responsibility to maintain an accurate account of entrants in the permit space.



APPENDIX E – ALTERNATE ENTRY PROCEDURES FORM



University of Illinois at Urbana-Champaign Confined Space Entry Program

Section I	Type of Space:				Date:				
	Specific Location:								
	Purpose of Entry:								
	Known/Potential Hazards								
Section II	Hazard Evaluation:						Yes	No	
	1. Are there known or potential Atmospheric Hazards?								
	2. Can the Atmospheric Hazards be controlled by forced air ventilation?								
	3. If forced air ventilation were to fail, would the space become Immediately Dangerous to Life of Health (IDLH)?								
	4. Are there other known hazards?								
	5. Can the other known hazards be eliminated without entrance into the space?								
	Note: If the answer to questions 2 OR 5 is " NO ", OR the answer to question 3 is " YES ", then the full Entry Permit process must be used.								
Section III	Original Hazards:		Steps Taken to Eliminate Hazards:			Elimination Performed By: (Name)			
Section IV	Time Tests Are Taken								
	Tests to be Taken	Limit	Test Results						
	% of Oxygen	19.5-23.5 %							
	% of LEL	10 %							
	Carbon Monoxide	25 ppm							
	Hydrogen Sulfide	10 ppm							
	Others (List):								
	Monitoring Instrument Name:				Serial #:				
	Date of Calibration:								
Note: Initial air monitoring tests shall be completed before entry. Continuous air monitoring is required, with results being recorded at least hourly. For questions pertaining to test requirements, contact your supervisor.									
Section V	I certify that I have verified that all atmospheric hazards are being controlled by continuous forced air ventilation and all other known and potential hazards associated with this space have been eliminated.								
	Entry Supervisor:								
	(Signature)				(Print Name)				
	(Phone)				(Date)				



APPENDIX F – PROCEDURES FOR ATMOSPHERIC TESTING



Atmospheric testing is required to evaluate the hazards of a confined space and verify that acceptable entry conditions for entry into that space exist.

Evaluation Testing

Evaluation testing shall be conducted as part of the work planning process for entry into a confined space. The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres that may exist or arise, so that appropriate permit entry procedures can be developed and acceptable entry conditions stipulated for that space.

Evaluation and interpretation of the evaluation data and development of the entry procedure shall be conducted by a Confined Space Competent Person based on evaluation of all serious hazards.

Verification Testing

Verification testing shall be conducted prior to entry and continuously throughout the entry. The atmosphere of a permit space which may contain a hazardous atmosphere shall be tested for residues of all contaminants identified by evaluation testing using permit specified equipment to determine that residual concentrations at the time of testing and entry are within the range of acceptable entry conditions. Results of testing (i.e., actual concentration, etc.) shall be recorded on the permit in the space provided at least every hour during entry operations and before re-entry following scheduled breaks and evacuation of a space due to conditions that are not compliant acceptable entry conditions.

Duration of Testing

Measurement of values for each atmospheric parameter shall be made for at least the minimum response time of the test instrument specified by the manufacturer.

Testing Stratified Atmospheres

When monitoring for entries involving a descent into atmospheres that may be stratified (in layers of gases), the atmosphere should be tested in increments of approximately 4 feet (1.22 m) in the direction of travel and to each side. If a sampling probe is used, the entrant's rate of progress should be slowed to accommodate the sampling speed and detector response.

Order of Testing

Testing shall be done in the following order:

- Oxygen testing is performed first because most combustible gas meters are oxygen dependent and will not provide reliable readings in an oxygen deficient atmosphere;
- Combustible gases are tested next because the threat of fire or explosion is both more immediate and more life threatening, in most cases, than exposure to toxic gases and vapors; and
- Tests for toxic gases and vapors are performed last.



APPENDIX G – CONSIDERATIONS FOR SEWER ENTRY



Sewer entry differs in three vital respects from other permit entries; first, there rarely exists any way to completely isolate the space (a section of a continuous system) to be entered; second, because isolation is not complete, the atmosphere may suddenly and unpredictably become lethally hazardous (toxic, flammable or explosive) from causes beyond the control of the entrant or employer, and third, experienced sewer workers are especially knowledgeable in entry and work in their permit spaces because of their frequent entries. Unlike other employments where permit space entry is a rare and exceptional event, sewer workers' usual work environment is a permit space.

(1) Adherence to procedure. The employer should designate as entrants only employees who are thoroughly trained in the employer's sewer entry procedures and who demonstrate that they follow these entry procedures exactly as prescribed when performing sewer entries.

(2) Atmospheric monitoring. Entrants should be trained in the use of, and be equipped with, atmospheric monitoring equipment which sounds an audible alarm, in addition to its visual readout, whenever one of the following conditions are encountered: Oxygen concentration less than 19.5 percent; flammable gas or vapor at 10 percent or more of the lower flammable limit (LFL); or hydrogen sulfide or carbon monoxide at or above 10 ppm or 35 ppm, respectively, measured as an 8-hour time-weighted average. Atmospheric monitoring equipment needs to be calibrated according to the manufacturer's instructions. The oxygen sensor/broad range sensor is best suited for initial use in situations where the actual or potential contaminants have not been identified, because broad range sensors, unlike substance-specific sensors, enable employers to obtain an overall reading of the hydrocarbons (flammables) present in the space. However, such sensors only indicate that a hazardous threshold of a class of chemicals has been exceeded. They do not measure the levels of contamination of specific substances. Therefore, substance-specific devices, which measure the actual levels of specific substances, are best suited for use where actual and potential contaminants have been identified. The measurements obtained with substance-specific devices are of vital importance to the employer when decisions are made concerning the measures necessary to protect entrants (such as ventilation or personal protective equipment) and the setting and attainment of appropriate entry conditions. However, the sewer environment may suddenly and unpredictably change, and the substance-specific devices may not detect the potentially lethal atmospheric hazards which may enter the sewer environment.

Although OSHA considers the information and guidance provided above to be appropriate and useful in most sewer entry situations, the Agency emphasizes that each employer must consider the unique circumstances, including the predictability of the atmosphere, of the sewer permit spaces in the employer's workplace in preparing for entry. Only the employer can decide, based upon his or her knowledge of, and experience with permit spaces in sewer systems, what the best type of testing instrument may be for any specific entry operation.

The selected testing instrument should be carried and used by the entrant in sewer line work to monitor the atmosphere in the entrant's environment, and in advance of the entrant's direction of movement, to warn the entrant of any deterioration in atmospheric conditions. Where several entrants are working together in the same immediate location, one instrument, used by the lead entrant, is acceptable.

(3) Surge flow and flooding. Sewer crews should develop and maintain liaison, to the extent possible, with the local weather bureau and fire and emergency services in their area so that sewer work may be delayed or interrupted and entrants withdrawn whenever sewer lines might be suddenly flooded by rain



or fire suppression activities, or whenever flammable or other hazardous materials are released into sewers during emergencies by industrial or transportation accidents.

(4) Special Equipment. Entry into large bore sewers may require the use of special equipment. Such equipment might include such items as atmosphere monitoring devices with automatic audible alarms, escape self-contained breathing apparatus (ESCBA) with at least 10 minute air supply (or other NIOSH approved self-rescuer), and waterproof flashlights, and may also include boats and rafts, radios and rope stand-offs for pulling around bends and corners as needed.



APPENDIX H – DEFINITIONS



Acceptable entry conditions means the conditions that must exist in a permit space, before an employee may enter that space, to ensure that employees can safely enter into, and safely work within, the space.

Affected person means a person who works in or around a confined space (non-permit, permit-required, or alternate entry).

Attendant means an individual stationed outside one or more permit spaces who assesses the status of authorized entrants and who must perform the duties specified in this Program.

Authorized entrant means an employee who is authorized by the entry supervisor to enter a permit space.

Barrier means a physical obstruction that blocks or limits access.

Blanking or blinding means the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.

Confined space means a space that:

1. Is large enough and so configured that an employee can bodily enter it;
2. Has limited or restricted means for entry and exit; and
3. Is not designed for continuous employee occupancy.

Control means the action taken to reduce the level of any hazard inside a confined space using engineering methods (for example, by ventilation), and then using these methods to maintain the reduced hazard level. Control also refers to the engineering methods used for this purpose. Personal protective equipment is not a control.

Controlling Contractor is the employer that has overall responsibility for construction at the worksite.

Note to the definition of "Controlling Contractor". If the controlling contractor owns or manages the property, then it is both a controlling employer and a host employer.

Double block and bleed means the closure of a line, duct, or pipe by closing and locking or tagging two inline valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Early-warning system means the method used to alert authorized entrants and attendants that an engulfment hazard may be developing. Examples of early-warning systems include, but are not limited to: Alarms activated by remote sensors; and lookouts with equipment for immediately communicating with the authorized entrants and attendants.



Emergency means any occurrence (including any failure of power, hazard control or monitoring equipment) or event, internal or external, to the permit space that could endanger entrants.

Engulfment means the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, crushing, or suffocation.

Entry means the action by which any part of a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space, whether or not such action is intentional or any work activities are actually performed in the space.

Entry Employer means any employer who decides that an employee it directs will enter a permit space.

Note to the definition of "Entry Employer". An employer cannot avoid the duties of the standard merely by refusing to decide whether its employees will enter a permit space, and OSHA will consider the failure to so decide to be an implicit decision to allow employees to enter those spaces if they are working in the proximity of the space.

Entry permit (permit) means the written or printed document that is provided by the employer who designated the space a permit space to allow and control entry into a permit space and that contains the information specified in § 1926.1206.

Entry rescue occurs when a rescue service enters a permit space to rescue one or more employees.

Entry supervisor means the qualified person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this standard.

Note to the definition of "Entry supervisor". An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this standard for each role he or she fills. Also, the duties of entry supervisor may be passed from one individual to another during the course of an entry operation.

Hazard means a physical hazard or hazardous atmosphere. See definitions below.

Hazardous atmosphere means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

1. Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
2. Airborne combustible dust at a concentration that meets or exceeds its LFL;

Note to paragraph (2) of the definition of "Hazardous atmosphere". This concentration may be approximated as a condition in which the combustible dust obscures vision at a distance of 5 feet (1.52 meters) or less.

3. Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;



4. Atmospheric concentration of any substance for which an OSHA-published dose or a permissible exposure limit may be exceeded.

Note to paragraph (4) of the definition of "Hazardous atmosphere". An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this definition.

5. Any other atmospheric condition that is immediately dangerous to life or health.

Note to paragraph (5) of the definition of "Hazardous atmosphere". For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Safety Data Sheets that comply with the Hazard Communication Standard, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

Host employer means the employer that owns or manages the property where the construction work is taking place.

Note to the definition of "Host employer". If the owner of the property on which the construction activity occurs has contracted with an entity for the general management of that property, and has transferred to that entity all OSHA-required information, OSHA will treat the contracted management entity as the host employer for as long as that entity manages the property. Otherwise, OSHA will treat the owner of the property as the host employer. In no case will there be more than one host employer.

Hot work means operations capable of providing a source of ignition (for example, riveting, welding, cutting, burning, and heating).

Immediately dangerous to life or health (IDLH) means any condition that would interfere with an individual's ability to escape unaided from a permit space and that poses a threat to life or that would cause irreversible adverse health effects.

Note to the definition of "Immediately dangerous to life or health". Some materials-hydrogen fluoride gas and cadmium vapor, for example-may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim "feels normal" after recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be "immediately dangerous to life or health."

Inerting means displacing the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

Note to the definition of "Inerting". This procedure produces an IDLH oxygen deficient atmosphere.

Isolate or isolation means the process by which employees in a confined space are completely protected against the release of energy and material into the space, and contact with a physical hazard, by such means as: Blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; blocking or



disconnecting all mechanical linkages; or placement of barriers to eliminate the potential for employee contact with a physical hazard.

Limited or restricted means for entry or exit means a condition that has a potential to impede an employee's movement into or out of a confined space. Such conditions include, but are not limited to, trip hazards, poor illumination, slippery floors, inclining surfaces, and ladders.

Line breaking means the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

Lockout means the placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lower flammable limit or lower explosive limit means the minimum concentration of a substance in air needed for an ignition source to cause a flame or explosion.

Monitor or monitoring means the process used to identify and evaluate the hazards after an authorized entrant enters the space. This is a process of checking for changes that is performed in a periodic or continuous manner after the completion of the initial testing or evaluation of that space.

Non-entry rescue occurs when a rescue service, usually the attendant, retrieves employees in a permit space without entering the permit space.

Non-permit confined space means a confined space that meets the definition of a confined space but does not meet the requirements for a permit-required confined space, as defined in this subpart.

Oxygen deficient atmosphere means an atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen enriched atmosphere means an atmosphere containing more than 23.5 percent oxygen by volume.

Permit-required confined space (permit space) means a confined space that has one or more of the following characteristics:

1. Contains or has a potential to contain a hazardous atmosphere;
2. Contains a material that has the potential for engulfing an entrant;
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross section; or
4. Contains any other recognized serious safety or health hazard.

Permit-required confined space program (permit space program) means the employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.



Physical hazard means an existing or potential hazard that can cause death or serious physical damage. Examples include, but are not limited to: Explosives (as defined by paragraph (n) of § 1926.914, definition of "explosive"); mechanical, electrical, hydraulic and pneumatic energy; radiation; temperature extremes; engulfment; noise; and inwardly converging surfaces. Physical hazard also includes chemicals that can cause death or serious physical damage through skin or eye contact (rather than through inhalation).

Prohibited condition means any condition in a permit space that is not allowed by the permit during the period when entry is authorized. A hazardous atmosphere is a prohibited condition unless the employer can demonstrate that personal protective equipment (PPE) will provide effective protection for each employee in the permit space and provides the appropriate PPE to each employee.

Qualified person means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

Representative permit space means a mock-up of a confined space that has entrance openings that are similar to, and is of similar size, configuration, and accessibility to, the permit space that authorized entrants enter.

Rescue means retrieving, and providing medical assistance to, one or more employees who are in a permit space.

Rescue service means the personnel designated to rescue employees from permit spaces.

Retrieval system means the equipment (including a retrieval line, chest or full body harness, wristlets, or anklets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

Serious physical damage means an impairment or illness in which a body part is made functionally useless or is substantially reduced in efficiency. Such impairment or illness may be permanent or temporary and includes, but is not limited to, loss of consciousness, disorientation, or other immediate and substantial reduction in mental efficiency. Injuries involving such impairment would usually require treatment by a physician or other licensed health-care professional.

Tagout means:

1. Placement of a tagout device on a circuit or equipment that has been deenergized, in accordance with an established procedure, to indicate that the circuit or equipment being controlled may not be operated until the tagout device is removed; and
2. The employer ensures that:
 - i. Tagout provides equivalent protection to lockout; or
 - ii. That lockout is infeasible and the employer has relieved, disconnected, restrained and otherwise rendered safe stored (residual) energy.



Test or testing means the process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.

Note to the definition of "Test or testing". Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to, and during, entry.

Ventilate or ventilation means controlling a hazardous atmosphere using continuous forced-air mechanical systems that meet all OSHA requirements.



APPENDIX I – PROGRAM AUDIT CHECKLIST



University of Illinois at Urbana-Champaign Confined Space Entry Program

	Yes	No
1. Has a written confined space entry program that includes work-site specific procedures on the use of respirators been established?	<input type="checkbox"/>	<input type="checkbox"/>
2. Has a program administrator, with appropriate training and experience, been designated and identified in the written program?	<input type="checkbox"/>	<input type="checkbox"/>
3. Does the written program include current lists of:	<input type="checkbox"/>	<input type="checkbox"/>
a. Available equipment	<input type="checkbox"/>	<input type="checkbox"/>
b. List of identified confined spaces and associated classification	<input type="checkbox"/>	<input type="checkbox"/>
c. Trained Entrants	<input type="checkbox"/>	<input type="checkbox"/>
d. Trained Attendants	<input type="checkbox"/>	<input type="checkbox"/>
e. Trained Supervisors	<input type="checkbox"/>	<input type="checkbox"/>
f. Trained Competent Persons	<input type="checkbox"/>	<input type="checkbox"/>
4. Have identified permit-required confined spaces been properly signed and measures taken to prevent unauthorized entry?	<input type="checkbox"/>	<input type="checkbox"/>
5. Are all recordkeeping requirements met?	<input type="checkbox"/>	<input type="checkbox"/>
a. Training	<input type="checkbox"/>	<input type="checkbox"/>
b. Annual practice rescues	<input type="checkbox"/>	<input type="checkbox"/>
c. Evaluation forms	<input type="checkbox"/>	<input type="checkbox"/>
d. Non-Permit Entry Re-classification forms	<input type="checkbox"/>	<input type="checkbox"/>
e. Entry Permits (maintained for one year)	<input type="checkbox"/>	<input type="checkbox"/>
f. Alternate Entry Procedures (maintained for one year)	<input type="checkbox"/>	<input type="checkbox"/>



DOCUMENT REVISIONS

Revision Dates

March 27, 2018	Revised for compliance with Subpart AA of the Construction Industry regulation
November 18, 2019	Removed noise from Question 4, Section III of Confined Space Evaluation Form Corrected spelling and grammar errors
June 24, 2021	Minor formatting and grammar corrections