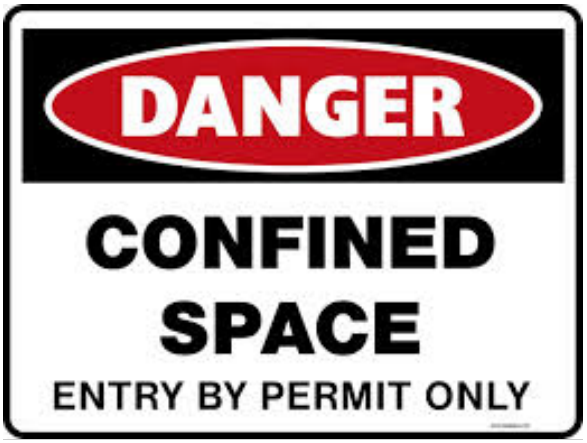
UNIVERSITY OF TEXAS ARLINGTON | ENVIRONMENTAL HEALTH & SAFETY

Confined Space Entry



THE UNIVERSITY OF TEXAS AT ARLINGTON

Confined Space Entry Manual

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I. Introduction

Each year, hundreds of people are injured or die as a result of entering confined spaces that contain unknown hazards. Most of these deaths are preventable if entrants are trained to recognize hazards in a confined space, and if employers have a written plan in place for entry into confined spaces. To prevent unnecessary injuries or the loss of life, OSHA enacted the Permit-Required Confined Spaces Standard (29 CFR 1910.146), effective April 15, 1993. The standard requires that all confined spaces be identified and that a written program be generated to outline procedures required for entry into those spaces.

A. Administrative Responsibilities

Environmental Health & Safety

The specific responsibility for developing and implementing The University of Texas at Arlington (UT Arlington) programs for health and safety resides with the Environmental Health and Safety (EH&S) Office. In fulfillment of this responsibility, EH&S has prepared the UT Arlington Confined Space Entry Program and assists individual departments in the development and implementation of confined space procedures for their areas.

Departments

Each University department is responsible for evaluating areas under its administrative control and determining whether confined spaces are present. Departments that identify confined spaces in their areas are responsible for the adoption and implementation of the components of the Confined Space Entry Program. In addition, departments must submit to EH&S a list of names and locations of confined spaces in their areas and develop department specific Standard Operating Procedures (SOPs) for confined space entries.

Managers and Supervisors

Managers and supervisors play a key role in the implementation of the Confined Space Entry Program. They are responsible for: determining whether personnel need to enter confined spaces; identifying personnel who will be required to participate in confined space entries as part of their duties; ensuring that all personnel required to participate in confined space entries are properly trained prior to assignment; ensuring that proper safety equipment required for entry is made available to personnel; and, ensuring that all provisions of the program are followed.

Personnel

Personnel are responsible for observing all practices and procedures contained in the Confined Space Entry Program, other general safety practices, attending designated training sessions, and reporting hazardous or unsafe conditions to their supervisor, the entry supervisor or EH&S. Employees designated as Authorized Entrants, Entry Supervisors, and/or Attendants are responsible for additional duties as outlined in Section VI, "Duties of Designated Employees."

Program Review

Each department must review its Confined Space Entry Program annually, using canceled permits from the previous year to determine if revisions are necessary to ensure employee safety. If revisions are needed, the changes must be implemented and employees trained on the new revisions.

B. Standard Operating Procedures

Standard operating procedures (SOPs) describe the method(s) that will be used to complete a task or operation. Departments with confined spaces must develop SOPs and incorporate them into this manual to complete their Confined Space Entry Program. Departments must develop procedures specific to their areas for the items listed below:

- Training of designated employees
- Preparation, issuance, use, and cancellation of Entry Permits
- Conclusion of confined space entries (closing the space, debriefing)
- Communication between the Attendant and the Authorized Entrants and with rescue and emergency personnel
- Prevention of unauthorized entry into permit-required confined spaces
- Coordination of confined space entries with contractors

C. Recordkeeping

Each department or entity using this confined spaces manual must maintain confined space records as outlined below:

- A listing of confined spaces identified by name, location, description, real or potential hazards, and classification (permit or non-permit required confined space) using the Confined Space Inventory form.
- All atmospheric testing results.

- List of employees designated to participate in confined space entries. Refer to Section G, "Training" for details.
- Monitoring equipment calibration records.
- Canceled permits for the year.

II. Identification and Evaluation

Each university department must survey their workplace to determine if confined spaces, as defined by OSHA, are present in areas under their administrative control. The confined spaces must be identified by name, location, and description, and then evaluated by a trained person to determine if the spaces are non-permit or permit-required. The Confined Space Inventory form (see Appendix), or equivalent, should be used to document this identification and evaluation process. **A list of all identified confined spaces and their hazards must be sent to EH&S.**

Upon request, EH&S will assist departments in their determination of confined space categorization (permit versus non-permit required) and identification of actual and/or potential hazards present in the spaces.

If entry is required to categorize a confined space, the entry must be conducted following all requirements of the permit system.

A. Definition of Confined Spaces

Confined Space

Means a space which:

- Is large enough and configured for a person to bodily enter and perform work.
- Has limited or restricted means for entry and exit.
- Is not designed for continuous worker occupancy.

Examples of confined spaces include:

Well pits	Boilers	Coal bunkers
Tanks	Tunnels	Vessels
Sanitary sewers	Storage hoppers	Vaults

Permit-Required Confined Space

A permit-required confined space has one or more of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere;
- Contains a material with the potential for engulfment of the 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 hazard, including areas or processes that must be locked out or tagged out per the UT Arlington Lockout/Tagout Program.

Non-Permit Confined Space

A confined space NOT containing ANY of the characteristics listed under permit-required confined spaces may be considered a non-permit confined space.

B. Notification

Personnel must be made aware of the existence and location of permit-required confined spaces. This may be accomplished by:

- The posting of danger signs reading, "DANGER - PERMIT REQUIRED CONFINED SPACE - DO NOT ENTER" or other suitable language.
- Employee training on the existence and location of permit-required spaces.
- Posting or making lists of confined spaces.
- Any other methods deemed effective by EH&S.

III. Non-Permit Required Confined Spaces

A. General Requirements

All confined spaces will be considered permit-required until pre-entry procedures demonstrate that hazards in the space do not exist or have been eliminated. If hazards do not exist or are eliminated, the space may be reclassified as a non-permit required confined space and entry can proceed without the use of an Entry Permit or an Attendant. Confined Spaces Entrant training is required for entering into non-permit spaces.

B. Non-Permit Entry Procedures

All personnel needing to enter a non-permit confined space must:

- Inform their immediate supervisor of the confined space location and plans for entry.

- Guard or barricade the entry opening to protect the safety of personnel, pedestrians, and motorists.
- Test for a hazardous atmosphere prior to entry with a calibrated, direct-reading instrument.
- Record monitoring results on a Verification and Monitoring Record (see Appendix and page 2 of Confined Space Entry Plan).
- If a hazardous atmosphere is detected, the space must not be entered and the immediate supervisor should be informed as soon as possible.
- Use continuous or periodic monitoring to alert the entrant of the unexpected development of hazardous atmospheres.
- Evaluate the space for engulfment, entrapment or any other serious safety or health hazards. If any of these hazards are found, this space must not be entered and a supervisor should be informed as soon as possible.
- Wear all required personal protective equipment (PPE) for the assigned task.
- Be aware of the effects of hazardous contaminants and evacuate if any are detected.
- Have a means to summon assistance (i.e., cell phones, two-way radio, etc.)

IV. Permit-Required Confined Spaces

The entry into confined spaces with hazardous atmospheres, engulfment, entrapment or other serious hazards must be performed under permit-required confined space entry procedures. Entry must be performed under a permit issued by a designated Entry Supervisor. A minimum of one Attendant must be stationed outside the permit space for the duration of the entry. Before entry, a number of pre-entry procedures must be followed, including, but not limited to, isolation of the permit space, removal or control of atmospheric hazards, barricading space entrances, and verifying that acceptable conditions are maintained throughout the entry.

Space-specific entry procedures should be reviewed in a pre-planning meeting.
Permit space entry procedures should be conducted as outlined in departmental SOPs and the entry permit and must include a debriefing of personnel involved in the entry once the task has been concluded.

A. Pre-Planning

A pre-planning meeting must be conducted to ensure that all parties are knowledgeable of the work to be done, pre-entry procedures, duties of each team member, hazards that may be encountered, equipment necessary and emergency plans. Pre-planning must take place between all parties involved in permit-

required confined space entries. This meeting serves the purpose of reviewing entry procedures as well as covering specific hazards inherent to the spaces being entered. Work procedures that involve any chemicals or work techniques, which could create additional hazards within the space, should also be covered.

Pre-planning must cover all required engineering controls needed to address the hazards of the space, including ventilation, space isolation, lockout/tagout of equipment or processes, and PPE. Finally, emergency response and rescue procedures should be reviewed.

B. Entry Permit

The Entry Permit is the item that documents program compliance and authorizes entry to a permit-required confined space. The designated Entry Supervisor is responsible for issuing the permit before beginning the entry process. Permits remain in effect for the duration of the required task, or one day. Entry Permits must be posted at the work site for the duration of entry to allow for the documentation of atmospheric testing results and verification of acceptable conditions. Problems encountered during entry should be noted on the permit so that revisions to the entry procedures can be made.

The Entry Supervisor must cancel the permit when (a) pre-entry operations have not been met, or if conditions arise that prevent entry; (b) conditions outlined in the permit change; (c) conditions not allowed under the Entry Permit occur in or near the permit space; or (d) the work has been completed. Cancelled permits are required to be retained for a minimum of one year for program review purposes.

Each department must establish procedures for the preparation, issuance, use, and cancellation of Entry Permits. Departments should use the Confined Spaces Entry Permit Form (found in the Appendix).

C. Permit-Required Entry Procedures

All personnel who need to enter a permit-required confined space must:

- Obtain or prepare an Entry Permit.
- Gather necessary tools and equipment to complete the required task.
- Conduct pre-planning meeting.
- Guard or barricade the entry opening.
- Isolate the permit space.
- Test the atmospheric conditions in the space at multiple levels and note results on the Verification and Monitoring Record on page 2 of the Confined Spaces Entry Plan.

- Ventilate if indicated by monitoring. Ensure that a minimum of seven air changes are achieved, then re-test atmospheric conditions. **STOP** the entry and notify your supervisor if ventilation cannot bring hazardous atmospheres within acceptable conditions.
- Evaluate the space for engulfment, entrapment or any other serious safety or health hazards. If any of these hazards are found, attempt to control them using lockout/tagout or other suitable control measures. **STOP** the entry and notify your supervisor if the hazards cannot be controlled by these methods.
- Document that acceptable conditions have been achieved on the Verification and Monitoring Record on page 2 of the Confined Spaces Entry Permit form.
- Begin the permit entry and perform necessary work.
- Maintain contact between entrants and Attendant at all times during the entry to ensure safety.
- Use continuous atmospheric testing and/or continuous ventilation with periodic atmospheric testing to guard against the development of hazardous atmospheres.
- Evacuate the space and take corrective measures if any prohibited condition develops during entry (i.e., monitor alarm, hazards in or out of the space develop, symptoms of exposure experienced by entrant or observed by Attendant, etc.). **STOP** the entry and notify your supervisor if acceptable conditions cannot be re-established.
- Conclude work in the space by removing tools and restoring function to all systems in the space.
- Evacuate the space, close all entrances, and remove barricade equipment.
- Conduct a post entry debriefing with all personnel involved in the entry.
- Return Entry Permit to the Entry Supervisor for cancellation and retain documents for a minimum of one year.

V. Contractors

Contractors working at UT Arlington in or near permit-required confined spaces must be informed of and follow the contractor-specific items listed below:

- Contractors must be made aware of the UT Arlington Confined Space Entry Program and its requirements; known hazards or potential hazards present in the space; recommended safety precautions needed for the space; coordination needed for entry operations; and times when UT Arlington personnel will enter or work near the confined space.
- Contractors should be debriefed upon exit.
- Contractors entering confined spaces must inform UT Arlington of the confined space procedures used during entry and hazards encountered or created in the confined space.

VI. Duties of Designated Employees

The training and assigning of Entry Supervisors, Authorized Entrants, and Attendants (and the subsequent responsibilities of each role) must be included in the department's SOPs for confined space entry.

A. Entry Supervisor

Entry Supervisors are primarily responsible for ordering entries into permit-required spaces and ensuring that all proper procedures contained in this manual are followed. Entry Supervisors are specifically responsible for:

- Knowing the hazards that may be faced during entry, including signs, symptoms, and consequences of exposure.
- Conducting pre-planning meetings with designated personnel involved in permit-required confined space entries.
- Filling out the Entry Permit Form.
- Verifying that all Entry Permit requirements have been properly addressed before entry.
- Authorizing entry by signing the Entry Permit.
- Verifying that rescue services are available and can be summoned if necessary.
- Removing unauthorized individuals from the entry area.
- Canceling the permit if unacceptable conditions arise during entry or assigned work has been completed.
- Ensuring that the terms of the Entry Permit are followed and that acceptable entry conditions are maintained.

B. Authorized Entrant

Authorized Entrants are those actually entering the permit-required spaces and performing necessary duties. Authorized Entrants are responsible for:

- Knowing the hazards that may be encountered during entry, including information on the signs, symptoms, or consequences of exposure.
- Knowing the proper use of equipment required for entry, including monitoring, ventilation, PPE, lighting equipment, barriers/shields, safety equipment for entry and egress, and rescue and emergency equipment.
- Communicating with the Attendant.
- Alerting Attendant if warning signs or symptoms of exposure are detected, or if a prohibited condition occurs.

- Exiting the space if the Attendant orders evacuation, if warning signs or symptoms of exposure are detected, if a prohibited condition occurs, or if an evacuation alarm is activated.

C. Attendant

Attendants are individuals who are stationed outside permit-required confined spaces to monitor Authorized Entrants, as well as perform required duties. Specifically, Attendants are responsible for:

- Knowing the hazards that may be present during entry, including information on the signs, symptoms, or consequences of exposure.
- Knowing the behavioral effects of hazard exposure, such as those from heat or chemical exposure. Some examples include slurred speech and/or physical impairment.
- Maintaining an accurate count of Entrants and ensuring permit correctly identifies exactly who is in the space.
- Remaining outside the permit space during entry until relieved by another Attendant.
- Communicating with Entrants to monitor status and alert them of the need to evacuate the space.
- Monitoring activities inside and outside the space to identify potential hazards to the Entrants and call for evacuation if conditions are unsafe. (i.e., prohibited condition is detected, behavioral effects of hazard exposures to Authorized Entrants are detected, conditions outside the confined space change such that Authorized Entrants are endangered, or the Attendant cannot perform all duties required).
- Monitoring multiple confined space entries and performing other duties as long as the spaces are in close proximity and other duties performed are in the immediate vicinity of the spaces (Authorized Entrant safety must be the first priority).
- Summoning rescue or other emergency services as soon as it is determined that the Entrants may need assistance to escape.
- Removing or preventing unauthorized personnel from entering the permitted space.
- Performing non-entry rescues.

The Attendant must not enter the confined space. Even if the Attendant is trained in rescue, they must not assist until another Attendant can provide relief.

VII. Training

UT Arlington provides training so that all personnel whose work involves confined space entries become proficient in the requirements of this program. All personnel must gain the understanding, knowledge, and skills necessary for the safe performance of their assigned duties. Confined Space Entrant training is required for all personnel prior to participating in any confined space entries. Training will be provided by EH&S in a language that is understood.

Retraining will be provided:

- Prior to a change in assigned duties;
- Whenever there has been a change in permit space operations that presents a hazard not covered in previous training;
- Whenever there are deviations from the permit space entry procedures required by the Entry Permit.
- When there are inadequacies in personnel knowledge or use of required procedures.

VIII. Required Equipment

Many different safety equipment items are required to assist with safe entries into and rescues from permit-required confined spaces. These items will be supplied at no charge to employees engaged in permit space entries. The extent of actual equipment required will depend on the hazards present and the category of the confined space being entered. Training should include hands-on usage of all required equipment to such an extent that personnel become proficient in their understanding and use of the equipment.

Possible equipment includes:

- ventilation fan(s)
- life lines
- retrieval equipment
- PPE
- monitoring equipment
- lighting equipment
- communication equipment
- Lockout/Tagout devices
- barricade equipment
- other safety equipment required to complete the job
- Retrieval systems or methods must meet the following requirements:
    - Authorized Entrants entering permit-required confined spaces must wear a safety harness attached to retrieval equipment located outside the permit space by way of a retrieval line. Wristlets may only be used in lieu of chest or full body harnesses

if it can be demonstrated that harness usage creates a greater hazard and that wristlets are the safest and most effective alternative.

- Retrieval lines 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 it becomes necessary.
- A retrieval hoist must be available to retrieve personnel working in vertical-type confined spaces deeper than 5 feet.

When respirators or lockout/tagout procedures are required to enter a confined space, training must be provided to all affected personnel within the requirements of each specific regulation.

IX. Atmospheric Testing

Atmospheric testing is required for the evaluation of hazards during initial classification and upon each subsequent entry into a confined space. At a minimum, the space must be tested for oxygen, combustible gases and vapors, and toxic gases and vapors. These items can be tested individually (oxygen first, combustibles, then toxics) or they can be tested simultaneously. All testing must be recorded either on the Confined Spaces Inventory or on the Verification and Monitoring Record on the back of the Confined Spaces Entry Permit form.

Testing for atmospheric hazards must be conducted prior to entry into all confined spaces to determine if acceptable entry conditions exist. The atmosphere must be tested at various levels in the confined space. Atmospheric hazards may be found at different levels, depending on the contaminants present and the conditions of the space. During entry into the space, monitoring must be conducted either continuously or periodically (at least every 15 minutes) to ensure that acceptable entry conditions are maintained. Continuous atmospheric testing must be administered when the risk of the development of hazardous atmospheres is high. If the monitoring instrument goes into alarm or fails to operate at any time during entry, the entry must be stopped and Entrants removed from the space.

Monitoring equipment must be maintained according to the manufacturers' specifications to ensure proper operation during confined space testing and entry. To ensure equipment operation is within acceptable ranges instrument calibration to known gas concentrations must be conducted prior to instrument use in a confined space entry.

MINIMUM CONDITIONS FOR ENTRY

Oxygen	Between19.5%-23.5%	**Flammable dusts**	Visibility > 5 ft.

Flammable gasses	< 10% of LEL	**Engulfment hazards**	None present
Hydrogen sulfide (H2S)	< 10 ppm	**Hazardous flows**	Secured and locked/tagged out
Carbon monoxide (CO)	< 35 ppm	**Hazardous energies**	Secured and locked/tagged out
Other toxic substances	< PEL for substance	**External hazards**	Controlled

If minimum conditions are not met, entry is prohibited. If occupied, the space should be immediately evacuated.

V. Emergency Response and Rescue

UT Arlington will rely on rescue personnel from the City of Arlington Fire Department in the event of an emergency during a confined space entry. These emergency services are accessible by contacting UT Arlington Police Department (UTAPD) Dispatch at 2-3003 from any campus telephone. If calling from a cell phone dial 817-272-3003 to reach UTAPD dispatcher.

To facilitate non-entry rescue, rescue retrieval systems (harnesses, ropes, etc.) must be used by Authorized Entrants, unless the use of those systems would result in an increase of overall risk of entry, or would not contribute to the rescue of Authorized Entrants. External retrieval should only be attempted after emergency rescue personnel have been summoned.

A. Emergency Numbers

Department or Agency	Phone Number
UT Arlington Environmental Health & Safety Office	817-272-2185
UT Arlington Police Department, Emergency	817-272-3003
UT Arlington Police Department, Non-Emergency	817-272-3381
UT Arlington Student Health Center	817-272-2771
City of Arlington Fire Department	817-459-5500
Arlington Memorial Hospital	817-548-6100

APPENDIX

Definitions

ACCEPTABLE ENTRY CONDITIONS
The conditions necessary to allow safe entry into a confined space. Minimum conditions for entry are contained on the entry permit.

ASPHYXIATION
Suffocation (lack of oxygen,) caused by a class of dangerous gases which replace oxygen and result in unconsciousness or death.

ATTENDANT
An individual, stationed outside of a permit space, who monitors the Authorized Entrants, and who performs all duties assigned to the Attendant by the employer's permit program.

AUTHORIZED ENTRANT
Trained employee authorized by the employer to enter a confined space and perform work.

CARBON MONOXIDE
A colorless, odorless,, and tasteless gas that is an asphyxiate. Carbon monoxide is formed as a product of combustion.

CONFINED SPACE
A space:

- which is large enough and so configured for an employee to bodily enter and perform work
- has limited or restricted means for entry and exit
- is not designed for continuous worker occupancy

ENGULFMENT
The surrounding or capture of a worker by a liquid or finely divided solid that can be inhaled to plug the respiratory system or cause death by strangulation, constriction, or crushing.

ENTRAPMENT
The trapping of a worker by inwardly converging walls, or by a floor that slopes downward and tapers into a smaller cross section.

ENTRY

The action by which a person passes through an opening into confined space. Entry is considered to have occurred as soon as any part of the body crosses the plane of the opening.

ENTRY PERMIT
An authorization and approval in writing that specifies the location of a confined space and the type of work to be performed. It also certifies that all existing hazards have been evaluated by a qualified person and the necessary protective measures have been taken.

ENTRY SUPERVISOR
The person assigned to supervise permit space entries. The supervisor is responsible for determining if acceptable conditions exist in a permit space prior to entry, for authorizing entry with a permit, overseeing operations, and terminating the entry at the completion of work.

FLAMMABLE ATMOSPHERE
An atmosphere that poses a hazard because flammable or explosive gases, vapors or dusts are present at a concentration greater than ten percent of their lower flammable limit.

HAZARDOUS ATMOSPHERE
An atmosphere that exposes personnel to the risks of death, incapacitation, injury, or acute illness from one or more of the following causes:

- flammable atmosphere
- airborne combustible dust
- an atmosphere containing oxygen levels below 19.5% or above 23.5%
- an atmosphere where the permissible exposure limit for a certain chemical has been exceeded and could result in exposure
- any other atmospheric condition that is immediately dangerous to life and health

HOT WORK
Any work that introduces an ignition source into a work area (welding, cutting, brazing, or soldering).

HYDROGEN SULFIDE
A toxic, colorless gas that at low levels has the odor of rotten eggs. It is a chemical asphyxiate and its smell cannot be relied upon for adequate warning.

IMMEDIATELY DANGEROUS TO LIFE AND HEALTH (IDLH)
Any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or would interfere with the ability of Authorized Entrants to evacuate the permit space unaided.

LOCKOUT/TAGOUT
The control of all hazardous energies within a system prior to performing service on the system. The UT Arlington Lockout/Tagout Manual will assist in complying with OSHA, Control of Hazardous Energies (Lockout/Tagout) Standard (29 CFR 1910.147).

NON-PERMIT REQUIRED CONFINED SPACE
A confined space NOT containing ANY of the characteristics listed under permit-required confined spaces may be considered a non-permit confined space.

OXYGEN-DEFICIENT ATMOSPHERE
An atmosphere in which insufficient oxygen is available to sustain life, or is less than 19.5% oxygen by volume.

OXYGEN-ENRICHED ATMOSPHERE
An atmosphere that contains more than 23.5% oxygen by volume, which increases the potential for explosion or ignition of an explosive or flammable substance.

PARTS PER MILLION (PPM)
Volume measurement of a gas concentration (parts of a contaminant per million parts of air).

PERMIT-REQUIRED CONFINED SPACE (PERMIT SPACE)
A confined space that has one or more of the following characteristics:

- Contains or has the potential to contain a hazardous atmosphere.
- Contains a material that has the potential to engulf an entrant.
- Has an internal configuration such that an entrant could be trapped 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 hazard.

PERSONAL PROTECTIVE EQUIPMENT (PPE)
Equipment that helps prevent workers from accidents and personal injury. PPE includes hard hats, goggles, face shields, steel-toed shoes, respirators, aprons, gloves, and full body suits.

PROHIBITED CONDITION
Any condition that is not allowed by the Entry Permit during entry into a permit confined space.

PURGE
Performing a complete air exchange in a confined space prior to entry in order to remove contaminated air and replace it with fresh air.

QUALIFIED PERSON
A person designated by the employer, in writing, as capable (by education or training) of anticipating, recognizing and evaluating hazardous substances or other unsafe conditions present in confined spaces.

RETRIEVAL SYSTEM
The equipment used for non-entry rescue of persons from permit confined spaces (includes retrieval line, harness, and lifting device).

SITE SURVEY
The process in which the workplace is surveyed for confined spaces, identifying permit spaces and determining whether personnel would need to enter the spaces or not.

STRATIFICATION
The phenomenon of gases forming layers, or stratifying based on weight, especially without normal ventilation in a confined space. This is the reason that atmospheric testing must be performed at various levels to ensure employee safety.

VENTILATOR
A machine designed for moving quantities of air. This machine is used to ventilate the confined space prior to and during the entry.

Confined Space Entry Inventory

Building Name	**Location** Building room #, Tunnel location/ other	**Description** Or type of confined space. (pit, vault, room, tank, sump, etc.) Approximate dimensions, L-W-D		**Equipment/Hazards** In confined space if known; sewer gas, high voltage, displaced oxygen, chemicals, etc.	**I.D. #** Assigned by the safety office.
P.E. Building	Basement Equip. Room	Sump Pit x 7-1/2	4	Mixed Chemicals, Displaced Oxygen	PE-001
Activities Building	Basement Equip. Room	Sump Pit x 4 x 7	4	Mixed Chemicals, Displaced Oxygen	ACB-002
Fine Arts Building	Basement Equip. Room	Sump Pit x 6	4	Displaced Oxygen	FE-003
Fine Arts Building	Basement Equip. Room	Sump Pit x 6	4	Displaced Oxygen	FA-004
Arch. Building	Basement	Sump Pit x 12	4	Displaced Oxygen	AB-005
Architecture Building	Basement	Sump Pit x 13	4	Displaced Oxygen	ARB-006
Texas Hall	Basement Room 8	Sump Pit 4 x 4 x 6		Displaced Oxygen	TH-007
Davis Hall	Basement (run around)	Sump Pit x 7	3	Displaced Oxygen	DH-008
Davis Hall	Basement by door	Sump Pit 3-1/2 x 7		Displaced Oxygen	DH-009
Davis Hall	Basement Room 30	Sump Pit 4 x 8		Displaced Oxygen	DH-010
University Hall	Basement SE Side	Sump Pit 4-1/2 x 5-1/2		Displaced Oxygen	UH-011
University Hall	Basement SE Side	Sewer Ejection pump 4-1/2 x 8		Displace Oxygen, Sewer Gases	UH-012

Building Name	**Location** Building room #, Tunnel location/ other	**Description** Or type of confined space. (pit, vault, room, tank, sump, etc.) Approximate dimensions, L-W-D	**Equipment/Hazards** In confined space if known; sewer gas, high voltage, displaced oxygen, chemicals, etc.	**I.D. #** Assigned by the safety office.
University Hall	Basement SW Side	Sump Pit 4-1/2 x 5-1/2	Displaced Oxygen	UH-013
Life Science	Basement SE Side	Acid sump pump 3 x 3 x 6	Mixed Chemicals, Displaced Oxygen	LS-014
Life Science	Basement Room B39	Sump Pit 4-1/2 x 4-1/2 x 9-1/2	Displaced Oxygen	LS-015
Life Science	Basement across room B39	Sump Pit 4-1/2 x 12	Displaced Oxygen	LS-016
Pickard Hall	Basement room B02	Sump Pit 4 x 13	Displaced Oxygen	PH-017
Pickard Hall	Basement room B02	Sewer Ejection pump 4-12 x 6	Sewer Gases, Displaced Oxygen	PH-018
Business (COBA)	Basement	Sump Pit South Side 4-1/2 x 4-1/2 x 9-1/2	Displaced Oxygen	COBA-019
Business (COBA)	Basement	Sump Pit North Side 4-1/2 x 4-1/2 x 9-1/2	Displaced Oxygen	COBA-020
Health Center	Basement Room B3	Sump Pit 4-1/2 x 10	Displaced Oxygen	HC-021
Trimble Hall	Basement Room B6	Sump Pit 3-1/2 x 5	Displaced Oxygen	TH-022
Trimble Hall	Basement Room B2	Sump Pit 3-1/2 x 5	Displaced Oxygen	TH-023

Building Name	**Location** Building room #, Tunnel location/ other	**Description** Or type of confined space. (pit, vault, room, tank, sump, etc.) Approximate dimensions, L-W-D	**Equipment/Hazards** In confined space if known; sewer gas, high voltage, displaced oxygen, chemicals, etc.	**I.D. #** Assigned by the safety office.
Hammond Hall	Basement Room B17	Sump Pit 3-1/2 x 5	Displaced Oxygen	HH-024
Library	Basement Room B12	Sewer Ejection sump 4-1/2 x 4-1/2 x 7	Sewer Gases, Displaced Oxygen	LIB-025
College Hall	South Side,outside front	Sump Pit 4 x 12	Displaced Oxygen High Voltage	CH-026
College Hall	South Side,outside middle	Sump Pit 3-1/2 x 10 work area	Displaced Oxygen High Voltage	CH-027
College Hall	West Side, outside back	Sump Pit 3-1/2 x 10	Displaced Oxygen High Voltage	CH-028
College Hall	Basement Room B18A	Sewer Ejection pump 4 x 8	Sewer Gases, Displaced Oxygen	CH-029
Carlisle Hall	Basement	Sump Pit 3-1/2 x 11-1/2	Displaced Oxygen	CARH-030
Cooper Center	Next to Building A	Sump Pit 3 x 5-1/2	Displaced Oxygen	CC-031
Aeronautical Research Center	Compression Building NE Side	Sump Pit 3 x 7	Displaced Oxygen	ARC-032
Science Hall	Mech. Room (Tunnel)	Sewer Ejection pump 4 x 5-1/2	Sewer Gases, Displaced Oxygen	SH-033
Science Hall	Mech. Room (Tunnel)	Sump pit 4 x 5-1/2	Displaced Oxygen	SH-034
Nedderman Hall	Room B26 Mechanical Room	Sump Pit 3-1/2 x 8	Displaced Oxygen	NH-035

Building Name	**Location** Building room #, Tunnel location/ other	**Description** Or type of confined space. (pit, vault, room, tank, sump, etc.) Approximate dimensions, L-W-D	**Equipment/Hazards** In confined space if known; sewer gas, high voltage, displaced oxygen, chemicals, etc.	**I.D. #** Assigned by the safety office.
Nedderman Hall	Room B11 North Side	Sewer Ejection pump 3-1/2 x 8	Sewer Gases, Displaced Oxygen	NH-036
Nedderman Hall	Room B14 NE Side	Sump Pit 4 x 9	Displaced Oxygen	NH-037
Nedderman Hall	Tunnel SE Side	Sump Pit 3 x 8	Displaced Oxygen	NH-038
Nedderman Hall	Tunnel SW Side	Sump Pit 3 x 8	Displaced Oxygen	NH-039
Woolf Hall	Mech. Room 119	Sump Pit 4 x 12	Displaced Oxygen	WH-040
Woolf Hall	Mech. Room 119	Sewer Ejection pump 4 x 12	Sewer Gases, Displaced Oxygen	WH-041
Eng. Lab	Mech. Room East Side	Sewer Ejection pump 4 x 12	Sewer Gases, Displaced Oxygen	EL-042
Eng. Lab	Mech. Room East Side	Sump Pit 3-1/2 x 8	Displaced Oxygen	EL-043
Thermal Energy Plant	Boiler 1	Boiler	Displaced Oxygen	TEP-044
Thermal Energy Plant	Boiler 2	Boiler	Displaced Oxygen	TEP-045
Thermal Energy Plant	Boiler 3	Boiler	Displaced Oxygen	TEP-046
Thermal Energy Plant	Boiler 4	Boiler	Displaced Oxygen	TEP-047

Building Name	**Location** Building room #, Tunnel location/ other	**Description** Or type of confined space. (pit, vault, room, tank, sump, etc.) Approximate dimensions, L-W-D			**Equipment/Hazards** In confined space if known; sewer gas, high voltage, displaced oxygen, chemicals, etc.	**I.D. #** Assigned by the safety office.
Thermal Energy Plant	DA Tank				Displaced Oxygen	TEP-048
Thermal Energy Plant	DA Storage Tank-1				Displaced Oxygen	TEP-049
Thermal Energy Plant	DA Storage Tank-2				Displaced Oxygen	TEP-050
Thermal Energy Plant	Basement	Sump Pit	1/2 x 8	3-	Displaced Oxygen	TEP-051
Thermal Energy Plant	Condens. Tank Basement				Displaced Oxygen	TEP-051

Occupational Safety Forms - Confided Space Entry Permit Link

https://www.uta.edu/policy/form/index/occupational/