

TARLETON STATE
UNIVERSITY

CONFINED SPACE PROGRAM

CONFINED SPACE PROGRAM - SECTION I

GENERAL

The following information is provided to assist Tarleton Departments in developing procedures to meet safety requirements for entry into a confined space.

PURPOSE

This program sets forth recommended minimum requirements that need to be followed to maximize the safety of all workers entering such spaces, against known or potential hazards.

SCOPE

Affected departments of Tarleton are expected to establish Confined Space Entry Procedures. The Confined Space Entry Procedures shall include provisions to:

- identify and evaluate all hazards and potential hazards;
- establish procedures and practices for a safe entry;
- establish a written confined space checklist system;
- post signs addressing the hazard;
- prevent unauthorized entry;
- train entrants, attendants and personnel authorizing entry;
- provide and maintain proper equipment;
- ensure procedures and equipment for rescue;
- protect entrants from hazards outside of the confined space; and
- provide contractors with available information.

RESPONSIBILITIES

*The Tarleton Safety and Health Office will:

- assist in identifying confined spaces as necessary
- assist with training as appropriate
- monitor program compliance
- assist in the selection of atmospheric monitoring equipment, personal protective equipment, and other necessary equipment.

*The department/supervisor will:

- identify person authorizing entry, authorized entrants and attendants
- provide atmospheric monitoring equipment, personal protective equipment and all other necessary equipment
- provide proper training for persons authorizing entry, authorized attendants, and authorized entrants

*The employee will:

- follow guidelines described in this program and other required programs to assure safe entry into confined spaces

DEFINITIONS

- *Confined Space.* Any enclosed space which has limited means of entry or egress, that is not designed for continuous occupation, and contains an actual or potential hazardous environment, or the potential for engulfment by particulate matter or liquid, i.e., tanks, silos, sewers.
- *Entry.* An entry is made as soon as the entrant's face breaks the plane of the opening of the space.
- *Entrants.* Any properly trained person who has been authorized to enter a confined space.
- *Attendant.* An individual positioned outside the confined space that is trained as required and who monitors the entrants inside the confined space as well as external surroundings.
- *Person Authorizing Entry.* An individual authorizing or in charge of entry who shall be trained in the administrative, technical and managerial aspects of confined-space entry, and have the authority to terminate the entry whenever conditions become unfavorable. (See Attachment I for authorization personnel.)
- *Lockout/Tagout.* The placement of a lockout device and warning tag 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.
- *Hot Work.* Operation which could provide a source of ignition, such as riveting, welding, cutting, burning or heating.

TARLETON STATE UNIVERSITY

CONFINED SPACES

The following procedures are applicable to all Confined Spaces:

- All Confined Spaces will be appropriately marked and secured at all times.
- Department Operating Procedures will be reviewed prior to any entry.
- A minimum of two employees will be required for any 'Type I' Confined Spaces activity.
- The Tarleton Control Center (Ext. 9265) will be advised before any entry.
- All Permit – Required Confined Spaces will be checked for atmospheric hazards before entry. (Must be done by a person authorized to permit entry.)
- All Confined Spaces will be treated as Permit – Required if "Hot Work" is to be performed.

TYPE I Permit – Required Confined Spaces *

- Storm Drain Tunnels
- Grease Traps
- Sump Pumps
- Underground Water Meters
- Sewer - line manholes

TYPE II Non – Permit Confined Spaces **

- Steam Tunnel
- Crawlways (All buildings)
- Attic Spaces (All buildings)
- Elevator Shafts (All buildings)

* Permit – Required Confined Spaces may be reclassified temporarily as Non – Permit Confined Spaces if no atmospheric hazards are present.

If atmospheric hazards are present, OSHA Regulation 1910.146 will apply and all parts of Section II of this program will become effective.

** Non-Permit Confined Spaces require compliance with standard operating procedures and safety precautions.

PROGRAM REQUIREMENTS – SECTION II

Permit – Required Confined Spaces

Confined Space Checklist

Completion of a Confined Space Checklist Form and Entry Document (see appendix) is necessary to identify all conditions which must be evaluated before entry into a confined space. Information requested includes:

- **The identity of the confined space;**
- **Purpose of entry into the space;**
- **The known or potential hazards of the space;**
- **Measures for isolation of the space, such as lockout/tagout;**
- **Acceptable environmental conditions in the confined space;**
- **Equipment and procedures for testing and monitoring to verify that acceptable environmental conditions are met and maintained;**
- **Rescue services, procedures and equipment which would be called upon in case of an emergency;**
- **Communication procedures and equipment to be used by entrants and attendants to maintain contact;**
- **Personal protective equipment, such as respirators, special clothing, safety retrieval lines, etc;**
- **Any additional information relating to particular circumstances of the confined space;**
- **Names of the Person Authorizing Entry, Supervisor, Authorized Entrants and Attendants.**

In instances in which hot work is to be performed, the individual authorizing entry into the space shall note that intention prominently on the confined space entry checklist.

Individual authorizing entry into a confined space shall sign or initial the confined space entry checklist after all precautions for a safe entry have been met, and before entry actually takes place.

Upon completion of the work, or after the end of the work day, and after all individuals have evacuated the space, the person authorizing entry shall cancel the project by filling in the time and date of completion on the checklist and initial next to the date of completion.

Entry Permission

- **Entrants shall notify the Person Authorizing Entry of their intent to enter a confined space.**
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- **Person Authorizing Entry shall identify all real or potential hazards associated with the specific confined space by referring to any record on file. If no record exists for that specific space, one should be developed before work begins.**
- **The Person Authorizing Entry shall complete the Confined Space Checklist before authorizing entry into a confined space.**
- **A copy of the completed checklist shall be filed for future reference.**

Entry Team Preparation

- **All Authorized Entrants and Attendants shall receive a briefing by the Person Authorizing Entry or Supervisor on the real or potential hazards associated with entering the confined space.**
- **Emergency procedures such as rescue and evacuation shall be discussed**
- **All team members shall acknowledge an understanding of the hazards involved in entering the confined space by signing the Entry Document.**
- **Required personal protective equipment shall be issued to all team members.**
- **Rescue personnel shall be advised of the site location and any additional information helpful for rescue operation.**

Atmospheric Monitoring

- **Test the confined space for oxygen content.**
- **Test the confined space for combustible atmosphere.**
- **Test the confined space for known and potential toxic contaminants.**

Only individuals trained in atmospheric monitoring may conduct these tests.

Preparing the Site

- **The confined space entry site shall be isolated from the surrounding area by using barricades, ropes, and/or tape.**
- **The confined space shall be drained, cleaned, and ventilated or purged as needed to prevent flammable, toxic, and corrosive hazards.**
- **All electrical, mechanical and pneumatic energy sources shall be isolated as defined in the Control of Hazardous Energy (Lockout/Tagout) procedures.**
- **Assure persons required to wear respirators have proper training (as defined in the Respiratory Protective Program).**
- **Provide continuous ventilation as may be required.**
- **Non-sparking tools and explosion proof equipment shall be used when working in a potentially combustible atmosphere.**
- **Gas cylinders used for cutting or burning shall always be positioned outside of the confined space.**
- **A stand-by SCBA (safe-contained breathing apparatus) shall be on location.**
- **Personal protective equipment, including lifelines, winches, and harnesses shall be issued as required.**

Safeguarding

- **Personal protective equipment shall be used at all times as required.**
- **Harnesses, lifelines, and a winch shall be used as appropriate.**
- **The Authorized Attendant shall at all times keep a log of the Authorized Entrants working inside the confined space.**
- **The Authorized Attendant must maintain constant contact with the Authorized Entrants.**
- **The Authorized Attendant shall take necessary precautions and measures to keep unauthorized individuals from entering the confined space area.**

- **The Authorized Attendant shall have the authority to initiate evacuation procedures in the event that conditions on the outside or inside of the confined space changed and pose a hazard.**
- **Authorized Entrants shall evacuate the confined space when:**
 - **Authorized Attendant orders evacuation.**
 - **Automatic alarms sound. (i.e. atmospheric monitor)**
 - **Authorized Entrants believe they are in danger.**

Emergency Procedure

- **In the event that a worker is unable to evacuate the confined space, the Authorized Attendant shall contact emergency rescue personnel via radio.**
- **The Authorized Attendant and any other personnel on the outside of the confined space shall attempt to hoist the worker out by using the lifeline.**

UNDER NO CIRCUMSTANCES SHALL THE AUTHORIZED ATTENDANT OR UNTRAINED RESCUE PERSONNEL ENTER THE CONFINED SPACE.

APPENDIX I
CONFINED SPACE CHECKLIST

Date of Entry: _____ Time: _____

Date of Completion: _____ Time: _____

Site Location (Identity): _____

I. PURPOSE OF ENTRY INTO SPACE

II. SITE PREPARATION

1. Work area isolated with signs/barriers? Y_____ N_____

2. All power sources tagged/locked/tried? Y_____ N_____

3. All input discharge lines capped/plugged? Y_____ N_____

4. Contents drained/flushed/neutralized? Y_____ N_____

5. Space cleaned of contaminate/purged? Y_____ N_____

6. Space ventilated before entering? Y_____ N_____

III. ATMOSPHERIC TESTING (pre-entry)

1. Has all test equipment been calibrated? Y_____ N_____

Reading Time Initials

2. Oxygen Content: _____ % _____

3. Flammable Concentration: _____ %LEL _____

4. Toxic Concentration: _____ PPM _____

5. Toxic contaminant: _____ PEL _____

6. Temperature Inside Space _____

IV. EMERGENCY RESCUE PROCEDURES

PHONE 911 () RADIO CHANNEL ()

PAGE PHONE () # _____

Type of emergency/rescue equipment required:

V. SAFETY EQUIPMENT REQUIRED FOR ENTRY (check those required)

SCBA () Protective Clothing ()

Respirator () Escape Harness ()

Fire Extinguisher () Lifeline ()

Tripod Escape Unit () Gloves ()

Additional requirements:

Portable atmospheric monitor required? Y_____ N_____

VI. HOT WORK

To be performed

Type: _____

ATTACHMENT I
CONFINED SPACES

--- Persons Authorized to Permit Entry ---

A. Maintenance Department ---

- Director
- Supervisor – Electrical, Plumbing, HVAC
- Supervisor – Carpenter and Painting
- Foreman -- Electrical

B. Central Control

- Energy Manager
- Control Center Supervisor

C. Facilities Planning and Construction

1. Director

D. Safety Manager

ENTRY DOCUMENT

I CERTIFY THAT I HAVE INSPECTED THE WORK AREA FOR SAFETY AND REVIEWED ALL PRECAUTIONS RECORDED ON THE CONFINED SPACE CHECKLIST.

Person Authorizing Entry x _____

Supervisor x _____

Entrants(s) x _____

x _____

x _____

x _____

Attendant(s) x _____

x _____