



DEPARTMENT OF SAFETY AND RISK MANAGEMENT	NUMBER: SRM - REV:
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**THE UNIVERSITY OF TOLEDO
PLANT OPERATIONS**

CONFINED SPACE PROGRAM

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The University of Toledo Plant Operations Confined Space Program

Section 1. Program Statement

1.1 Confined Space Program

The Department of Plant Operations will maintain a healthy work environment in an on-going effort to protect each employee from potentially harmful agents. It is the goal of the Department to ensure that employees will at no time suffer any adverse health effects related to their work environment. In the attainment of this goal, the Departments of Plant Operations, and Safety and Risk Management have implemented a Confined Space Program.

In the ongoing control of injuries and deaths that may occur from improper entry into confined spaces, the primary objectives of the Department of Safety and Risk Management and Plant Operations are: reduce the number of confined spaces (when feasible); limit the number of confined spaces entries; eliminate potential hazards within the confined spaces before entry; and protect employees from recognized and potential hazards when they must enter a confined space.

A sound and effective Confined Space Program is an essential aspect in ensuring that employees required to enter and work in confined spaces are properly trained and protected from associated health hazards.

1.2 Purpose

The purpose of this program is to provide specific procedures/safe work practices for employees required to enter confined spaces. These procedures/practices will be implemented in compliance with all applicable state and federal regulations pertaining to confined space entry.

A confined space is a space that is large enough and configured so that a worker can enter and perform assigned work; has limited or restricted means for entry or exit (this includes spaces such as tanks or compartments with restricted hatches or manholes, pressure vessels, pits, hoppers, or diked areas); and is not designed for continuous worker occupancy.

Permit-required confined space is a confined space that has one of the following characteristics: hazardous atmosphere or potential to produce a hazardous atmosphere; engulfment hazard by a flowable material; inwardly converging walls or a floor that tapers to a smaller cross-section so that an entrant could be trapped or asphyxiated; equipment or stored energy hazards such as electrical current, hydraulic operators, or steam lines; or other serious safety or health hazards

1.3 Objectives

The objectives of the Plant Operations' Confined Space program are:

- To comply with all OSHA regulations regarding confined spaces.
- To assess the feasibility of reducing the total number of confined spaces.
- To limit the number of confined space entries.
- To eliminate potential hazards within the confined spaces prior to entry.
- To train employees who may work in confined spaces on proper procedures and entry techniques.

Section 2. Regulations/References

2.1 Regulations

Regulations/references pertaining to the Confined Space Program are found in the following publications:

Occupational Safety and Health Standards for General Industry (29 CFR 1910.146).

Section 3. Responsibilities/Resources Employed

3.1 Departmental

Safety and Risk Management serves as the first contact for issues concerning the confined space program. Safety and Risk Management have established a written Confined Space Program that includes evaluations of the confined spaces entered by employees. Safety and Risk Management and Plant Operations will maintain a training program that will provide exposed employees with the understanding, knowledge, and skills necessary for safe and proper work in confined spaces. Safety and Risk Management shall review the Confined Space Program at least once per year, and shall revise the program as necessary to ensure that employees participating in entry operations are protected from confined space hazards. Plant Operations will provide employees with the equipment required to properly enter confined spaces.

3.2 Area Supervisors:

The appropriate Plant Operations supervisor will identify workers that may be expected to enter confined spaces, ensuring that these workers receive required training before entering the spaces, and ensuring that their subordinates follow established entry procedures.

3.4 Trained and Qualified Entrants

Trained and qualified entrants are responsible for working in confined spaces according to guidelines and work practices established by the University of Toledo Confined Space Program.

3.5 Training Frequency

Confined Space training will occur: before initial assignment to jobs that would required entry into confined spaces; when there is a change in assigned duties; when a change in permit space operations create a new hazard; whenever an employee deviates from established procedure; and when inadequacies in an employee's knowledge is identified.

Confined space training will address potential hazards in confined spaces and precautions to avoid those hazards.

Training documents will include the employee's name, signature of the trainer, and the dates of the training.

3.6 Training Content:

The training programs established for University of Toledo include confined space identification, awareness of potential hazards in the space and precautions to avoid those hazards, proper gas meter operation, ventilation

techniques, C-5 certificate completion techniques, and the location of permit confined spaces at the University of Toledo.

Section 4. Confined Space Listing

See Appendix A

Section 5. Classification of Spaces

5.1 Confined Space Evaluations:

All confined spaces will be evaluated to determine their classification (non-permit, permit required) and to develop proper entry procedures.

5.2 Permit and Non-Permit Required Spaces:

Some confined spaces located at the University of Toledo meet the definition of a Permit Required Procedure confined space. The University of Toledo has determined that employees shall not enter permit-required confined spaces unless this confined space has only an actual or potential atmospheric hazard and is free of all other physical hazards or is deemed to be re-classified as a non-permit confined space. Employees are permitted to enter non-permit confined spaces. Work required in any other permit-required confined spaces shall be performed by service providers or contractors.

Section 6. Prevention of Unauthorized Entry

6.1 Posting of Confined Spaces

All Confined Spaces that can be readily labeled are posted in a manner designed to inform employees of the existence/location of the confined space. The signs read as follows:



PRCS (Permit Required Confined Space, No Entry Allowed, Contract Work Out)



PRCS (Temp C-5 (Permit Required Confined Space, Only hazard is Atmospheric, Temporary Non-Permit under CFR 1910.146(c)(5), Alternate entry with ventilation permitted)



NPCS Non-Permit Confined Space, No Hazards, Entry permitted

Some spaces, such as manholes, are difficult to label in the above-described manner. When labeling is not feasible, training and education will be used to inform employees of the location/classification of the confined space.

6.2 Other Necessary Precautions

If it is concluded that posting and training are inadequate to prevent unauthorized entry into permit spaces, covers, guardrails, fences, locks or other methods of restricting access shall be considered and implemented.

Section 7. Entry Procedures

7.1 Entry Procedures:

Entry procedures have been developed for each confined space entered by University of Toledo employees. See Appendix B.

Section 8. Outside Contractors

The University of Toledo is responsible for notifying outside contractors about permit-required confined spaces they may need to enter and about any known hazards. The University requires that any confined space entry work be conducted according to applicable OSHA regulations.

Appendix A Inventory of the University of Toledo Confined Spaces

Building	Space	Location	Classification ***
Bowman Oddy	Storm Pumps/Crocks	NW side	PRCS
Campus	Manholes	Throughout Campus	PRCS Temp C-5
Campus	Steam Vaults/Pits	Throughout campus	PRCS Temp C-5
Carlson	Lift Station	North of Stadium, NE of Parks Tower	PRCS
Field House	Small Tunnels		NPCS
Gillham Hall	Sump Pump	Mech. Room , NE Corner, South Side	PRCS
Glass Bowl	Dike Pumps	Lot 10	PRCS Temp C-5
Health Education	Pool Discharge Pit	Pool Filter Room	PRCS
Health & Human Services	Dana Auditorium	Half Door over Crawl	NPCS
Law Center	Sump Pump	East	PRCS
North Engineering	Mechanical Room	Boiler Room South Basement	PRCS
Palmer	Sewage Lift Station	South Door under West Stairway	PRCS
Parks Tower	Dike Pumping Station	NE in Flats	PRCS
Parks Tower	Concrete Waste Vault	Mechanical Room	PRCS
Savage Hall	Dike Pumping Station	Lot 5, NE Corner	PRCS
Scott Park	Sump Pump	NS Rear Side	PRCS Temp C-5
Scott Park	Gas/Diesel ABST	NS Rear Side	PRCS
Snyder Memorial	Mechanical Room 1078		NPCS
Student Union	Steam Line Access	South Side	NPCS
Student Union	Steam Line Access	NW Side	NPCS
Student Union	Fountain Pump Room Sub-Basement	North Side	NPCS

PRCS - Permit Required Confined Space, No Entry Allowed, Contract Work Out

PRCS Temp C-5 - Permit Required Confined Space, Only hazard is Atmospheric, Temporary Non-Permit under CFR 1910.146(c)(5), Alternate entry with ventilation permitted.

NPCS - Non-Permit Confined Space, No Hazards, Entry permitted

Appendix B Entry procedures

Non Permit Required Confined Space

A permit may not be required before entry if monitoring and inspection data show that hazards are limited to the physical difficulty of entering the confined space, or those potential hazards may be controlled by mechanical ventilation alone. Examples of such spaces may include crawl spaces, attic spaces, pipe chases, or mechanical rooms.

These spaces require no attendant, no rescue gear, and no rescue team available.

Before entering and after exiting the non-permit required space, notify a supervisor.

Permit-Required Confined Space that has only an actual or potential atmospheric hazard and is free of all other physical hazards.

OSHA allowed alternative “C-5” procedure shall be followed. Pursuant to section C-5 of the OSHA regulation, continuous forced air (positive pressure) ventilation is required from a clean source outside the space. This forced air blower system must be properly engineered and located for the size and shape of the space and requires initial and periodic atmospheric tests be made using a calibrated direct reading air monitoring instrument. This ventilation must be documented by the issuance of a certificate (C-5 certificate) and dated by the certifying individual (usually the entrant). The certificate shall be visible and posted at the entry point during the entry operations. Ventilation must be continuous during any C-5 procedure.

These C-5 procedure spaces require no attendant, no rescue gear, and no rescue team available.

Before entering and after exiting the non-permit required space, notify a supervisor.

Certification for Entry under Alternative Entry Confined Space C-5 Procedure
[Reference: 20CFR 1910.146 (c) (5)]

Space: _____

Date/Time: _____



	Space has been identified as only an atmospheric or potential atmospheric hazard. No other hazards.
	Air monitoring before entry, air quality is free of atmospheric hazards
	Air monitoring during entry, air quality is free of atmospheric hazards
	Positive pressure (forced air) blower is in continuous use to achieve 20 air exchanges per hour
	No hot work will be performed during entry operations
	No chemicals will be used which may cause respiratory hazards

The below signature certifies that all required and necessary pre-entry steps have been taken and that the space is safe for entry:

Name

Job Title

Signature

Date/Time