



**San Diego Community College  
District  
Risk Management Office**

# **Confined Spaces Program**



**PROGRAM AUTHORIZATION**

<div>_____</div> <p>Chancellor</p>	
<div>_____</div> <p>Trustee</p>	<div>_____</div> <p>Trustee</p>
<div>_____</div> <p>Trustee</p>	<div>_____</div> <p>Trustee</p>
<div>_____</div> <p>Trustee</p>	
<div>_____</div> <p>Vice Chancellor, Facilities</p>	<div>_____</div> <p>Vice Chancellor, Human Resources</p>
<div>_____</div> <p>Risk Manager</p>	
<p>Date: _____</p>	



Risk Management  
Office

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## I. PURPOSE

The San Diego Community College District, recognizing that the health, safety, and well-being of its employees are of paramount importance in the management of the District, affirms its commitment to create and maintain a safe and healthful working environment.

The San Diego Community College District's *Confined Spaces Program* provides guidance to reduce the hazards and risks associated with working in spaces that have the potential to cause injury or death due to harmful atmospheres and other hazards.

This *Program* will primarily cover activities performed or overseen by the Facilities Services Departments at the various Colleges or by the District Services Center.

Hazards associated with confined spaces cannot be overstated. Numerous fatalities to both entrants and potential rescuers reinforce the need to adhere to this *Program*.

## II. REGULATORY CITATIONS

California Code of Regulations, Title 8, § 5156  
California Code of Regulations, Title 8, § 5157  
California Code of Regulations, Title 8, § 5158  
Code of Federal Regulations, Title 29, § 1910.146

## III. DISTRICT POLICIES AND PROCEDURES

SDCCD Board Policy 6800  
POL-RM-003 Air Monitoring Program  
POL-RM-018 Respiratory Protection Program  
POL-RM-015 Lock Out / Tag Out

## IV. AUTHORITY

The Chancellor has ultimate authority and responsibility for the health and safety programs within the District. Creating broad-based safety accountability is the responsibility of the Chancellor and District leadership.

The Chancellor has designated the Director of the District Facilities Services Center and the Regional Facilities Officers to act as the *Confined Spaces Program* administrators at each College within the District.

To ensure effective implementation of this *Program*, all personnel with designated specific responsibilities are expected to understand and implement the procedures outlined in this document, together with the specific contents of this *Confined Spaces Program* for their assigned facility.



## **A. Chancellor's Designees**

The Director of the District Facilities Services Center and Regional Facilities Officers have the authority and are responsible for the implementation and maintenance of this program, including:

1. Developing or adopting the necessary policies and programs to adequately maintain a safe and healthful work and learning environment at the facilities of their responsibility
2. Conducting formal inspections of each assigned workplace as required
3. Conducting reviews of all confined space entries and drills
4. Providing personal protective equipment (PPE) and monitoring equipment for personnel who work in confined spaces
5. Identifying all confined spaces located at the facilities they are responsible for
6. Recommending to the Risk Management Office any additions or changes to the *Confined Spaces Program*
7. Providing for, planning, organizing, and coordinating training to those employees required to abide by this *Program*
8. Maintaining equipment necessary for the safe work in confined spaces
9. Maintaining the records of inspections, hazard abatements, equipment repair, and training
10. Assigning designees to fulfill all aspects of this *Program*.

## **B. Risk Management Office**

The District Risk Management Office is responsible for the oversight and maintenance of this *Program*, including:

1. Reviewing the *Program* annually and updating, as necessary
2. Evaluating the adequacy and consistency of confined spaces training in the District
3. Providing technical expertise to all Chancellor's Designees, as requested and required
4. Monitoring Cal/OSHA standards for relevant regulatory changes
5. Conducting periodic program audits and inspections at District facilities to evaluate compliance with all Federal, State, County, District, Facility, and College fall protection regulations
6. Reviewing site-specific programs drafted by the independent Colleges to ensure compliance and consistency with regulations, this *Program*, and District policy.

## **C. Facilities Services**

The Facilities Services Department at each facility is responsible for

1. Surveying their facility of responsibility and identifying confined spaces
2. Providing training for all employees who may enter a confined space
3. Providing personal protective equipment (PPE) and appropriate monitoring



4. Maintaining all equipment required for confined space entry
5. Maintaining relevant records for confined spaces.

#### **D. Employees**

Employees are responsible for

1. Completing all necessary training
2. Complying with all relevant aspects of the *Confined Spaces Program*
3. Properly implementing safe work practices for confined spaces
4. Following all permit and entrance requirements
5. Reporting any *Program* deficiencies to their supervisor or the Risk Management Office.

#### **E. Students**

Due to the increase in risk, the severity of potential injury, the need for specialized training, and the use of personal protective equipment, students are expressly forbidden from working in confined spaces or act as attendants in the capacity as District employees.

### **V. DEFINITIONS**

1. *Authorized entrant*: an employee who has undergone training and is authorized by the supervisor to enter a confined space;
2. *Attendant*: an employee stationed outside of a confined space who monitors the access to the space as well as the entrants to initiate emergency response procedures, if necessary;
3. *Confined space*: a space that a worker can enter and perform work that has limited openings for access and egress (such as hatches, manholes, and access doors) which would slow an emergency escape and is not designed for "continuous human occupancy," such as vaults and pits;
4. *Entry*: the action by which any portion of an employee's body breaks the plane of the opening to a confined space;
5. *Entry supervisor*: a designated employee, not necessarily an assigned supervisor, who is responsible for determining acceptable entry conditions, authorizes entry, approves permits, and terminates entries;
6. *Hazardous atmosphere*: conditions within a space that could impair an entrants ability to escape, including:
  - a. Atmospheric oxygen level below 19.5% or above 23.5%
  - b. Flammable contaminants exceeding 10% of the lower explosive limit (LEL)
  - c. Other airborne contaminants that exceed the published permissible exposure limit or other occupational exposure limit
  - d. Atmospheres that are classified as IDLH;
7. *Immediately dangerous to life and health (IDLH)*: an atmospheric condition that would cause irreversible health effects or interfere with the employee's ability to



- escape unaided;
8. *Permit*: document used by this *Program* to notify employees of the hazards and conditions of the space as well as to provide authorization to enter the space;
  9. *Permit-required confined space*: a space that meets the definition of a 'confined space' and has at least one of the following
    - a. Has, or has the potential for, a hazardous atmosphere
    - b. Contains a material that could engulf an entrant
    - c. Contains inwardly converging walls or a sloping floor that could trap an entrant
    - d. Any other recognized serious safety hazard, such as unsafe temperature, high voltage, or chemicals)
  10. *Retrieval system*: a mechanical system consisting of a pulley or other device attached to a retrieval line and a body harness that is used for a non-entry rescue of entrants
  11. *Ventilation*: the movement of air to provide adequate oxygen and decrease the concentration of potentially harmful contaminants; may be mechanical in nature, consisting of a blower and portable ducting; may be positive (blows in) or negative (blows out) or a combination.

## VI. FACILITY SURVEY

The Facilities Director, Regional Facilities Officer, or their designee is responsible for conducting a facility survey to identify all confined spaces and any permit confined spaces at the facility of their responsibility (Refer to Appendix A: *Facility Confined Spaces Survey*). The Risk Management Office may be consulted to assist in this process.

### A. Confined Spaces

1. Confined spaces may include HVAC access panels, ducting, or other spaces that must be accessed to perform inspection, maintenance, cleaning, or repair activities.
2. Confined spaces are difficult to access but do not present or have the potential to present atmospheric hazards that could result in death or serious physical harm.
3. Confined spaces are not required to be marked, but the facility may choose to do so as a reminder to employees.
4. In order to not require a permit, the space must meet the definition of a confined space and the only hazard is a potentially hazardous atmosphere that can be controlled by positive-pressure ventilation (8 CCR 5157(c)(5)(A)).
  - a. Hazards other than atmospheric will require the space be classified as a permit-required confined space.
5. Examples of a confined space include
  - a. Open trenches, storm drain vaults, crawl spaces and attics, utility tunnels, boiler interiors, underground electrical vaults, sewer manholes, wells, etc.

### B. Permit-required Confined Spaces (8 CCR 5157)

1. If the confined space meets any one of the following conditions, it must be treated





- as a permit-required confined space:
- a. Has or has the potential for a hazardous atmosphere such as an Oxygen level below 19.5% or above 23.5%
  - b. Contains a material that could engulf an entrant
    - 1) This includes the presence of water or gas lines in the space.
  - c. Contains inwardly converging walls or a sloping floor that could trap an entrant
  - d. Any other recognized serious safety hazard, such as unsafe temperature, high voltage, or chemicals
2. Permit required confined spaces may be below grade areas with limited air movement where contaminants may settle and displace oxygen
    - a. Underground vaults are considered permit-required confined spaces
  3. All permit-required confined spaces shall be identified with a sign reading: "Danger-permit-required confined space, do not enter" (8 CCR 5157(c)(2)).
  4. If work will not be performed in the space, access to the space must be controlled by the supervisor
    - a. If work does not need to be conducted in the space, the entrance to the space shall be permanently sealed.
    - b. If work needs to be done in the space, the space shall be locked to prevent unauthorized entry.
      - 1) Provisions shall be implemented to perform work with the employees exterior to the space.
    - c. The space shall still require signage.

## **VII. CONFINED SPACE ENTRY PROVISIONS**

The following must be conducted prior to entering a confined space.

NOTE: if any recognized hazard, other than atmospheric, is identified, then the space shall be reclassified as a Permit-Required Confined Space.

### **A. General Provisions**

1. The following provisions apply as long as the atmospheric contaminants do not meet the conditions that would necessitate a permit (8 CCR 5157(c)(5)(A)).
  - a. A posted permit is not required.
    - 1) A written *Confined Space Entry Log* (refer to Appendix A) shall be posted by the entrance to the space.
  - b. Attendants are not required.
  - c. Employees performing work are not required to be authorized entrants.
    - 1) Employees entering confined spaces to perform any work must undergo training pursuant to this *Program*.
  - d. An entry supervisor is not required.
  - e. Retrieval mechanisms are not required.
  - f. A rescue plan is not required.
2. The entrance to the space must be guarded to prevent accidental falls, employees



or equipment, into the space.

3. If a hazardous atmosphere is detected, employees must egress immediately.

## **B. Atmospheric Testing**

1. Prior to entering the confined space, a competent person must remotely test the atmosphere inside the space for the following:
  - a. Percent of lower explosive/flammable limit
  - b. Percent oxygen
  - c. Known or suspected toxic airborne contaminants
    - 1) The toxic contaminants to be tested for will be based on the type of space to be entered.
    - 2) The competent person shall make the determination as to which, if any, toxic substances must be monitored.
2. The results of the air monitoring shall be recorded on a *Confined Space Entry Log* (refer to Appendix B).
3. Entry shall be prohibited if the following conditions exist:
  - a. LEL/LFL >10%
  - b. Oxygen: <19.5% or >23.5%
  - c. Specific toxics: >PEL, REL, or TLV.
4. Atmospheric testing shall be repeated and recorded while work is being performed in the space to verify appropriate conditions for non-permit entry.

## **C. Ventilation**

1. Positive-pressure ventilation will be set up in the space prior to entry.
2. Positive-pressure ventilation will be initiated after pre-entry air monitoring has been conducted.
  - a. Entrants shall delay breaking the plane of the confined space entrance until the space has been adequately flushed.
3. Ventilation shall be maintained throughout the duration of the work in the space.
  - a. The ventilation equipment shall be arranged so as to prevent the intrusion of contaminated air, such as that from vehicle or building exhaust systems, into the space.
  - b. The ventilation equipment shall be arranged so as to prevent a 'short-circuit' of reintroducing air removed from the space.

## **VIII. PERMIT-REQUIRED CONFINED SPACES**

A permit is a written document which is completed by District Services Center or Regional Facilities Officer before workers enter a confined space. A permit is not written or issued by Cal/OSHA or a local authority having jurisdiction, but it is required by Cal/OSHA for each employer with workers in general industry including Operations and Maintenance.

### **A. Permit Requirements**

1. The permit shall conform with OSHA 29 CFR 1910.146 and must contain the following information
  - a. Identify the confined space, purpose for entry, date and duration of permit



- b. List all authorized entrants
  - c. Appoint the attendant(s), standby rescue team and entry supervisor
  - d. Define the necessary conditions for entry
  - e. List the hazards of the confined space to be entered
2. Prescribe the control measures used to isolate, eliminate or control the hazards including, for example:
  - a. Lock Out / Tag Out Procedures or other means of securing moving parts
  - b. Disconnecting mechanical equipment (removing belts or chain drives)
  - c. Blanking off or bleeding of gas or fluid lines
  - d. Identify an emergency plan of action
3. Permit procedure must identify and evaluate hazards both from inside and outside of the confined space
4. Establish safety protocols for the workers entering the confined space including
  - a. Assignment of an attendant or spotter
  - b. Assignment of a standby rescue team
  - c. Communication plan including testing of any additional equipment such as walkie talkies
  - d. Ensuring all workers have received the proper training for their role
  - e. Identifying necessary personal protective equipment (PPE)
5. Establish emergency procedures for the workers entering the confined space including extraction procedures and verifying necessary equipment is on hand prior to any worker entering the confined space

## **B. Prohibition of Entry by District Employees**

1. At the time of this *Program*, the San Diego Community College District has not identified any spaces at its facilities that meet the criteria and definition of a permit-required confined space.
2. Additionally, the District does not currently have the respiratory protective equipment to enter into or the retrieval equipment necessary to provide rescue from permit-required confined spaces.
3. If a permit-required confined space is identified at any District facility as a space that requires employees to enter, the District will prepare a compliant written program, conduct the necessary training, and procure the requisite equipment to conduct such operations.
4. In the event that a standby/rescue situation is encountered the District will contract with a third party prior to engaging in any work.

## **C. Contractor Entry into Permit-Required Spaces**


1. For contractors who perform work in spaces that meet the definition of a permit-required confined space, the contractor shall
  - a. Submit their Permit-Required Confined space safety program to the District representative overseeing the work
  - b. Submit a training record of employees pursuant to that program
  - c. Submit a list of authorized entrants, attendants, and supervisors



- d. Submit their rescue/retrieval plan.
2. If the space has not been previously identified by the District, a sign identifying the space as requiring a permit shall be installed by the contractor.
  - a. Additional measures, such as securing the space from entry, shall be instituted by the District immediately to prevent employees from entering the space after the contractor has completed their work.

## IX. TRAINING

### A. Training

Confined Space awareness training is offered on the Keenan SafeColleges Training portal.  Additional site-specific training is required by the District

1. Training shall occur before an employee may work in a confined space, supervise an entry to a confined space or serve as an emergency team member when work is being conducted in a confined space.
2. Training shall be repeated annually.
3. Training topics shall include:
  - a. Definition of a confined space and permit-required confined space
  - b. Hazards associated with confined spaces
  - c. Actions if conditions within the space change
  - d. Safe working conditions
  - e. Emergency procedures
  - f. Responsibilities of confined space team members
  - g. Ventilation methods
  - h. Entry Log Requirements
  - i. Air monitoring process

## X. RECORDS

### A. Training Records

1. All training records shall be kept by the supervisor for at least three (3) years.

### B. Entry Logs

1. Entry logs shall be kept by the supervisor for at least three (3) years.

## Appendix A: Facility Confined Spaces Survey

Facility:					Date:
Building	Confined Space	Location	PRCS	Location	
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
	Y N		Y N		
Survey conducted by					



## Appendix B: Confined Space Entry Log

Date	Facility	Building/Location:	
Time:	Expires (time + 8 hrs):	Supervisor:	
Work item/job:			
Initial atmospheric test	Oxygen: %	LEL: %	Toxic ( ): ppm
Instrument make		model	
Testing performed by:			
Ventilation started (time):	CFM:		
Entrant(s)			
Entry (time):			
Additional Atmospheric Tests			
Time	Oxygen	LEL	Toxic
	%	%	ppm
	%	%	ppm
	%	%	ppm
	%	%	ppm
	%	%	ppm
Hazard(s) requiring exit of space?	Y N	List:	
Work completed (time):			
Permit cancelled by			

Post this permit near the entrance of the confined space prior to and during entry/work in the space.

The supervisor shall retain this permit for two (2) years from the date of cancellation.

## TRAINING RECORD

**Facility:** \_\_\_\_\_

Date	Time	Instructor		
Name (print)	Signature	Department	Supervisor	