UC Merced

Permit-Required Confined Space Entry Procedure





Version 2021-1.0

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Permit Required Confined Space Entry

Version 2021-1.0

1.0 PURPOSE

The Permit-Required Confined Space (PRCS) Program is to protect all employees from exposure to hazards while working in or near confined spaces. UC Merced is concerned about the health and safety of its employees and has taken steps to ensure that all employees recognize confined space hazards. The procedures established through this PRCS Program are to ensure that employees avoid entering a confined space unless they have authorization through the permit process. This PRCS Program is based on and implements the requirements of <u>Title 8 California Code of Regulations</u> §5157, Permit-Required Confined Spaces.

2.0 SCOPE/APPLICATION

This program applies to all employees of UC Merced who are responsible for planning, supervising, entering, or participating in a confined space entry or non-entry rescue. The identified confined spaces and the known hazards of those confined spaces are covered by this PRCS Program. Refer to Appendix A for a list of identified confined spaces.

3.0 DEFINITIONS

The definitions included in the Cal/OSHA Permit-Required Confined Space regulation are an integral part of the PRCS Program. Appendix B contains an alphabetical list that defines terms used throughout this Program document. The definitions are incorporated with UC Merced's confined space entry training. All employees must be familiar with these definitions and demonstrate understanding them during their training.

4.0 RESPONSIBILITIES AND DUTIES

UC Merced EH&S has overall responsibility for the management, administration, and implementation of this program for UC Merced facilities. The UC Merced Project Manager must inform the third party (contractor) of known and potential hazards within the confined space(s) to be entered.

4.1 Authorized Entrants

The Confined Space Authorized Entrant shall:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Properly use equipment, including PPE, provided by the employer.
- Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space as required.
- Alert the attendant whenever the entrant recognizes any warning sign or symptom of exposure to a dangerous situation or detects a prohibited condition.
- Exit from the permit space as quickly as possible whenever:
 - o An evacuation alarm is activated or an order to evacuate is given by the attendant or the entry supervisor.
 - o The entrant recognizes any warning sign or symptom of exposure to a dangerous situation or detects a prohibited condition.



4.2 Confined Space Attendants

The Confined Space Attendant shall:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure and be aware of possible behavioral effects of hazard exposure in authorized entrants.
- Continuously maintain an accurate count of authorized entrants in the permit space and ensure that the entry roster (on the permit) identifies authorized entrants who are in the permit space.
- Remain outside the permit space during entry operations until relieved by another attendant.
- Communicate with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space.
- Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space, and order the authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - o if the attendant detects a prohibited condition or the behavioral effects of hazards exposure in an authorized entrant;
 - o if the attendant detects any condition such as an injury or near miss warranting rescue of an authorized entrant:
 - o if the attendant detects a situation outside the space that could endanger the authorized entrants; or
 - o if the attendant cannot effectively and safely perform all the duties required. Initiate on-site non-entry rescue procedures and, if necessary, summon additional rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards.
- Take the following actions when unauthorized persons approach or enter a permit space while entry is underway:
 - Warn the unauthorized persons that they must stay away from the permit space;
 Advise the unauthorized persons that they must exit immediately if they have entered the permit space; and
 - o Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.
- Perform non-entry rescue or other rescue services as part of UC Merced's on-site rescue procedure.
- Perform no duties that might interfere with the primary duty to monitor and protect the authorized entrants.

4.3 Confined Space Entry Supervisors

The Confined Space Entry Supervisor shall:

• Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

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- 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.
- Terminate the entry and cancel the permit as necessary.
- Verify that rescue services are available and that the means for summoning additional services are operable.
- Remove unauthorized individuals who enter or who attempt to enter the permit space during entry operations.
- Determine that entry operations remain consistent with the terms of the entry permit and that acceptable entry conditions are maintained whenever responsibility for a permit space entry operation is transferred, and at intervals dictated by the hazards and operations performed within the space.
- Ensures that material safety data sheets or similar information is available for all materials inside the confined space and for materials taken inside the confined space.
- Properly relinquishes the duties of Entry Supervisor to a new Entry Supervisor, if necessary.
- Cancel the entry permit and return it and all related forms to UC Merced EH&S when entry operations are concluded and the work has been completed, or when entry operations are suspended due to a change in conditions that require an evacuation or other such emergency.

5.0 PROCEDURE – GENERAL REQUIREMENTS

Initial confined space identification and hazard evaluation has been conducted for the UC Merced campus facilities. Those confined spaces determined to have hazards that meet the regulatory definitions are designated as Permit-Required Confined Spaces (PRCSs). Refer to Appendix A for a list of confined spaces. Refer to Appendix B for the applicable definitions.

Permit Required Confined Spaces are posted at all entrances with a sign stating the following or the equivalent: "Danger – Permit-Required Confined Space – Do Not Enter." An Entry Permit shall be completed prior to entry into any confined space. Refer to Appendix C for the Entry Permit form. Each permit will be assigned a sequential number based on year and permit number (i.e., 11-001). UC Merced EH&S will maintain a log and binder of canceled permits.

The Central Plant control room operator or the Operations Supervisor shall be notified of the time and location of the permit-required confined space entry. Feasible engineering controls and strict administrative controls shall be implemented to eliminate or mitigate associated hazards prior to and during permit-required confined space entries.

• Engineering controls in conjunction with UC Merced's Lockout/Tagout procedures will be the primary method to eliminate or control any hazards.

All confined space entries (whether non-permit or permit-required) will have, at a minimum, preentry evaluation of internal and external hazards and pre-entry air monitoring. In addition, all permit required confined space entries require continuous air monitoring for the duration of the entry.

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No one (employee or contractor) will enter a permit-required confined space unless they have completed confined space entry training, have attended the job-specific safety tailboard meeting, and have authorization from the Entry Supervisor for the planned entry.

Whenever practicable for a specific entry, a permit-required confined space may be reclassified as a non-permit confined space (NPCS) based on the reclassification procedure. Refer to Section 7.2.3 of this PRCS procedure.

6.0 PROCEDURE - NON-PERMIT CONFINED SPACE ENTRY

- 1. The space conditions will be visually inspected.
- 2. An audible and visual verification of the proper function of lights and ventilation system will be made for both automatic and manual operation (as applicable to the space).
- 3. Verify that the locking mechanism on the hatch is working to keep the hatch open during entry (as applicable to the space).
- 4. A portable communication device must accompany the entrant.
- 5. The space will not be entered as a non-permit confined space if any of the following conditions are noted or occur.
 - electrical power is down (as applicable to the space)
 - □ standing water or flooding in the space
 - □ rodents in the space
 - foreign objects or materials in the space
 - unusual odors

Notify your supervisor for information and direction on action(s) to be taken.

7.0 PROCEDURE – PERMIT-REQUIRED CONFINED SPACE ENTRY

7.1 Pre-planning

No work shall begin in any permit-required confined space before the operations to be undertaken are reviewed. The entry team will be assembled and the Entry Supervisor will review work assignments with employees and consider potential hazards; the scope of the work; materials required and introduced to the space; and equipment required including monitoring, rescue, and personal protective equipment. Certain conditions may require a Hot Work Permit. Refer to UC Merced's Hot Work Procedure.

7.2 Pre-entry

After pre-planning and prior to entry of the permit-required confined space, the Entry Permit will be completed by a member of the entry team. No one will enter the space until acceptable entry conditions, as listed on the permit, are verified by the Entry Supervisor. At UC Merced, we have implemented a coding system to identify the requirements for a particular entry. The coding system is as follows:

- P1 Two-person job (possibility of entrapment or difficulty in rescue)
- P2 Confined Space (Lockout/Tagout, physical hazard or entrapment)

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- P3 Confined Space (below grade, no sewer lines within 25', vent 10 min. prior to entry and conduct air testing before and during entry)
- P4 Confined Space (ventilation for 10 minutes prior to entry and conduct air testing before and during entry, Lockout/Tagout, tripod entry required before entry)

For spaces classified as P3 and P4, the atmosphere inside the space will be evaluated for hazardous atmosphere, in the following order: oxygen concentration, flammable gas/vapor concentration, toxic gas/vapor concentration.

7.2.1 Atmospheric Testing Procedure

- 1. Use a combination direct reading instrument capable of sensing oxygen concentration, flammable gases/vapors, and toxic gases/vapors (such as hydrogen sulfide, carbon monoxide, ammonia, sulfur dioxide).
- 2. The instrument will be turned on and allowed to zero out (self-calibrate) in fresh air following the manufacturer's instructions. The instrument must have current calibration per the manufacturer's protocol.
- 3. Prior to opening a lid or removing a cover, insert the probe or tubing of the instrument into an opening or port to draw a sample of the atmosphere and allow sufficient time to record a representative reading. If there is no opening, carefully "crack" the cover enough to insert the probe or tubing. This step is to evaluate for flammable gases/vapors that may present a fire hazard. If the readings show that it's safe to proceed, open the lid(s) or remove the cover(s). The opening(s) shall be protected and guarded by barriers that will prevent accidental falls through the opening(s) as required.
- 4. For vertical entries, lower the instrument probe or tubing into the space at approximately four-foot intervals, to test the different elevations inside the space. Allow sufficient time at each level to determine a representative reading.
- 5. If atmospheric hazard(s) is discovered, or there is the potential for one to occur:
 - Continuous air ventilation will be provided, and the atmosphere tested periodically to ensure acceptable atmospheric conditions within the space prior to anyone entering the space.
 - The ventilation will be done with mechanical forced air ventilation equipment capable of maintaining an acceptable atmosphere within the confined space.
 - If a portable blower is used, it must be equipped with sufficient ducting to reach within two feet of the bottom of the space and provide fresh outside air to the work area within the space. The ducting should not have more than one 90-degree bend entering the opening of the confined space. The blower should never be placed near a vehicle exhaust or other potential source of poor air quality. The air intake should be placed at least fifteen (15) feet from the opening of the space (upwind if possible) to prevent re-circulation of ventilated air.

7.2.2 Energy Source Isolation

Prior to entry, permit-required confined spaces shall be isolated from all potential energy sources; all provisions of the appropriate lock out/tag out procedure shall be strictly

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complied with prior to and during the confined space entry. Refer to UC Merced's Lockout/Tagout Procedure.

7.2.3 Reclassification of PCS to NPCS

If all hazards can be eliminated and the permit-required confined space can be <u>reclassified</u> per 8 CCR 5157(c)(7) as a non-permit confined space, the potential hazards and the control methods used will be documented on the entry permit form (refer to <u>Appendix C</u>). The Entry Supervisor will confirm that all hazards have been eliminated. Reclassification may be allowed for a specific entry, if <u>ALL</u> of the following conditions can be met:

- 1. The space, at the time of the planned entry, has no actual or potential atmospheric hazards, and all hazards within the space are eliminated without entry into the space. 2. All hazards remain eliminated during the entry operation.
- 3. The basis for determining that all hazards have been eliminated is documented through a certification containing, the date, location of the space, and the signature of the person making the determination. Documentation will be accomplished by using the entry permit form in Appendix C.
- 4. If hazards arise in the non-permit confined space, each entrant shall exit the space, and the space shall be reevaluated to determine if it must be reclassified back to a permit-required confined space.
- 5. Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazard.

7.3 Safe Entry Procedure – Permit-Required Confined Space

- 1. Entry is only permitted by properly trained personnel.
- 2. Entry permit is completed.
- 3. Entry Supervisor shall confirm that all hazards have been eliminated and that mechanical ventilation or fresh air ventilation is adequate to reduce atmospheric contaminants to acceptable levels.
- 4. All required safety and entry equipment are on site and staged for use.
- 5. Initial atmospheric testing has been completed and testing will continue for the duration of entry, applicable to P3 and P4 confined spaces only. Instrument readings will be periodically noted by the attendant on the Entry Permit.
- 6. Provide guards and barriers to protect the site from pedestrians and unauthorized personnel. Barriers are also setup to prevent accidental falls and to protect the entrants from external hazards.
- 7. A minimum of one attendant is stationed outside the entrance to the space.
- 8. Communications between entrants and attendant will be maintained at all times during entry.
- 9. Outside rescue services must be identified and will be notified of entry location and time at the time of entry.

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- 10. Entry permit will be posted outside the entrance.
- 11. After the entry is complete, any unusual findings should be noted on the permit, and the permit will be canceled by the Entry Supervisor.
- 12. After the entry is complete, re-secure the entrance lid(s) or cover(s).
- 13. Notify rescue services that the entry is complete.
- 14. Notify the Central Plant control room or Operations Supervisor (as appropriate) that the entry is completed.
- 15. Provide canceled permit to the superintendent responsible for the entry and the superintendent is responsible to provide a copy to UC Merced EH&S.
- 16. A copy of the canceled permit will be retained for six months.

8.0 RESCUE AND EMERGENCY SERVICES

UC Merced employees shall not enter permit-required confined space to perform rescue services. UC Merced employees are only authorized to perform <u>Non-Entry Rescue</u>.

Facilities are to ensure the following:

- ☐ Inform the rescue service of the hazards they may confront when called on to perform rescue at the host employer's facility, and
- Provide the rescue service with access to all permit spaces from which rescue may be necessary so that the rescue service can develop appropriate rescue plans and practice rescue operations.

8.1 Non-Entry Rescue from permit-required confined spaces

UC Merced provides the following non-entry rescue equipment for vertical entries:

- □ A full-body harness with an attached lifeline secured outside the entrance for each entrant;
- ☐ A mechanical hoisting device for all vertical entries that have a vertical drop of 5 feet or more

UC Merced provides equipment for non-entry rescue for horizontal entries. To facilitate non entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. The method will be determined and implemented at the time of the entry. The method will be described on the entry permit.

8.2 Emergency Services

Emergency services will be provided as detailed in UC Merced's Emergency Response Plan.

9.0 TRAINING REQUIREMENTS

Training is provided appropriate to the employee's job assignment. Training is provided initially after hire, during periodic refresher classes, and whenever there are PRCS Procedure revisions.

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9.1 Confined Space Entry Training

Employees who may be assigned duties of an authorized entrant, attendant, or entry supervisor receive Awareness Level training, plus additional training, to include:

- 1. How to determine whether a confined space is permit-required or non-permit.
- 2. How to recognize potential hazards associated with a confined space and the effects upon personnel.
- 3. Methods to detect hazardous atmospheres that may be encountered; specifically, the use of air monitoring instruments.
- 4. How to complete an Entry Permit.
- 5. The duties of authorized entrant, attendant and entry supervisor.
- 6. How to perform non-entry rescue procedures.

Employees who will participate in non-entry rescue will receive initial and annual training in proper rescue methods. Training certification will be documented and available for inspection.

The certification contains each employee's name, the signatures or initials of the trainer(s), and the date(s) of training.

10.0 RECORD KEEPING

Entry permits will be retained for at least one year by both EH&S and POPD. Entry permits will be used to facilitate the annual review of this PRCS Procedure. Employee training records will be maintained for at least the duration of employment. The annual PRCS Procedure review will be documented by a notation on the procedure revision log. Refer to <u>Appendix D</u>.

11.0 REFERENCES

- Title 8 of the California Code of Regulations (8 CCR) Section 5157
- UC Merced, Lockout/Tagout Procedure
- UC Merced, Hot Work Procedure

12.0 APPENDICES

Appendix A – Lists of Confined Spaces

Appendix B – Definitions

Appendix C – Entry Permit

Appendix D – CSE Procedure Review Log



Appendix A – List of Confined Spaces

Confined Space Inventory UC Merced Campus Facilities

(contact EH&S or Facilities for list of confined spaces or for any questions on the identification of confined spaces).

Permit Required Confined Space Entry Program

Appendix B – Definitions

The following definitions, which may be abbreviated and/or enhanced in this text compared to the regulations, are presented to facilitate understanding of Section 5157. Exact definitions, if required, are found in 8 CCR Section 5157(b).

<u>Acceptable entry conditions</u> mean the conditions that must exist to allow employees to enter and safely work in a permit-required confined space.

<u>Attendant</u> replaces the "hole or safety watch". This individual performs attendant duties (as outlined in the "ATTENDANT DUTIES" section). An individual stationed outside one or more permit spaces who monitors the authorized entrants.

<u>Authorized entrant</u> is an employee, trained and authorized by the employer, to work in a permit space.

Blanking or blinding is the absolute closure of a pipe, line or duct [that may convey a hazardous substance into the permit space] by the fastening of a solid plate that completely covers the bore and can withstand the maximum pressure of the pipe, line or duct with no leakage beyond the plate. Valve closure does not meet the definition of blanking or blinding.

<u>Confined space</u> is a space that is (1) large enough and so configured that an employee can bodily enter and perform assigned work, and (2) has limited or restricted means of entry and exit (such as bins, silos, hoppers, tanks, process vessels, etc.), and (3) is not designed for continuous employee occupancy. Note: there is no reference to hazardous atmospheres. This regulation defines confined spaces and permit-required confined spaces separately.

<u>Double block and bleed</u> is the closure of a line, duct or pipe [that may convey a hazardous substance into the permit space] by closing and locking or tagging two in-line valves <u>and</u> by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Emergency is any occurrence or event internal or external to the permit space that could endanger the entrants.

Engulfment is the surrounding and effective capture of a person by a liquid or finely divided solid that could crush or asphyxiate a person, such as grain that may be found in silos or grain elevators.

Entry occurs when any portion of the body breaks the plane of an opening into the space.

Entry permit is a written document, issued by the employer, which contains space and work-specific information to allow and control permit space entry, once approved and signed by the entry supervisor.

Entry Supervisor is the employee who performs the duties outlined in the ENTRY SUPERVISOR section of this text. This individual is responsible for determining if acceptable entry conditions exist, for authorizing entry and overseeing entry operations, and for terminating entry. Note: the supervisor may be an authorized entrant or perform the duties of the attendant.

<u>Hazardous atmosphere</u> is an atmosphere that may expose employees to risk of death, incapacitation, injury, acute illness, or inability to self-rescue from one or more of the following:

• Flammable gas or vapor in excess of 10% of its LFL.

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- Airborne combustible dust that meets or exceeds its LFL; Note: this can be approximated as a condition where vision is obscured at a distance of 5 feet or less.
- Atmospheric oxygen concentration below 19.5% or above 23.5%.

Appendix B – Definitions

- Atmospheric concentrations of a contaminant above the published PEL, or above permissible ionizing radiation doses.
- Any other atmospheric condition that is IDLH.

<u>Hot work permit</u> is employer's written authorization to do welding or create other sources of ignition in an area where there is a potential for flammable atmosphere.

<u>Immediately Dangerous to Life or Health (IDLH)</u> is any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or would interfere with an individual's ability to escape unaided from a permit space.

<u>Inerting</u> is the displacement of the atmosphere in a permit space by a noncombustible (inert) gas to the extent that the resulting atmosphere is noncombustible.

<u>Isolation</u> is the process by which a permit space is removed from service and completely protected against the release of energy and material into the space.

<u>Line breaking</u> is the intentional opening of a line, pipe or duct containing a hazardous atmosphere or substance capable of causing injury.

<u>Non-permit confined space</u> is a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

Oxygen-deficient atmosphere contains less than 19.5% oxygen by volume in air.

Oxygen-enriched atmosphere contains more than 23.5% oxygen by volume in air.

<u>Permit-required confined space</u> is a confined space that (1) contains, or has potential to contain, a hazardous atmosphere, (2) contains a material that could engulf 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 tapers to a smaller cross section, or (4) contains any other recognized serious safety or health hazard.

<u>Permit-required confined space program</u> is the employer's overall written permit space program.

<u>Permit system</u> is the employer's written procedure for preparing and issuing permits for entry and for return the permit space to service following termination of entry.

<u>Prohibited condition</u> is any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

Rescue service is the trained personnel assigned the task of rescuing employees by having the rescuers enter the permit space (in-space rescue).

<u>Retrieval system</u> is the equipment necessary to mechanically retrieve the entrant(s) from the permit space (non-entry rescue).



<u>Testing</u> is the process by which the hazards that may confront entrants of a permit space are identified and evaluated.



CONFINED SPACE ENTRY PERMIT

Hazardous Energies Control Procedure

NOTE: This permit must be posted at the space entrance during entry operation for both Permit & Non-Permit confined

					Space C	lassificat	ion			Permit	#:
	Permit required confine	ed space (P	RCS): A	All se	ctions of th	nis form mu	st be	completed	i		
	PRCS reclassification	to NPRCS:	Fill out r	ecla	ssification	section belo	OW				
	Non-permit required confined space (NPRCS): Complete sections I and IV										
	Preliminary Information										
- u	Name of Space:					Space	ID#	:			
Section I	Date/Time Issued:					Date/	Γime	Expires:			
						1.2.4					
			C	Clas	sification	of Confir	ned (Space			
II uc	□ Category 1 – Two-pe	erson job (po	ossibility	of e	ntrapment	or difficulty	in re	scue)			
Section II	☐ Category 2 – Confine	ed Space (L	ockout/	Tago	ut, physica	l hazard or	entra	apment)			
S	□ Category 3 – Below	grade, no se	ewer line	es wi	thin 25', re	quired vent	ilatio	n 10 minut	es prior to enti	ry*	
	□ Category 4 – Ventila										
	* Category 3 and 4 confine					ng. Use Form ed Space (g	
		Feilii	ii Neqi	ill E	ı Comme	u Space (,FKC		ilation		
Ш и	Reason for entry: Job or entry tasks:										
Section III	Are all energy sources is	solated?	□ Yes	Yes Attendant (Required) Name:							
S	Site Permits Required for	te Permits Required for Confined Sp			Space: LOTO			JSA ☐ Hot Work ☐ Othe			
	Communication Procedu	ures:	□ Rad	Radio					<u> </u>		I
	Rescue Procedures:		□ 911		☐ Other (Specify):					
	Protective Equipment	Requireme	nts:								
	☐ Hearing Protection	☐ Respira	tors	□ H	arness	☐ Life Lir	ne	□ GFCI	□ Radio	☐ Indiv	vidual Air Monitor
	☐ Protective Clothing	☐ Flashlig	ht l	□ Ve	entilation	☐ Hoistin	g Eq	uipment	□ Waders	□ Expl	osion Proof Lighting
	☐ Barricades/Guard Ra	ils	I	□ N	on-Sparkin	g Tools		□ Pneum	atic Tools	□ Fall	Protection
					Ap	provals					
2	RECLASSIFICATION						_				
Section IV	This is to certify, to the confined space or that all for work.										
	Printed	d Name				Ş	Signat	ure			Date
	PERMIT Approved By	(Supervisor	or Desi	gne	<u>e):</u>						
	Printed	d Name					Signat	ure			Date

	Entrant Log Form	
ction	Use of Confined Space Entry Permit Form 2: If working in a category 3 or 4 confined space, use Form 2 of this document for entrant, attendant, and supervisor log in Return this permit to EH&S upon completion.	n/ out.
	Permit Closure	
Section VI	Confined Space Entry Completed and all tools, materials and entrants are out of the space. CONFINED SPACE ENTRY PERMIT	
	Signature Da Form 2 — Entrant, Attendant and Supervisor Log	ate

NOTE: This permit must be posted at the space entrance during entry operation for both Permit & Non-Permit confined

	E ² ersonnel/Equipment Entry Log							Perr	nit #:	
	Name	Date	Time In	Time Out						
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

	\ttendant Log										
	Name	Date	Time In	Time Out							
1											
2											
3											
4											
5											

Entry Supervisor/Designee

	Name	Date	Time In	Time Out						
1										
2										
3										
4										
5										

Tester's Name / Signature:		Make	e/ Model/ Seria	al #:		Cal Due Date:			
	Initial Moni	toring	Periodic Atmospheric Monitoring Information (Please use additional copies of this form as needed for monitoring)						
	Initials		,						
	Date								
	Time								
	Results								
Oxygen (19.5-23%):	19.5-23%								
Carbon Monoxide (<35ppm):	< 35 ppm								
Lower Flammable Limit:	< 10%								
Hydrogen Sulfide (<10ppm*):	< 10 ppm								
Ammonia (<20 ppm*):	< 20 ppm								
Other Toxic Gas*:									



Appendix D - CSE Procedure Review Log

PROCEDURE REVISION LOG

Revision	Description of Changes	Date	Initiator	Approval