# PURPOSE

**JPIA Sample Confined Space Program**

**This model form/template must be customized to meet your Agency’s needs.**

**PROGRAM**

This program is to protect all employees from exposure to hazards while working in or near confined spaces.       is concerned about the health and safety of its employees and has taken steps to ensure that all employees recognize and avoid entering a confined space without authorization through the permit process. The program follows the requirements of Title 8 California Code of Regulations, Sections 5156, 5157, and 5158.

# SCOPE

This program shall apply to all employees responsible for planning, supervising, entering, or participating in a confined space entry or rescue.

# RESPONSIBILITIES

**A. Management**

1. Ensure the elements of this program are followed by employees and outside contractors.

2. Ensure employees are provided with the training and equipment necessary to safely enter confined spaces and comply with the requirements of this program.

# B. Supervisors

1. Understand the hazards and assure that all necessary tests are made, safety equipment is on the job-site, and confined space entry procedures are followed.

2. Ensure that unauthorized personnel is prevented from entering a permit-required confined space.

3. Verify entry permit information.

4. Terminate entry and cancel permits as required.

5. Verify rescue service and communication is available.

6. Assure consistent transfer of responsibility.

7. Maintain and review all records and permits that apply to the program.

**C. Attendants**

1. Understand the hazards and follow confined space procedures.

2. Be aware of the behavioral effects of hazards in entrants.

3. Continuously maintain accurate count and identities of entrants.

4. Remain outside the permit space until relieved by another attendant.

5. Communicate with entrants to monitor status and alert entrants of the need to evacuate.

6. Monitor activities inside/outside the permit space to determine if it is safe.

7. Summon rescue or other emergency services.

8. Deal with unauthorized persons.

9. Perform non-entry rescues as specified.

10. Perform no duties that might interfere with the primary duty to monitor and protect entrants.

**D. Entrants**

1. Know the hazards and follow confined space entry procedures.

2. Properly use the equipment.

3. Communicate with the attendant.

4. Alert the attendant to problems.

5. Exit the permit space when necessary.

# DEFINITIONS

# Are found in Appendix A - Title 8, California Code of Regulations, Section 5156, 5157, and 5158, specifically, 5157(b).

**PROGRAM REQUIREMENTS**

**A. Workplace Evaluation**

1. All structures, substructures, and openings that meet the following confined space definition will be identified and posted as permit-required confined spaces:

a. Large enough for an employee to bodily enter and perform work

b. Has limited or restricted means of entry or exit

c. Is not designed for continuous employee occupancy.

2. A list of identified confined spaces is located in Appendix B.

3. Employees shall be notified that the above locations are confined spaces and alerted to the potential hazards in those spaces.

# B. Training

1. Employees who enter a confined space or perform standby duties must receive training in the requirements and procedures of this program. No person will be allowed entry to a confined space unless the required training has been completed, certified, and documented.

2. Training will be provided on the effective use of all provided safety equipment.

3. Safe work practice training will be provided for duties the entrant is required to perform.

4. The training will establish employee proficiency in procedures and duties and will introduce new or revised procedures as necessary.

5. The District will maintain certification that the training has been accomplished and will include:

a. Employee name

b. Dates of training

c. Description of training procedures or training handbook

d. Signature or initials of the person(s) supervising the training.

6. Training will be provided for each employee:

a. Before the employee is first assigned duties related to confined space entry.

b. Before there is a change in the employee’s assigned duties.

c. Whenever there is a change in the permit space operations that presents a serious hazard about which an employee has not been previously trained.

d. Whenever the District has reason to believe either that there are deviations from the permit space procedures required by established entry procedures, or that there are inadequacies in the employee’s knowledge or use of the established entry procedures.

**C. Procedures and Practices for Confined Space Entry**

1. Before entry to any confined space, all affected employees will follow the procedures in Appendix C.

2. Failure to follow the established confined space entry procedures could result in serious injury or death. Deviation from the procedures will result in disciplinary action outlined in the District’s personnel policy.

**D. Contractors**

#### When a host employer arranges to have employees of a contractor perform work that involves permit space entry, the host employer shall:

1. Inform the contractor the workplace contains permit spaces and entry shall be only allowed through compliance with a program meeting the requirements of Title 8, section 5157.

2. Apprise the contractor of the hazards identified and host experience with the space.

3. Apprise the contractor of any precautions or procedures the host has implemented for employees in or near the spaces the contractor will be working.

4. Coordinate entry operations with the host when both the host employees and contractor employees will be working in or near permit spaces.

5. Debrief the contractor at the conclusion of entry operations regarding any hazards confronted or created in the permit spaces.

6. Ensure proper risk transfer is in place.

The **contractor** shall:

1. Obtain any available information regarding permit space hazards and entry operations from the host employer.

2. Coordinate entry operations with the host employer when both host and contractor personnel will be working in or near permit spaces.

3. Inform the host employer of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces, either through a debriefing or during the entry operation.

**E. Recordkeeping**

1. The Pre-Entry Checklist and Confined Space Entry Permit must be kept at the site for the duration of the work.

2. The Pre-Entry Checklist and Confined Space Entry Permit must be maintained for at least one year and made accessible to employees and their representatives.

**F. Program Review**

### The permits and checklists are to be reviewed within one (1) year after entry to revise the program as necessary to ensure employees participating in confined space entry operations are protected from permit space hazards.

Confined Space Program

**Appendices**

**A. California Code of Regulations, Confined Spaces**

**B. List of Identified Confined Spaces**

**C. Procedures and Practices for Confined Space Entry**

**D. Permit, Pre-entry Checklist**

Appendix A

**California Code of Regulations**

**Title 8, Article 108**

**Confined Spaces**

The information below is provided free of charge by the Department of Industrial Relations from its web site at [www.dir.ca.gov](http://www.dir.ca.gov).

**§5156. Scope, Application, and Definitions** <https://www.dir.ca.gov/title8/5156.html>

**§5157. Permit-Required Confined Spaces** https://www.dir.ca.gov/title8/5157.html

**§5158. Other Confined Space Operations** <https://www.dir.ca.gov/title8/5158.html>

[Cal/OSHA Confined Space Guide for General Industry](https://www.dir.ca.gov/dosh/dosh_publications/ConfSpa.pdf) – Question and Answer format and FAQ’s

[Cal/OSHA Sample CSE Permit - #1](https://www.dir.ca.gov/title8/5157d1.html)

[Cal/OSHA Sample CSE Permit - #2](https://www.dir.ca.gov/title8/5157d2.html)

Appendix B

##### List of Identified Confined Spaces

The Employer must inventory and evaluate the hazards of each confined space in the workplace. This can be accomplished by listing each confined space, where it is located, how often the space may be entered, and the classification of the confined space. Evaluation should be conducted initially and reviewed annually.

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|  |  |  | |  |  |  |
| **Site** | **Description or Locating Details** | **Hazards** | **Comments** | | **Evaluation Date** | **Classification**  **Permit Type** |
| **Various throughout** | **Sewer Manholes** | **Atmospheric Engulfment** | **All Entries** | | **1/1/2020** | **Full Permit Entry** |
| **123 Main Street** | **Water Meter Vault** | **Atmospheric Engulfment** | **Meter Reading Only** | | **1/1/2020** | **c 5 Entry** |
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Appendix C

**Procedures and Practices for Confined Space Entry**

**A. Pre-planning -** No work shall begin in any confined space before the operations to be undertaken are reviewed. The 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.

**B. Pre-entry -** After pre-planning and prior to the start of any work, the entry permit will be completed by the site supervisor. No employee will enter a confined space until acceptable entry conditions are verified as listed on the permit. The atmosphere will be evaluated for and **in the following order**:

1. Oxygen content

2. Flammable gases and vapors

3. Potential toxic atmospheres

Note: Permits are in Appendix D

**Atmospheric Testing Procedure -** will include:

1. Use of a combination direct reading instrument capable of sensing oxygen content, flammable gases, and toxic environments.

2. A person trained in the use and evaluation of the instrument will turn on and zero out (self calibrate) the instrument in fresh air following the manufacturer’s instructions. (The instrument should also be calibrated not less than the period recommended by the manufacturer using known test gases).

3. Prior to opening a lid or manhole cover, insert the probe or collector tubing of the air monitoring device 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, “crack” the cover enough to insert the probe or collector. If atmospheric conditions are acceptable, remove the cover.

4. Lower the instrument probe or collector, testing the top, sides, and hidden areas, and approximately four (4) feet in the direction of travel. All results will be recorded.

5. If all tests are within acceptable limits, the lids may be opened or cover removed. The opening shall be protected and guarded by barriers that will prevent accidental falls through the opening.

6. If an atmospheric hazard is discovered, or there is the potential for one to occur:

a. Continuous air ventilation will be provided and the atmosphere tested periodically to ensure acceptable atmospheric conditions within the space.

b. The ventilation will be done with mechanical forced air ventilation equipment capable of maintaining an acceptable atmosphere within the confined space.

c. If a portable blower is used, it must be equipped with sufficient ducting to reach within two feet of the bottom of the space or provide fresh outside air to the work area within the space (i.e. water reservoirs). 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 intake should be placed at least fifteen (15) feet from the confined opening to prevent re-circulation or ventilated air.

# C. Safe Entry Procedure – Permit Required

Note: Permit is in Appendix D

1. Entry is only permitted by properly trained personnel.

2. The entry supervisor will complete the confined space permit.

3. All required safety and entry equipment will be at the site.

4. The confined space will be isolated utilizing lockout/tagout procedures.

5. Perform atmospheric testing.

6. Purge or flush the confined space when necessary.

7. If continuous air ventilation is provided, the atmosphere will be tested periodically to ensure acceptable atmospheric conditions within the space.

8. Provide guards and barriers to protect the site from pedestrians and unauthorized personnel. The barriers are also set up to prevent accidental falls and protect entrants from external hazards.

9. Provide a minimum of one attendant outside the confined space.

10. Communication systems will be checked prior to entry.

11. Rescue team to be notified of entry location and time prior to entry.

12. Post permit outside entry location.

13. After the entry is completed, note any unusual findings on the permit.

14. After completion of the work, re-secure the access point.

15. Notify the supervisor and rescue team when the entry is completed.

16. Keep permit on file for one (1) year.

# D. Safe Entry Procedure – (c)(5) Alternative Entry: This type of entry is permissible through monitoring and inspection. The confined space may be entered under the (c)(5) alternative procedures only under the following conditions:

● The only hazard posed by the space is an actual or potentially hazardous atmosphere.

● Continuous forced air ventilation alone is sufficient to maintain a safe atmosphere for entry.

Note: Permit is in Appendix D

1. Entry is only permitted by properly trained personnel.

2. Entry supervisor (this may be entrant) will complete the (c)(5) alternative procedures or entry on the permit.

3. All required safety and entry equipment will be at the site.

4. The confined space will be isolated utilizing lockout/tagout procedures.

5. Purge or flush the confined space when necessary.

6. Continuous air ventilation will be provided and the atmosphere tested periodically to ensure acceptable atmospheric conditions within the space.

7. Provide guards and barriers to protect the site from pedestrians and unauthorized personnel. The barriers are also set up to prevent accidental falls and protect entrants from external hazards.

8. Post permit outside entry location.

9. After the entry is completed, note any unusual findings on the entry permit.

10. After completion of the work, re-secure the entry access point.

11. Keep permit on file for a minimum of one (1) year*.*

**E. Safe Entry Procedure – Non-Permit Confined Space:** A permit-required confined space may be reclassified as a non-permit confined space under the following conditions:

● 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.

● All hazards remain eliminated during the entry operation.

● The basis for determining that all hazards have been eliminated are documented through a certification containing, the date, location of the space, and the signature of the person making the determination.

● If hazards arise in the non-permit confined space, each employee shall exit the space, and it shall be reevaluated to determine if it must be reclassified as a permit space.

Note: Control of atmospheric hazards through forced air ventilation does not constitute the elimination of the hazard.

**F. Safety Equipment –** The District will provide all safety equipment and supplies necessary to perform safe entry and rescue operations. All safety equipment should be tested according to the manufacturer’s recommendations. Prior to beginning work, employees will inspect the equipment and ensure it is in good working condition. All defective equipment will be tagged for repair or replacement if required.

Equipment required for each entry will be noted on the entry permit. Work or entry will not commence if any equipment is missing.

G**. Change of Conditions –** If either the entrant(s) or attendant detects a condition that differs from the entry permit, the entrants will exit from the confined space as quickly as possible. These include:

● The entrant recognizes any warning sign or symptom of exposure to a dangerous situation.

● The entrant detects a condition which conflicts with the entry permit.

● The gas monitor signals an alarm.

● An evacuation alarm is activated.

● The attendant detects a behavioral change in the entrant(s).

● The attendant detects a condition that conflicts with the entry permit or a situation outside the space that could endanger the entrant(s).

● The entry supervisor gives an order to evacuate.

**H. Rescue –** All permit entries, with the exception of (c)(5) alternative entries, must provide for rescue service. At least one standby person at the entry site shall be trained and immediately available to perform rescue and emergency services. It is recommended that a rescue plan be prepared for (c)(5) and non-permit entries.

1. Emergency rescue conducted by District personnel.

a. All designated rescue team members shall be provided with and be trained in the proper use of personal protective equipment and rescue equipment needed for rescue operations.

b. Each team member shall be trained to perform the assigned rescue duties and trained in safe confined space entry procedures.

c. Each member of the rescue team must participate in rescue practice at least once every 12 months. Practice shall consist of simulated rescue from representative permitted spaces using mannequins or actual persons.

d. Each member of the rescue team must be trained in basic first aid and cardiopulmonary resuscitation (CPR). At least one member of the rescue team having current CPR and first aid certification shall be available during entry.

2. Emergency rescue conducted by outside emergency rescue service. The confined space attendant will immediately initiate outside rescue when needed. Prior to requesting a rescue service, the District shall:

a. Evaluate the service’s ability to respond promptly.

b. Evaluate the service’s qualifying abilities to function appropriately while rescuing entrants from the District’s particular types of identified spaces.

c. Inform the rescue service of the hazards it may confront at the site(s).

d. Provide the rescue service with access to permit spaces from which rescue may be necessary so that the service can practice rescue operations.

e. Outside rescue service must be notified of the location of the confined space and time of entry prior to entry.

3. **Non-entry** rescue is the preferred method for rescue. Retrieval systems or methods shall be used unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant.

a. Each entrant shall use a chest or full-body harness with a retrieval line attached high on the back. Wristlets may be used with a retrieval line instead of the chest or full-body harness if it can be demonstrated that the use of the wristlets is the safest and most effective method.

b. The end of the retrieval line shall be attached to a mechanical device or fixed point outside the confined space so that rescue can begin as soon as the rescuer is aware that rescue is necessary.

c. A mechanical device shall be available to retrieve personnel from vertical spaces more than 5 feet deep. This equipment may be a winch or pulley system in combination with a fixed attachment point above the space.

4. A Safety Data Sheet (SDS) or similar written information required to be kept at the worksite due to the use or exposure to a hazardous substance shall be made available to the medical facility treating the exposed entrant.

Appendix D

**Permit, Pre-Entry Checklist**



**DECLASSIFICATION FOR NON-PERMIT ENTRY**

**Only qualified Entry Supervisors are authorized to execute a Declassification Certificate.**

\* This permit space poses no actual or potential atmospheric hazards, and all hazards within the space were eliminated without entry into the space.

\* **ANY ENTRIES TO OBTAIN DATA OR TO PERFORM ACTIONS NECESSARY FOR DECLASSIFICATION MUST BE BY PERMIT!**

\* Rescue procedures have been established.

\* This certificate has been made available to each employee entering the area. 🞏 Yes

**\*** Upon completion of the job, the area will revert to a permit-required confined space status.

**Basis for Declassification:** (Describe fully)

Print Name (Entry Supervisor) Signature Date

**ATMOSPHERIC VENTILATION**: (Must operate long enough for the atmospheric hazard to be eliminated.)

Method of Ventilation:

Volume (Cubic Feet) of Space to Be Entered:

Volume Rating (Cubic Feet Per Minute) of Ventilation Equipment:

Length of time of Ventilation:

**(c)(5) - ALTERNATIVE PROCEDURES FOR ENTRY**

1. All non-atmospheric hazards in the space were eliminated without entering the space YES 🞏 NO 🞏

(e.g., engulfment, internal configuration, electrical)?

2. Source isolation and lock-out/tag-out in place? YES 🞏 NO 🞏 N/A 🞏

3. Free of any serious job-introduced hazards? YES 🞏 NO 🞏

4. Is the only hazard posed by the space an actual or potential atmospheric hazard? YES 🞏 NO 🞏

5. Will continuous forced ventilation alone be sufficient for safe entry? YES 🞏 NO 🞏

6. Rescue Plan – equipment readily accessible? YES 🞏

7. Has forced air ventilation been continued? YES 🞏 NO 🞏

8. Has atmospheric monitoring been continued? YES 🞏 NO 🞏

**IF ANY “NO” RESPONSES, ENTRY *NOT ELIGIBLE* USING THE “(c)(5) PROCEDURE”. *COMPLETE THE FULL PERMIT*.**

**(c)(5) CERTIFICATION BY ENTRY SUPERVISOR:** I am familiar with the special requirements and conditions under which a permit-required space may be entered under the alternative procedures outlined in 8 CCR 5157 (c)(5). The basis for this conclusion is inspection and testing (with a calibrated, direct-reading instrument, as previously noted). I verify that all necessary pre-entry steps have been taken, that rescue procedures have been established, and that ventilation of the space and atmospheric monitoring will continue. I verify that the space is safe for entry.

Print Name Signature Date

**FULL PERMIT-REQUIRED ENTRY**

1. All non-atmospheric hazards in the space are controlled without entering the space? YES 🞏

2. Exposure to an atmospheric hazard controlled? YES 🞏 N/A 🞏

3. The ventilation system in operation (positive pressure if possible)? YES 🞏 N/A 🞏

4. Continuous air monitoring of workspace while work is being performed? YES 🞏 N/A 🞏

5. Lock-out/Tag-out systems in place? YES 🞏 N/A 🞏

6. MSDS available (whenever atmospheric or other chemical hazards are introduced)? YES 🞏 N/A 🞏

7. Use of explosion-proof equipment/non-sparking tools? YES 🞏 N/A 🞏

8. Hot Work Permit required? (If yes, attach permit) YES 🞏 N/A 🞏

9. Are fire extinguishing media available? YES 🞏 N/A 🞏

10. Clear communication between entrant and attendant? YES 🞏

11. Appropriate PPE for employees? YES 🞏

12. Rescue equipment and procedures in place? YES 🞏

13. Emergency communications in place and checked? YES 🞏

14. Other anticipated hazards & controls:

**PERMIT CERTIFICATION BY ENTRY SUPERVISOR:**

Print Name Signature Date

***NOTE: THIS DOCUMENT MUST BE POSTED AT ENTRY AND/OR IN POSSESSION OF ATTENDANT!***

|  |
| --- |
| **CONTRACTOR PRE/POST ENTRY BRIEFING**  Name of contractor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pre-briefing conducted on: (date) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Contractor notified of: Permit Requirements 🞏 Potential Hazards 🞏 Special tools/Equipment 🞏  Debriefing at completion of job: (date)  Problems encountered: |

**CONFINED SPACE ENTRY PERMIT - HOT WORK PERMIT**

**(Flame or Spark)**

PERMIT ISSUE DATE/TIME:

PERMIT EXPIRATION DATE/TIME:

DETAILED DESCRIPTION OF JOB:

Answers and actions taken for the following questions must agree with the rules of the standard operating procedures.

1. Can the job be done outside in a safe area rather than in the confined space? YES 🞏 NO 🞏

2. Have all process materials (solids, liquids, gases) been removed from the confined space? YES 🞏 NO 🞏

3. Have all lines been disconnected and blanked? YES 🞏 NO 🞏

4. Has LEL been tested? YES 🞏 NO 🞏

5. Has the fire watch been advised of duties? YES 🞏 NO 🞏

Name of fire watch:

6. Is a fire extinguisher and/or water hose available for fire watch? YES 🞏 NO 🞏

7. Can flame or sparks ignite materials in the vicinity or on lower floors or levels? YES 🞏 NO 🞏

8. Are non-flammable tarps used to cover combustibles? YES 🞏 NO 🞏

9. Have workers been given specific safety instructions? YES 🞏 NO 🞏

10. Are proper confined space entry procedures being followed? YES 🞏 NO 🞏

11. Have welding screens been set up, if practical? YES 🞏 NO 🞏

12. Is adjacent area and equipment safe? YES 🞏 NO 🞏

13. Special precautions to be taken:

**CERTIFICATION BY ENTRY SUPERVISOR:**

Print Name Signature Date

**MUST BE POSTED AT ENTRY AND/OR IN POSSESSION OF ATTENDANT**

