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## **CONFINED SPACE ENTRY PROGRAM**

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## I. INTRODUCTION

### A. Statement of Need

The Seaside School District (District) will implement a Confined Space Entry Program because facilities within the District contain spaces that are considered “confined” because their configurations hinder the activities of employees who must enter, work in, and exit them. A confined space has limited or restricted means for entry or exit, and it is not designed for continuous employee occupancy.

### B. Anticipated Benefits

Several benefits are anticipated with the implementation of the Confined Space Entry Program.

1. Prevention of illnesses and injuries related to entry and/or work in permit-required confined spaces.
2. Overall improvement of the District’s Safety Program.
3. Improvement of employer-employee relations by establishing regular lines of communication.
4. Avoidance of citations, violations, and related problems from the Federal and State regulations.

### C. Program Administrator:

The Confined Space Entry Program Administrator is the District’s Maintenance Supervisor.

### D. Location and contact person for the written program:

A copy of this written confined space entry program is available, upon request, to employees, their designated representatives, directors or designees of the Occupational Health and Safety Administration (OSHA). A copy of this written confined space entry program will be kept at: the Seaside School District Office, each building that has a confined space and on the District’s website.

### E. Notice

Employees and contractors of the District shall not enter a confined space until the following requirements are met:

1. Hazards are identified and evaluated; and
2. Workers entering the space are trained on confined space hazards and entry procedures; and
3. Workers entering the space are identified and made aware of possible hazards that may be encountered on that particular job; and

4. Appropriate danger signs have been posted; and
5. Proper personal protective equipment has been selected and issued to affected employees.

## **II. PURPOSE**

The purpose of this program is to ensure the protection of all employees of the District from the hazards associated with confined space entry. This document contains requirements for practices and procedures to protect employees from those hazards of entry into and work within permit required confined spaces.

It shall be the practice of the District to reduce the need for confined space entry. It shall also be the practice of the District to eliminate whenever possible, all confined space hazards in order to reclassify permit-required confined spaces to non-permit required confined spaces. When confined space entry is necessary, all provisions of this document are to be followed.

## **III. AUTHORITY**

The District Confined Space Entry Program is required by Federal and State regulations.

## **IV. SUMMARY**

The District has the responsibility to establish a written, comprehensive program which includes provisions for working in confined spaces. These provisions entail preventing unauthorized entries, identifying and evaluating hazards, establishing procedures for safe Permit Space entry, issuing and maintaining proper equipment, using outside attendants, establishing rescue and emergency procedures, identifying duties and job classifications of employees entering and/or working in confined spaces, establishing a system for issuing entry permits, developing post-entry procedures, and conducting post-illness/injury reviews.

The written plan will be reviewed every year for accuracy and completeness.

The written plan and its elements will be updated in the following situations:

- A. When there is reason to believe that provisions of the program may not protect employees;
- B. When new processes and/or technologies are introduced;
- C. When job duties mentioned in the program are changed;
- D. When locations mentioned in the program are changed;
- E. When requirements for written confined space entry programs have changed in accordance with applicable standards, codes and regulations; and/or,
- F. When any other elements are changed.

## V. DEFINITION OF A CONFINED SPACE

**A confined space** means a space that: **1)** is large enough and so configured that an employee can bodily enter and perform assigned work; **2)** has limited or restricted means for entry or exit; and **3)** is not designed for continuous human occupancy. Examples of confined spaces include but are not limited to storage tanks, process vessels, bins, silos, boilers, ventilation or exhaust ducts, sewers, pipe chassis, underground utility vaults, tunnels, and pipelines.

**A permit-required confined space** means a confined space that either **1)** contains or has the potential to contain a hazardous atmosphere, **2)** contains a material that has the potential for engulfing 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 slopes downward and tapers to a smaller cross-section, or **4)** contains any other serious safety or health hazard.

## VI. RESPONSIBILITIES

- A. The Maintenance Supervisor shall be responsible for the development, documentation, and administration of the District Confined Space Entry Program. In fulfilling these responsibilities, the Maintenance Supervisor shall carry out the following tasks:
1. Develop the written Confined Space Entry Program and revise the program as necessary.
  2. Provide guidance for the proper selection and use of appropriate air monitoring equipment, respiratory protection, and personal protective equipment to meet the requirements of this program.
  3. Periodically audit work operations and documentation using canceled permits to evaluate the overall effectiveness of the Confined Space Entry Program and ensure that employees participating in entry operations are protected from Permit Space hazards.
  4. Assist each building employees in identifying confined spaces.
  5. Provide guidance for the proper selection and use of appropriate safety and rescue equipment to meet the requirements of the Confined Space Entry Program.
  6. Classify confined spaces as "Permit Required," "Alternate Procedure" or "Non-Permit Required."
  7. Identify employees and/or contractors who will enter confined spaces.
  8. Identify the employees and/or contractors required to wear respirators.
  9. Advise employees and/or contractors on routine measurement of respiratory hazards in confined spaces.
  10. Provide detailed instruction and training on confined space hazards and entry procedures to those who may enter confined spaces.
  11. Provide instruction to employees and/or contractors on the proper use of equipment required for confined space entry.
  12. Maintain equipment that is used to enter confined spaces.
  13. Conduct work site inspections to review unit compliance with confined space entry procedures.

14. Issuance and cancellation of entry permits.
15. Establishment of a lockout program.
16. Identify and evaluate the hazards of Permit Spaces before employees and/or contractors enter them.
17. Conduct a pre-entry briefing to inform entrants of possible hazards that may be encountered.
18. Take the necessary measures to prevent entrance into prohibited Permit Spaces.

#### B. Employees Who May Enter Confined Spaces

Employees who may enter confined spaces shall comply with the confined space entry procedures contained herein and with those procedures stipulated by the Maintenance Supervisor. To comply, employees shall carry out the following tasks:

1. Store, clean, maintain and guard against damage, equipment used for confined space entry.
2. Report any deficiencies or malfunction of equipment to the Maintenance Supervisor.
3. Understand emergency procedures in case of an accident in a confined space.
4. Under no circumstance enter a confined space that is suspect of having a non-respirable atmosphere, even to rescue a fellow employee.

#### C. Permit-Required Confined Space Program

Maintenance Supervisor will identify and classify every confined space as either a Permit-Required Confined Space or, when the confined space does not present a real potential hazard, a Non-Permit Confined Space. When Permit-Required Confined Spaces are identified, department heads and supervisors will also be responsible for the following:

1. Preventing unauthorized entry.
2. Identifying Permit Space hazards.
3. Developing safe entry practices.
4. Maintaining and using equipment properly.
5. Testing for acceptable entry conditions.
6. Providing Permit Space attendants.
7. Providing emergency retrieval systems.

### **VII. PROGRAM ELEMENTS FOR PERMIT-REQUIRED CONFINED SPACES**

#### A. Preventing Unauthorized Entry

In order to prevent unauthorized entry into permit-required confined spaces, buildings must utilize at least two of the following mechanisms:

1. Providing information to visitors;
2. Posting warning signs;

3. Erecting barriers; and/or,
4. Installing locks or covers at entry points.

The Maintenance Supervisor with the assistance of the building custodian will document the implementation of these mechanisms and ensure that they remain in place.

#### B. Identifying Permit Space Hazards

The Maintenance Supervisor with the assistance of the building custodian will identify and evaluate the hazards of Permit Spaces before employees enter them.

The following hazards shall be identified prior to entry into a confined space:

1. Atmospheric hazards;
2. Asphyxiating atmospheres;
3. Flammable atmospheres;
4. Toxic atmospheres;
5. Burn hazards;
6. Heat stress hazards;
7. Mechanical hazards;
8. Engulfment hazards;
9. Physical hazards (falls, debris, slipping hazards);
10. Electrocution;
11. Danger of unexpected movement of machinery; and.
12. Noise hazards.

#### C. Developing Safe Entry Practices

The Maintenance Supervisor with the assistance of the building custodian will implement procedures and practices necessary for safe Permit Space entry operations. These include, but are not limited to:

1. Acceptable entry conditions;
2. Isolating the Permit Space; and,
3. Pre-entry briefing. The Maintenance Supervisor will conduct a meeting of all employees and/or contractors who will enter the confined space. Employees and/or contractors will be informed of the hazards and safety conditions of the particular job.

#### D. Controlling Hazards

Hazards shall be controlled by the following mechanisms:

1. Lockout of energy sources; and,
2. Use of personal protective equipment.

## **VIII. EQUIPMENT USE AND MAINTENANCE**

Equipment, including testing, ventilating, lighting, monitoring, communication and personal protective equipment, necessary for the safe entry into a Permit Space shall be provided, maintained and properly used by each building.

## **IX. TESTING FOR ACCEPTABLE ENTRY CONDITIONS**

Permit space evaluation will include all testing conducted before an entry, as well as, all testing and monitoring activities to ensure that acceptable entry conditions are maintained throughout the entry. Atmospheric testing should be conducted in accordance with Appendix B of this program.

## **X. PROVIDING PERMIT SPACE ATTENDANTS**

Each building will provide at least one custodian attendant outside a Permit Space to be entered for the duration of the entry operations. See Appendix C, "Employee Duties" for specific responsibilities.

## **XI. TRAINING AND DUTIES OF ENTRY PERSONNEL**

A. There are three specific members of a confined space entry team:

1. Authorized Entrants;
2. Custodian Attendant; and,
3. Maintenance Supervisor. The Maintenance Supervisor shall provide training so that all employees and/or contractors whose work is regulated by this section acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned. An online training course will be required for all custodian attendants and Maintenance Supervisor.

B. Training shall be provided to each affected employee:

1. Before the employee and/or contractor is first assigned duties.
2. Before there is a change in assigned duties.
3. Whenever there is a change in Permit Space operations that presents a hazard about which an employee and/or contractor has not previously been trained.
4. Whenever the building has reason to believe either that there are deviations from the Permit Space entry procedures or that there are inadequacies in the employee's and/or contractor's knowledge or use of these procedures.

The training shall establish employee proficiency in the duties outlined in Appendix C and shall establish new or revised procedures, as necessary, for compliance with applicable standards, codes and regulations.



The Maintenance Supervisor shall certify that the training required by the previously mentioned paragraphs has been accomplished. The online training transcript contains the employee's name and the date of training. The online training transcript shall be available in the Superintendent's office for inspection by employees and their authorized representatives.

Only trained attendants, authorized entrants, and personnel authorizing or in charge of entry shall work in and around a Permit Space.

## **XII. RESCUE AND EMERGENCY SERVICES – “911” IS NOT A PRIMARY EMERGENCY SERVICE FOR CONFINED SPACE RESCUE**

Wherever possible, the use of non-entry rescue systems or methods shall be used. Where non-entry rescue is not possible, buildings will coordinate rescue and emergency services. These service providers will be made aware of the hazards they may confront when called on to perform rescues. They shall be responsible to equip, train, and conduct it appropriately. Designated building personnel will provide the service providers with access to all Permit Spaces from which rescue may be necessary so that they can develop appropriate rescue plans and Permit Space practice rescue operations.

## **XIII. WRITTEN PERMIT SYSTEM**

A permit system shall be utilized for entry into Permit Spaces.

Each canceled entry permit shall be retained for at least one year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation shall be noted on the pertinent permit so that appropriate revisions to the Permit Space program can be made.

## **XIV. COORDINATING ENTRY OPERATIONS**

All outside contractors performing work in confined space entry permit areas shall be informed of any fire, explosion, health or other safety hazards of that confined space. This information shall be based on current or past history of the confined space and the nature of the contractor's work procedure in making such disclosure.

Maintenance Supervisor shall inform contractors of the District safety rules and emergency plans which may be applicable to the contractor's employees. Contractors and their employees must not be allowed to enter a confined space until the provisions of this program have been satisfied. When both District and contractor personnel are working in or near Permit Spaces, their entry operations must be coordinated to avoid endangering any personnel.

At the conclusion of the entry operations, the contractor must be debriefed regarding the Permit Space program that was followed and concerning any hazards confronted or created in Permit Spaces during entry operations.

It is the responsibility of each contractor who is retained to perform Permit Space entry operations to obtain any available information regarding Permit Space hazards and entry operations. They must also coordinate entry operations with the District when both will be working in or near Permit Spaces. The District must be informed 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 operations.

**XV. CONCLUDING ENTRY**

Maintenance Supervisor will determine when the entry operations have been completed. The Permit Space will be closed and the permit canceled. The Maintenance Supervisor will write "Permit Canceled" with the date, time, and signature at the bottom of the Confined Space Permit. Entry into the Permit Space will only be allowed after following all aspects of this program.

**XVI. PROGRAM REVIEW AND REVISION**

Maintenance Supervisor will review entry operations and revise the procedures to correct any deficiencies before subsequent entries are authorized.

**XVII. ANNUAL COMPLIANCE REVIEW**

Maintenance Supervisor will review the program annually in light of actual entry, work, and exit experience to determine how the program can be improved.

## Appendix A - Definitions

**Acceptable entry conditions:** means the conditions that must exist in a Permit Space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter into and work within the space.

**Alternate Entry Procedures:** means procedures that may be used when the only hazard of a confined space, based upon monitoring and inspection data, is an actual or potential hazardous atmosphere in which continuous forced air ventilation alone is all that is needed to maintain the permit required confined space for safe entry.

**Custodian Attendant:** means an individual stationed outside one or more Permit Spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the employer's Permit Space program.

**Authorized Entrant:** means an employee and/or contractor who is authorized by the District to enter a permit required confined space.

**Confined Space:** means a space that the space:

- 1) Is large enough and so configured that an employee can bodily enter and perform assigned work; and
- 2) Has limited or restricted means for entry or exit (for example, tanks vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
- 3) Is not designed for continuous employee occupancy.

**Emergency:** means any occurrence (including any failure of hazard control or monitoring equipment) or event(s) internal or external to the confined space that could endanger entrants.

**Engulfment:** means the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

**Entry:** means the action by which a person passes through an opening into a permit required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

**Entry permit:** means the written or printed document that is provided by the employer to allow and control entry into a Permit Space.

**Entry permit system:** means the employer's written procedures for preparing and issuing permits for entry and returning the Permit Space to service following termination of entry and designates by name or title the individuals who may authorize entry.

**Hazardous atmosphere:** means an atmosphere that may expose employees to the risk of death, incapacitation, and impairment of ability to self-rescue (that is, escape unaided from a Permit Space), injury, or acute illness from one or more of the following causes:

- 1) Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
- 2) Airborne combustible dust at a concentration that meets or exceeds its LFL;

**Note:** This concentration may be approximated as a condition in which the dust obscures vision at a distance of 5 feet (1.52 m) or less.

- 3) Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
- 4) Atmospheric concentration of any substance which may exceed a permissible exposure limit; and/or,

**Note:** An airborne concentration of a substance that isn't capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness due to its health effects isn't covered by this definition.

- 5) Any other atmospheric condition that is immediately dangerous to life or health.

**Note:** For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Material Safety Data Sheets that comply with the Hazard Communication Standard, 1910.1200, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

**Immediately dangerous to life or health (IDLH):** means any condition which poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a Permit Space.

**Inerting:** means the displacement of the atmosphere in a Permit Space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

**Note:** This procedure produces an IDLH oxygen-deficient atmosphere.

**Isolation:** means the process by which a Permit Space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

**Maintenance Supervisor:** means the person responsible for determining if acceptable entry conditions are present at a Permit Space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this section.

**Note:** Maintenance Supervisor also may serve as a custodian attendant or as an authorized entrant, as long as that person is trained and equipped as required by this section for each role they fill. Also, the duties of custodian assistant may be passed from one individual to another during the course of an entry operation.

**Non-permit confined space:** means 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:** means an atmosphere containing less than 19.5 percent oxygen by volume.

**Oxygen enriched atmosphere:** means an atmosphere containing more than 23.5 percent oxygen by volume.

**Permit required confined space:** (Permit Space) means a confined space that has one or more of the following characteristics:

- 1) Contains or has a potential to contain a hazardous atmosphere;
- 2) Contains a material that has the potential for engulfment of an entrant;
- 3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls, or a floor which slopes downward and tapers to a smaller cross-section; or,
- 4) Contains any other recognized serious safety or health hazard.

**Permit required confined space program:** means the employer's overall program for controlling, and, where appropriate, for protecting employees from, Permit Space hazards and for regulating employee entry into Permit Spaces.

**Permit system:** means the employer's written procedure for preparing and issuing permits for entry and for returning the Permit Space to service following termination of entry.

**Prohibited condition:** means any condition in a Permit Space that is not allowed by the permit during the period when entry is authorized.

**Rescue service:** means the personnel designated to rescue employees from Permit Spaces.

**Retrieval system:** means the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from Permit Spaces.

**Testing:** means the process by which the hazards that may confront entrants of a Permit Space are identified and evaluated. Testing includes specifying the tests that are to be performed in the Permit Space. Testing enable employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to, and during, entry.

## **Appendix B - Atmospheric Testing and Monitoring**

### **I. PROCEDURES FOR ATMOSPHERIC TESTING AND MONITORING**

Atmospheric testing is necessary for two purposes: evaluation of the hazards of the Permit Space and verification that acceptable entry conditions for entry into that space exist.

- A. Evaluation Testing: The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres that may exist or arise, so that appropriate entry procedures can be developed and acceptable entry conditions stipulated for that space. A minimum of three tests should be performed to identify atmospheric hazards in confined spaces. These tests must be performed in the following sequence:
  - 1. Oxygen Content;
  - 2. Flammability;
  - 3. Toxicity.
  
- B. Verification Testing: The atmosphere of a Permit Space which may contain a hazardous atmosphere should be tested for residues of all contaminants identified by evaluation testing using permit specified equipment to determine that residual concentrations at the time of testing and entry are within the range of acceptable entry conditions.
  
- C. Duration of Testing: Measurement of values for each atmospheric parameter should be made for at least the minimum response time of the test instrument specified by the manufacturer.
  
- D. Testing Stratified Atmospheres: When monitoring for entries involving a descent into atmospheres that may be stratified, the atmospheric envelope should be tested a distance of approximately 4 feet in the direction of travel and to each side. If a sampling probe is used, the entrant's rate of progress should be slowed to accommodate the sampling speed and detector response.
  
- E. Equipment Calibration: To ensure that the atmospheric testing equipment is functioning properly, any direct reading test device should not be used without performing the following operations:
  - 1. Inspection;
  - 2. Calibration.

## II. AIR MONITORING GUIDE

A. Calibrate Instrument.

B. Inspect Instrument: Check physical condition of instrument (case, meter, attachments, hoses for cracks). Review instructions to insure you know how to use the device and interpret results.

C. Perform Function Test:

1. Oxygen sensor: breathe into sampling device to reduce the oxygen level below 19.5%. The oxygen alarm should sound.
2. Combustible gas sensor: remove cap of solvent magic marker or open a cigarette lighter without a flame near the sampling device until it reaches a 10% reading. The gas sensor should sound.
3. Always perform a function test in the field before use.
4. Never perform a function test in the suspected atmosphere.

D. Pre-Test Space:

1. Zero instrument in known fresh air.
2. Test entire space, top to bottom, every four feet and in the direction of travel.
3. Order of tests:
  - a. Oxygen;
  - b. Flammability;
  - c. Toxicity.

E. Monitor the Space: If continuous monitoring is required, position the instrument near the employee's and/or contractor's breathing zone.

## Appendix C - Employee Duties

### III. DUTIES OF AUTHORIZED ENTRANTS:

- A. Know the hazards that may be faced during entry;
- B. Recognize the signs and symptoms of hazard exposure;
- C. Understand the consequences of hazardous exposure;
- D. Use equipment properly;
- E. Communicate with the attendant;
- F. Alert the attendant of hazards, and,
- G. Exit the Permit Space quickly when required.

### IV. DUTIES OF THE CUSTODIAN ATTENDANT:

- A. Know entry hazards;
- B. Know behavioral effects of exposure;
- C. Maintain accurate entrant identification
- D. Remain outside the Permit Space;
- E. Communicate with entrants;
- F. Monitor entry activities;
- G. Summon rescue and emergency services;
- H. Prevent unauthorized entry;
- I. Perform non-entry rescue; and,
- J. Perform no conflicting duties.

### V. DUTIES OF THE MAINTENANCE SUPERVISOR:

- A. Know the potential hazards during entry and work;
- B. Determine if acceptable entry conditions are present at a Permit Space where entry is planned;
- C. Terminate entry as required by the standard;
- D. Verify that rescue services are readily available and the means for summoning them are operable;
- E. Remove unauthorized individuals who enter or try to enter the Permit Space during entry and work;
- F. Determine that entry and work operations remain consistent with entry permit terms and that acceptable entry conditions are maintained;

**Note:** The Maintenance Supervisor may also serve as the entrant or attendant for the entry.



## Appendix D - Confined Space Entry Procedures

- I. Determine if entry into confined space is necessary to perform work.
- II. The following minimum required equipment should be on hand:
  - A. Ventilation;
  - B. Barrier and warning signs;
  - C. Equipment capable of measuring concentrations of oxygen, flammable gases, hydrogen sulfide and carbon monoxide.
- III. Eliminate any unsafe conditions before the access door or cover is opened.
- IV. Immediately guard the entry by some barrier and signs to prevent people or objects from accidentally entering the confined space.
- V. Conduct hazard assessment.
  - A. *Test the real or potential atmospheric hazards:*
    1. Oxygen content less than 19.5% or greater than 23.5%.
    2. Flammable gases and vapors greater than 10% of the LEL (Lower Explosive Limit).
    3. Hydrogen Sulfide concentrations greater than 10 ppm (Parts per million).
    4. Carbon Monoxide concentrations greater than 35 ppm.
    5. Other toxic gases or vapors greater than PEL (Permissible Exposure Limit).
  - B. Review the space for other observable serious safety and health hazards:
    1. Mechanical;
    2. Electrical;
    3. Burn;
    4. Heat Stress;
    5. Engulfment; and/or,
    6. Entrapment Hazards, etc.
- I. If any hazardous atmosphere exists, do the following:
  - A. If possible, determine and eliminate the source of the atmospheric hazards.
  - B. When the atmosphere contains toxins or flammables, ventilate the space by drawing air out until the air has been changed over several times.
  - C. When oxygen deficient, ventilate by pushing air into the space until the air has been changed over several times.
  - D. Verify the hazardous atmosphere has been eliminated by testing the air.

- II. Determine from information gathered above which of the following entry procedures is appropriate:
  - A. Non-Permit Space: If there are neither real nor potential atmospheric hazards and no observable serious safety and health hazards, this should be certified in writing.
  - B. Alternative Entry Procedures: If no observable serious safety and health hazards exist and atmospheric hazards are controlled with continuous ventilation, this should be certified in writing.
  - C. Permit-Required Space: If there are any observable serious safety/health hazards in addition to potential or real atmospheric hazards, all procedure here must be followed. Authorize permit with signature.
  - D. Non-Respirable Atmosphere: If hazardous atmosphere cannot be eliminated by continuous ventilation, contact Maintenance Supervisor before continuing.
  
- III. Follow pre-entry precautions:
  - A. Notify affected buildings of service interruption.
  - B. Lock-out/tag-out all sources of energy (e.g. steam, electric, mechanical) posing a risk to employees and/or contractors.
  - C. Install blank in affected pipes where valves are not secure or seated.
  - D. Clean and/or purge any chemical storage vessel.
  - E. Wear appropriate personal protective and respiratory protection.
  - F. Have lights and or ladder available.
  - G. Have appropriate SDS (Safety Data Sheet).
  - H. Determine how often air monitoring will be conducted.
  
- IV. Additional precautions necessary for Permit-Required Spaces:
  - A. Determine start and end times for authorized entry.
  - B. Assign roles and responsibilities as entrant(s), custodian attendant(s), Maintenance Supervisor.
  - C. Discuss non-entry rescue plan.
  - D. Identify rescue service.
  - E. Determine communication method between entrant/custodian attendant.
  - F. Conduct pre-entry briefing: review hazards, procedures, and precautions.
  
- V. Sign and post the Permit/Certification at the site.

VI. Under the following conditions, personnel must exit the confined space, re-evaluate hazards, and modify entry procedures.

A. If any hazardous atmosphere is detected after entry.

|   |
|---|
| Note: If a hazardous atmosphere has been detected after entry, Maintenance Supervisor should be notified before re-entry. |
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B. If any health or safety hazard develops which was not anticipated.

C. If custodian attendant (on Permit-Required Confined Space Entry) cannot effectively perform duties.

D. If personnel in confined space are experiencing symptoms from heat stress or over-exposure to atmospheric hazards.

VII. When work is completed, return the space to original condition. Close out the permit/certification and submit the completed paperwork to Maintenance Supervisor.

## CONFINED SPACE ENTRY PERMIT

|                        |              |                              |                   |
|------------------------|--------------|------------------------------|-------------------|
| DATE ISSUED:           | TIME ISSUED: | EXPIRATION DATE:             | EXPIREATION TIME: |
| LOCATION:              |              | DESCRIPTION:                 |                   |
| PURPOSE OF ENTRY:      |              |                              |                   |
| AUTHORIZED ENTRANT(S): |              | AUTHORIZED ATTENDANT(S):     |                   |
| TIME OF ACTUAL ENTRY:  |              | TIME OF COMPLETION OF ENTRY: |                   |

| ATMOSPHERIC TEST DATA                          |                         |                   |                   |
|--|-------------------------|-------------------|-------------------|
| TEST   | PERMISSIBLE ENTRY LEVEL | PRE-ENTRY RESULTS | FOLLOW-UP RESULTS |
| PERCENT OF OXYGEN                              | 19.5% TO 23.5%          | %                 | %                 |
| COMBUSTIBLE GAS/LEL                            | UNDER 10% LEL           | %                 | %                 |
| CARBON MONOXIDE/CO                             | <25 PPM                 | PPM               | PPM               |
| HYDROGEN SULFIDE/H2S                           | <10 PPM                 | PPM               | PPM               |
| PRE-ENTRY TESTING BY:                          |                         | DATE:             | TIME:             |
| INSTRUMENT                                     |                         | MODEL #           | SERIAL #          |
|  |                         |                   |                   |
|  |                         |                   |                   |
| ZERO CALLIBRATION PRIOR TO ENTRY CONDUCTED BY: |                         |                   |                   |

| REQUIRED SAFETY CONTROLS/OBSERVED HAZARDS  |                          |   |                                     |
|--|--------------------------|---|-------------------------------------|
| REQUIREMENT  | YES                      | NO  | COMMENTS/CONTROL MEASURES EQUIPMENT |
| Attendant  | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| *Respiratory Protection  | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| *Protective Clothing   | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| *PPE   | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| Fire Extinguisher  | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| *Non-Entry Rescue Equip  | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| *Lockout/Tagout  | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| *Ventilation   | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| *Follow-up Testing   | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| *Other Controls  | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| Are Workers Trained?   | <input type="checkbox"/> | <input type="checkbox"/>                        |                                     |
| *COMMENTS ARE REQUIRED IF CHECKED "YES"  |                          |   |                                     |
| COMMUNICATION: (check at least one) <input type="checkbox"/> VISUAL <input type="checkbox"/> DIRECT VERBAL <input type="checkbox"/> PHONE <input type="checkbox"/> RADIO   |                          |   |                                     |
| EMERGENCY CONTACT: <b>SEASIDE FIRE DEPARTMENT, (503) 738-5420</b>  |                          |   | <b>DIAL 911</b>                     |
| IS SPACE LABELED? <input type="checkbox"/> YES <input type="checkbox"/> NO    OTHER COMMENTS:  |                          |   |                                     |
| PERMIT ISSUED – ENTRY SUPERVIOR’S SIGNATURE:   |                          | PERMIT CANCELED – ENTRY SUPERVISOR’S SIGNATURE: |                                     |
| PRINT NAME HERE:   |                          | PRINT NAME HERE:                                |                                     |
| <p>PERMIT MUST REMAIN AT ENTRY POINT(S) UNTIL WORK IS COMPETE. A COPY MUST BE FILED WITH THE MAINTENANCE SUPERVISOR AND RETAINED FOR AT LEAST ONE YEAR. ONLY AUTHORIZED ENTRANTS LISTED ON PERMIT MAY ENTER. PERMIT MUST BE FILLED OUT COMPLETELY.</p> |                          |   |                                     |