



Don H. Mahaffey Drilling Co.

CONFINED SPACE



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1 OBJECTIVE

Don H. Mahaffey Drilling Co. has adopted this Confined Space program to establish, implement, and maintain safe practices and procedures to protect employees from hazards of entry into permit-required and non-permit required confined spaces. The Confined Space program correlates with the requirements set forth under the California Code of Regulations, Title 8, Sections 1950 through 1962, Confined Spaces.

When it is decided that any Don H. Mahaffey Drilling Co. employees will enter a permit space under Don H. Mahaffey Drilling Co. supervision, this written permit space program will be made available prior to and during entry operations for inspection by employees and their authorized representatives.

2 PROGRAM ADMINISTRATOR

Don H. Mahaffey Drilling Co. has designated Ashley Mahaffey Tullius for the implementation of the Confined Space program. Ashley Mahaffey Tullius, or designee, is responsible for:

- a. Identifying work areas, processes, or tasks that could potentially expose employees to confined space hazards;
- b. Enforcing methods of exposure control;
- c. Maintaining records pertaining to the program; and
- d. Maintaining, reviewing, and updating the Confined Space program at least annually.

3 CONFINED SPACE, AN EXPLANATION OF

A confined space is an enclosed or partially enclosed area that is big enough for a worker to enter. Confined spaces are not designed for continuous work, but can be found in almost any workplace. Entering a confined space can be very hazardous, as their dangers can be well hidden. A seemingly empty tank can be full of deadly gas or a harmless looking tunnel can be searing hot and without proper knowledge and training, workers can expose themselves to these dangers. Therefore, it is vital that all confined spaces, and their hazards, are identified and evaluated in any workplace.

3.1 Confined Space Characteristics

A confined space is a space that shows these characteristics:

- a. Is large enough and so arranged that an employee can bodily enter it;
- b. Has limited or restricted means for entry and exit;
 - A space has a limited or restricted means of exit if a person cannot readily escape from the space in an emergency. Any of the following factors indicate that a work space has a limited or restricted means of exit:
 1. The need to use a ladder or movable stairs, or stairs that are narrow or twisted;
 2. A door that is difficult to open or a doorway that is too small to exit while walking upright;
 3. Obstructions such as pipes, conduits, ducts, or materials that a worker would need to crawl over or under or squeeze around;
 4. The need to travel a long distance to a point of safety.

- c. Is not designed for continuous employee occupancy.
 - A space is not designed for continuous employee occupancy if it is not designed with features such as ventilation, lighting, and sufficient room to work and move about.

3.2 Confined Space Examples

Confined spaces that may be found on worksites include, but are not limited to:

- Manholes (such as electrical, communication, or other utility manholes);
- Sewers;
- Storm drains;
- Water mains;
- Lift stations;
- Tanks (such as fuel, chemical, water, or other liquid, solid, or gas);
- Pits (such as elevator escalator pump, valve or other equipment);
- Bins;
- Boilers;
- Incinerators;
- Scrubbers;
- Bag houses;
- Mixers/reactors;
- Crawl spaces;
- Attics;
- Concrete pier columns;
- Transformer vaults;
- Heating, ventilation, and air conditioning (HVAC) ducts;
- Precast concrete and other pre-formed manhole units;
- Drilled shafts;
- Enclosed beams;
- Vessels;
- Digesters;
- Cesspools;
- Silos;
- Air receivers;
- Sludge gates;
- Air preheaters;
- Transformers;
- Turbines;
- Chillers; and/or
- Basements (before steps are installed).

4 CONFINED SPACE HAZARDS

Many accidents occur because workers do not realize the dangers or potential dangers within or near the space, or consider new hazards or conditions created during the work being performed. The two main hazards of working in confined space are atmospheric and physical.

4.1 Atmospheric Hazards

An atmosphere containing a concentration of any substance of acute toxicity above its permissible exposure limit (PEL) is a hazard to an entrant, since confined spaces prevent toxic substances from escaping or dissipating. A hazardous atmosphere may incapacitate, injure or impair an entrant's self-rescue, and can lead to illness or death for workers or rescuers who enter confined spaces. The following are examples of toxic substances that may found in a hazardous atmosphere.

4.1.1 Combustible Gases

Flammable or explosive gas, vapor or mist in a concentration greater than 10 percent of its lower flammable limit (LFL) or lower explosive limit (LEL).

Combustible and flammable gases or vapors create a fire and explosion hazard. The most common combustible gases are as follows:

- a. Carbon Monoxide (CO) – CO is colorless and odorless, which makes it hard to detect without proper atmospheric testing equipment. CO displaces oxygen in the blood and can cause headaches, dizziness, unconsciousness, asphyxiation and eventual death. CO results from the incomplete combustion process in equipment such as gasoline engines.
- b. Hydrogen Sulfide (H₂S) – This gas is found in sewers, sewage treatment plants, and other locations where organic material decomposes. It has an odor of rotten eggs and can block respiration, causing loss of consciousness and possible death.
- c. Methane (CH₄) – This is a natural gas that is flammable, explosive, colorless and odorless. It can displace oxygen to the point of oxygen deficiency in a confined space, causing dizziness, unconsciousness, asphyxiation and eventual death.

4.1.2 Combustible Dust

Combustible dust suspended in air, which obscures vision at a distance of five feet or less. Combustible dust creates an explosion hazard.

4.1.3 Oxygen

Atmospheric oxygen concentration levels below 19.5% or above 23.5% at sea level is an atmospheric hazard. Oxygen deficiency causes fatigue, faulty judgment, difficulty breathing and eventual death. Oxygen enrichment is a dangerous condition that creates an extreme fire hazard.

4.2 Physical Hazards

Physical hazards cause the body to become physically stressed. Unlike atmospheric hazards, physical hazards can be detected through your senses (touch, sight, smell, etc.). Some of the physical hazards that may be encountered in a confined space are listed in the following.

4.2.1 Mechanical

Moving equipment or parts, and energized or pressurized systems such as belts, compressing devices, conveyers, couplings, gears, mixers, rotors and shafts can be dangerous.

4.2.2 Entrapment

Entrapment hazards include inwardly converging walls and floors that slope downward and taper to a smaller cross-section.

4.2.3 Engulfment

Engulfment refers to the surrounding or burial of a worker in a liquid or a finely divided solid material, such as sand sawdust, or grain. Engulfment can suffocate a worker, causing death.

- 4.2.4 Thermal
A thermal hazard is a dangerous condition caused by excessive cold or heat or a hot surface.
- 4.2.5 Noise
Heavy machinery and electrical tools generate sounds that when magnified in confined space, impede verbal communication and may lead to hearing impairment or total loss of hearing.
- 4.2.6 Additional Hazards
Other safety hazards that need to be considered are snakes, rodents, spiders, poor lighting, obstruction, falling objects, wet surfaces, trip hazards, electrical shock and chemical hazards.

5 BEFORE WORK BEGINS

5.1 Evaluation

Before work begins at a worksite, a competent person will be required to identify all confined spaces in which one or more employees may work, and each space that is a permit space will be identified, through consideration and evaluation of the elements of that space, including testing as necessary.

5.2 Informing Affected Persons

If the workplace contains one or more permit spaces, the following will apply:

- a. Exposed employees will be informed by the posting of danger signs or by any other equally effective means, of the existence and location of, and the danger posed by each permit space;
 - The danger sign may read, "DANGER-PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER."
- b. Employee's authorized representatives and the controlling contractor will be informed in a timely manner and in a manner other than posting, of the existence and location of, and the danger posed by each permit space.

5.3 Preventing Unauthorized Access

Effective measures to prevent unauthorized entry into permit space will be implemented, such as the use of other signs, barricades, warning tape, and/or an attendant. In addition, effective measures will comply with all other applicable requirements of this program and the standard.

6 PERMIT SPACE PLAN

6.1 Requirements for Safe Entry

The following elements will be implemented for safe entry into a permit space:

- a. The hazards of permit spaces will be identified and evaluated before employees enter the space;

- b. Upon evaluation, the means, procedures, and practices will be developed and implemented as necessary for safe permit space entry operations; and
- c. The necessary entry equipment will be provided, at no cost, to employees.
 - The equipment provided will be required to be maintained and used properly.

6.2 Testing and Monitoring

6.2.1 General

Permit space conditions will be tested to determine if acceptable entry conditions exist before changes to the space's natural ventilation are made, and before entry is authorized to begin. *Exception:* When it is demonstrated that isolation of a space is infeasible due to the space being too large or is part of continuous system (such as a sewer).

6.2.2 Pre-Entry Testing

Before entry is authorized, pre-entry testing will be performed to the extent feasible; and when entry is authorized, the following will apply:

- a. Entry conditions will be continuously monitored in the areas where authorized entrants are working, except when periodic monitoring is used as continuous monitoring is not commercially available; and
- b. An early warning system that continuously monitors for non-isolated engulfment hazards will be provided. The system will alert authorized entrant(s) and attendant(s) in sufficient time for the authorized entrant(s) to safely exit the space.

6.2.3 Continuous or Periodic Testing

Atmospheric hazards will be continuously monitored, unless it is demonstrated that the equipment for continuously monitoring a hazard is not commercially available or that periodic monitoring is of sufficient frequency to ensure that the atmospheric hazard is being controlled at safe levels. If continuous monitoring is not used, periodic monitoring will be required with sufficient frequency to ensure that acceptable entry conditions are being maintained during the course of entry operations.

6.2.4 Testing Criteria

When testing for atmospheric hazards, testing will be performed in the following order:

- a. Oxygen;
- b. Combustible gases and vapors; and then
- c. Toxic gases and vapors.

6.2.5 Access

Each authorized entrant or that employee's authorized representative will be immediately provided an opportunity to observe the pre-entry and any subsequent testing or monitoring of permit spaces and the results of any testing conducted.

6.2.6 Re-Evaluation

The permit space will be re-evaluated in the presence of any authorized entrant or that employee's authorized representative who requests such reevaluation because there is some indication that the evaluation of that space may not have been adequate; and the results will be immediately provided with the results.

6.3 Entry Permit

Before entry, an entry permit will be completed. The entry permit will document compliance and authorizes entry to a permit space, the permit will identify:

- a. The permit space to be entered;
- b. The purpose of the entry;
- c. The date and the authorized duration of the entry permit;
- d. The authorized entrants within the permit space, by name or by such other means (for example, through the use of rosters or tracking systems) as will enable the attendant to determine quickly and accurately, for the duration of the permit, which authorized entrants are inside the permit space;
- e. Means of detecting an increase in atmospheric hazard levels in the event the ventilation system stops working;
- f. Each person, by name, currently serving as an attendant;
- g. The individual, by name, currently serving as entry supervisor, and the signature or initials of each entry supervisor who authorizes entry;
- h. The hazards of the permit space to be entered;
- i. The measures used to isolate the permit space and to eliminate or control permit space hazards before entry;
- j. The acceptable entry conditions;
- k. The results of tests and monitoring performed, accompanied by the names or initials of the testers and by an indication of when the tests were performed;
- l. The rescue and emergency services that can be summoned and the means (such as the equipment to use and the numbers to call) for summoning those services;
- m. The communication procedures used by authorized entrants and attendants to maintain contact during the entry;
- n. Equipment, such as personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment, to be provided for compliance with this standard;
- o. Any other information necessary, given the circumstances of the particular confined space, to ensure employee safety; and
- p. Any additional permits, such as for hot work, that have been issued to authorize work in the permit space.

Note: Refer to Appendix 2 for a confined space entry permit form.

6.4 Permitting Process

6.4.1 Before Entry

Before entry begins, the entry supervisor identified on the permit will sign the entry permit to authorize entry. The completed permit will be made available at the time of entry to all authorized entrants or their authorized representatives, by posting it at the entry portal or by any other equally

effective means, so that the entrants can confirm that pre-entry preparations have been completed.

6.4.2 Duration

The duration of the permit will not exceed the time required to complete the assigned task or job identified on the permit.

6.4.3 Termination

The entry supervisor will terminate entry and take the following action when any of the following apply:

- a. The entry permit will be cancelled when the entry operations covered by the entry permit have been completed; or
- b. Suspend or cancel the entry permit and fully reassess the space before allowing reentry when a condition that is not allowed under the entry permit arises in or near the permit space and that condition is temporary in nature and does not change the configuration of the space or create any new hazards within it; and
- c. Cancel the entry permit when a condition that is not allowed under the entry permit arises in or near the permit space and that condition is not covered by section 6.4.3(b) of this program.

6.4.4 Maintaining Permits

Each canceled entry permit will be retained for at least 1 year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation will be noted on the pertinent permit so that appropriate revisions to the permit space program can be made.

6.5 Entry Team and Responsibilities

The entry team is a group of employees assigned to complete a task within a confined space. There are 3 main members to a confined space entry team, an entrant or entrants, an attendant, and an entry supervisor. The following outline the duties and responsibilities for each member.

6.5.1 Authorized Entrants

The first, and at highest risk, is the entrant. Before going in, the entrant needs to have direct authorization from management to enter the space. All authorized entrants will:

- a. Are familiar with and understand the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- b. Properly use equipment;
- c. Communicate with the attendant as necessary to enable the attendant to assess entrant status and to enable the attendant to alert entrants of the need to evacuate the space;
- d. Alert the attendant whenever:
 1. There is any warning sign or symptom of exposure to a dangerous situation; or
 2. The entrant detects a prohibited condition; and

- e. Exit from the permit space as quickly as possible whenever:
 - 1. An order to evacuate is given by the attendant or the entry supervisor;
 - 2. There is any warning sign or symptom of exposure to a dangerous situation;
 - 3. The entrant detects a prohibited condition; or
 - 4. An evacuation alarm is activated.

6.5.2 Authorized Attendants

The attendant is the person responsible for the safety of the entrant and remains stationed outside the permit required confined space. All authorized attendants will:

- a. Is familiar with and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- b. Is aware of possible behavioral effects of hazard exposure in authorized entrants;
- c. Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants under section 6.3(d) accurately identifies who is in the permit space;
- d. Remains outside the permit space during entry operations until relieved by another attendant;
- e. Communicates with authorized entrants as necessary to assess entrant status and to alert entrants of the need to evacuate the space under section 6.5.1(e);
- f. Assesses activities and conditions inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - 1. If there is a prohibited condition;
 - 2. If the behavioral effects of hazard exposure are apparent in an authorized entrant;
 - 3. If there is a situation outside the space that could endanger the authorized entrants; or
 - 4. If the attendant cannot effectively and safely perform all the duties required under this section;
- g. Summons rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards;
- h. Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:
 - 1. Warns the unauthorized persons that they will stay away from the permit space;
 - 2. Advises the unauthorized persons that they will exit immediately if they have entered the permit space; and
 - 3. Informs the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space;
- i. Performs non-entry rescues as specified by the employer's rescue procedure; and
- j. Performs no duties that might interfere with the attendant's primary duty to assess and protect the authorized entrants.

6.5.3 Additional Attendant Requirements

- a. At least one attendant will be required to be outside the permit space into which entry is authorized for the duration of entry operations;
- b. Attendants may be assigned to more than one permit space provided the duties described in section 6.5.2 can be effectively performed for each permit space;
- c. Attendants may be stationed at any location outside the permit space as long as the duties described in section 6.5.2 can be effectively performed for each permit space to which the attendant is assigned;
- d. If multiple spaces are to be assigned to a single attendant, the means and procedures to enable the attendant to respond to an emergency affecting one or more of those permit spaces without distraction from the attendant's responsibilities will be provided.

6.5.4 Entry Supervisors

Entry supervisors are responsible for the overall confined space entry operations. All authorized entry supervisors will:

- a. Is familiar with and understands the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- b. Verifies, 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;
- c. Terminates the entry and cancels or suspends the permit as required by section 6.4.3;
- d. Verifies that rescue services are available and that the means for summoning them are operable, and that the employer will be notified as soon as the services become unavailable;
- e. Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations; and
- f. Determines, whenever responsibility for a permit space entry operation is transferred, and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

6.6 Rescue and Emergency

6.6.1 Emergency Services

When a third-party rescue and/or emergency service is designated, Don H. Mahaffey Drilling Co. will:

- a. Evaluate a prospective rescuer's ability to respond to a rescue summons in a timely manner, considering the hazard(s) identified;
- b. Evaluate a prospective rescue service's ability, in terms of proficiency with rescue-related tasks and equipment, to function appropriately while rescuing entrants from the particular permit space or types of permit spaces identified;

- c. Select a rescue team or service from those evaluated that:
 - 1. Has the capability to reach the victim(s) within a time frame that is appropriate for the permit space hazard(s) identified;
 - 2. Is equipped for, and proficient in, performing the needed rescue services;
 - 3. Agrees to notify management immediately in the event that the rescue service becomes unavailable;
- d. Inform each rescue team or service of the hazards they may confront when called on to perform rescue at the site; and
- e. Provide the rescue team or service selected with access to all permit spaces from which rescue may be necessary so that the rescue team or service can develop appropriate rescue plans and practice rescue operations.

6.6.2 Rescue and Emergency Team

When Don H. Mahaffey Drilling Co. employees are designated to provide permit space rescue and/or emergency services, the following measures will apply and all equipment and training will be provided at no cost to those employees:

- a. Each affected employee will be provided with the personal protective equipment (PPE) needed to conduct permit space rescues safely and each affected employee will be trained so the employee is proficient in the use of that PPE;
- b. Each affected employee will be trained to perform assigned rescue duties and such employees will be ensured to successfully complete the training required and establish proficiency as authorized entrants;
- c. Each affected employee will be trained in basic first aid and cardiopulmonary resuscitation (CPR) and at least one member of the rescue team or service will be required to hold a current certification in basic first aid and CPR is available; and
- d. The affected employees will practice making permit space rescues before attempting an actual rescue, and at least once every 12 months, by means of simulated rescue operations in which they remove dummies, manikins, or actual persons from the actual permit spaces or from representative permit spaces, except practice rescue is not required where the affected employees properly performed a rescue operation during the last 12 months in the same permit space the authorized entrant will enter, or in a similar permit space. Representative permit spaces will, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed.

6.6.3 Non-Entry Rescue

When feasible, non-entry rescue retrieval systems or other methods will be used to rescue entrants in a permit space. When selected, emergency assistance will be confirmed and available prior to entry, in the event that non-entry rescue fails. Retrieval systems will meet the following requirements:

- a. Each authorized entrant will use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, above the entrant's head, or at another point which presents a profile small enough for the successful removal of the entrant.
 - Wristlets or anklets may be used in lieu of the chest or full body harness if it is demonstrated that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets or anklets is the safest and most effective alternative.
- b. The other end of the retrieval line will be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device will be available to retrieve personnel from vertical type permit spaces more than 5 feet (1.52 meters) deep.
- c. Equipment that is unsuitable for retrieval will not be used, including, but not limited to:
 1. Retrieval lines that have a reasonable probability of becoming entangled with the retrieval lines used by other authorized entrants, or
 2. Retrieval lines that will not work due to the internal configuration of the permit space.

6.6.4 Safety Data Sheets

If an injured entrant is exposed to a substance for which a Safety Data Sheet (SDS) or other similar written information is required to be kept at the worksite, that SDS or written information will be made available to the medical facility treating the exposed entrant.

6.7 Equipment

The following equipment will be provided, when necessary, at no cost to each affected employee and each affected employee will be required to maintain and use the equipment properly.

6.7.1 Testing and Monitoring Equipment

- a. The testing and monitoring equipment needed to comply with section 6.2 of this program will be provided; and
- b. Testing of the atmosphere will be tested with a calibrated direct-reading instrument.

6.7.2 Ventilation Equipment

The ventilation equipment needed to obtain acceptable entry conditions will be provided

- Management or the entry supervisor will decide the method of ventilation system to use that will be appropriate for the confined space operation.

- 6.7.3 **Communication Equipment**
- a. The communication equipment necessary to comply with sections 6.5.1(c) and 6.5.2(e) will be provided, including any necessary electronic communication equipment for attendants assessing entrants' status in multiple spaces;
 - b. The entry team will use the determined system(s) for alerting entrants to any change in the atmosphere and allow the attendant to order immediate evacuation in the event of an emergency; and
 - c. All affected employees will be trained in the use of communication systems and the system will be tested before each use to confirm its effective operation.
- 6.7.4 **Personal Protective Equipment (PPE)**
PPE will be provided to the extent that feasible engineering and work practice controls do not adequately protect employees.
- 6.7.5 **Lighting Equipment**
Lighting equipment that meets the minimum illumination requirements in California Code of Regulations, Title 8, Section 1523, that is approved for the ignitable or combustible properties of the specific gas, vapor, dust, or fiber that will be present, and that is sufficient to enable employees to see well enough to work safely and to exit the space quickly in an emergency will be provided.
- 6.7.6 **Barriers and Shields**
Barriers or shields, such as pedestrian, vehicle or other barriers will be provided and used to protect employees, and unauthorized entrants, from permit space hazards.
- 6.7.7 **Ladders**
Ladders (means of ingress and egress) will be provided and used for safe entry and exit by entrants [and rescuers].
- 6.7.8 **Rescue and Emergency Equipment**
Rescue and emergency equipment, except for equipment provided by the rescue service provider, will be provided and used for safe and effective rescue.
- 6.7.9 **Additional Equipment**
Any other equipment necessary for safe entry into, safe exit from, and rescue from permit space(s) will be provided.

6.8 Additional Requirements

The entry permit and plan will be reviewed when there is any reason to believe the permit or plan may not protect employees, and the permit or plan will be revised before allowing subsequent entries. Examples of circumstances that may require the review of the permit or plan include the following:

- a. There is unauthorized entry of a permit space;
- b. A permit space hazard not covered by the permit is found;
- c. A condition prohibited by the permit occurs;

- d. An injury or near-miss occurs during entry;
- e. There is a change in the use or configuration of a permit space; or
- f. An employee complains about the effectiveness of the program.

7 ALTERNATIVE ENTRY

7.1 Alternative Entry Requirements

An alternative entry into permit spaces may be use, but only when the following conditions are met before entry:

- a. All physical hazards in the space are eliminated or isolated through engineering controls so that the only hazard posed by the permit space is an actual or potential hazardous atmosphere;
- b. Continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry, and that, in the event the ventilation system stops working, entrants can exit the space safely;
- c. Monitoring and inspection data is developed that supports the demonstrations required by section 7.1(a) and 7.1(b) of this program;
- d. If an initial entry of the permit space is necessary to obtain the data required by section 7.1(c) of this program, the entry is performed in compliance with section 6 of this program;
- e. The determinations and supporting data required by sections 7.1(a), (b), and (c) of this program are documented and are made available to each employee who enters the permit space under the terms of section 7 of this program or to that employee's authorized representative; and
- f. Entry into the permit space under the terms of section 7.1 is performed in accordance with the requirements of section 7.2.

7.2 Alternative Entry Procedures

The following requirements apply to entry into permit spaces that meet the conditions set forth in section 7.1 of this program:

- a. Any conditions making it unsafe to remove an entrance cover will be eliminated before the cover is removed.
- b. When entrance covers are removed, the opening will be immediately guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space.
- c. Before an employee enters the space, the internal atmosphere will be tested, with a calibrated direct-reading instrument, for oxygen content, for flammable gases and vapors, and for potential toxic air contaminants, in that order. Any employee who enters the space, or that employee's authorized representative, will be provided an opportunity to observe the pre-entry testing required by this paragraph.
- d. No hazardous atmosphere is permitted within the space whenever any employee is inside the space.
- e. Continuous forced air ventilation will be used, as follows:
 - 1. An employee will not enter the space until the forced air ventilation has eliminated any hazardous atmosphere;

2. The forced air ventilation will be so directed as to ventilate the immediate areas where an employee is or will be present within the space and will continue until all employees have left the space;
 3. The air supply for the forced air ventilation will be from a clean source and will not increase the hazards in the space.
- f. The atmosphere within the space will be continuously monitored unless the equipment for continuous monitoring is not commercially available or periodic monitoring is sufficient. If continuous monitoring is used, the monitoring equipment will either have an alarm that will notify all entrants if a specified atmospheric threshold is achieved, or an employee will check the monitor with sufficient frequency to ensure that entrants have adequate time to escape. If continuous monitoring is not used, periodic monitoring is required. All monitoring will ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere. Any employee who enters the space, or that employee's authorized representative, will be provided with an opportunity to observe the testing.
 - g. If a hazard is detected during entry:
 1. Each employee will leave the space immediately;
 2. The space will be evaluated to determine how the hazard developed; and
 3. Measures will be implemented to protect employees from the hazard before any subsequent entry takes place.
 - h. A safe method of entering and exiting the space will be implemented. If a hoisting system is used, it will be designed and manufactured for personnel hoisting; however, a job-made hoisting system is permissible if it is approved for personnel hoisting by a registered professional engineer, in writing, prior to use.
 - i. Safe entry and pre-entry measurements will be verified through a written certification that contains the date, the location of the space, and the signature of the person providing the certification. The certification will be made before entry and will be made available to each employee entering the space or to that employee's authorized representative.

8 RE-CLASSIFICATIONS OF CONFINED SPACES

8.1 Non-Permit Spaces

When there are changes in the use or configuration of a non-permit confined space that might increase the hazards to entrants, or some indication that the initial evaluation of the space may not have been adequate, a competent person will reevaluate that space and, if necessary, reclassify it as a permit-required confined space.

8.2 Permit Spaces to Non-Permit

A space classified as a permit-required confined space may only be reclassified as a non-permit confined space when a competent person determines that all of the following applicable requirements have been met:

- a. If the permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated or isolated without entry into the space (unless it is demonstrated that doing so without entry is infeasible), the permit

- space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated or isolated;
- b. The hazards will be eliminated or isolated without entering the space, unless it is demonstrated that this is infeasible. If it is necessary to enter the permit space to eliminate or isolate hazards, such entry will be performed under the requirements set in section 6 of this program. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated or isolated, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated or isolated;
 - c. The basis for determining that all hazards in a permit space have been eliminated or isolated will be documented through a certification that contains the date, the location of the space, and the signature of the person making the determination. The certification will be made available to each employee entering the space or to that employee's authorized representative; and
 - d. If hazards arise within a permit space that has been reclassified as a non-permit space under section 8.2 of this program, each employee in the space will exit the space. The space will then be reevaluated and reclassified as a permit space as appropriate in accordance with all other applicable provisions of the confined space standard.

9 MULTI-EMPLOYER COMMUNICATION AND COORDINATION

When employees of more than one employer are working simultaneously in a permit space or elsewhere on the worksite where their activities could, either alone or in conjunction with the activities within a permit space, foreseeably result in a hazard within the confined space, the following procedures will be implemented so that employees of one employer do not endanger the employees of any other employer.

9.1 Host Employer Duties

Before entry operations begin, the host employer will provide the following information, if it has it, to the controlling contractor:

- a. The location of each known permit space;
- b. The hazards or potential hazards in each space or the reason it is a permit space; and
- c. Any precautions that the host employer or any previous controlling contractor or entry employer implemented for the protection of employees in the permit space.

9.2 Controlling Contractor Duties

Before entry operations begin, the controlling contractor will:

- a. Obtain the host employer's information about the permit space hazards and previous entry operations; and
- b. Provide the following information to each entity entering a permit space and any other entity at the worksite whose activities could foreseeably result in a hazard in the permit space:
 1. The information received from the host employer;
 2. Any additional information the controlling contractor has about the subjects listed in section 9.1 of this program; and

3. The precautions that the host employer, controlling contractor, or other entry employers implemented for the protection of employees in the permit spaces.

9.3 Entry Employer Duties

Before entry operations begin, each entry employer will:

- a. Obtain all of the controlling contractor's information regarding permit space hazards and entry operations; and
- b. Inform the controlling contractor of the permit space program that the entry employer will follow, including any hazards likely to be confronted or created in each permit space.

9.4 Coordinating Entry Operations

The controlling contractor and entry employer(s) will coordinate entry operations when:

- a. More than one entity performs permit space entry at the same time; or
- b. Permit space entry is performed at the same time that any activities that could foreseeably result in a hazard in the permit space are performed.

9.5 After Entry Operations

When entry operations are completed:

- a. The controlling contractor will debrief each entity that entered a permit space regarding the permit space program followed and any hazards confronted or created in the permit space(s) during entry operations;
- b. The entry employer will inform the controlling contractor in a timely manner of the permit space program followed and of any hazards confronted or created in the permit space(s) during entry operations; and
- c. The controlling contractor will apprise the host employer of the information exchanged with the entry entities.

9.6 No Controlling Contactor

If there is no controlling contractor present at the worksite, the requirements for, and role of, controlling contractors set forth in section 9.2 will be fulfilled by the host employer or other employer who arranges to have employees of another employer perform work that involves permit space entry.

10 TRAINING

10.1 General

- 10.1.1 Training will be provided to each employee whose work is regulated by the confined space standard, at no cost to the employee, and the employee(s) will be required to possess the understanding, knowledge, and skills necessary for the safe performance of the duties assigned under the standard.

10.1.2 Training will result in an understanding of the hazards in the permit space and the methods used to isolate, control or in other ways protect employees from these hazards, and for those employees not authorized to perform entry rescues, in the dangers of attempting such rescues.

10.1.3 Training will establish employee proficiency in the duties required and will introduce new or revised procedures, as necessary.

10.2 Training Requirements

Training will be provided to each affected employee:

- a. In both a language and vocabulary that the employee can understand;
- b. Before the employee is first assigned duties under this standard;
- c. Before there is a change in assigned duties;
- d. Whenever there is a change in permit space entry operations that presents a hazard about which an employee has not previously been trained; and
- e. Whenever there is any evidence of a deviation from the permit space entry procedures required or there are inadequacies in the employee's knowledge or use of these procedures.

10.3 Training Records

Training records will be maintained to show that the training required by sections 10.1 through 10.2 of this program has been accomplished. The training records will contain each employee's name, the name of the trainers, and the dates of training. The documentation will be available for inspection by employees and their authorized representatives, for the period of time the employee is employed.

11 MISCELLANEOUS REQUIREMENTS

11.1 Employee Participation

Affected employees and their authorized representatives will be consulted with on the development and implementation of all aspects of the permit space program.

11.2 Provision of Documents

For each document required to be retained, the document will be made available on request to the Chief of the Division of Occupational Safety and Health, or designee.

APPENDIX 1 – DEFINITIONS

Acceptable entry conditions – The conditions that must exist in a permit space, before an employee may enter that space, to ensure that employees can safely enter into, and safely work within, the space.

Attendant – An individual stationed outside one or more permit spaces who assesses the status of authorized entrants and who must perform the duties specified in §1958.

Authorized entrant – An employee who is authorized by the entry supervisor to enter a permit space.

Barrier – A physical obstruction that blocks or limits access.

Blanking or blinding – The absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Competent person – One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.

Confined space – A space that:

- a. Is large enough and so configured that an employee can bodily enter it;
- b. Has limited or restricted means for entry and exit; and
- c. Is not designed for continuous employee occupancy.

Control – The action taken to reduce the level of any hazard inside a confined space using engineering methods (for example, by ventilation), and then using these methods to maintain the reduced hazard level. Control also refers to the engineering methods used for this purpose. Personal protective equipment is not a control.

Controlling Contractor – The employer that has overall responsibility for construction at the worksite.

Note to the definition of "Controlling Contractor". If the controlling contractor owns or manages the property, then it is both a controlling employer and a host employer.

Double block and bleed – The closure of a line, duct, or pipe by closing and locking or tagging two inline valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Early-warning system – The method used to alert authorized entrants and attendants that an engulfment hazard may be developing. Examples of early-warning systems include, but are not limited to: Alarms activated by remote sensors; and lookouts with equipment for immediately communicating with the authorized entrants and attendants.

Emergency – Any occurrence (including any failure of power, hazard control or monitoring equipment) or event, internal or external, to the permit space that could endanger entrants.

Engulfment – 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, crushing, or suffocation.

Entry – The action by which any part of 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, whether or not such action is intentional or any work activities are actually performed in the space.

Entry Employer – Any employer who decides that an employee it directs will enter a permit space.

Note to the definition of "Entry Employer". An employer cannot avoid the duties of the standard merely by refusing to decide whether its employees will enter a permit space, and the Division will consider the failure to so decide to be an implicit decision to allow employees to enter those spaces if they are working in the proximity of the space.

Entry permit (permit) – The written or printed document that is provided by the employer who designated the space a permit space to allow and control entry into a permit space and that contains the information specified in §1955.

Entry rescue – Occurs when a rescue service enters a permit space to rescue one or more employees.

Entry supervisor – The qualified person (such as the employer, foreman, or crew chief) 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 standard.

Note to the definition of "Entry supervisor". An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this standard for each role he or she fills. Also, the duties of entry supervisor may be passed from one individual to another during the course of an entry operation.

Hazard – A physical hazard or hazardous atmosphere. See definitions below.

Hazardous atmosphere – An atmosphere that may expose employees to the risk of death, incapacitation, 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 to paragraph (2) of the definition of "Hazardous atmosphere". This concentration may be approximated as a condition in which the combustible dust obscures vision at a distance of 5 feet (1.52 meters) or less.
3. Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
4. Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in subpart D of this part (Occupational Health and Environmental Control), or in subpart Z of this part (Toxic and Hazardous Substances), and which could result in employee exposure in excess of its dose or permissible exposure limit;

Note to paragraph (4) of the definition of "Hazardous atmosphere". An atmospheric concentration of any substance that is not capable of causing death, incapacitation,

impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this definition.

5. Any other atmospheric condition that is immediately dangerous to life or health.
Note to paragraph (5) of the definition of "Hazardous atmosphere". For air contaminants for which the Division has not determined a dose or permissible exposure limit, other sources of information, such as Safety Data Sheets that comply with the Hazard Communication Standard, §5194, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

Host employer – The employer that owns or manages the property where the construction work is taking place.

Note to the definition of "Host employer". If the owner of the property on which the construction activity occurs has contracted with an entity for the general management of that property, and has transferred to that entity the information specified in §1952 (h)(1), the Division will treat the contracted management entity as the host employer for as long as that entity manages the property. Otherwise, the Division will treat the owner of the property as the host employer. In no case will there be more than one host employer.

Hot work – Operations capable of providing a source of ignition (for example, riveting, welding, cutting, burning, and heating).

Immediately dangerous to life or health (IDLH) – Any condition that would interfere with an individual's ability to escape unaided from a permit space and that poses a threat to life or that would cause irreversible adverse health effects.

Note to the definition of "Immediately dangerous to life or health". Some materials—hydrogen fluoride gas and cadmium vapor, for example—may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim "feels normal" after recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be "immediately" dangerous to life or health.

Inerting – Displacing the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

Note to the definition of "Inerting". This procedure produces an IDLH oxygen deficient atmosphere.

Isolate or isolation – The process by which employees in a confined space are completely protected against the release of energy and material into the space, and contact with a physical hazard, 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; blocking or disconnecting all mechanical linkages; or placement of barriers to eliminate the potential for employee contact with a physical hazard.

Limited or restricted – For entry or exit means a condition that has a potential to impede an employee's movement into or out of a confined space. Such conditions include, but are not limited to, trip hazards, poor illumination, slippery floors, inclining surfaces and ladders.

Line breaking – The intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

Lockout – The placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lower flammable limit or lower explosive limit – The minimum concentration of a substance in air needed for an ignition source to cause a flame or explosion.

Monitor or monitoring – The process used to identify and evaluate the hazards after an authorized entrant enters the space. This is a process of checking for changes that is performed in a periodic or continuous manner after the completion of the initial testing or evaluation of that space.

Non-entry rescue – Occurs when a rescue service, usually the attendant, retrieves employees in a permit space without entering the permit space.

Non-permit confined space – A confined space that meets the definition of a confined space but does not meet the requirements for a permit-required confined space, as defined in this subpart.

Oxygen deficient atmosphere – An atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen enriched atmosphere – An atmosphere containing more than 23.5 percent oxygen by volume.

Permit-required confined space (permit space) – 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 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 recognized serious safety or health hazard.

Permit-required confined space program (permit space program) – 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.

Physical hazard – An existing or potential hazard that can cause death or serious physical damage. Examples include, but are not limited to: Explosives (as defined by §5237, definition of "explosive"); mechanical, electrical, hydraulic and pneumatic energy; radiation; temperature extremes; engulfment; noise; and inwardly converging surfaces. Physical hazard also includes chemicals that can cause death or serious physical damage through skin or eye contact (rather than through inhalation).

Prohibited condition – Any condition in a permit space that is not allowed by the permit during the period when entry is authorized. A hazardous atmosphere is a prohibited condition unless the employer can demonstrate that personal protective equipment (PPE) will provide effective protection for each employee in the permit space and provides the appropriate PPE to each employee.

Qualified person – One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

Representative permit space – A mock-up of a confined space that has entrance openings that are similar to, and is of similar size, configuration, and accessibility to, the permit space that authorized entrants enter.

Rescue – Retrieving, and providing medical assistance to, one or more employees who are in a permit space.

Rescue service – The personnel designated to rescue employees from permit spaces.

Retrieval system – The equipment (including a retrieval line, chest or full body harness, wristlets or anklets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

Serious physical damage – An impairment or illness in which a body part is made functionally useless or is substantially reduced in efficiency. Such impairment or illness may be permanent or temporary and includes, but is not limited to, loss of consciousness, disorientation, or other immediate and substantial reduction in mental efficiency. Injuries involving such impairment would usually require treatment by a physician or other licensed health-care professional.

Tagout – Means:

1. Placement of a tagout device on a circuit or equipment that has been deenergized, in accordance with an established procedure, to indicate that the circuit or equipment being controlled may not be operated until the tagout device is removed; and
2. The employer ensures that:
 - a. Tagout provides equivalent protection to lockout; or
 - b. That lockout is infeasible and the employer has relieved, disconnected, restrained and otherwise rendered safe stored (residual) energy.

Test or testing – 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.

Note to the definition of "Test or testing". Testing enables 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.

Ventilate or ventilation – Controlling a hazardous atmosphere using continuous forced-air mechanical systems that meet the requirements of §1530, General Requirements for Mechanical Ventilation Systems.

APPENDIX 2 – CONFINED SPACE ENTRY PERMIT

Company Name: _____
 Date and Time Issued: ___/___/___ ___:___ a.m. /p.m.
 Date and Time Expired: ___/___/___ ___:___ a.m. /p.m.
 Site Location and Description: _____
 Equipment to be worked on: _____
 Purpose of Entry: _____
 Entry Supervisor: _____
 Entry Attendant: _____
 Authorized Entrant(s): _____

Physical Hazards:

- | | |
|--|--|
| <input type="checkbox"/> Moving/ Rotating Equipment | <input type="checkbox"/> Static Electricity |
| <input type="checkbox"/> Slips/Trips/Falls (Working Surface) | <input type="checkbox"/> Radiation |
| <input type="checkbox"/> Falls (Elevated Height) | <input type="checkbox"/> Floor Openings |
| <input type="checkbox"/> Extreme Heat/Cold | <input type="checkbox"/> Overhead Loads/Falling Objects |
| <input type="checkbox"/> Chemicals | <input type="checkbox"/> Physical Configuration of Space |
| <input type="checkbox"/> Traffic | <input type="checkbox"/> Entrapment/Engulfment |
| <input type="checkbox"/> Hot Work | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Stored Energy | <input type="checkbox"/> Other: _____ |

Hazardous Control Equipment:

- | | | | | | | |
|---|---|-----|---|-----|-----|-----|
| Direct Reading Gas Monitor..... | Y | ___ | N | ___ | N/A | ___ |
| Isolation/LOTO | Y | ___ | N | ___ | N/A | ___ |
| Safety Harnesses/Travel Restraint/Fall Arrest | Y | ___ | N | ___ | N/A | ___ |
| Guardrails/Barricades/Warning Tape | Y | ___ | N | ___ | N/A | ___ |
| Powered Communications | Y | ___ | N | ___ | N/A | ___ |
| Fire Extinguishers | Y | ___ | N | ___ | N/A | ___ |
| Welding Permit | Y | ___ | N | ___ | N/A | ___ |

Personal Protective Equipment:

- | | | | | | | |
|--------------------------------|---|-----|---|-----|-----|-----|
| SCBA's | Y | ___ | N | ___ | N/A | ___ |
| Respirator | Y | ___ | N | ___ | N/A | ___ |
| Body Harness | Y | ___ | N | ___ | N/A | ___ |
| Lifeline | Y | ___ | N | ___ | N/A | ___ |
| Flame Resistant Clothing | Y | ___ | N | ___ | N/A | ___ |
| Gloves | Y | ___ | N | ___ | N/A | ___ |
| Face Shield | Y | ___ | N | ___ | N/A | ___ |
| Hearing Protection | Y | ___ | N | ___ | N/A | ___ |
| Hard Hat | Y | ___ | N | ___ | N/A | ___ |
| Other: _____ | Y | ___ | N | ___ | N/A | ___ |

Communication Procedures:

Audible	Visual	Tactical
<input type="checkbox"/> Verbal	<input type="checkbox"/> Hand Signals	<input type="checkbox"/> Tug on Lifeline
<input type="checkbox"/> Radio	<input type="checkbox"/> Flashlight	<input type="checkbox"/> Tap on Body
<input type="checkbox"/> Cell Phone	<input type="checkbox"/> Flags	<input type="checkbox"/> Other (specify) :
<input type="checkbox"/> Tapping/Knocking	<input type="checkbox"/> Other (specify) :	_____
<input type="checkbox"/> Whistle	_____	
<input type="checkbox"/> Other (specify):		

Rescue Plan/Procedures:

Rescue Team: Rescue Team Names: _____

Fire Department Contact Information: _____

Medical Contact Information: _____

Safety Contact Information: _____

Other: _____ Contact Information: _____

Source Isolation:

Pumps or lines blinded, disconnected or blocked..... Y ___ N ___ N/A ___

Ventilation Modification:

Mechanical Y ___ N ___ N/A ___
 Natural Ventilation (only) Y ___ N ___ N/A ___

Air Monitoring:

Air Monitoring Conducted By: _____

Component Tested	Permissible Levels	Initial		Periodic #1		Periodic #2	
		Result	Time	Result	Time	Result	Time
Oxygen	19.5% to 23.5%	_____	_____	_____	_____	_____	_____
Flammable/Combustible	Under 10%	_____	_____	_____	_____	_____	_____
Carbon Monoxide (CO)	35 PPM	_____	_____	_____	_____	_____	_____
Hydrogen Sulfide (H2S)	Under 10 PPM	_____	_____	_____	_____	_____	_____

Entry Authorization

Entry Supervisor: _____
 (Print Name) (Signature)

Entry Cancellation

Entry Supervisor: _____
 (Print Name) (Signature)



APPENDIX 3 – CONFINED SPACE NON-PERMIT CERTIFICATE

Confined Space Non-Permit Certificate	
This non-permit certificate may be used for confined spaces that pose no actual or potential atmospheric hazards above acceptable safe levels and if all non-atmospheric hazards can be eliminated without entry into the space. If the space must be entered to eliminate non-atmospheric hazards, the initial entry must be done in full compliance with the requirements of the confined space entry permit. If an atmospheric or non-atmospheric hazard is observed, personnel must exit the space immediately and the space must be reevaluated.	
Date/Time:	Certification Expires Date/Time:
Space Location and Description:	
Purpose of Entry:	

Certificate Requirements	
<input type="checkbox"/>	Actual or potential atmospheric hazards above acceptable safe levels do not exist in this space.
<input type="checkbox"/>	Non-atmospheric hazards do not exist in this space or have been eliminated without entry.
<input type="checkbox"/>	Entrants are informed to exit the space if any hazard is observed.

Atmospheric Testing Required (Prior to Entry)						
	Oxygen 19.5% to 23.5 %	CO2 <5000 PPM or 0.5%	LEL <10	CO <25 PPM	H2S <5 PPM	Other
Time	Reading	Reading	Reading	Reading	Reading	Reading

Test performed by: _____

Certification

I hereby certify that based on the foregoing test results, the confined space described in this certification is classified as a non-permit space:

<input type="checkbox"/>	Non-Permit Confined Space: The foregoing results indicate that all permit-regulated atmospheric hazards have been permanently removed.
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Entry Supervisor Print : _____

Entry Supervisor Signature: _____

Date _____