Delta Services EHS Procedure		Document No: EHSP 7.2.1	Page: 1 of 16
Permit Required Confined Space Entry		Supersedes: None	Rev. 1
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Table of Contents

1.0 PURPOSE AND SCOPE

This Environmental, Health and Safety Procedure (EHSP) provides the minimum procedures to ensure the safety and health of employees who enter specific “low hazard” confined spaces or perform activities to support confined space operations, such as Stand-by Attendants and Entry Supervisors.

This EHSP applies to all employees and sub-contractors engaged in operations covered by the Company Health and Safety Program making entries into confined spaces, including permit required, non-permit required and alternate entry spaces. This program is based on the construction standards (CFR 1926 Subpart AA) but is also designed to meet the requirements of the general industry standards (29 CFR 1910.146).

All spaces will be considered permit required until reclassified by a competent person.

2.0 RESPONSIBILITIES

Specific HSE Program implementation responsibilities are stated in EHSP 1.5. Additional management, staff, employee, and subcontractor responsibilities are stated in individual procedures that address responsibilities specific to the HSE topic.

2.1. Site Management

Site Management must assume ownership and responsibility for implementation of the policy and procedures found in this EHSP.

Site Management shall be familiar with this EHSP and utilize expertise at their disposal to ensure employees are protected from confined space hazards.

Site Management must evaluate confined space rescue services assigned to site entries.

2.2. Entry Supervisor

Supervisors responsible for employees performing work inside and around confined spaces must:

- Ensure all confined spaces have been properly evaluated, with hazards being addressed to ensure employees/Entrants are protected prior to entry.
- Ensure the proper Confined Space Entry Permit has been completed prior to any entry.
- Ensure a properly trained Stand-by Attendant, with the required rescue equipment, is assigned to all entry points of all confined spaces.
- Ensure employees/Entrants and Stand-by Attendants are aware of any hazards associated with their work including atmospheric monitoring results, and they are properly trained on this EHSP, and any job/site specific confined space entry procedures.
- Ensure employees/Entrants and Stand-by Attendants adhere to all confined space entry EHSP requirements, and any site-specific requirements established.
- Work with the host employer to ensure all hazards are communicated to all employees involved in the entry during the analysis phase.
- Continuously monitor the work to assure compliance with this EHSP.

2.3. Stand-by Attendants

Confined space Stand-by Attendants provides a vital communications link between those inside of a confined space and conditions outside of the space. Stand-by Attendant responsibilities include:

- A Stand-by Attendant shall not be used for any other duties while the confined space is occupied.
- A Stand-by Attendant should be required to wear a vest or some other identification to signify he/she is a Stand-by Attendant.
- Each Stand-by Attendant must be equipped with an air horn or some other means of communication to summon help in the event of an emergency. The communication device shall be used only in an emergency.
- All personnel inside the confined space must exit upon command of the Stand-by Attendant
- The Stand-by Attendant is responsible for maintaining a sign-in/sign-out log on all persons entering and exiting the confined space. The roster must be turned in to Site Supervision at the end of each shift.
- The Stand-by Attendant will be provided with the same equipment as those entering into the confined space.
- If an emergency occurs inside the confined space, the Stand-by Attendant will summon additional help, but will not enter until help has arrived and it is necessary to enter. The Stand-by Attendant should enter only if he/she has been trained in emergency rescue techniques.
- A Stand-by Attendant will not leave his/her station for any reason while personnel are inside the confined space, unless relieved by another Stand-by Attendant.

Each Stand-by Attendant must realize the importance of his/her duties.

2.4. Employees/entrants

Employees/entrants must:

- Know and be able to recognize the hazards associated with confined spaces and ensure these hazards are properly addressed according to this EHSP and the training received.
- Know how to use all personal protective equipment involved with the entry.
- Be aware of all mitigation measures in place and any signs they have failed or could fail.
- Be able to communicate with Stand-by Attendants. They must alert Stand-by attendants to the warning signs or existence of a hazardous condition and exit as quickly as possible if the need arises.

- Have access to initial/periodic atmospheric test results.
- Have the ability to observe pre-entry or subsequent testing of the confined space.

2.5. Environmental, Health and Safety

Environment, Health and Safety will assist project Management and Entry Supervisors in the safe execution of confined space entry operations and compliance with this EHSP.

Environment, Health and Safety will function to assist in the training and monitoring of confined space entry operations and ensure any concerns are communicated and properly resolved.

3.0 DEFINITIONS

Competent Person	An employee or supervisor 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 authorization to take prompt corrective measures to eliminate them
Confined Space	A space that: Is large enough and so configured that an employee can bodily enter and perform assigned work Has limited or restricted means for entry or exit (for example; tanks, vessels, silos, storage bins, hoppers, vaults and pits or spaces that may have limited means of entry). Is not designed for continuous employee occupancy.
Confined Space Entry Permit	The form provided by the Company (Figure 1) to allow and control entry into a confined space with required information filled out as required by this procedure.
Controlling Contractor	This is defined as the employer with overall responsibility for construction at the worksite. The controlling contractor is responsible for coordinating entry operations when there is more than one entry employer. Controlling contractors must provide any information they have about any permit space hazards to all entry employers. The controlling contractor is also responsible for coordinating work in and around confined spaces so that no contractor working at the site will create a hazard inside the confined space. After the entry employer performs entry operations, the controlling contractor must debrief the entry employer to gather information that the controlling contractor then must share with the host employer and other contractors who enter the space later.
Emergency	Any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the confined space that could endanger Entrants.
Entrant (Authorized Entrant)	An employee who is authorized to enter a confined space.
Entry	The action by which a person passes through an opening into a 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 Supervisor	The person responsible for: determining if acceptable entry conditions are present in a confined space where entry is planned, authorizing entry, overseeing entry operations, and for terminating entry as required by this procedure.

Non-Permit Required 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.
Permit Required Confined Space	A Permit Required Confined Space has one or more of these characteristics: • Contains or has the potential to contain a hazardous atmosphere; • Contains a material with the potential to engulf someone who enters the space; • Has an internal configuration that might cause an entrant to be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross section; and/or • Contains any other recognized serious safety or health hazards.
Stand-by Attendant -	An employee stationed outside the confined space, who monitors the Entrants, and who performs all Stand-by Attendant responsibilities assigned by this procedure.

4.0 PROCEDURE

4.1. Coordination of Permit Required Confined Space Entry Activities

Prior to entry into a space the space must be reviewed by a competent person to determine if it meets the criteria of a confined space if so whether it is a permit or non-permit space. Entry Supervisors and all employees who may be required to enter confined spaces shall review this instruction to ensure compliance with all applicable paragraphs.

Prior to entries involving Delta Services LLC will meet with the host employer, other contractors working in or near the space and/or controlling contractor to determine if any hazards will be crated by the different companies work in or near the space as well as who's confined space program and form shall be used for the entry. All parties involved in the entry must coordinate entry operations when:

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

Host employer supervisors of the area in which confined spaces to be entered are located and supervisors responsible for other work conducted in such areas shall coordinate and regulate operations of their organizations in a manner which reduce hazards to personnel entering such spaces. No deviations from the safety requirements specified in these instructions will be permitted.

The 'host employer' must provide the following information, to the 'controlling contractor':

- Location of each known permit space;
- Hazards or potential hazards in each space;
- Precautions that the host employer or any previous controlling contractor or entry employer have implemented for the protection of employees in the permit space.

The host employer must supply information about the permit space hazards and previous entry operations and provide that 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.

If multiple entities (Delta Services, Host employees, controlling contractors, other contractors) are involved in an entry a debrief must be completed at the end of the entry to assure any hazards encountered are communicated and addressed.

4.2. Procedures for Permit Required Confined Space Entry

Prior to personnel entering any confined space that falls within the description in the above scope, a Confined Space Entry Permit (Figure 1) must be properly executed by the Entry Supervisor, entrant(s), attendant(s) and the Site EHS Representative, if applicable.

When there is doubt as to whether or not a particular location is covered by the above scope, the Environmental, Health and Safety Department is to be consulted.

The executed Confined Space Entry Permit is valid only for one shift, for the specified work, location and time period indicated on the permit.

The permit shall be completed and cancelled once all work is complete in the space, all employees have exited the space and all guards or covers, if removed, have been replaced. If an emergency occurs or a condition that is not allowed in the space necessitates the evacuation of the space the permit will be suspended until the condition is corrected. The space will not be reentered until the entry supervisor has fully reassessed the space to assure it meets all the original entry requirements.

The Confined Space Entry Permit must be posted near the entry point of the confined space.

A secondary method of exit should be considered during the planning stage to execute a quick, safe exit, should an emergency arise during occupancy of the confined space.

If panels, manholes, doors or other items must be removed to gain access to the space measures must be taken to prevent unauthorized entry while the space is open.

If the confined space is equipped with a grounding cable, a firm mechanical joint should be verified.

If lighting and power requirements cannot be met using battery lights and equipment, reduced voltage at a maximum of 12 volts must be used. Higher voltages may be used only with a ground fault circuit interrupter (GFCI). The ground fault circuit interrupter, transformer and disconnects must be located outside of the confined space.

If plant air is used for pneumatic equipment, it must be verified that inert gases, such as nitrogen, cannot enter the plant air system.

All persons entering the confined space, stand-by attendants and rescue personnel shall be instructed in the hazards involved, the precautions to take, the use of protective and emergency equipment and the use of rescue equipment.

Entry into a permit required space, which contains or will likely develop into an IDLH atmosphere, or is so constructed that rescue with the tripod rescue line is not practical must have stand-by rescuers present during the entry.

If changes in the use, components, or contents introduce, or could introduce, new hazards into a non-permit required space it shall be reevaluated by a competent person to assure it still meets the requirements of a non-permit space and does not need to be considered a permit-required space.

Only a competent person can reclassify a previously classified permit required confined space as a non-permit required confined space.

4.3. Entry Supervisor

Every entry must have an entry supervisor. The entry supervisor has responsibility to assure that the entry is performed properly as per this program. The entry supervisor shall:

4.3.1. Be 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.

4.3.2. 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.

4.3.3. 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.

4.3.4. Terminates the entry and cancels or suspends the permit as required.

4.3.5. 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.

4.3.6. Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations.

4.3.7. 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.

4.4. Entry Attendant

At least one Stand-by Attendant must be at each point being used to enter the confined space. The Stand-by Attendant must have an air horn, radio or some other reliable method for summoning additional assistance.

The Stand-by Attendants primary responsibilities are:

4.4.1. To be attentive to the personnel inside the confined space and to signal for rescue if necessary.

4.4.2. Be in communication with all entrants and watch for changes in mental or physical condition that could be caused by a hazard in the space.

4.4.3. Observe the air monitor and assure it is operating properly during the entire entry.

4.4.4. Orders the authorized entrants to evacuate the permit space immediately if conditions warrant from inside or outside the entry space

4.4.5. takes appropriate actions when unauthorized persons approach or attempt to enter a permit space.

4.4.6. Informs the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.

4.4.7. Performs non-entry rescues as specified by the employer's rescue procedure.

4.4.8. Always maintain an accurate count of employees inside and outside of the space and log entry and exit times.

4.4.9. Assess activities and conditions inside and outside the space to determine if it is safe for entrants to remain in the space.

4.4.10. The stand by attendant shall not have other duties that interfere in their ability to monitor the entrants.

4.4.11. If an attendant must be responsible for multiple spaces, they must be able to cover all spaces at the same time to meet the responsibilities of this section (address this in the appropriate section of the permit required confined space form).

4.5. Entry Equipment

All equipment used in the entry (fall protection, ladders, rescue equipment, air monitors, etc) will be inspected prior to each use and only be used by properly trained employees. All equipment, except normal and tools, will be supplied by the company at no cost to the employee.

4.6. Isolation Requirements

All energy sources such as pipelines, electrical services, agitators and any other services leading to the confined space must be physically disconnected, blanked off, valved off & locked, tagged and tried prior to personnel entering.

Radioactive sources must be shielded or removed.

4.7. Air monitoring Requirements

Review of the confined space and its previous contents must be made by the Host Company Representative, Site HSE Representative (if available), entrant, attendant and the Entry Supervisor for the entry to ascertain that the necessary ventilation, protective clothing, respiratory equipment, emergency stand-by equipment and fire prevention precautions have been specified and provided.

If the confined space has previously been in use, cleaning and decontamination must be performed prior to personnel entering.

Appropriate tests of the atmosphere shall be made before entering the confined space. In all cases an oxygen, carbon monoxide and flammability test will be performed. The person performing the test, who will initial the permit, will record the test results on the Confined Space Entry Permit. The atmosphere inside the confined space must meet the following conditions:

- Oxygen (O2) - Atmospheric oxygen content must be between 19.5% and 23.5%.
- Flammables - Flammable gases and vapors must be 10%.
- Carbon Monoxide – Atmospheric Carbon Monoxide content must be below 35 PPM
- Toxic and Hazardous Substances: Any potential toxic air contaminants equal or above *Published Exposure Limits* (See 5.0 Definitions). Note: Potential radiation exposure is also covered as part of this requirement, and shall not exceed established Federal and/or State regulatory exposure limits.3.

Atmospheric testing should be done continuously while work is being performed during all confined spaces entries.

Positive pressure ventilation shall be in place for all confined space entries during the entire entry. Ventilation shall only be turned off when the space is empty but shall be used at all times when an employee is in the space. When setting up the work site care shall be taken to be sure that air is taken from a clean source and not from a location where exhaust or other hazardous contaminants could be introduced into the space. When sufficient ventilation cannot be obtained without blocking the means of access to the confined space, employees in the confined space shall be protected by air supplied respiratory equipment.

If the potential for engulfment exists and can not be isolated a process will be developed to alert all entrants before the material(s) have/has reached hazardous levels.

4.8. Air/Gas Monitor

Delta Services has two different models of air/gas monitors but from time to time may need to rent additional/replacement monitors. Any monitors owned or rented by Delta Services shall:

4.5.1 Be at least the four-gas variety capable of monitoring for: Oxygen, Flammable gasses, and Carbon Monoxide with the fourth gas being H2S or a specific gas for the entry being made.

4.5.2 Must have been calibrated with in the past 30 days

4.9. Burning and Welding

Burning, welding and using some chemicals in confined space entails unusual hazards and a detailed analysis shall be made of each specific case to insure safe performance of the work.

When burning, welding or heating operations are required in a confined space, additional ventilation should be considered and may be necessary to provide safe breathing air.

When burning or welding is required in any confined space, the gas cylinders and welding machines shall be located outside. Hose connections shall be checked for leakage prior to entry into confined spaces. Hoses shall be removed from the confined space at the end of work, during lunch periods, breaks or whenever all personnel leave the confined space.

Vessels and/or tanks of laminated shell construction should be given special consideration for the possibility of trapped residuals from the previous contents.

4.10. Emergency Alarms

The Confined Space Entry Permit will be automatically suspended in the event that a major alarm, gas/vapor release, area fire alarm, or plant emergency is sounded, with the exception of a test alarm. Personnel inside the confined space must exit and follow emergency procedures. When the all-clear signal is sounded, the Confined Space Entry Permit can be reinstated or reissued after atmospheric tests are retaken and noted on the permit.

4.11. Training

All confined space Entrants, Stand-by Attendants, and Entry Supervisors must be trained in the hazards of confined space work, the permit system being used and their specific duties and responsibilities as part of the entry team. training will be provided at no cost to the employee and in a language each employee can understand.

Training must be completed before any confined space duties are assigned, when there is change in assigned duties, or when there is a change that presents a hazard about which employees have not been trained.

Re-training shall be provided: Annually for all employees involved in confined space entries, whenever there are deviations from the confined space entry procedures or there are inadequacies in the employee's knowledge or use of these procedures.

Certification of training must be maintained. The certification must contain each employee's name, signature of the trainer, and the date of the training.

4.12. Emergency Rescue

A site-specific rescue plan must be developed and explained to all confined space entry participants. This plan will address as a minimum all the requirements in this section.

The rescue team must be established prior to the entry and the Entry Supervisor must verify that rescue services are available and that the means for summoning them are operable.

If an onsite Rescue Team is used, the Entry Supervisor must assure that each member of the Rescue Team is provided with and trained to use the personal protective equipment and rescue equipment necessary for making rescues from permit spaces. In addition, each member of the Rescue Team must practice making confined space rescues at least once every twelve (12) months. Members of the Rescue Team must also be trained in basic first-aid and CPR and will assist during any medical emergencies during confined space entries.

Any confined space entries conducted that contain or likely will develop into IDLH atmospheres require rescue services present during the confined space entry.

To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Retrieval systems shall meet the following requirements:

- Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, or above the entrant's head.
- The other end of the retrieval line shall be attached to a mechanical retrieval 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 retrieval device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet deep if no ladder is used.

Whenever conditions exist within a confined space that expose an entrant to environmental conditions that are Immediately Dangerous to Life and Health (IDLH) or have a possibility of becoming IDLH, a 30-minute Self Contained Breathing Apparatus or a combination airline respirator with a 5-minute escape pack must be immediately available for rescue.

4.13. Program review

This permit required confined space program will be reviewed by the safety manager and employees who regular perform confined space entries annually and if any of the following conditions occur:

4.13.1. If any hazard is observed during a covered entry which was not addressed by the program.
4.13.2. Any employees makes an unauthorized entry into a covered space
4.13.3. Any incident or near miss occurs during a covered entry
4.13.4. An employee complains about the effectiveness of the program

5.0 REFERENCES

29 CFR 1910.146: Permit Required Confined Spaces

29 CFR 1926 Subpart AA Confined Spaces in Construction

29 CFR 1926.350(b)(4), .352(g), .353(b): Welding

6.0 FIGURES

Confined Space Identification and Classification Form

Confined Space Entry Permit

Confined Space Authorized Entrants Sign-in/Sign-out Log

Figure 1

Confined Space Identification and Classification

A. Confined Space Determination: Yes No

A confined space means a space that: (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/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.

This space meets all three of the above criteria. ☐ ☐

Note: A "NO" answer means that this is not a confined space. Go no further.
A "YES" answer means that this is a confined space; proceed with the next section.

B. Identification of Potential Hazards: Test air in space after forced air ventilation has been in place and running for at least 5 minutes (longer for larger spaces). Then proceed to section C to determine entry procedures to be used.

1. The space contains a Hazardous atmosphere that is not controlled by forced air ventilation?
   - ⇒ Oxygen deficiency (less than 19.5%) ☐ ☐
   - ⇒ Oxygen enrichment (greater than 23.5%) ☐ ☐
   - ⇒ Flammable gas or vapor (greater than 10% LEL or LFL) ☐ ☐
   - ⇒ Carbon Monoxide (CO) level above 35 PPM ☐ ☐
   - ⇒ Other hazardous component above the PEL ☐ ☐

2. Engulfment by liquid or finely divided, flowable solid substance that can be aspirated to cause death by filling or plugging the respiratory system, or that can surround and effectively capture a person or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.? ☐ ☐

3. Entrapment and/or constriction of torso (asphyxiation hazard) by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section? ☐ ☐

4. Hazardous energy (mechanical, electrical, thermal, chemical, pneumatic, etc)? ☐ ☐
Note: any electrical source in the space that cannot be locked out or deenergized will be considered a Yes even if there are no exposed conductors.

5. Significant fall hazard (slippery surfaces, 10 foot or more drop/fall potential, etc.)? ☐ ☐

C. Classification of Confined Space:

☐ **Alternate Entry Procedures**. (Section A is answered YES. Section B has all NO answers.) The Permit Required Confined Space Standard has no further application. Follow the alternate entry procedures found in **figure 2** on the next page.

☐ **Permit-Required Confined Space (PRCS)**. (Section A is answered YES. Section B has one or more YES answers.) The Permit-Required Confined Space Standard (1910.146) and the Confined Space Procedure requirements must be met. Proceed to **figure 3** and complete the PRCS form.

Assessment and classification performed by:

_____ _____ _____
(print name) (signature) (date)

Reviewed and approved by: _____

Figure 2

Alternate Entry Procedures

The OSHA Confined Space standard allows a PRCS to be entered without the need for a written permit or an attendant under two conditions:

- The **only** hazard in the PRCS is an atmospheric hazard and the PRCS can be **maintained** in a condition safe for entry by using mechanical ventilation alone.
- All hazards within the PRCS have been **eliminated** and the space has been reclassified as a non-permit confined space.

Is the **only** hazard an actual/potential atmospheric hazard that can be safely controlled by continuous forced air ventilation alone? Yes ☐ No ☐

If yes, describe hazards and control measures:

_____
_____
_____
_____
_____

In addition to the continues forced air ventilation the air monitor must be used during the entire entry and readings must be recorded at least once an hour to assure the atmosphere stays within the safe requirements. Use **figure 4 (air quality record)** to record air monitor results at least once an hour.

If entry will occur, **certify** that the space is safe for entry and that appropriate pre-entry measures have been taken according to the requirements of this program.

_____ _____ _____
(print name) (signature) (date)

Reviewed and certified by: _____

If no, the space must be entered using a PRCS entry permit and attendant

(Note: If an initial entry of the PRCS is necessary to obtain the required air monitoring data, the entry must be performed utilizing a PRCS entry permit and attendant.)

Once entry is complete turn **figures 1, 2 and 4** into safety if using alternate entry procedures. If using a PRCS procedure in **figure 3** see recordkeeping requirements at end of that figure.

Figure 3

Confined Space Entry Permit for General Industrial Services

1. Client/Space/Purpose

Client:			
Location:			
Space to Be Entered:			
Purpose of Entry			
Date:		Issue Time:	Expiration Time (no longer than one shift):

2. Personnel – Enter all personnel involved in the entry below and mark entry and exit times on **Figure 5** Confined Space Authorized Entrants Sign-in/Sign-out Log in this program.

Entry Supervisor:	**Authorized Entrants:**	**Stand-by Attendants:**

3. Hazards – All hazards must be identified and controlled prior to any entry into the space.

Hazards of the Space:
Means used to isolate energy sources:
Means used to isolate chemical/process hazards:
Means used to isolate other hazards: (specify)
If attendants must cover multiple spaces how will they monitor both spaces and summon rescue if necessary:

Other Permits required:

4. Atmospheric Conditions – Enter initial testing below and use figure 4 (Air Quality record) for the routine air monitoring during the entry.

Initial Testing Conducted				
Type	**Acceptable Limit**	**Test Result**	**Time Test Done**	**Person Conducting Test**
Oxygen	Between 19.5% and 23.5%			
Flammable gas or vapor (LEL or LFL)	Less than 10%			
Carbon Monoxide	Less than 35 PPM			
Other hazard:				

Air Tester Name	**ID #**	**Model # or Type**	**Serial# or Unit**

5. Equipment Required

Personal Protective Equipment Required for Entry:
Rescue Equipment Required:
Rescue Summoned By:

6. Issuance/Acceptance

All potential hazards of the confined space entry must be identified on permit.

All hazards identified must be effectively isolated and means listed on permit.

All atmospheric tests required must be conducted and levels meet acceptable limits.

All equipment specified must be available and worn when applicable.

Any additional permits required for the work must be obtained.

Permit Issued By:

(Print Name) (Signature)

Permit Accepted By:

(Print Name) (Signature)

Job Completed

Entry Complete:	Date:	Time:
Description of Incidents:		
Entry Supervisor Signature:		

Once entry is complete turn figures 1, 3 and 4 into safety if using alternate entry procedures. If using a PRCS procedure in figure 3 see recordkeeping requirements at end of that figure.

Figure 4

Air Quality Record

Forced air ventilation must be running at all times during a permit required space entry or alternate entry procedure. To assure that the forced air ventilation is properly protecting employees the air monitor must be on during the entire entry and levels must be recorded at least once per hour.

Time Monitored									
Initials of person testing									
% Oxygen									
Flammable Gas/vapor									
Carbon Monoxide									
Other (specify)									

Time Monitored									
Initials of person testing									
% Oxygen									
Flammable Gas/vapor									
Carbon Monoxide									
Other (specify)									

Figure 5

Confined Space Authorized Entrants Sign-in/Sign-out Log

Stand-By Attendant Name:______________ Job: ___________________ Date _____________

Name	Authorized Entrant? Yes No	In Out	In Out	In Out	In Out	In Out	In Out
	___ ___	___ ___	___ ___	___ ___	___ ___	___ ___	___ ___
	___ ___	___ ___	___ ___	___ ___	___ ___	___ ___	___ ___
	___ ___	___ ___	___ ___	___ ___	___ ___	___ ___	___ ___
	___ ___	___ ___	___ ___	___ ___	___ ___	___ ___	___ ___
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