

<b>THE KUESEL GROUP</b>	<b><i>Confined Space Entry</i></b>	Procedure No.: <b>SP-38</b> Revision No.: Date: <b>Nov. 2018</b> Page: <b>335 of 558</b>
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## SP 38 Confined Space Entry

### 1.0 PURPOSE:

- 1.1 The purpose of this procedure is to protect workers against the hazards involved in confined spaces. This procedure establishes the controls and responsibilities for entering, working in, and exiting confined spaces.

### 2.0 SCOPE:

- 2.1 This program covers all Kuesel Group employees and Contractors required to enter confined spaces such as manholes, ducts, tanks, piping, vessels, boilers, silos, storage bins, hoppers, vaults, etc.

### 3.0 RESPONSIBILITIES:

- 3.1 **Project Managers/Site Supervisors-** Shall ensure that personnel under their direction maintain compliance with this program.

3.1.1 Ensures that the proper procedures for isolating all energy sources have been controlled.

3.1.2 Understands client jobsite requirements for confined space entry.

3.1.3 Shall ensure that only trained employees assume roles and perform work in confined spaces in accordance with this program.

3.1.4 Ensures that a periodic review of the overall effectiveness of the Confined Space Program/Procedures is completed.

#### 3.2 Employees

3.2.1 Employees shall be properly trained according to their role in confined space entry operations.

3.2.2 Employees shall comply with this procedure as well as client jobsite requirements.

### 4.0 DEFINITIONS:

4.1 **Attendant or Authorized Attendant-** a Qualified Employee stationed outside of the Permit-Required Confined Space who monitors the authorized entrant(s).

4.2 **Confined Space** - a space which:

4.2.1 Is large enough and so configured that an employee can enter and perform assigned work and

4.2.2 Has limited or restricted means for entry or exit (some examples are tanks, boilers, manholes) and

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- 4.2.3** Is not designed for continuous employee occupancy.
- 4.3 Entrant or Authorized Entrant** - a Qualified Employee or contractor who will enter the Confined Space. The entrant is trained on the procedures of the Confined Space and is authorized by The Kuesel Group to enter.
- 4.4 Entry** - the action by which a person passes through an opening into a Permit-Required Confined Space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.
- 4.5 Entry Permit** - a written authorization to enter a Permit-Required Confined Space. It defines the conditions under which the permit space may be entered. It states the reasons for entering, identifies all hazards and identifies the Entry Supervisor.
- 4.6 Entry Supervisor or Authorized Entry Supervisor** - a Qualified Employee who is responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, authorizes entry, oversees entry operations, and terminates entry when required.
- 4.7 Hazardous Atmosphere:** An atmosphere that may expose employees to the risk of death, incapacitation, interfere with an individual's ability to escape unaided from a space, or cause acute illness from one or more of the following causes:
- 4.7.1** Flammable gas, vapors, dusts, or mists in excess of ten percent (10%) of its Lower Explosion Limit (LEL).
  - 4.7.2** Atmospheric oxygen concentrations below 19.5% or above 23.5%.
  - 4.7.3** Atmospheric concentrations of any substance that could meet or exceed the permissible exposure limit as prescribed by OSHA standards. Review the MSDS sheets of all known substances contained within a space.
  - 4.7.4** Any other atmospheric condition that is immediately dangerous to life or health (IDLH).
- 4.8 Isolation** - the process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout/tagout of all sources of energy; or blocking and disconnecting all mechanical linkage.
- 4.9 Non-Permit Confined Space** - a Confined Space which does not contain or have the potential to contain a "Hazardous Atmosphere" or any hazard capable of causing death or serious physical harm.
- 4.10 Permit Required Confined Space (PRCS):**
- 4.10.1** A Confined Space that has one or more of the following characteristics:
    - 4.10.1.1** Contains or has the potential to contain a "Hazardous Atmosphere"

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- 4.10.1.2 Contains a material with the potential for engulfment of an entrant,
- 4.10.1.3 Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls, or a floor which slopes downward and tapers to a smaller cross-section; or
- 4.10.1.4 Contains any other recognized serious safety or health hazard.

4.10.2 Any space meeting the above definition will be entered by permit only.

4.11 **Qualified Employee** - an employee that has been trained on confined space entry procedures and the use of confined space equipment, air-monitoring equipment, and ventilation equipment.

4.12 **Stratified Atmosphere** - an atmosphere where the contents have become "layered". Atmospheric testing may indicate different percentages of oxygen, explosive gasses, and hazardous contaminants at different levels.

## 5.0 **CONFINED SPACE PERSONNEL RESPONSIBILITIES:**

### 5.1 Entry Supervisors

- 5.1.1 Be aware of hazards of the space to be entered, and signs, symptoms, and consequences of exposure, and specific space control procedures.
- 5.1.2 Execute all requirements of this instruction before work begins within a confined space.
- 5.1.3 Authorizes entry into a confined space when acceptable entry conditions have been met.
- 5.1.4 Ensures that all personnel entering and leaving the confined space are accounted for.
- 5.1.5 Terminate entry and cancel the permit if conditions warrant.
- 5.1.6 Verify that rescue services have been identified and that means for summoning them are operable.
- 5.1.7 Remove unauthorized individuals who enter or who attempt to enter the permit space during entry operations.

### 5.2 Entrants

- 5.2.1 Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- 5.2.2 Use all equipment as required by this instruction and the specific permit space entry procedures.
- 5.2.3 Communicate with the attendant as necessary to enable the attendant to alert entrants of the need to evacuate the space as required by this instruction and for attendant to be able to monitor status of entrants.

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**5.2.4** Alert the attendant whenever:

**5.2.4.1** The entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or

**5.2.4.2** The entrant detects a prohibited condition.

**5.2.5** Exit from the confined space as quickly as possible whenever:

**5.2.5.1** Order to evacuate is given by the attendant or the entry supervisor.

**5.2.5.2** The entrant recognizes any warning sign or system of exposure to a dangerous situation, or the entrant detects a prohibited condition or an evacuation alarm is activated.

### **5.3** Attendants

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

**5.3.2** Be aware of the possible behavioral effects of hazard exposure in authorized entrants.

**5.3.3** Continuously maintain an accurate count of authorized entrants in the permit space and ensure that the means used to identify authorized entrants in the permit under this procedure accurately identifies who is in the permit space.

**5.3.4** Remain outside the permit space during entry operations until relieved by another attendant.

**5.3.5** Communicate with authorized entrants as necessary to monitor entrant status and to alert entrant of the need to evacuate the space if conditions warrant.

**5.3.6** Initiate onsite rescue procedures and if necessary, summon additional rescue and other emergency rescue services when self-rescue is not possible.

**5.3.7** Perform no duties that might interfere with his/her ability to monitor and protect the authorized entrants.

**5.3.8** Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space.

**5.3.9** Warn unauthorized persons to stay away and advise those who may have entered the permit space that they must leave.

**5.3.10** Inform authorized entrants and Entry Supervisor of unauthorized persons.

## **6.0** GENERAL INFORMATION:

### **6.1** General Rules

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**6.1.1** To maximize personnel safety and avoid possible confusion regarding the necessity of a permit for entry into a given space, THE KUESEL GROUP, will define any confined space as being a permit required confined space. This practice will be followed unless proven otherwise by a suitable method of testing and/or documentation by the host employer.

**6.1.2** When practical, all confined spaces shall be permanently marked. A sign shall be installed at each opening of the Confined Space. Signs should contain the following text or similar language:

**DANGER – PERMIT REQUIRED CONFINED SPACE**

**DO NOT ENTER**

**6.1.3** Spaces not permanently marked (ex. manholes) shall be posted with a portable sign when access to the spaces is required.

**6.1.4** All confined spaces where there is an opening that can easily be walked into (floor openings, manhole openings, etc.) shall have a physical barrier (guardrail, gate, etc).

**6.1.5** When required, isolating energy sources to the confined space shall be performed in accordance with THE KUESEL GROUP's Lockout/Tagout Program.

**6.1.6** If "hot work" conditions exist, precautions shall be taken in accordance with THE KUESEL GROUP's Hot Work Program. Cylinders of compressed gases are never permitted in a confined space.

**6.1.7** The past contents and atmospheric tests will determine what personal protective equipment (PPE) is necessary for entry into a confined space. All personnel entering a confined space that requires PPE must be trained in the use and limitations of the required equipment. All required PPE must be identified on the Confined Space Entry Permit.

**6.1.8** No smoking is permitted in a Confined Space or near the entrance/exit area.

**6.1.9** Air monitoring is required before entering any PRCS. Continuous monitoring is required whenever any personnel are in the PRCS.

**6.1.10** Portable electrical equipment used in Confined Spaces, which have wet surfaces, shall be supplied power through a ground fault circuit interrupter or be battery powered.

**6.1.11** Before entering into client owned confined spaces, The Kuesel Group supervision will discuss with the client, the requirements of The Kuesel Group's Confined Space Entry program and the client's entry program. The Kuesel Group may utilize the client's confined space entry program as long as it meets the minimum requirements of 29 CFR 1910.146.

**6.1.12** If other Contractors or non-Kuesel Group employees are to be in the space, the Jobsite Supervisor shall coordinate entry operations with other Contractors before entry is permitted into the space. Entry provisions and work activities shall be discussed so that employees do not endanger other employees of a different company.

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**6.2** Confined Space Personnel - The following authorized individuals are required when entry into a PRCS is necessary. Employees shall receive the appropriate level of training before entry into the Confined Space is permitted. Note: An attendant can also act as an entry supervisor if properly trained.

**6.2.1** Entry Supervisor

**6.2.2** Attendant (It is The Kuesel Group's policy that an attendant will only monitor one confined space)

**6.2.3** Entrant(s)

## **7.0 PROCEDURE:**

**7.1** Confined Space Entry Permit

**7.1.1** Before entry is authorized, the entry supervisor shall document the safety measures taken in order to enter the Confined Space by preparing a Confined Space Entry Permit. Depending on the jobsite requirements, The Kuesel Group employees may utilize the clients confined space permit (Note: at a minimum the clients permit must meet the requirements of 29 CFR 1910.146).

**7.1.2** Before entry begins, the entry supervisor identified on the permit shall complete, review, and sign the entry permit to authorize entry. Acceptable entry conditions must be met in order for entry to be authorized.

**7.1.3** The method of communication between the attendant and the entrants must be determined prior to entry into the confined space. Should communications become ineffective, the entrants must exit the confined space and an alternative method of communications must be agreed upon prior to re-entry.

**7.1.4** The completed permit shall be made available at the time of entry to all authorized entrants, 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.

**7.1.5** A Confined Space Entry Permit is valid for a period not to exceed one work shift.

**7.1.6** The entry supervisor shall terminate entry and cancel the entry permit when:

**7.1.6.1** The entry operations covered by the entry permit have been completed or

**7.1.6.2** A condition that is not allowed under the entry permit arises in or near the permit space.

**7.1.7** Canceled Kuesel Group entry permits shall be retained for at least three years to facilitate the review of the PRCS program (This does not apply when using a client issued permit that has to be turned back in to the client upon completion of the work). Any problems encountered during an entry operation shall be noted on the pertinent permit so that appropriate revisions to the program can be made.

**7.1.8** See Appendix A (Confined Space Entry Permit)

**7.2** Ventilation

**7.2.1** Continuous forced air ventilation shall be used to prevent the accumulation of a hazardous atmosphere. Periodic testing will be done to insure that this is accomplished.

**7.2.2** No employee of The Kuesel Group will enter a confined space until the forced air ventilation has eliminated any hazardous atmosphere.

**7.3** Air Testing

**7.3.1** The atmosphere within the space will be tested to determine whether dangerous air contamination and/or oxygen deficiencies exist. Direct reading instruments, detector tubes, alarm only gas monitors and explosion meters are examples of monitoring equipment that may be used to test confined space atmospheres. Authorized employees who have successfully completed air-monitoring training for the type of monitor they will use shall perform the air testing (typically qualified entrants or attendants conduct air monitoring). Air testing equipment shall be calibrated (bump tested using span gas) and certified according to the manufacturer's recommendations. Calibration records shall be kept.

**7.3.2** The minimum parameters to be monitored are oxygen deficiency, LEL and, if applicable, contaminants that may be present which are over OSHA's PEL's. When testing for atmospheric hazards, first test for oxygen content, then for flammable gases or vapors and lastly for toxic gases or vapors. The initial air readings shall be recorded on the Permit and kept at the work site for the duration of the job. The entrants shall be able to review the testing results before entry.

**7.3.3** The following guidelines are the required test results necessary for entry into a confined space (acceptable entry conditions). The site supervisor will determine the required test results for other hazards using MSDS and appropriate reference material.

Oxygen	19.5% minimum, 23.5% maximum
LEL	Less than 10% of the LEL
Hydrogen Sulfide	Less than 10 ppm
CO	Less than 35 ppm

**7.3.4** Air Testing Procedures. Prior to atmospheric testing, check air readings outside of the Confined Space to ensure proper operation of the instrument and that air readings are within normal ranges. Record Air test readings on the Permit.

**7.3.4.1** Air testing for Confined Spaces having a top entrance (manholes, tanks, etc.):



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**7.3.8.2** Employees or their representatives request additional monitoring. Employees or their representatives are entitled to request additional monitoring at any time.

#### **7.4** Entry Procedures

**7.4.1** Each PRCS to be entered shall have specific procedures developed to ensure the safety of all affected personnel. When at client jobsites, THE KUESEL GROUP personnel shall review the client's confined space hazard evaluation documentation for that specific confined space. Specific confined space procedures should include, but not be limited to, the following:

**7.4.1.1** Specifying acceptable entry conditions,

**7.4.1.2** Isolating the permit space,

**7.4.1.3** Purging, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards,

**7.4.1.4** Providing pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards and

**7.4.1.5** Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.

**NOTE:** The Kuesel Group Employee's shall not enter any Permit Required Confined Space without verification that a qualified Confined Space Entry Rescue Team is available for a timely response, given the hazards present.

**7.4.2** The Entry Supervisor shall review entry operations when there is reason to believe that the measures taken may not protect employees. Entry procedures shall be revised to correct deficiencies found before entry is permitted. Examples requiring review include:

**7.4.2.1** Any unauthorized entry

**7.4.2.2** Detection of a hazard not covered by the permit

**7.4.2.3** Detection of a condition prohibited by the permit

**7.4.2.4** Occurrence of an injury or near-miss during entry

**7.4.2.5** A change in the use or configuration of the space

**7.4.2.6** Employee complaints

**7.4.3** Retrieval and rescue equipment is required for entry into permit required confined spaces. The use of a harness is not required if it will create a greater hazard to the wearer.

#### **7.5** Alternative Procedures

**7.5.1** Alternative entry procedures may be used in the following circumstances:

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**7.5.1.1** The only hazard posed by the permit space is an actual or potential hazardous atmosphere.

**7.5.1.2** The employer can demonstrate that continuous forced air ventilation alone is sufficient to maintain the permit space safe for entry. Air levels must be below 50% of established permissible exposure levels.

**7.5.1.3** The employer develops monitoring and inspection data that supports the demonstration that continuous forced air ventilation alone is sufficient to maintain the permit space safe for entry.

**7.5.2** The atmosphere within the space shall be continuously monitored to ensure that forced air ventilation is preventing the accumulation of a hazardous atmosphere.

**7.5.3** Training shall be provided to the employees who enter permit spaces under the alternative procedures and to the employer's representatives who verify that permit spaces are safe for entry under the alternative procedures.

**7.5.4** The Attendant and Entry Supervisor positions are not required by the Alternative Procedures as well as retrieval and rescue equipment. Means of rescue, however, still need to be addressed.

**7.5.5** The Entry Supervisor is responsible for documenting the basis for determining that all atmospheric hazards in the permit space have been eliminated or controlled through a certification that contains the date, the location of the space, any air sampling data to support this and the signature of the Entry Supervisor making the determination. This certification shall be made available to all employees involved.

## **7.6** Reclassifying a Permit Required Confined Space

**7.6.1** A space classified as a PRCS may be reclassified as a non-permit confined space under the following procedures.

**7.6.2** If the PRCS poses no actual or potential atmospheric hazards or if all hazards within the space are eliminated without entry into the space and without the use of forced ventilation, the permit space may be reclassified as a Non-Permit Confined Space for as long as the non-atmospheric hazards remain eliminated.

**7.6.3** If it is necessary to enter a PRCS to eliminate a hazard or to test for atmospheric hazards, such entry shall be completed under a confined space permit.

**7.6.4** Once the space is reclassified, it may be treated as a Non-Permit Confined Space for the duration of the work being performed. The permit is no longer required along with the attendant, supervisor, retrieval and rescue equipment. Air monitoring should be conducted each day before entering the non-permitted space. Once a job is complete, the space reverts to a PRCS.

**7.6.5** The Entry Supervisor is responsible for documenting the basis for determining that all hazards in the permit space have been eliminated through a certification that contains

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the date, the location of the space, any air sampling data to support this and the signature of the Entry Supervisor making the determination (the use of a confined space entry permit will meet this requirement). The Supervisor will sign on the permit that the space has been reclassified, as non-permit required. This certification shall be made available to all employees involved.

## **7.7 Contractors**

- 7.7.1** At a minimum, The Kuesel Group Contractors must follow the requirements of The Kuesel Group's Confined Space Entry Program.
- 7.7.2** The Kuesel Group will provide Contractors information on all PRCS ('s) to be entered, hazards associated with the Confined Space(s) and a copy of this Confined Space Program.
- 7.7.3** Contractor employees must be trained in confined space entry. If requested, Contractors that are required to enter a Confined Space must show certification that their employees have been trained in accordance with 29 CFR 1910.146.
- 7.7.4** Additionally, the Contractor employees will be trained on THE KUESEL GROUP's Confined Space Program. A KUESEL GROUP Representative will communicate to the Contractor the requirements of this program and potential hazards they may encounter inside the confined space and the surrounding area.

## **8.0 CONFINED SPACE RESCUE:**

- 8.1** In the event of an emergency of any type in the confined space, entrants in the space shall evacuate as quickly as possible. Injured employees are encouraged to use self-rescue when applicable.
- 8.2** If rescue from within the confined space is required, the attendant should immediately contact the rescue team, whether it is to call the onsite team, **911**, or the appropriate number for the jobsite if an outside rescue service is used. Inform the Emergency Operator that rescue is needed from a confined space. Give the emergency service the location, the type of confined space, and the hazards associated with the space.
- 8.3** The Jobsite Supervisor shall ensure that The Kuesel Group's Entry Rescue Team, the client's onsite qualified rescue team, or an outside rescue service is notified before entry into the permit space is allowed. Rescue teams must be able to respond to an emergency within a timely manner, considering the hazards identified.
- 8.4** At no times shall the attendant or other non-authorized personnel attempt an entry rescue. A qualified attendant may however perform non-entry rescue activities (ex. retrieval device).
- 8.5** On assignments where The Kuesel Group's Onsite Rescue Team is engaged in Entry Rescue Operations, the Rescue Team Supervisor shall use the "**911**" system as a back-up for emergency support services. The Rescue Team Supervisor or their designee shall provide

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responding 911 Emergency Services with the location, the type of confined space, and the hazards associated with the space.

- 8.6 Outside services must be given an opportunity to examine the entry site, practice rescue, and decline as appropriate.
- 8.7 If there is reliance on the client Host rescue services for use, this **MUST** be stated and agreed to in contract language.
- 8.8 Rescue employees must have PPE at no cost to the employee
- 8.9 Rescue Employees shall receive training upon initial assignment. Refresher training and practice rescues shall be performed at least every 12 months.

**NOTE:** The Kuesel Group Employee's shall not enter any Permit Required Confined Space without verification that a qualified Confined Space Entry Rescue Team is available for a timely response, given the hazards present.

## **9.0 TRAINING:**

- 9.1 All personnel involved with confined space activities shall receive training consistent with their duties. Employees will receive training in order to acquire the understanding, knowledge and skills necessary for the safe performance of the duties assigned under this program.
- 9.2 Training shall be provided to each affected employee that may be designated as a supervisor, entrant or attendant:
  - 9.2.1 Before the employee is first assigned duties,
  - 9.2.2 Before there is a change in assigned duties,
  - 9.2.3 Whenever there is a change in confined space operations which presents a hazard to an employee who has not been previously trained and
  - 9.2.4 Whenever the employer has reason to believe that there are deviations from the confined space entry procedures or that there are inadequacies in the employee's knowledge or use of these procedures.
  - 9.2.5 The training shall establish employee proficiency in the duties required and shall introduce new or revised procedures, as necessary, for compliance.
- 9.3 Training content shall include:
  - 9.3.1 Duties of Entry Supervisor, Entrant and Attendants,
  - 9.3.2 The Kuesel Group's Confined Space Program and other procedures relating to Confined Space Entry (Lockout/Tagout, etc.),
  - 9.3.3 Hazards of Confined Spaces,

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- 9.3.4 Use of Air Monitoring Equipment,
- 9.3.5 Use of ventilation equipment,
- 9.3.6 Emergency Action & Rescue Procedures,
- 9.3.7 Confined Space Entry Equipment, including Personal Protective Equipment and
- 9.3.8 Requirements of 29 CFR 1910.146 Permit Required Confined Spaces.

**10.0 PROGRAM REVIEW:**

- 10.1 The Project Manager/Site Supervisor shall perform an annual review of its Confined Space Program and procedures for the purpose of ensuring that the procedures and requirements of 29 CFR 1910.146 are being met. A review of the previous year's closed out confined space permits shall be included as part of this review.
- 10.2 A written report shall be made documenting inspection findings, results and, as appropriate, any corrective actions taken for program deficiencies. Applicable employees shall be re-trained when deficiencies are found.

**11.0 DOCUMENTATION:**

- 11.1 A Kuesel Group Management Representative shall retain canceled Kuesel Group entry permits for at least three years to facilitate the review of the PRCS program.
- 11.2 Training documentation shall be kept for all affected employees. Training rosters shall indicate the employee's name, date, level of training (supervisor, entrant, and/or attendant) and the instructor who performed the training. A Kuesel Group Management Representative shall maintain all training rosters. The most current training record shall be kept for each affected employee

**12.0 REVISION REGISTER:**

Date	Description of Change	Page No.	Initials

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## Confined Space Entry Permit

Permit valid for one shift only. Permit must be posted near entry point. Keep permit on file for one year.

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Entry Time: \_\_\_\_\_ AM PM Permit Expiration Time: \_\_\_\_\_ AM PM

Confined Space Name/ID: \_\_\_\_\_ Location: \_\_\_\_\_

Reason for Entry: \_\_\_\_\_

Entry Point: TOP BOTTOM SIDE Communication used: VOICE HAND SIGNAL RADIO Other \_\_\_\_\_

**Hazard Identification & Control** Identify potential or known hazards for the confined space. For "OTHER" explain in notes.

**Atmospheric Hazards** present or potentially present – (check all that apply). YES NO NA

<input type="checkbox"/> Oxygen Deficient <19.5%	<input type="checkbox"/> Flammable Gases, Vapors when ≥ 10% LFL	<input type="checkbox"/> Airborne combustible dust
<input type="checkbox"/> Oxygen Enriched ≥ 23.5%	<input type="checkbox"/> Toxic Gases, Vapors when ≥ PEL	<input type="checkbox"/> Other _____

Control:  Test before entry  Continual monitoring  Natural ventilation  Forced air ventilation  Other \_\_\_\_\_

**Engulfment & Entrapment Hazards** present or potentially present - (check all that apply) YES NO NA

<input type="checkbox"/> Flowing material	<input type="checkbox"/> Hung up, bridged, crusted material	<input type="checkbox"/> Inwardly converging walls	<input type="checkbox"/> Sloping floors	<input type="checkbox"/> Other _____
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Control:  LOTO fill and/or emptying equipment  Lock gates  Block spouts/pipes  Drain/empty  Lifeline use

Potential/known hazard	YES	NO	Type / Control Used	Potential/known hazard	YES	NO	Type / Control Used
Egress hazards	<input type="checkbox"/>	<input type="checkbox"/>		Respiratory hazards	<input type="checkbox"/>	<input type="checkbox"/>	
Insufficient lighting hazard	<input type="checkbox"/>	<input type="checkbox"/>		Skin hazards	<input type="checkbox"/>	<input type="checkbox"/>	
Chemical hazards	<input type="checkbox"/>	<input type="checkbox"/>		Heat/Cold hazards	<input type="checkbox"/>	<input type="checkbox"/>	
Mechanical hazards (unguarded items)	<input type="checkbox"/>	<input type="checkbox"/>		Snake, Rodent, Animal and Insect Hazards	<input type="checkbox"/>	<input type="checkbox"/>	
Electrical hazards	<input type="checkbox"/>	<input type="checkbox"/>		Vehicle hazards	<input type="checkbox"/>	<input type="checkbox"/>	
Fall hazards	<input type="checkbox"/>	<input type="checkbox"/>		Noise hazards	<input type="checkbox"/>	<input type="checkbox"/>	

Other Hazards & Control: \_\_\_\_\_

**Safety & Emergency Rescue** **RESCUE / FIRE CONTACT #:**

	YES	NO	NA		YES	NO	NA
Entry area secure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safety harness & lifeline or retrieval line	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LOTO/de-energization & isolation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PPE inspection completed before use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lighting (rated for type of space/work)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mechanical retrieval device	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hot work permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Respirator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GFCI equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hearing Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-sparking tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other PPE _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Entrants should always wear hard hats, work boots, and eyewear.*

Rescue equipment available?	YES	NO	Type: _____
Stand by personnel used?	YES	NO	Name(s): _____
CPR trained person available?	YES	NO	Name(s): _____

