**Confined Space Entry Program**

Section 1 – Program Statement

1.1 Confined Space Program

1.2 Purpose

The purpose of this program is to provide specific procedures/safe work practices for employees required to enter confined spaces. These procedures/practices will be implemented in compliance with all applicable state and federal regulations pertaining to confined space entry.

1.3 Objectives

The objectives of the Confined Space program include:

- To comply with all state and federal regulations regarding confined spaces.
- To assess the feasibility of reducing the total number of confined spaces.
- To limit the number of confined space entries.
- To identify, evaluate and eliminate potential hazards within the confined spaces prior to entry.
- To establish and implement a permit system for entry into confined spaces.
- To train employees who may work in confined spaces on proper procedures and entry techniques.

Section 2 – Regulations/References

2.1 Regulations

Regulations/references pertaining to the Confined space Program are found in the following publications:

Occupational Safety and Health Standards for General Industry (29 CFR 1910.146)

Section 3 – Safety Manager

3.1 Safety Manager

The Safety Manager serves as the first contact for issues concerning the departmental confined space program. The Safety Manager is responsible for establishing a written Confined Space Program that includes evaluations of the confined spaces entered by the employee/contractor. He/she is responsible for establishing and maintaining a training program that will provide exposed employees with the understanding, knowledge and skills necessary for safe and proper work in confined spaces. The Safety Manager shall review the Confined Space Program using the canceled permits, at least once per year and shall revise the program as necessary to ensure that employees participating in entry operations are protected from confined space hazards. The Safety Manager is responsible for providing employees with the equipment required to safely enter confined spaces. The Safety Manager is available to provide training on proper confined space entry techniques, recommend safety equipment, and assist in confined space evaluations.

3.2 Area Supervisors

The area supervisor will be responsible for identifying workers that may be expected to enter confined spaces ensuring that these workers receive required training before entering the spaces and ensuring that their subordinates follow established entry procedures.

3.3 Entry Supervisors

Entry Supervisors are the persons responsible for determining if acceptable entry conditions are present at the confined space where entry is planned, authorizing entry, supervising entry operations and terminating entry when required. Entry Supervisors shall be trained on necessary skills and responsibilities.

Entry Supervisors for this facility are listed below:

1. 
2. 
3. 
4. 
3.4 Trained and Authorized Attendants and Entrants
Trained and authorized attendants and entrants are responsible for working in and around confined spacing according to guidelines and work practices established. Authorized entrants are also responsible for refusing to work in confined spaces until an entry supervision has deemed entry to be safe and has given approval for entry, or if a hazard is identified while working in the confined space. The authorized attendants shall attend only one confined space entry at any one time and shall not perform any other duties.

Authorized Entrants are:
1. 
2. 
3. 
4. 
5. 

Authorized Attendants are:
1. 
2. 
3. 
4. 
5. 

3.5 Training Frequency
Confined Space training will occur; before initial assignment to jobs that would require entry into confined spaces; when there is a change in assigned duties; when a change in permit space operations create a new hazard; whenever an employee deviates from established procedure; and when inadequacies in an employee’s knowledge is identified. The confined space training will include all supervisors, attendants and entrants.

Confined space training will establish employee proficiency in the duties required by the confined space standards.

Training documents will include the employee’s name, signature of the trainer and the dates of the training.

3.6 Training Content
The training programs established include:
- Confined space identification
- Identification and evaluation of permit space hazards
- Proper gas meter operation
- Safety entry techniques
- Attendant and entrant responsibilities
- Communication techniques
- Rescue procedures
- Ventilation techniques
- Supervisory responsibilities
- Permit completion/cancellation techniques
- Location of permit spaces

A copy of the established training program can be obtained from the Safety Manager.
Section 4 – Confined Space Locations

4.1 Inventory
An in depth inspection was conducted and all areas that contained potential confined spaces were assessed. A confined space assessment form (Appendix A) was used to classify all confined spaces. When performing confined space evaluations, air monitoring and inspections will be conducted from outside the space. If evaluations cannot be performed from outside the space, the space will be entered through permit procedures. All confined space locations and classifications are listed below:

<table>
<thead>
<tr>
<th>Location</th>
<th>Classification (non-permit/permit required)</th>
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4.2 Reclassification of Permit Required Confined Spaces
When a Permit Required Confined Space is to be reclassified to a “non-permit” status, the safety manager will issue a written certification that contains the date, the location of the space, and the signature of the person making the determination that all hazards have been eliminated. The certification shall be made available to each employee entering the space or to that employee’s authorized representative. This documentation must be completed each time a permit-required confined space is classified and remains in effect only as long as all of the hazards remain eliminated. This reclassification procedure is contained in the confined space assessment form, (Appendix A) of this program.

Section 5 – Entry Permits

5.1 Permit Required Spaces
Some confined spaces that meet the definition of a Permit Procedure confined space. The information necessary to design a permit for permit-required space entry is included at the end of this program (Appendix B).

The entry supervisor shall prepare an entry permit that contains at least all of the information listed in Appendix B. The permit shall be made available to all supervisors, entrants, attendants, authorized employee representatives and rescue personnel. The permit must remain posted outside of the permit space entry portal and remain there for the duration of the authorized entry. Any changes of personnel (supervisors, attendants, entrants) or testing and monitoring data shall be added to the permit. At the end of the authorized entry or after entry operations have been completed, the entry supervisor shall cancel the permit and maintain all cancelled permits for at least one year. A new and updated permit shall be developed, implemented and maintained for each permit space entry.

Section 6 – Prevention of Unauthorized Entry

6.1 Posting of Confined Spaces
All Permit-Required Confined Spaces that can be readily labeled are posted in a manner designed to inform employees of the existence/location of the dangerous space. The signs read as follows:

**DANGER! PERMIT-REQUIRED CONFINED SPACE. DO NOT ENTER!**

If posting danger signs cannot be used to inform the exposed employees, use any other effective means to warn of the existence, location and the danger posed by the permit spaces.
6.2 **Other Necessary Precautions**

If it is concluded that posting and training are inadequate to prevent unauthorized entry into permit spaces, covers, guardrails, fences, locks or other methods of restricting access shall be implemented.

**Section 7 – Entry Procedures**

7.1 **Entry Procedures**

Site specific entry procedures have been developed for each confined space entry. The site-specific entry procedures are located in Appendix C.

The following list identifies the minimal means, procedures and practices necessary for safe permit space entry operations:

1. Identify and evaluate permit space hazards
2. Control hazards and specify acceptable entry conditions
3. Allow authorized entrants or employee authorized representative observe monitoring and testing
4. Isolation of the permit space
5. Purge, insert, flush or ventilate the permit space as necessary to eliminate or control atmospheric hazards
6. Provide barriers to confined spaces that protect entrants from hazards created by pedestrians, vehicles or other external factors
7. Verify that conditions within the permit space are acceptable throughout the duration of the authorized entry
8. After authorized entry has concluded or entry operations have been completed, the permits shall be cancelled and the permit space isolation from unauthorized entry

7.2 **Review of Entry Operations and Procedures**

A review entry operations, procedures and cancelled entry permits at least annually. Additionally, a review shall be conducted if there is a reason to believe that the measures taken under the permit space program may not provide affected employees with the prior entry operations and procedures. Circumstances that require the review of the permit space program are listed below:

1. Unauthorized entry of a permit space
2. A detection of a permit space hazard not covered by the permit
3. The detection of a condition prohibited by the permit
4. The occurrence of an injury or a near-miss during entry operations
5. The change in the use or configuration of a permit space
6. Employee complaints about the ineffectiveness of the permit space program

7.3 **Confined Space Equipment**

When necessary the following equipment will be provided and properly maintained at no cost the employee. The department will ensure that all employees required to work in or around confined spaces will properly use the following equipment.

1. Testing and monitoring equipment
2. Ventilation equipment
3. Communication equipment
4. Personal protective equipment
5. Lighting equipment
6. Barriers and shields
7. Equipment necessary for safe ingress and egress
8. Rescue and emergency equipment
9. Any other equipment necessary for safe entry into and rescue from permit spaces
7.4 **Evaluation of Permit Space Conditions**
When conducting permit space entry operations the department will ensure that the following evaluation of permit space conditions is conducted:

1. Test conditions of the permit space prior to any authorized entry. If the space cannot be isolated (large size or portion of continuous system) conduct pre-entry testing as is feasible and maintain continuous monitoring of the areas occupied by authorized entrants.
2. Test and monitor the permit space as necessary to ensure that acceptable entry conditions are maintained during the course of entry operations.
3. When testing for atmospheric hazards the testing shall be conducted in the following order:
   a. Oxygen
   b. Combustible gases and vapors
   c. Toxic gases and vapors
4. All authorized entrant or employee's authorized representative observe pre-entry and subsequent testing or monitoring data.
5. Re-evaluate the permit space if authorized entrants or employee's authorized representative feel that the evaluation of the permit space was inadequate.
6. Immediately provide each authorized entrant or employee's authorized representative the results of any test or monitoring.

7.5 **Confined Space Hazard Identification and Evaluation**

<table>
<thead>
<tr>
<th>Confined Space Location Measures</th>
<th>Hazard Type(s)</th>
<th>Control</th>
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7.6 **Number of Attendants Required**
Acceptable conditions do not exist and authorized entry is not permitted unless there is at least one attendant stationed immediately outside the permit space to be entered.

7.7 **Multiple Employers/Contractors**
The department shall inform all other affected outside employers and contractors of the permit space hazards. All affected outside employers and contractors will be educated on the confined space program and confined space requirements. Multiple permit space entries conducted by outside employers and contractors shall be reviewed and coordinated prior to authorized entry by any party. The department shall not enter into any binding business agreement with contractors or employers that do not meet the confined space program and training requirements of 29 CFR 1910.

**Section 8 – Rescue Procedures**

8.1 **Rescue Plan**
A rescue plan shall be developed for each type of permit-required confined space at the facility. Whenever feasible, the rescue plan will specify methods that do not involve entry by rescuers into the confined space. The attendant and/or the Entry Supervisor are responsible for preventing unauthorized persons in attempting a rescue inside the confined space.

8.2 **Rescue Equipment**
All necessary rescue equipment to effectively conduct the rescue shall be provided and in proper working condition prior to entry into the space.
8.3 **Rescue Practices**
At least annually, designated rescuers shall practice making a rescue using either a manikin or an actual entrant, from a space similar to the one being entered. If the space has not been entered for more than one year, the rescue practice will be conducted prior to entry.

8.4 **Rescue Plan and Entry Permit**
The entry permit shall verify that:

1. Rescuers have been notified
2. Rescuers are physically located so they can effect a successful and timely rescue at any point during the entry
3. Rescuers have been trained on rescue from the particular spacing being entered
4. All required rescue equipment is immediately available

8.5 **Offsite Rescue Services**
Prior to a decision to use an off-site service to provide rescue, verification shall be made that the off-site rescue services comply with all requirements of this section.

**Section 9 – Entry Equipment**

9.1 **Available Equipment**
The following equipment is available for confined space work/entry and is located at the Physical Plant.

<table>
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<tr>
<th>Equipment List</th>
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<tbody>
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APPENDIX A

CONFINED SPACE EVALUATION FORM

- Confines spaces are defined as:
  1. Large enough and configured such that an employee can bodily enter and performed the assigned work.
  2. Has limited or restricted means for entry or exit.
  3. Is not designed for continuous employee occupancy.

- Permit-Required confined spaces are defined as having one or more of the following:
  1. Contains or has 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 smaller cross-section.
  4. Contains any other recognized serious safety or health hazard.
## Confined Space Assessment Form

**Name of Evaluator**

**Work Area Assessed**

**Date of Assessment**

<table>
<thead>
<tr>
<th>Confined Space Determination</th>
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<tbody>
<tr>
<td>1. Area was not designed for continual worker occupancy.</td>
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<tr>
<td>YES</td>
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<tr>
<td>2. Area can be bodily entered and assigned work performed.</td>
</tr>
<tr>
<td>YES</td>
</tr>
<tr>
<td>3. Area has limited and/or restricted means of access and egress.</td>
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<tr>
<td>YES</td>
</tr>
</tbody>
</table>

If you answered yes to all of the above, you have met the criteria of a confined space and must proceed to the next section.

<table>
<thead>
<tr>
<th>Permit-Required Confine Space Determination</th>
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<tbody>
<tr>
<td>1. The area contains or has the potential to contain a hazardous atmosphere.</td>
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<tr>
<td>YES</td>
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<tr>
<td>2. The area contains a material that has the potential to engulf an entrant (water, grain, sand, etc).</td>
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<tr>
<td>YES</td>
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<tr>
<td>3. The area has an internal configuration, inwardly converging walls, or a floor that slopes downward, and tapers to a smaller cross section.</td>
</tr>
<tr>
<td>YES</td>
</tr>
<tr>
<td>4. The area contains any other recognized serious safety and health hazards (electrical, thermal, mechanical, physical, chemical, etc).</td>
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<tr>
<td>YES</td>
</tr>
</tbody>
</table>

If you answered yes to any one or more of the above, you have met the criteria of a permit-required confined space. Permit-required space must be identified with the appropriate signs, and implement measures to prevent unauthorized entry (locks, bolts, etc). If employee entry is required a confined space entry program and training program must be developed and implemented.

<table>
<thead>
<tr>
<th>Reclassification of Permit-Required Confined Space</th>
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<tbody>
<tr>
<td>A space classified by the employer as a permit-required confined space may be reclassified under the following procedures.</td>
</tr>
<tr>
<td>1. If the permit space poses no actual or potential atmospheric hazards and if all the hazards within the space are eliminated without entry into the space and the non-atmospheric hazards remain eliminated.</td>
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<tr>
<td>2. The employer shall document the basis for determining that all hazards in a permit space have been eliminated, through a certification date, the location of the space, and the signature of the person making the determination. The certification shall be made available to each employee entering the space or to that employee’s authorized representative.</td>
</tr>
<tr>
<td>3. If hazards arise within a permit space that has been declassified to a non-permit space, each person must immediately exit the space. The employer shall then reevaluate the space and determine whether it must be reclassified as a permit space.</td>
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</table>

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<thead>
<tr>
<th>Classification of Work Space</th>
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</thead>
<tbody>
<tr>
<td>Permit-required confined space</td>
</tr>
<tr>
<td>Non permit-required confined space (does not contain hazards capable of causing serious harm or death)</td>
</tr>
<tr>
<td>Enclosed space</td>
</tr>
</tbody>
</table>
CONFINED SPACE ENTRY PERMIT

There is not a standard format for a Confined Space Entry Permit. It can be formatted using any method as long as the permit is legible to all exposed employees, can be posted at the confined space entrance, and contains all the following information.

ALL PERMIT-REQUIRED CONFINED SPACE PERMITS SHALL LIST THE FOLLOWING:

1. The permit space to be entered
2. The purpose of entry
3. Date and authorized duration of the permit
4. Authorized entrants (by name)
5. Current entry supervisor (by name). With space for name or initials of original entry supervisor who originally authorized entry
6. Hazards of permit space to be entered
7. Measures used to isolate permit space and eliminate or control hazards before entry
8. Acceptable entry conditions (site specific)
9. Results of initial pre-entry testing and necessary periodic testing, accompanied by the names or initials of the testers and date/time of the testing. (Note: when testing for atmospheric hazards, test first for oxygen, next for combustible vapors and gases and then for toxic vapors or gases)
10. The rescue plan to be used for this space. Verify that all required elements of the rescue plan are in place
11. The procedures used to maintain communications between authorized entrants and attendants
12. List of equipment required to maintain compliance. (Example: PPE, testing equipment, communication equipment, alarm system and rescue equipment)
13. Additional necessary information (site specific) that will ensure employee safety
14. Any additional permits that have been issued to authorize work in the permit space (Example: hot work)