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| Sample Safety Program |
| Confined Space Entry Program Template |
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| The following template has been created to help your organization develop your safety program. This sample safety program template is not designed to be used as is. The template should be customized to meet the needs of your organization. Highlighted fields allow for clear indicators for areas your information is required. The rest of the text in the program template is easily editable to meet your organization’s needs. |

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| **Western National Insurance Group** |
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*Disclaimer: The sample safety program template is not designed to be used as is. The user must customize the template program to meet the needs of your organization. Western National does not guarantee that this template is or can be relied on for compliance with any law or regulation, prevention against preventable losses, or void you from and legal liability. Western National will not be liable for the use of the template. All safety program and policies, including this template and the information you supply to complete it, should be reviewed by your legal counsel and/or risk management staff.*

**(Company Name)**

**Confined Space Entry Program**

PURPOSE

The purpose of this program is to establish safe confined space entry and work procedures for (Company name) employees that are required to work in confined spaces. These procedures are intended to prevent harm to personnel while entering or working in a confined space exposed to potential hazards such as air contaminates oxygen deficient or enriched atmospheres, engulfment hazards, or configurations which may impede employee escape or retrieval in the event of an emergency. (Company name) is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this goal, the following procedure is provided to in accordance with OSHA standard 29CFR 1910.146, “Permit Required Confined Spaces.”

RESPONSIBILITIES

**Managers**

* Assure this Confined Space Entry Program is implemented by supervisors and employees assigned to enter confined spaces
* Ensure the equipment necessary for safe confined space entry is readily available for employee use

**Supervisors**

* Assure the Confined Space Entry Program procedures are implemented by all entrants and attendants of confined spaces under their supervision
* Ensure all employees assigned to a confined space entry have attended initial confined space entry training and annual refreshers thereafter
* Establish and maintain an inventory of all assigned confined spaces in their work area. Where practical, post confined spaces in their work area with identification labels
* Plan each confined space entry by completing or reviewing the confined space evaluation form and identifying the hazards with the employees assigned to the confined space entry
* Review each completed confined space entry permit for hazards identified. Submit expired permits to (Name of Responsible Person). If questions arise on the permit, consult with (Name of Responsible Person).

**Entrants and Attendants**

* Understand and follow the Confined Space Entry Program safe work procedures
* Only enter assigned confined spaces
* Report any space which may be a confined space, but not designated as a confined space to your supervisor
* Immediately report any unaccounted confined space hazards to your supervisor
* Assist in the completion of the confined space entry permit prior to entry
* Participate in the initial and annual confined space training sessions

ATMOSPHERIC TESTING

The internal atmosphere of a confined space will be tested with a calibrated, direct-reading instrument for oxygen, flammable gases and vapors, and potential toxic air contaminants, in that order.

Testing equipment used in specialty areas shall be listed or approved for use in such areas by (Name of Responsible Person). All testing equipment will be approved by a nationally recognized laboratory, such as Underwriters Laboratories or Factory Mutual Systems.

All confined spaces must be atmospherically evaluated before entry is authorized. The analysis shall identify and evaluate any hazardous atmospheres that may exist or arise, so that appropriate permit entry procedures can be developed and acceptable entry conditions stipulated for that space.

Permit required confined spaces must be atmospherically monitored before entry and continuously throughout the authorized entry.

The atmosphere of the confined spaces will be considered to be within acceptable limits when the following conditions are maintained:

1. Oxygen: 19.5 percent to 23.5 percent;
2. Flammability: less than 10 percent of the Lower Flammable Limit (LFL);
3. Toxicity: less than recognized American Conference of Governmental Industrial Hygienists (ACGIH) exposure limits or other published exposure levels [i.e., OSHA Permissible Exposure Limits (PELs) or National Institute of Occupational Safety and Health (NIOSH) Recommended Exposure Limits (RELs)].

PERMIT REQUIRED CONFINED SPACE ENTRY PROCEDURES

Safe entry into a permit required confined space can only be accomplished when work procedures account for all potential hazards. Based on the configuration of the confined space and the hazards which employees will be exposed, best work practices for safe confined space entry include the following:

**A. Pre-entry Hazard Assessment**

Prior to entering a permit required confined space, the space must be thoroughly assessed by:

* Determining what, if any, hazards may be present including, but not limited to: entry/exit restrictions, chemical, mechanical, physical, entrapment, engulfment or hazards related to the task to be performed.
* Taking all necessary precautions that will minimize the risks based on the known or suspected hazards. This includes atmospheric testing of the confined space, lockout/tagout of energy sources, cleaning out of residual materials, purging lines, providing adequate means of entry/exit, etc.
* Conducting a hazard assessment of the work task(s) to be completed in the confined space to ensure all hazards that may be created by the work activities are accounted for and corrective actions taken. For example: If the work task includes welding or cutting, additional ventilation may be required to remove the smoke and fumes.
* Communicating the work plan with all the confined space entry team members.
* Evaluate whether or not the confined space entry can be completed safely within the scope of this program. If not, re-evaluate and contact (Name of Responsible Person) for consultation.

**B. Preparing for Confined Space Entry**

Take all necessary precautions that will minimize or eliminate the risks based on the known or suspected hazards:

* Place guards or barriers to protect employees and the public from fall hazards and to prevent unauthorized entry into the confined space.
* Provide an adequate means of entry/exit from the confined space.
* Close valves and isolate energy sources in accordance with lockout/tagout procedures. When applicable, purging the contents of the confined space.
* Ventilate the confined space. When using positive pressure ventilation, locate the ventilator intake in an area with a clean air source.
* Perform atmospheric testing. When practical, remote probes are to be used for initial atmospheric testing of the confined space from outside of the space. Atmospheric testing includes: oxygen level, flammable gases, toxic atmospheres and any additional testing for any suspected toxins.
* Evaluate whether or not the confined space entry can be completed safely within the scope of this program. If not, re-evaluate and contact (Name of Responsible Person) for consultation.

**C. Complete the Confined Space Entry Permit**

Before entering the confined space, the confined space entry permit must be completed by (Name of Responsible Person). The entry permit verifies that pre-entry procedures have been completed and the confined space is safe to enter. The permit must be signed and dated by the trained (Name of Responsible Person)on-site immediately prior to entry. The entry permit must be posted at the entrance(s) to the confined space or otherwise be immediately available on-site at all times while the confined space is being occupied.

* The duration of the entry permit cannot exceed the time required to complete the work assignment or a maximum of one work shift.
* The trained lead person must terminate an entry and cancel the entry permit when:

1. An assignment is complete,
2. The shift is completed,
3. Or when a new hazard or condition exists.   
   Note: The new hazard or condition must be noted on the cancelled permit and used when issuing a new permit.

* Copies of the completed entry permit should be placed in a job file and the original forwarded to (Name of Responsible Person) to be retained for a minimum of one year.
* Any problems encountered during an entry operation are to be noted on the respective permit so that appropriate revisions to the confined space permit program can be made.

**D. Safe Confined Space Entry**

During entry and while working in a permit required confined space:

* Maintain an attendant outside the permit required confined space by the entrance to:

1. Maintain communications with personnel in the confined space at all times.
2. Assist personnel in the confined space from the outside.
3. Order an evacuation of the confined space when a hazardous situation develops.
4. Summon emergency personnel when necessary.

Note: At no time is the attendant to enter the confined space.

* When practical, continuously ventilate the confined space.
* Continue atmospheric testing of the confined space.
* Appropriate retrieval equipment or methods shall be used whenever a person enters a confined space. Use of retrieval equipment may be waived by the (Name of Responsible Person) if use of the equipment increases the overall risks of entry or does not contribute to the rescue. A mechanical device shall be available to retrieve personnel from vertical confined spaces greater than five (5) feet in depth.
* Personnel making a horizontal confined space entry must be equipped with a ten (10) minute emergency rescue air supply pack whenever there is a risk for the development of a hazardous confined space atmosphere.
* If a hazardous situation develops during the confined space entry or if the attendant instructs the entrants to exit the space, entrants must evacuate the confined space immediately.

CONFINED SPACE EMERGENCY PROCEDURES  
*The Company must decide how emergency rescue procedures will be accomplished: utilizing in house personnel or 911 emergency services, etc. The following written procedure should reflect this decision.*

*Emergency Procedures Utilizing In House Personnel (Example)*

(Name of Responsible Person) will maintain a written plan of action that has provisions for conducting a timely rescue of individuals within a confined space, should an emergency arise. The written plan shall be kept onsite where the confined space work is being conducted. All affected personnel shall be trained on the Emergency Response Plan.

Retrieval systems will be available and ready when an authorized person enters a permit space, unless such equipment increases the overall risk of entry, or the equipment would not contribute to the rescue of the entrant. Retrieval systems shall have a chest or full-body harness and a retrieval line attached at the center of the back near shoulder level or above the head. If harnesses are not feasible, or would create a greater hazard, wristlets may be used in lieu of the harness. The retrieval line shall be firmly fastened outside the space so that rescue can begin as soon as anyone is aware that retrieval is necessary. A mechanical device shall be available to retrieve personnel from vertical confined spaces more than five (5) feet deep.

Rescue Team Members will:

1. Complete a training drill using mannequins or personnel in a simulation of the confined space prior to the issuance of an entry permit for any confined space and at least annually thereafter.
2. Respond immediately to rescue calls from the Attendant or any other person recognizing a need for rescue from the confined space.
3. In addition to emergency response training, receive the same training as that required of the authorized entrants.
4. Have current certification in first aid and CPR.

OR

*Emergency Procedures Utilizing 911 Emergency Services (Example)*

In case of emergency, the attendant must carry out the following responsibilities to ensure that no one, including one’s self, is put at unnecessary risk while attempting a confined space rescue.

* **Always call for emergency assistance (911) before attempting to rescue the victim(s) in the confined space**
  + When contacting emergency assistance, explain the type of incident, location of the confined space and the hazards of the confined space.
* **Rescue/retrieval**
  + Begin preparations/attempts to retrieve the victim(s) from OUTSIDE the confined space after calling for emergency assistance.
    - If a victim is wearing a full body harness with a lifeline attached, use a mechanical device to pull the victim from the confined space.
* **Do not enter** the confined space until:

1. Emergency Assistance has been called,
2. Backup assistance is standing by to provide additional help,
3. AND the confined space atmosphere has been tested and cleared for safe entry.

* **Prevent re-entry**
  + Isolate the confined space to prevent re-entry until the situation has been stabilized and rendered safe.
  + Surrender all rescue activities to the emergency rescue service upon their arrival.
  + Notify your immediate supervisor of the situation.

TRAINING

(Company name) will provide training for all employees whose work is regulated by this Confined Space Program. All personnel assigned to enter confined spaces must be trained in safe confined space entry and emergency procedures prior to engaging in confined space entry operations. After the initial training has been completed, employees must be trained annually thereafter and additional training may be required under any of the following conditions.

* Before a change in assigned duties,
* When there are changes in safe confined space entry or emergency procedures,
* When employee re-training is needed.

**APPENDICES**

A – DEFINITIONS

B – CONFINED SPACE EVALUATION FORM

C – CONFINED SPACE ENTRY PERMIT

D – CONFINED SPACE ENTRY EQUIPMENT CHECKLIST

REVISION HISTORY

Reviewed by:

Reviewed by:

Effective:

Effective:

**APPENDIX A - (Company Name)**

**DEFINITIONS**

**Confined Space** –A special configuration that can include any or all of the following properties:

* Limited or restricted means of entry or exit
* Large enough for employee to enter and perform assigned work, and is not designated for continuous occupancy by an employee
* A condition in which dangerous air contamination, oxygen deficiency or enrichment, or engulfment condition exists or may develop

**Engulfment** –The surrounding and effective capture of a person by finely divided particulate matter or a liquid

**Entry** – Any part of the body entering through the plane of the confined space opening

**Hazardous Atmosphere** – An atmosphere presenting a threat of death, acute injury, illness or disablement due to the presence of flammable, explosive, toxic, oxygen deficiency or enrichment, or otherwise injurious substances as follows:

* Flammable gas or vapor concentrations greater than 10 percent of its lower explosive limit (>10% LEL)
* Combustible particulate concentrations greater than 10 percent of the minimum explosive concentration of the particulate (>10% MEC)
* Atmospheric oxygen concentration either below 19.5 percent or above 23.5 percent
* Toxic, corrosive or asphyxiate substance concentrations above Permissible Exposure Levels and/or Threshold Limit Values (> PEL and/or TLV)
* Any substance that is present at concentrations greater that the value established as Immediately Dangerous to Life and Health (> IDLH)

**Non-permit Required Confined Space** – A confined space that does not:

* Contain a physical hazard capable of causing death or serious physical harm to entrants
* Contain or have the potential to contain a hazardous atmosphere capable of causing death or serious physical harm to entrants

**Oxygen Deficient or Enriched** – An atmosphere containing less than 19.5% oxygen by volume or greater than 23% oxygen by volume

**Permit Required Confined Space –** A confined space that has one or more of the following characteristics:

* Contains or has the potential to contain a hazardous atmosphere
* Contains a material that has the potential for engulfing an entrant
* Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward or tapers to a smaller cross section
* Contains any other recognized serious safety or health hazard

**Physical Hazards –** Confined space physical hazards include items such as heat exposures, electrical hazards, fall hazards, stored energy sources and excessive noise

**APPENDIX B - (Company Name)**

**CONFINED SPACE EVALUATION FORM**

*The confined space must be evaluated in its typical condition (prior to controlling any hazards)*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date of evaluation:** |  | **Space Location:** |  | | | |
| **Space description:** |  | | | | | |
| **Purpose of entry:** |  | | | | | |
| **Does the space have the following characteristics?** | | | | | | |
| 1. Is the space large enough and so configured that a person can enter and perform work? | | | | Yes | No | |
| 1. Does the space have a limited or restricted means of entry or exit? | | | | Yes | No | |
| 1. Is the space **NOT** designed for continuous human occupancy? | | | | Yes | No | |
| **If any of questions 1-3 were answered “Yes”, the space IS a confined space.**  **Continue with questions 4-8 to determine if the space is a permit required or non-permit required space.** | | | | | | |
| 1. Does the space contain, or have the potential to contain a hazardous atmosphere (including but not limited to: oxygen deficiency, explosive, carbon monoxide, hydrogen sulfide, chemical fumes/gases)?   Specify hazards: | | | | Yes | | No |
| 1. Does the space contain an engulfment hazard (i.e. sand, grain, water)?   Specify hazards and possible controls: | | | | Yes | | No |
| 1. Does the space have inward converging walls that taper down to a smaller cross-section and could lead to entrapment or asphyxiation?   Specify hazards and possible controls: | | | | Yes | | No |
| 1. Does the space contain any other recognized serious hazards (check those that apply):   Mechanical hazards  Exposed or potential electrical hazards or electrical equipment  Gas or chemical lines  Fall hazards  Temperature extremes/heat stress  Liquid, sludge, or residue  Other(s)  Specify hazards and possible controls: | | | | Yes | | No |
| 1. Will hot works be conducted? | | | | Yes | | No |

This confined space is a:

**Permit Required Confined Space** if:

* Answered “Yes” to any question #4-#7 and the hazards **CANNOT** be controlled, or
* Answered “Yes” to question #8

**Non-Permit Required Confined Space** if:

* Answered “No” to all questions #4-#8, or
* Answered “Yes” to #4 **BUT** the hazards are controlled through forced air ventilation
* Answered “Yes” to #5-#7 **BUT** the hazards can be eliminated without entry into space

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| **Name:** | **Department:** |

**APPENDIX B - (Company Name)**

**CONFINED SPACE EVALUATION FORM**

**Special considerations or additional information:**

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**APPENDIX C - (Company Name)**

**CONFINED SPACE ENTRY PERMIT**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date and Time Issued:** | | **Date and Time Expires:**  (Upon completion of work or shift) | | | | | | | | |
| **Job Site/Space I.D.:** | | **Work to be performed:** | | | | | | | | |
| **Equipment to be worked on:** | |
| **Initial Atmospheric Check** | | | | | | | | | | |
| **Oxygen**  **% Time**  (>19.5 and <23.5) | **LEL**  **% Time**  (<10 LEL) | | | | **H2S**  **ppm Time**  (<10) | **CO** **ppm Time**  (<25) | | | | |
| **Atmosphere Tester’s Name:** | | | | | | | **Yes** | | **No** | |
| 1. **Source Isolation/LOTO (Before Entry)**:   Pumps or lines blinded, disconnected, or blocked  N/A  Yes  No  Hot works permit required  N/A  Yes  No | | | 1. **Communication Equipment On Site and Tested** | | | | |  | |  |
| 1. **Authorized Entrant, Attendant, and Entry Supervisor successfully completed required training** | | | | |  | |  |
| 1. **Ventilation of Space**   Electric blower (mechanical ventilation)  Yes  No | | | 1. **Equipment**   Direct reading gas monitor – tested | | | | |  | |  |
| Safety harnesses and lifelines for all  authorized entrants | | | | |  | |  |
| Hoisting/retrieval equipment | | | | |  | |  |
| 1. **Anticipated hazards (atmospheric and physical):** | | | Protective Clothing | | | | |  | |  |
| All electric equipment listed Class I  Division I, Group D and Non-sparking  tools (list examples of types) | | | | |  | |  |
| 1. **Rescue Procedure:** | | | | | | | | | | |
| **Atmospheric Check After Isolation and Ventilation** | | | | | | | | | | |
| **Oxygen**  **% Time**  (>19.5 and <23.5) | **LEL**  **% Time**  (<10 LEL) | | | | **H2S**  **ppm Time**  (<10) | **CO** **ppm Time**  (<25) | | | | |
| **Periodic Atmospheric Tests** | | | | | | | | | | |
| **Oxygen**  **% Time** | **LEL**  **% Time** | | | | **H2S**  **ppm Time** | **CO** **ppm Time** | | | | |
| **Oxygen**  **% Time** | **LEL**  **% Time** | | | | **H2S**  **ppm Time** | **CO** **ppm Time** | | | | |
| **Oxygen**  **% Time** | **LEL**  **% Time** | | | | **H2S**  **ppm Time** | **CO** **ppm Time** | | | | |
| **Oxygen**  **% Time** | **LEL**  **% Time** | | | | **H2S**  **ppm Time** | **CO** **ppm Time** | | | | |
| We have reviewed the work authorized by this permit and the information contained here-in. Written instructions and safety procedures have been received and are understood. This permit is not valid unless all appropriate items are completed. | | | | | | | | | | |
| Entry Supervisor Name (PRINT):  Entry Supervisor Approval – Before Entry (SIGNATURE): | | | | | | | | | | |
| Attendant(s):  (PRINT)  (PRINT) | | | | (SIGNATURE)  (SIGNATURE) | | | | | | |
| **Any comments or problems encountered during entry?  Yes  No If yes, please describe on back of permit.**  **This permit is to be kept at the job site. Send original copy to (Name of Responsible Person) following job completion.** | | | | | | | | | | |

**APPENDIX D - (Company Name)**

**CONFINED SPACE ENTRY EQUIPMENT CHECKLIST**

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| --- | --- | --- | --- |
|  | **Yes** | **No** | **N/A** |
| **Entry Equipment** | | | |
| Entry Permit |  |  |  |
| Calibrated direct reading multi-gas monitor to test oxygen, carbon monoxide, hydrogen sulfide, and Lower Explosive Limit (LEL) |  |  |  |
| Detector tubes with hand pump for suspected toxins |  |  |  |
| pH paper to test corrosives |  |  |  |
| Lockout/Tagout equipment |  |  |  |
| Ventilation – electric blower with flexible ducts & GFCI |  |  |  |
| Guards/barriers to protect confined space opening |  |  |  |
| Ladder or other safe means of access and exit |  |  |  |
| **Rescue, Retrieval, and Fall Protection Equipment** | | | |
| Hoist/ tripod/ davit/ winch for retrieval and fall protection |  |  |  |
| Full body harness with D-rings above shoulders |  |  |  |
| Lifeline, compatible with body harness and hardware – for retrieval, or  lanyard, compatible with body harness and hardware – for fall protection in vertical confined space entry of greater than five (5) feet |  |  |  |
| Cell phones/ radios/ access to phone line |  |  |  |
| First aid/ CPR supplies |  |  |  |
| **Personal Protective Equipment** | | | |
| Respiratory protection |  |  |  |
| Protective clothing, gloves, hard hats, foot protection as needed |  |  |  |
| Eye and face protection as needed |  |  |  |
| Hearing protection |  |  |  |
| **Work Equipment** | | | |
| GFCI cord |  |  |  |
| Hot work permit and equipment (may require additional ventilation) |  |  |  |
| Fire extinguisher |  |  |  |
| Lighting (explosive proof) |  |  |  |
| Non-sparking tools |  |  |  |
| Electric equipment listed Class I, Division I, Group D |  |  |  |
| Localized exhaust ventilation for welding or chemical use |  |  |  |