# PURPOSE

The purpose of this policy is to define the requirements, actions, and concepts needed to safely identify and perform work in a confined space by eliminating or controlling employee’s exposure to hazards.

# SCOPE

# This policy applies to all XXXXXXX locations, facilities, XXXXXXX employees, contract designees and contractors operating at XXXXXXX locations who perform a confined-space entry during service, maintenance, or routine work.

# GLOSSARY

* ***Confined Space***: An enclosure that meets the following 3 criteria:
  + The space has limited means of entry and exit.
  + The space is not designed for continuous human occupancy; and
  + The space is large enough for an employee to bodily enter to perform assigned work.

*Examples of confined spaces known to Wilbert plants that require confined-space entry procedures are pits, silos, tanks, vessels, vaults, and more.*

* ***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.
* ***Hazardous Atmosphere***: An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a confined space), injury, or acute illness.
* ***Immediately Dangerous to Life or Health (IDLH)***: Any condition that poses an immediate or delayed threat to life; that would cause irreversible adverse health effects; or that would interfere with an individual’s ability to escape unaided from a confined space.
* ***Non-Permit Confined Space***: 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.
* ***Oxygen Deficient Atmosphere***: An atmosphere containing less than 19.5 percent oxygen by volume.
* ***Oxygen Enriched Atmosphere***: An atmosphere containing more than 23.5 percent oxygen by volume.

# METHODOLOGY

## User Responsibilities

* 1. Users of this policy are individuals whose job requires them to comply with and safely perform confined space entry procedures outlined in this document. These user categories are listed below and detail designated responsibilities for each role.
     1. ***Authorized entrants***- an authorized entrant is an employee who is authorized by the XXXXXXX supervisor/management at the plant level to enter a confined space after the proper procedures outlined in this policy have been completed and verified.
     2. ***Attendant***- an attendant is the individual stationed outside one or more confined spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the XXXXXXX ’s confined space program.
     3. ***Entry Supervisor***- the person (such as the plant manager, foreman, or supervisor) responsible for determining if acceptable entry conditions are present at a confined space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as if procedure guidelines are not met.
     4. ***Supervisors/Management***-responsible for enforcing and implementing policy guidelines, facilitating training and monitoring compliance outlined in this document at their respective locations.

1. Requirements
   1. Training and Competency Verification
      1. An individual can only participate in a confined space entry acting as any role listed above if they have completed the training requirements defined below and documentation of training is on hand.
      2. Table 2.1 depicts the training and compliance requirements for each specified role and the frequency at which the training must be given. The training documents and resources can be found as attachments to this policy and should be utilized to complete confined space training and procedure enforcement. Training must be kept for the duration of the individual’s employment time at Wilbert.

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| TABLE 2.1 Confined Space Training |
| Roles | Training Requirement | Frequency |
| Authorized Entrant | • Instructor-Led “Confined Space Training”  • Field Validation and  successful completion of “Confined  Space Performance Checklist” | * Initial (when employee has been identified as an authorized entrant to perform confined space entry) * Change in assigned duty * Change in confined space that presents a new hazard in which the employee has not been trained * Retrain if deviations are found |
| Attendant | Same as above + at least one member on rescue team must be CPR/First aid certified | Same as above |
| Entrant Supervisor | Same as above + at least one member on rescue team must be CPR/First aid certified | Same as above |
| Supervisor/Management (Acting as Confined Space) | • Train the trainer “Confined Space Training”  • Field Validation and  successful completion of “Confined Space Performance Checklist”  • Confined Space Inspection training | * Before conducting ANY training to authorized entrants, attendants, or entrant supervisors. * Confined space program must be audited annually by management. |

* + 1. ALL trained XXXXXXX employees must practice making confined space rescues at least once every 12 months if there is an approved permit-required confined space at their location. Non-permit spaces do not require rescues to be rehearsed. Refer to section 3.2 for permit-required confined space designation and guidance.

1. Entry Standards & Procedures
   1. Confined Space vs. Permit-required Confined Space
      1. At XXXXXXX you must understand the difference between confined space and permit-required confined space.

A confined space meets the following criteria:

* + - * The space has limited means of entry and exit.
      * The space is not designed for continuous human occupancy
      * The space is large enough for an employee to bodily enter to perform assigned work.

A permit-required confined space is defined by having any of the following:

* + - * Contains or potentially contains a hazardous atmosphere
      * Contains a material that has the possibility of engulfing someone
      * Has a configuration where someone could get trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section.
      * Contains any other recognized serious safety and health hazard
    1. Entry into a permit-required confined space is NOT AUTHORIZED until the present hazard has been eliminated. Elimination of the hazard(s) redefines the space as a non-permit-required confined space and procedures (section 3.3 of this policy) to enter can be followed.
  1. Permit-required Confined Space
     1. Common confined space hazards are listed in the bullets below and spaces observed at XXXXXXX facilities are depicted in table 3.2 as a resource to identify PRCS specific to your site. If you need additional assistance in identifying or determining confined space or permit-required confined space standards, reach out to the corporate safety team
        + Mechanical Entrapment
        + Engulfment Atmospheric
        + Gas Temperature Extremes
        + Dust Excessive Noise
        + Slick or Wet Surfaces Falling Objects
        + Falling Hazards Electrical Shock
        + Poor Lighting or Work Created Hazards

| TABLE 3.2 Typical Permit-required Confined Spaces | |
| --- | --- |
| Defined Space | Hazard |
| Aggregate Feed Bin (Equipped with Grizzly Bars) | Engulfment, Entrapment |
| Aggregate Pit Area | Engulfment, Entrapment |
| Storage Tanks (Water/Petroleum) | Atmosphere, Entrapment |
| Silos | Atmosphere, Engulfment |
| Baghouses | Atmosphere |
| Bins and Hoppers | Entrapment |
| Manholes/Underground Lines | Atmosphere |
| Mixer/Batching Stations | Atmosphere, Entrapment, Engulfment |
| Boilers | Atmosphere, Entrapment |
| Machine Pits | Engulfment, Entrapment |

* + 1. Management at the plant/facility level shall evaluate the workplace to determine if any spaces are permit-required confined spaces on an annual basis. [***Appendix A***](#_Appendix_A:_), 1910.146 flow chart will facilitate compliance with this requirement.
    2. If the workplace does contain permit spaces, exposed employees shall be informed by posting danger signs of the existence and location at the permit spaces. A sign reading DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER or using other similar language would satisfy the requirement for a sign.
    3. Again, entry into a permit-required confined space is NOT AUTHORIZED until the present hazard has been eliminated. Elimination of the hazard(s) redefines the space as a non-permit-required confined space and procedures (section 3.3 of this policy) to enter can be followed.
    4. Acceptable hazard elimination methods include, but are not limited to:
       - Removal of material that has the potential for engulfing and lockout/tagout of equipment which control the supply and discharge of material.
       - Stabilization of material that has the potential for engulfing and lockout/tagout of equipment which control the supply and discharge of material.
    5. A space classified as a permit-required confined space may be reclassified as a non-permit confined space if the permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry into the space, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.
    6. Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards. Forced ventilation mitigation is the only exception (WITH THE APPROVAL OF CORPORATE SAFETY) to entering a permit-required confined space that poses atmospheric hazardous. Section 3.2.8 begins outlining the procedures to safely do so.
    7. If it is necessary to enter the permit space to test for an atmospheric hazard or emplace ventilation equipment, entry shall be performed by complying with the following steps:
       - Permit must be obtained by team making entry. Utilize “Confined Space Permit” form to complete planning and mitigation strategies. This form will include all team members taking part in the testing, entry and attendance of the PRCS. This form must be signed off by management/supervisor of the plant before making entry.
       - Before an employee enters the space, the internal atmosphere shall be tested, with a calibrated direct-reading instrument, for oxygen content, for flammable gases and vapors, and for potential toxic air contaminants, in that order. The atmosphere shall be tested at ALL LEVELS: bottom, middle and top. Any employee who enters the space, or that employee's authorized representative, shall be provided an opportunity to observe the pre-entry testing.
       - The employer must demonstrate that continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry by retesting atmosphere after ventilation techniques have been placed.
       - When entrance covers are removed, the opening shall be promptly guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space.
       - Continuous forced air must ventilate the immediate areas where an employee is or will be present within the space and shall continue until all employees have left the space
       - The air supply for the forced air ventilation shall be from a clean source and may not increase the hazards in the space.
       - The atmosphere within the space shall be periodically tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.
       - If at any time during periodic testing a hazardous atmosphere is detected, each employee shall leave the space immediately.
       - The acceptable levels for atmospheric conditions are as follows:

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| --- | --- |
| Oxygen | 19.5%-23.5% |
| Flammable gas, vapor or mist | <10% LFL |
| Toxic gas or vapor CO | <35ppm |
| H2S (Hydrogen sulfide) | <10ppm |

* + 1. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated
    2. Control of engulfment hazards must be executed to eliminate potential bridged material collapses or if material sloughs off the sides of storage bins or hoppers. Material feeding onto belts or other discharge points can pull victims into draw holes and bury them.
    3. Work on or above materials in these structures shall be performed from safe access platforms with handrail protection to prevent falls into the material. Work in feed bins shall not begin until effective methods are used to prevent dumping by trucks or loaders. Supply and discharge systems shall be shut down, locked-out and tagged. Refer to Lockout Tagout
    4. Material that offers potential for caving or sliding shall be barred down from the top before entry is permitted.
    5. Work shall not be performed in bins, hoppers, silos, or mixers until precautions have been taken to prevent the flow of materials that can cause engulfment.
    6. Entry can continue following the procedures outlined in section 3.3 of this policy.
    7. Documented hazard elimination means that upon completion of hazard elimination procedures and completion of the original hazard evaluation procedure, no hazards have been found to exist in the confined space. The plant manager or his designee shall document these findings before entrance shall be permitted**.**
    8. The form entitled “Confined Space Reclassification Form” shall be used to document the elimination of hazards present in a permit-required confined space and the reclassification of the confined space to a non-permit-required confined space.
  1. Confined Space Entry Procedures
     1. Before entering any confined space, XXXXXXX requires “Confined Space Permit” form to be filled out even if space is not classified as a permit-required confined space. This requirement ensures our employees are taking every step possible in all phases of the entry to stay safe and sets our expectations above OSHA standards
     2. The Entry Permit contains the following information and can be found as an attachment to this policy. The permit must be completed/verified and signed by plant management before entry is allowed and must contain the following information:
     3. Roles of individuals during entry must be trained on meeting the requirements listed in table 2.1 of this policy, competency must be demonstrated, and roles must be communicated to each team member prior to entry.
        + ***Entry Supervisor***
        1. Know the hazards that the entrant may encounter during the entry and know the symptoms of exposure to those hazards.
        2. Complete the entry permit and verify that all tests required have been conducted, all procedures have been followed and all equipment is in working order.
        3. Cancel the permit and terminate entry when the permit expires, or evacuation of the space is necessary.
        4. Verify that the rescue team can be summoned if needed.
        5. Verify that the conditions remain consistent with the permit requirements.
        6. Inform outside contractors of the confined spaces that exist, the hazards associated with the spaces and ensure they understand the policies and procedures for working in the permit-required confined spaces; and
        7. Coordinate operations with the outside contractor if XXXXXXX personnel and contractor personnel will be working in a confined space
        + ***Authorized Entrant(s)***
        1. Know the hazards that may be encountered in the space and the symptoms of exposure to those hazards.
        2. Know how to properly use the equipment required.
        3. Communicate with the attendant while working in the space.
        4. Alert the attendant when an unacceptable condition arises.
        5. Exit the space when necessary to do so.
        + ***Attendants***
        1. Know the hazards that the entrant may encounter during the entry and know the symptoms of exposure to those hazards.
        2. Maintain a count of authorized entrants in the space while work is being performed.
        3. Allow only authorized entrants to enter.
        4. Communicate with the entrant(s) while they are working in the space.
        5. Monitor the activities both inside and outside of the space for changing conditions,
        6. Order an evacuation when necessary.
        7. Remain stationed outside of the permit-required space - DO NOT enter the space
        8. DO NOT leave unless relieved by another attendant.
        9. Perform non-entry rescues when necessary and feasible; and
        10. Notify the designated rescue team if an emergency arises and an entry rescue is necessary.
     4. Safety harnesses and lines shall be worn when persons enter a confined space that requires fall protection, such as bins, tanks, silos that are 5 feet or more in depth. A second person shall also tend the lifeline. Refer to Fall Protection.
     5. All employee(s) given the responsibility of tending lifeline(s) shall have the capability of maintaining communications with the employee(s) that enter a confined space from the time of entry until the time of exit.
     6. A barricade or barrier shall be erected at the opening of all confined spaces being entered to prohibit unauthorized persons from entering the confined space
  2. Equipment
     1. It is the responsibility of the XXXXXXX location to provide its employees with the proper equipment needed to perform work in a confined space. The following equipment list includes possible required items:
        + Atmospheric monitoring instruments - these instruments can be personal monitors worn by entrants, calorimeter tubes or other such calibrated direct reading instruments that meet the requirement of OSHA in 29 CFR 1910.146(c)(5)(ii)(C). Test instruments shall be calibrated in compliance with the manufacturer’s instructions. The calibration shall be documented on the form entitled “Calibration Record,” included in the attachments. The person completing the form shall initial and date the form upon completion of the test.
        + Respirators - shall be worn when needed and must provide appropriate protection for the work environment.
        + Rescue equipment - this may include a lifeline, harness, wristlets, ladders etc. which aid in the rescue of an employee. This equipment must be on site for non-entry rescues and available to the outside rescue team for entry rescues.
        + Hard hat
        + Gloves - when needed
        + Non-sparking tools - when needed
        + Explosion-proof lighting - when needed
  3. Maintaining the Integrity of the Confined Space Program
     1. Workplace evaluation of non-permit-required confined spaces by the supervisor/manager at respective XXXXXXX location shall be completed when there are changes in the use or configuration of a non-permit-required confined space that might increase the hazards to entrants.
     2. Workplace evaluation of all confined spaces shall be completed periodically within 12 months of the previous annual evaluation. To ensure compliance, it is suggested that the evaluation be completed within 11 months of the previous annual evaluation.
  4. Independent Contractors
     1. Independent contractors shall be contracted to perform work that requires the entry into a permit-required space, which cannot be reclassified as a non-permit space by hazard elimination (except for forced ventilation for atmospheric conditions approved by corporate safety outlined in section 3.2)
     2. When contracting with an outside contractor, who shall be required to enter a permit-required space, the plant manager of the site shall:

• Inform the contractor that the workplace contains permit- required confined spaces and that entry into these spaces is allowed only through compliance with a confined space permit program.

• Provide the contractor with information concerning the permit- required spaces, including the hazards identified and any experience with the space that make it a permit-required space.

• Inform the contractor of any precautions or procedures that have been implemented for the protection of employees in or near all permit-required spaces where the contractor’s personnel will be working.

• At the completion of the job requiring entry into the permit- required spaces, debrief the contractor regarding the permit space program and any hazards he/she confronted or created in permit-required spaces during entry operations.

1. Record Retention
   1. The plant manager or his designee shall maintain all records including inspection and training records.
2. References

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| # | Reference |
| 1 | Occupational Safety and Health Administration (OSHA), 29 CFR 1910.146 |
| 2 | [Appendix A](#_Appendix_A:_) to section 1910.146 Flow Chart |

1. Disciplinary Measures
   1. The plant manager shall be responsible for implementation and enforcement of this policy. Failure to follow established confined space entry procedures can result in an employee receiving a safety violation notice, loss of safety incentive, and/or disciplinary action up to and including termination of employment.

# Authorization

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| --- | --- | --- |
| Position | Signature | Date |
| Chief Executive Officer |  |  |
| Chief People Officer |  |  |
| Chief Safety Officer |  |  |
| Senior Vice President & General Counsel |  |  |

# Appendix A: 1910.146 Flow Chart

