

ARKANSAS TECH UNIVERSITY HEALTH & SAFETY POLICY

- DATE:** March 9, 2022
- SUBJECT:** Confined Spaces
- PURPOSE:** The purpose of Confined Spaces Policy is to ensure that all employees are properly protected from entering any space that must contain combustible, flammable or toxic gases or which may have an oxygen enriched or oxygen deficient atmosphere.
- SCOPE:** This policy pertains to all employees Arkansas Tech University. The requirements of OSHA 29 CFR 1910.146 will apply to any contractor/vendor doing work in a confined space. At Arkansas Tech University there will be no difference made between a confined space and a permit-required confined space. **All such spaces will be considered a permit-required space.**
- RESPONSIBILITY:** It is the responsibility of all supervisors to be aware of, understand and enforce the guidelines set forth in this policy. It is the responsibility of all employees to follow this policy and, if ever in doubt as to whether a space is or is not considered within the condition of a confined space or the condition of a particular space, please ask someone. It shall be the responsibility of the Occupational Safety Coordinator (OSC) to make sure this policy remains in compliance with State and Federal standards and industry best practices. It shall also be the responsibility of the OSC to issue the required permits to enter and work in a confined space.

Definition of Confined Space

A confined space is defined as any space that:

- Is large enough and so configured that an employee can bodily enter and perform assigned work;
- Has limited or restricted means for entry or exit for example – (tanks, vessels, silos, storage bins, hopper, vaults, and pits) and
- Is not designed for continuous human occupancy

Other Definitions

- Authorized entrant – an employee who is authorized by management, or Facilities Management to enter a confined space.

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- Entry – means the action by which a person passes through an opening into a confined space or as soon as any part of the entrant's body breaks the plane of an opening into the space.
- Entry supervisor – means the person (manager, supervisor, foreman or crew chief) who is responsible for determining if a space is safe to enter and oversee entry operations and work inside the space.
- Entry permit – means the written or printed document that is provided by the OSC to allow entry into the space.
- Hazardous atmosphere – means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of the ability to self-rescue, injury or acute illness.
- Immediately dangerous to life or health (IDLH) – means any condition or delayed threat to life or that would cause irreversible adverse health effects.
- Oxygen deficient atmosphere – means an atmosphere that contains less than 19.5 percent oxygen by volume.
- Oxygen enriched atmosphere – means an atmosphere that contains more than 23.5 oxygen by volume.
- Retrieval system – means the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate and lifting device) used for non-entry rescue of person(s) in a confined space.
- Testing – means the process by which hazards that may confront entrants of a confined space are identified and evaluated.

General Requirements

The OSC in cooperation with section supervisors will evaluate the workplaces to determine if any spaces should be classified as "confined space". If such spaces are identified, these spaces will be appropriately marked by posting danger signs or other equally effective means. Then employees of such findings will be notified.

Any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed. When entrance covers are removed, the opening shall be promptly guarded by a railing, temporary cover, or other temporary barriers that will prevent an accidental fall through the opening. This will also protect employees working in the space from foreign objects entering.

Before an employee enters the space, the internal atmosphere shall be tested with a calibrated direct-reading instrument. The atmosphere shall be tested for oxygen content, flammable gases and vapors, and for potential toxic air contaminants. An employee who enters the space shall be provided the opportunity to observe the pre-entry testing.

There shall not be any hazardous atmosphere within the space whenever an employee is inside. An employee may not enter the space until it has been cleared of the hazardous atmosphere either by natural ventilation or by forced air ventilation. If forced

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air ventilation is used, it shall remain in place and operating as long as an employee is in the space. The air supply for the forced air ventilation shall be from a clean air source.

The atmosphere within the space shall be periodically tested as necessary to ensure that the air in the space remains free of any hazardous gases or toxins. If at any time during the work process hazardous atmosphere is detected, all employees shall immediately leave the space and not return until it is determined to be safe to enter. Prior to employees re-entering the space the date, time, atmospheric readings and the name of the person rendering the space safe will be noted on the original permit.

Duties of the Authorized Entrants

All authorized entrants shall:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and consequences of exposure to hazardous gases, toxic gases, flammable or combustible atmospheres and oxygen deficient or oxygen enriched atmospheres.
- Ensure that equipment in the space is used properly.
- Periodically communicate with the attendant to enable the attendant to properly monitor the entrants' status and to enable the attendant to alert entrants of the need to evacuate the space if needed.
- Alert the attendant whenever
 - The entrant recognizes any warning sign or symptom of an exposure to a dangerous situation
 - The entrant recognizes a prohibited condition, or
 - An evacuation alarm is activated

Duties of Attendants

Each attendant shall:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms and consequences of exposure;
- Be aware of possible behavioral effects of hazard exposure in authorized entrants;
- Continuously maintain an accurate count of authorized entrants in the space and ensure that the means used to identify authorized entrants accurately identifies who is in the space;
- Remain outside the space during entry operations until relieved by another attendant or the entry supervisor;
- Communicate with authorized entrants as necessary to monitor entrant status and to alert entrant of the need to evacuate the space;

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- Monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the entrants to evacuate the space immediately under any of the following conditions;
 - If the attendant detects a condition inside or outside the space that could adversely affect the well-being of the entrants;
 - If the attendant detects the behavioral effects of hazard exposure in an authorized entrant; or
 - If the attendant cannot effectively and safely perform all of his/her duties.
- Summon rescue and/or other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from the space.
- Take the following actions when unauthorized persons approach or undertake entry to a space.
 - Warn the unauthorized person that they must stay away from the space;
 - Inform the authorized entrant and the entry supervisor if the unauthorized person refuses to leave the area or has entered the space.
- Perform non-entry rescue as specified by the rescue procedure.
- Perform no other duties that might interfere with his/her primary duty to monitor and protect the authorized entrants.

Duties of the Entry Supervisor

The entry supervisor shall:

- Know the hazards that may be faced during entry, including information on the mode, signs and symptoms and consequences of exposure.
- Verify that appropriate entries have been made on the permit, including that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.
- Terminate and close the permit.
- Verify that rescue services are available and that the means for summoning them are operable.
- Remove unauthorized persons who attempt to enter or who enter the space during entry operations.
- Ensure that operations remain consistent with the term of the entry permit and that acceptable entry conditions are maintained.
- Notify the Russellville Fire Department (968-0911) prior to and immediately after the completion of the Confined Space entry.

Rescue and Emergency Services

The OSC has concluded that the Russellville Fire and Rescue Department are the appropriate agency to be contacted in the event of an emergency situation in a confined space.

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Arkansas Tech University employees will not, under any circumstances, attempt an entry required rescue.

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

- Each entrant shall use a full body harness with a retrieval line attached at the center of the entrant's back near the shoulder level and run over his head. If the body harness can be shown that its use creates a greater risk or is not feasible, and that the wristlets are a safer and more effective alternative, then the wristlets may be used in lieu of the body harness. The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the space in such a manner that rescue can begin as soon as the attendant (rescuer) becomes aware that rescue is necessary. A mechanical device shall be necessary to retrieve personnel from a vertical type space more than 5 feet in depth.
- If an entrant is exposed to a substance for which a Material Safety Data Sheet (SDS) or other similar written information is required to be kept, such written document will be kept at the work site and shall be made available to the medical personnel treating the exposed entrant.

Employee Participation

Employees affected by this policy shall be consulted on its development and implementation.