

CONFINED SPACE PROGRAM

A confined space, as defined in 29 CFR 1910.146:

Is large enough and so configured that an employee can bodily enter and perform assigned work AND Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers vaults, and pits are spaces that may have limited means of entry) AND Is not designed for continuous employee occupancy.

All confined spaces are potentially hazardous to enter. Potential hazards include, but are not limited to:

Flammable gas, vapor, or mist in excess of 10% of its lower flammable limit (LFL).

Airborne combustible dust at a concentration that meets or exceeds its LFL. Note: This concentration may be approximated as a condition in which the dust obscures vision at a distance of 5 feet (1.52 m) or less.

Atmospheric oxygen concentration of less than 19.5% or above 23.5%.

Atmospheric concentration of any substance for which a dose or permissible exposure limit is published in Subpart G or Subpart Z of 1910 and which could result in employee exposure in excess of its dose or permissible exposure limit. Note: An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment or ability to self-rescue, injury, or acute illness due to its health effects is not covered by this provision.

Any other atmospheric condition that is immediately dangerous to life or health. Note: For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as MSDS that comply with the Hazard Communication Standard can provide guidance in establishing acceptable atmospheric conditions.

Permit-required confined space means a confined space that has one or more of the following characteristics:

Muskogee Public Schools has no defined confined spaces. At times during extensive repairs for modification confined spaces may be discovered. At no time should an employee enter a confined space as defined by OSHA. The goal of Muskogee Public Schools is to subcontract any required work in a confined space. If we are not able to subcontract the work to be performed it is a requirement for the Director of Maintenance & Facilities to be on site during entry and to oversee the repair making sure all requirements for personal safety are followed **Confined Space Procedures 001 will be followed.**

CONFINED SPACE ENTRY PROCEDURES 001

PURPOSE:

When entering some confined spaces above a solid ceiling, a manhole, a pit, a tunnel, the incinerator, or a storage tank there may be danger in the form of combustibles, entrapment, toxic gases, or a lack of oxygen. To safeguard the well being of the workers, precautions must be taken so the work can be accomplished in the safest manner.

POLICY:

Personnel who enter into a confined space must exercise caution for their personal safety. Entry into some confined space may require wearing an appropriate respirator and protective clothing. In addition, the person entering may require a lifeline attached to them for retrieval. If the space is permit required, continuously monitoring for oxygen, combustibles, and toxic gases will occur. Communication between the person in the confined space and the spotter must take place during the entire process. This may be by radio or direct conversation. A permit for entry of some confined space must be issued to assure that all steps have been carefully reviewed and followed.

PROCEDURE:

1. Before entry is made into a permit required confined space, such as a manhole, a permit shall be obtained from the Director of Maintenance & Facilities. The permit is required for each new entry. See Appendix "B".
2. The permit required confined space atmosphere shall be tested for 15 minutes before entry takes place. In addition, if conditions are subject to change, continuous monitoring shall be done throughout the time anyone is in the space.
3. If the confined space is a manhole:
 - a. The atmosphere test should first be made prior to entry at various levels in the manhole. The test should indicate oxygen level and explosive level. Monitoring will continue during the entire time of entry. The manhole shall be ventilated with a power blower during entry. In addition, whenever possible, the up-stream and down-stream manhole covers will be opened for natural ventilation.
 - b. At least one person stationed outside the permit required confined space shall be trained in CPR. In case of emergency, another person shall be prepared to execute a rescue from the confined space and call 911 for the confined entry rescue team. The person entering confined space shall never be left alone. (Under no circumstances shall the spotter enter confined space until more help arrives.) If entry is made, appropriate personnel protection is required.
 - c. Person entering a manhole shall wear a harness with a lifeline attached to a lift above the manhole. The lifeline shall remain attached at all times. The person may need a full face positive pressure respirator if the monitoring device shows dangerous levels of oxygen or other hazardous gases. If combustibles are present, ventilation will occur until safe to enter. The respirator air supply shall be provided from an appropriate explosion proof source of air capable of producing at least 8 CFM of air.
 - d. Provisions for constant communication with person in the confined space must be available. This may be accomplished by verbal, radio, and life line rope tug communication.
 - e. Any line powered electrical equipment used in the manhole shall be supplied through a G.F.C.I. for prevention of electrical shock. Low voltage or battery operated equipment is also approved. Lock Out/Tag out Policy should be followed as may be appropriate.
 - f. Fuel powered equipment shall not be used in the manhole.
4. If confined entry is in a tank or pit:
 - a. The confined space atmosphere must be tested for 15 minutes before entry takes place and during the operation. If the tank is hot, it will be allowed to cool before entering.
 - b. One person shall be stationed outside the tank or pit. One person trained in CPR and first aid shall be outside the confined space. In case of emergency, either person shall be prepared to execute a rescue from the confined space and call 911 for the confined entry rescue team. (Under no circumstances shall the spotter enter confined space until more help arrives.)
 - c. Person entering tank or pit shall wear a lifeline, attached at all times.
 - d. If atmosphere is dangerous or low in oxygen, person shall wear an appropriate respirator. Ventilation of the area is also required.
 - d. Any line powered electrical equipment used in the tank or pit shall be supplied through a G.F.C.I. for prevention of electrical shock or low voltage or battery powered equipment.

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5. If confined space is the incinerator, the following shall occur:
 - a. The electrical power shall be locked out according to Lock Out/Tag out Policy.
 - b. The hydraulic system shall be made inoperative.
 - c. The charging chamber door shall be opened and blocked open with an adequate support.
 - d. All other doors shall be opened for proper ventilation.
 - e. Entry shall not occur until the chamber is sufficiently cool.
 - f. All natural gas lines shall be valved off.
 - g. Entry into the upper chamber requires a permit.
 - h. A spotter shall remain at the site while entry occurs.

6. If entry is required in sub-basements or tunnels:
If oxygen content of atmosphere is at least 19.5% and no toxic gases are present, no supplied air respirator is required. If less than 19.5% and/or toxic and/or flammable vapors are present, ventilation is required, and a supplied air respirator must be used.

7. Personnel working in most confined spaces shall limit work time to one hour increments. The personnel outside of the confinement shall monitor the time. All personnel shall be properly instructed in technique to use and the potential dangers.

Appendix A

Confined Space Emergency and Rescue

1. Each confined space entry shall be assessed for the degree of risk. Preparation for handling an emergency will be proportioned to the degree of risk. This shall include precautions to be taken and reserve equipment necessary such as:
 - a. Respirators
 - b. Lifelines and related equipment
 - c. Tools
 - d. Eye protection/personal protective equipment
 - e. Radios/communication
 - f.

2. Standby personnel shall call 911 for the confined space rescue team if an emergency should arise.

3. If the person in the confined space has become incapacitated, a rescuer may enter the space if a supplied air respirator with five minute escape bottle is worn. Another person must be on standby before entry takes place. A self-contained breathing apparatus connected to a source available capable of producing at least 8 CFM per person must be during reserve operations. The area around the site shall be contained to restrict unnecessary traffic and personnel.

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APPENDIX B

CONFINED SPACE ENTRY PERMIT

The following areas require this permit:

Any Manhole Incinerator (See Step 5-g) Any Tank or Pit

Entry Date: _____ Entry Time: _____ AM or PM

Location of Confined Space: _____

Why are we entering? _____

Description of work: _____

Employees Assigned: _____

Entry Supervisor: _____ Attendant: _____

Outside Contractors: _____

Isolation Checklist

Blanking or Disconnecting

Mechanical

Electrical

Other

Hazardous Work

Burning

Welding

Brazing Open

Flame

Other

Potential Hazards

Corrosive Materials

Hot or Cold Equipment

Flammable Materials

Toxic Materials

Drains

Open Water

Spark Producing Operations/Fires

Spilled Liquids

Pressure Systems/Steam

Engulfment / Entrapment

Lack of Oxygen

Slips, Trips, Falls

Other

Personal Safety

Ventilation Requirements Respirators

Gloves

Other

PPE Lifeline and Harness Lighting (battery or GFCI)

Communications/Radio Employee Qualified

Barricades

Hard Hat

01000S02-CONFINED SPACE ENTRY

Coveralls
Standby person
Emergency Egress Procedures
Other

Atmospheric Gas Tests Instrument calibration _____
Location: _____ By: _____

Date/Time	Oxygen 19.5 - 23.5%	Flammability < 10% LEL	Other
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Atmosphere is Hazardous
Hazard is eliminated
Hazard cannot be eliminated
Will Not Enter

Authorizations:

Supervisor: _____ Safety Supervisor: _____

Entry and Emergency Procedures Understood:

Standby Person: _____ Rescue: _____ Telephone: _____