

1 June 02

1. **Description of Workplace:** Third Floor, Bldg. 1205, Little Mountain Test Facility 2 – 1,500 gallon water tanks. 10' 6" in Diameter, 20 feet long. Visual inspection access hand hole cover 36" above floor. Can be removed after water has been drained from tank. Large hinged cover plate 7' above floor for personnel access if required for cleaning.
2. **Tasks/Operations to be performed:** Personnel **MAY** have to enter these tanks for periodic cleaning every 5 years. If required, entrant would need to be lowered into tank with a harness, tethered to a line at all times and removed from tank with the same harness \ lifting apparatus. It is unknown if there are rungs inside the tank for access to the bottom.
3. **Chemicals used:** None required for cleaning.
4. **Technical Data Required:** This Master Entry Plan, Boiler Manufacturer manuals, AFOSH STD 91-25, and AFOSH STD 91-10
5. **Prevention of Unauthorized Entry:** All confined spaces are clearly marked and warning signs are posted. Prior to entering any confined space, proper tests and an AF form 1024 will be accomplished and area will be cordoned off.
6. **Potential Hazards:**
 - 6.1. **Potential Hazard Description:** Entrant may slip and fall while getting in or out, and while in tank. Metal tanks will heat up quickly in the summer months, causing a risk of heat exhaustion inside the tank. If the power fails and the ventilation fan stops.
 - 6.2. **Control of Hazards:** Tank must be empty. See paragraph 7.1 for lockout tagout procedures. Non-slip footwear must be worn. Circulating outside air into confined space cools tank.
 - 6.2.1. **Entry Permit:** Required.
 - 6.2.1.1 **Permit:** Confined Space Entry Permit AF Form 1024.
 - 6.2.1.2. **Permit Requirements:** Permit will not be issued until confined space meets requirements and acceptable entry conditions specified in paragraph 7.1 and 7.2.
 - 6.2.2. **Confined Space Reclassification:** NONE
 7. **Entry Procedures**

- 7.1. **Confined Space Isolation Methods/Lockout Tagout:** Lockout/Tagout procedures must be completed when a tank is drained for cleaning. Lock and tagout pumps and water valve that fills the tank. The main power panel has a knife switch that must be locked in the off position.
- 7.2. **Acceptable Entry Conditions:** Lockout tag out requirements listed in paragraph 7.1. must be completed. The tank must be drained completely. Ventilation fans must be on, circulating outside air into confined space. Fire Department Emergency Rescue Service must be available and must be confirmed. The confined space will be tested by the Little Mt FD prior to entry with equipment having the capability to read LEL, Oxygen levels, Carbon Monoxide, Hydrogen Sulfide. Oxygen levels will be tested first, which must be between 19.5% and 23.5%. It will then be tested for the following items. Readings must be within the following limits: Flammability <10% LEL, Carbon Monoxide <35 PPM, Hydrogen Sulfide <10 PPM.

8. **Authorization**

- 8.1. **Confined Space Entry Team :** Will consist of trained and authorized personnel from the 75 CES and 75 CES/CEZM known as "Little Mountain". (See attachment three - Authorized Entry Supervisor Listing)
- 8.2. **Confined Space Entry Team Responsibility:** A typical entry team will consist of at least four personal: Entry Supervisor, Attendant, Entrant, and Spotter/Runner.
 - 8.2.1. **Entry Supervisor:** The entry supervisor insures all lockout tagout and acceptable entry conditions listed in paragraph 7.1. and 7.2. are complied with. Authorizes the confined space entry permit, makes sure the entry permit is complete, dated, and signed prior to the entry and cancels the permit if conditions are no longer acceptable. Responsible for the isolation of the area, the assigning of tasks, and the briefing of the personnel doing the tasks. Entry Supervisor will act in accordance with all other duties outlined in AFOSH Std 91-25, par 2.13.
 - 8.2.2. **Attendant:** Is responsible for maintaining an accurate count of entrants (who and number) in the permit space and keeping track of the entrant(s) and handing any needed equipment in or out of the tank. He/she is to remain outside, on the upwind side of the entrance, in verbal contact with the entrant. Has authority to order entrants to exit the confined space at the first indication of a non-permitted condition, an unexpected hazard, indication of a toxic reaction (e.g., unusual conduct by the entrants), or if a situation occurs outside the space that could pose a hazard to the entrant(s). Keep unauthorized persons from entering the permit space. Know the procedure and have the means to summon immediate emergency assistance if needed. Remain at the attendant's post and not leave for any reason (except self-preservation) unless replaced by an equally qualified individual. Order the entrants to exit the space if the attendant must leave and there is no replacement. Attendant must not attempt rescue involving entry. Make rescue efforts by means of the lifeline until assistance arrives.

- 8.2.3. **Entrant:** Must review the permit before entry, complying with entry procedures, wear designated PPE, full body harness and retrieval line, notifies the entry supervisor of illness and when medication is being taken, alerts the attendant to any changes or conditions in the confined space and responds immediately to the attendants evacuation orders.
- 8.2.4. **Spotter/Runner:** Responds to the attendant's request to notify. Fire Department Emergency Rescue Service. Assist in Non-entry rescue. All utility crews have communication by cellular phone to call emergency services. **Remember cell phone 911 calls go off base. For base rescue services call 775-5630. Little Mountain phones: Call 270 to notify base rescue service.**
9. **Training:** All personnel authorized to enter these confined space must be trained on confined space entry, site specific confined space training, cardiopulmonary resuscitation, respirator wear, use of PPE, retrieval/rescue equipment and atmospheric monitoring equipment. All training shall be documented on an **AF Form 55, Employee Safety and Health Record**. Training records will be available for review by the CSPT during annual program evaluations or spot checks.
10. **Entry Equipment:** Body harness, extraction tri-pod, hard hat, Rubber gloves, leather gloves, eye protection, hearing protection. NOTE: Lifeline from extraction tripod will be attached to the entrant prior to entry. NOTE: testing will be done by the 775 CES Little Mt Fire department personnel. As an extra precaution ventilating fans will operate while personnel are inside vessel.
11. **Testing:** 775 CES Little Mt Fire department will test the tank prior to entry with equipment having the capability to read LEL, Oxygen levels, Carbon Monoxide, and Hydrogen Sulfide. Before an employee enters the confined space, Oxygen levels will be tested first, which must be between 19.5% and 23.5% and then the internal atmosphere shall be tested for the following conditions: Flammability <10% LEL, Carbon Monoxide <35 PPM, and Hydrogen Sulfide <10.
12. **Communication and Observation:** The attendant will communicate verbally and maintain visual contact with the entrant. Phones are available in each facility, and a cellular phone will be on site also, to call emergency services. **Remember cell phone 911 calls go off base. For base rescue services call 775-5630. Little Mountain phones: Call 270 to notify base rescue service.**
13. **Rescue:** The attendant will alert the runner to notify the Fire Department Emergency Rescue Service. The attendant, runner and any other personnel will assist in the extraction of the entrant using the rescue tripod. When the entrant is removed from the confined space the attendant will perform first aid and CPR if required until the emergency services arrive and will then turn over rescue to base rescue service.

14. **Contractor Interface:** If a contractor is to enter a confined space listed under this MEP they must use their own equipment and permit. A copy of this master plan is given to contract management, who are responsible to inform the contractor of OSHA, AFOSH Standards, and local OI's. If the organization arranges to have a contractor perform work that involves a permit-required space entry, IAW 91-25 Ch 7 the contracting organization shall: Notify the contractor that work will be performed in a permit-required confined space and ensure the information is included in the statement of work (SOW) or equivalent contracting tool. Review emergency rescue responsibilities to determine whether the contractor supplies rescue team or if the installation fire department is expected to supply a rescue function. Ensure the fire chief coordinates on the contract and either approves or disapproves the use of the rescue team if supplied by the installation fire department. Brief the contractor on the contents of the space and known hazards that make the space permit-required. Brief the contractor on precautions and procedures that have been implemented by the organization to protect Air Force workers.

15. **Permit Routing and Control:** Permit will be kept on file in the 75 CES/CEOU shop for a period of one year after completion of work.

16. **Amendment to the MEP:** The MEP must be reviewed at least once a year. Changes to the to the MEP other than spelling and grammar must be coordinated with the entry supervisor, organizational safety office, Bio-environmental Engineering /SGPB, Fire Department /CEF and Base Safety Office /SEG. Amendments to the MEP will be brought to attention of the confined space entry team.

17. **Coordination:**

75 CES/CEZM (Little Mt. Forman)	Date
75 CEG/CEMS Ground Safety Manager	Date
OO-ALC/SEG Ground Safety Manager	Date
75 AMDS/SGPB Bioenvironmental	Date
775 CES /CEFFire Department	Date

ATTACHMENTS

1. Confined Space Chemical Listing (See paragraph 3)
2. Confined Space Entry Authorization List

**CONFINED SPACE MASTER ENTRY PLAN
CE-001
ATTACHMENT 1**

CONFINED SPACE CHEMICAL LISTING

The following is a list of chemicals authorized for use during the confined space entry.

<u>Chemical</u>	<u>Quantities Authorized for Use</u>	<u>Expected Exposure Level</u>
None	N/A	N/A

**CONFINED SPACE MASTER ENTRY PLAN
CE-001
ATTACHMENT 2**

CONFINED SPACE ENTRY AUTHORIZATION

The following personnel assigned to 75 CES/CEZM (Little Mnt.) are authorized to approve and sign confined space entry permits for work to be performed in 1500 gallon water tanks.

NAME	OFFICE SYMBOL	Primary/Alternate
Gene Atkins	75 CES/CEZM	Primary
Scott Jones	75 CES/CEZM	Alternate
John Schmitt	75 CES/CEZM	Alternate

