4123:1-5-22 Appendix

Recommended Procedures for Confined Space Entry

(1) Designate at least one trained person to be responsible for adherence to entry procedures and require written approval by that person before permitting anyone to enter the confined space;

(2) Post established entry procedures immediately adjacent to all confined space entry ports; other acceptable areas for posting would include the lid of the storage container or to post requirements for respiratory or testing equipment on crew trucks;

(3) Provide periodic instruction and training in proper entry procedures to be used;

(4) Standby personnel where provided shall be required at all times to be in communication with the worker within the confined space; an alarm or two-way radio system for the standby worker will be effective;

(5) Approved rescue equipment should be available; since entry ports for confined spaces vary in size, precaution should be used in obtaining equipment of a proper size;

(6) Establish procedures to prevent ignition of combustible atmospheres or re-entry of gases or liquids by locking out switches and blanking off transmission pipes; use nonsparking tools;

(7) Prevent generation of contaminants by neutralizing or flushing out residual materials;

(8) In testing for contaminants use only approved instruments maintained in proper working order;

(9) Continual monitoring of oxygen and contaminant concentrations during occupancy;

(10) If respiratory equipment is supplied by an air compressor piped system, this system shall meet the specifications of the "Compressed Gas Association," to assure a supply of uncontaminated air;

(11) When supplied-air or self-contained respiratory apparatus is used, personnel should be trained in the proper use of such apparatus;

(12) Many employers use tags to show that a confined space may be entered safely. An example of such a tag is as follows:

ENTRY PERMIT

PERMIT VALID FOR 8 HOURS ONLY. ALL COPIES OF PERMIT WILL REMAIN AT JOB SITE UNTIL JOB IS COMPLETED.

DATE: - - SITE LOCATION and DESCRIPTION_______________________________________
PURPOSE OF ENTRY___________________________________________________________

SUPERVISOR(S) in charge of crews   Type of Crew Phone#

COMMUNICATION PROCEDURES_______________________________________________

RESCUE PROCEDURES (PHONE NUMBERS AT BOTTOM)____________________________

* BOLD DENOTES MINIMUM REQUIREMENTS TO BE COMPLETED AND REVIEWED PRIOR TO ENTRY*

REQUIREMENTS COMPLETED   DATE   TIME

Lock Out/De-energize/Try-out   ______   ______
Line(s) Broken-Capped-Blanked   ______   ______
Purge-Flush and Vent   ______   ______
Ventilation   ______   ______
Secure Area (Post and Flag)   ______   ______
Breathing Apparatus   ______   ______
Resuscitator – Inhalator   ______   ______
Standby Safety Personnel   ______   ______
Full Body Harness w/”D” ring   ______   ______
Emergency Escape Retrieval Equip   ______   ______
Lifelines   ______   ______
Fire Extinguisher   ______   ______
Lighting (Explosive Proof)   ______   ______
Protective Clothing   ______   ______
Respirator(s) (Air Purifying)   ______   ______
Burning and Welding Permit   ______   ______

Note: Items that do not apply enter N/A in the blank.
**RECORD CONTINUOUS MONITORING RESULTS EVERY 2 HOURS**

CONTINUOUS MONITORING**  Permissible______________________________

TEST(S) TO BE TAKEN     Entry Level

PERCENT OF OXYGEN  19.5% to 23.5%  ___  ___  ___  ___  ___  ___  ___  ___

LOWER FLAMMABLE LIMIT  Under 10%  ___  ___  ___  ___  ___  ___  ___

CARBON MONOXIDE  + 35 PPM  ___  ___  ___  ___  ___  ___  ___  ___

Aromatic Hydrocarbon  + 1 PPM * 5PPM  ___  ___  ___  ___  ___  ___  ___  ___

Hydrogen Cyanide  (Skin)  * 4PPM  ___  ___  ___  ___  ___  ___  ___  ___

Hydrogen Sulfide  + 10PPM * 15PPM  ___  ___  ___  ___  ___  ___  ___  ___

Sulfur Dioxide  + 2PPM * 5PPM  ___  ___  ___  ___  ___  ___  ___  ___

Ammonia  *35PPM  ___  ___  ___  ___  ___  ___  ___  ___

* Short-term exposure limit: Employee can work in the area up to 15 minutes.
* 8 hr. Time Weighted Avg.: Employee can work in area 8hrs (longer with appropriate respiratory protection).

REMARKS:____________________________________________________________________

GAS TESTER NAME  & CHECK #  INSTRUMENTS(S) USED  MODEL &/OR TYPE  SERIAL &/OR UNIT #

__________________  _______________  ______________  ______________

__________________  _______________  ______________  ______________

SAFETY STANDBY PERSON IS REQUIRED FOR ALL CONFINED SPACE WORK

SAFETY STANDGY PERSON(S)  CHECK #  CONFINED SPACE ENTRANT(S)  CHECK#  CONFINED SPACE ENTRANT(S)  CHECK#

__________________  _________  ______________  ________  ______________  ________

__________________  __________  ______________  ________  _______________  ________

SUPERVISOR AUTHORIZING – ALL CONDITIONS SATISFIED ______________________

DEPARTMENT/PHONE_____________________________

AMBULANCE  2800  FIRE  2900  SAFETY  4901  Gas Coordinator  4529/5387
(13) Emergency rescue procedures.

(a) In all cases when an employee is stationed outside a compartment, tank, or a confined space, as tender or standby person for the employees working inside, the employee shall have immediately available for emergency use all necessary personal protective equipment. The tender or standby person shall wear the personal protective equipment if he is exposed to the hazard.

(b) When an employee enters a toxic or flammable atmosphere, the employee shall be provided with and use an adequate, attended lifeline.