Confined Space Entry Program

(rev 12-2107, 12-2018)

18.1 PURPOSE

To provide a procedure for safe practices when entering, working, and exiting confined spaces.

18.2 GENERAL

This procedure assures T.A. Woods Company employees are aware of Confined Space Entry requirements. It covers most confined space entry circumstances. Those confined spaces which present unique situations will be addressed by TAW, host employer and/or controlling contractor. In all situations, supervision will investigate the feasibility of doing the work outside the confined space to avoid exposing employees to hazards inherent in confined space entry. All employees required to enter a confined space will be instructed regarding the hazards involved within the confined space. The program should address provisions and procedures for the protection of employees working in confined space(s).

A confined space should not be entered if it contains less than 19.5% oxygen or flammable vapors greater than 10% LEL (lower explosive limit). If concentrations of toxic materials are greater than 50% TLV (threshold limit values), a confined space may only be entered if the proper protection is provided. Entry to IDLH (Immediately Dangerous to Life or Health) situations will be permitted only after consultation with the Safety Manager. No variance of the requirements of this section may be made without the permission and the written consent of the TAW Safety/HR.

All project managers, division general superintendents, and project superintendents will ensure that the facilities and projects of which they are assigned are surveyed to identify confined spaces.

18.3 CONFINED SPACE DEFINITION:

- Is large enough and so configured that an employee can bodily enter it;
- Has limited or restricted means for entry and exit; and
- Is not designated for continuous employee occupancy.

Prior to entry a determination will be made regarding the space being confined space or permit required confined space.

Non-permit confined space means a confined space that meets the definition of a confined space but does not meet the requirements for permit-required confined space.

Permit-required confined space means a confined space that has one or more of the following characteristics: (1) Contains or has the potential to contain a hazardous atmosphere; (2) Contains a material that has the potential for engulfing an entrant; (3) Has an internal configuration such than an entrant could be trapped or asphyxiated by inwardly converging walls or a floor which slopes downward and tapers to a smaller cross-section; or (4) Contains any other recognized serious safety or health hazard; or, (5) is so marked by the host employer or general contractor.

18.4 PRE-ENTRY PROCEDURES

Supervisory authorization must be obtained prior to any employee entering a confined space, and a Confined Space Entry Permit must be correctly completed (Exhibit 18A).

A competent safety hole watch person must be assigned to the entrance of the confined space. This person will keep visual or voice contact with the employees inside the confined space at all times. The watch must be given a means to contact emergency help without leaving the area, such as an cell phone or radio. If communication can be maintained without a device, one is not mandated.

1) Adequate rescue procedures must be developed and practiced prior to first entry.

2) The safety hole watch attendant must stay in proximity of the access area of the space with his/her primary task being that of hole watch.

3) All nearby and entry personnel must understand the hazards of confined space and be instructed regarding the necessary precautions.

4) In all cases Control of Hazardous Energy/ Lock Out Tag Out procedures (Chapter 17) must be followed.

18.5 SPECIAL CONSIDERATIONS

18.5.1 MONITORING

Continuous monitoring of the atmosphere is required when working a confined space. The instruments used to monitor the conditions of the confined space

should have both audio and visual alarms that activate when permissible or toxic vapor levels are exceeded, or when oxygen deficiency or enrichment occurs.

Gas monitors must be calibrated as required by the device and bump tested daily. Calibration will occur when the monitor is moved from project to another, when the monitor has set idle for more than 30 days, and at any time a supervisor, entrant or attendant determines it is necessary.

Bump testing will be conducted daily prior to first entry. The gas monitoring kit will be devised of the monitor, gas cylinder for testing, hoses, training CD and written manufacturer's operational manual.

No entrant will enter the space if proper procedures and training have not taken place.

18.5.2 VENTILATION

The area must be thoroughly ventilated. Special care should be taken to insure circulated air reaches isolated pockets and contaminated air is not recirculated. Provisions will be made for adequate air circulation during the entire time employees are in the confined space. If deemed necessary, ventilation will occur prior to entry for the recommended time.

18.5.3 PROTECTIVE EQUIPMENT AND DEVICES

Personal protective equipment must be used as required by the nature of the work to be done. Each employee inside a confined space with only overhead means of access must wear a body harness with lifeline attached. A fall arrest system with a winch retriever is ideal for vertical confined space entry and egress. When horizontal entry is required, a review of the confined space will be required and determination of retrieval system made prior to entry.

18.5.4 CONFINED SPACE ENTRY PERMIT

The permit is a written or printed document that controls entry into a confined space (Exhibit 18A). The permit should be prepared and issued by the entry supervisor. The permit must list, by employee name and position, authorized attendants, entrants and the entry supervisor. Upon the conclusion of work in the confined space, the entry supervisor must remove the permit and note on the permit any problems encountered. The original permit is no longer valid upon the evacuation of a confined space. A new permit must be obtained for reentry or per work shift.

18.6 DUTIES OF ATTENDANT, ENTRANT AND ENTRY SUPERVISOR

18.6.1 DUTIES OF ATTENDANT SAFETY HOLE WATCH PERSON

A competent safety hole watch person must be assigned to the entrance of each confined space and understand the danger of the potential hazards. This person is to keep visual or voice contact with the employees inside the confined space for the duration of the entry operations, not leaving the area for any reason unless relieved by another competent person who is trained in the duties specific to the site and situation. Without leaving the area, the watch must be given means to contact emergency help, such as an air horn or radio. The watch must be trained on emergency procedures and understand who is designated for rescue and emergency services.

18.6.2 EMERGENCY SITUATIONS

In the event of an emergency, the safety hole watch person will:

a. Immediately summon or send for help (never leave the area).

b. Wait for help to arrive.

When emergency help arrives, apprise them of the situation and assist with rescue as appropriate.

NEVER ENTER A CONFINED SPACE WITHOUT THE PROPER PERSONNEL PROTECTIVE EQUIPMENT AND TRAINING.

18.6.3 DUTIES OF ENTRANT

The entrants must be trained and understand hazards and entrance procedures. The entrants must be given the opportunity to participate in and review air monitoring data, and in the permit review and signing. They should perform the work in a safe manner, following outlined work and safety procedures. Employees are entitled to request additional monitoring at any time. Entrants must be retrained if a new hazard has been created or if procedures change, prior to change in assigned duties.

18.6.4 DUTIES OF ENTRY SUPERVISOR

a. Insure that the appropriate equipment is operable and at the worksite. Know the exact location where the work is being done. Know the emergency number to be called, as well as emergency procedures used by the facility or project site. Know and understand the hazard(s), any monitoring devices, and engineering practices, such as required ventilation, or other procedures including re-evaluation of the space if there is reason to believe changes have occurred.

b. The supervisor will insure employees follow outlined procedures or changes. He will prevent unauthorized personnel from entry into confined space and insure the proper training is completed for the attendant and entrants. He will provide a completed Confined Space Entry Permit and upon work conclusion, cancel and retain the permit, noting any problems encountered. The entry supervisor is responsible for submitting the cancelled permit to the appropriate host employer or controlling contractor for filing. If TAW is the controlling contractor, the permit will be filed with project Daily Status Field Reports.

c. The entry supervisor will notify other employers entering the same confined space and coordinate entry operations so that one employer does not endanger the employees of another employer.

d. If outside rescue services are used, the entry supervisor must provide those outside services an opportunity to examine the entry site and practice rescue prior to employee entry. This is mandatory and should take place prior to the first entry. If work is being conducted in a municipality, contact the local fire station and request a site visit.

   If there is a reliance on the client host or controlling contractor rescue services for use, this must be stated and agreed in the prior to work beginning in the confined space.

e. The supervisor will review entry operations that may not provide enough protection for entrants. The supervisor will re-evaluate operations, monitoring, and ventilation upon an unauthorized entry, a hazard not covered by the permit, occurrence of an injury or near miss, or employee complaints. The program should be reviewed, and if changed, employees will be retrained in order to provide adequate protection.

f. A mandatory safety huddle with all affected employees including attendant(s), entrant(s), and supervisor(s) will take place prior to each work shift entry. Hazards, controls, assigned work tasks, safe work practices, and other topics as applicable will be discussed and reviewed.

A mandatory safety huddle will take place at the end of the work shift. This will be used as a debriefing to discuss information associated with hazards, controls, tasks and work practices in preparation for the next day's work shift.

18.7 TRAINING

Affected employees must be trained in the hazards of confined spaces, the rescue procedures used, and the use of personal protective equipment when entering confined spaces.

They must be trained in emergency alarms and signals used by the facility where they are working and by the assigned safety hole watch person.

CONFINED SPACE ENTRY PERMIT

POST AT POINT OF ENTRY
(Good for one shift only/ completed per entry)

Job Site_____ Job No._____

Confined Space Location _____

Shift Shift Supervisor

Date Time Start Time Stop

PROCEDURES TO ENTER AND MONITOR SPACE:

Type of ventilation (required) _____
Air monitoring completed (See next page)_____
_____
_____
_____
_____
_____

Print Name	Signature*	Date	Duty

* I certify I have been trained in entrance, emergency procedures and my assigned duty.

Trainer's Name	Trainer's Signature**	Date

** I certify I have trained each attendant, entrant and supervisor to entrance procedures, emergency procedures and his assigned duty, as outlined in Section 18 of the Safety Manual.

Exhibit 18A

CONFINED SPACE ENTRY PERMIT

ENVIRONMENTAL MONITORING:

Sampling Equipment Used:	Type	Serial #	Date Calibrated	By Whom
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

Test Conducted:	Time	Results	Time	Results
	_____	_____%	_____	_____%
	_____	_____%	_____	_____%
	_____	_____%	_____	_____ %

EMERGENCY PROCEDURES

If any emergency should occur, first summon help. Do not enter a confined space until qualified help arrives and entry can be made safely. If a person is down for no apparent cause, you must assume that toxic gases or oxygen deficiency could exist—do not enter without full protective gear and self-contained breathing devices.

_____ Rescue services are to be provided by the client.

_____ Rescue services provided by outside service. Outside rescue service must examine entry site and practice rescue if applicable.

EMERGENCY CALL_____

Signed_____
Qualified Person Phone/Pager

Company Name:_____

Exhibit 18A