

PURPOSE

The purpose of this program is to advise Advanced Excavating Specialists and Five Rivers Construction employees on confined space entry in accordance with WAC 296-809. Fatalities and injuries constantly occur among construction workers who, during their jobs, are required to enter confined spaces. In some circumstances, these workers are exposed to multiple hazards, any of which may cause bodily injury, illness, or death. Workers are injured and killed from a variety of atmospheric factors and physical agents.

The confined space entry program identifies permit-required confined spaces in the workplace, describes Advanced Excavating Specialists and Five Rivers Construction procedures for worker safety and health in permit-required confined spaces, and designates duties to each person involved in confined space entry.

ROLES & RESPONSIBILITIES

Confined Space Persons will be designated and have duties as follows:

Authorized Entrants – those properly trained to enter and work within confined spaces.

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Properly use equipment.
- Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space.
- Alert the attendant whenever:
 - The entrant recognizes any warning sign or symptom of exposure to a dangerous situation.
 - The entrant detects a prohibited condition and exit from the permit space as quickly as possible whenever an order to evacuate is given by the attendant or the entry supervisor.
 - An evacuation alarm is activated.

Attendants – Those employees properly trained to monitor the authorized entrants when within the confined space.

- Know the hazards that may be faces during entry, including information on the mode, signs or symptoms, and consequences of exposure.
- The attendant is aware of possible behavioral effects of hazard exposure in authorized entrants.

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- Continuously maintains an accurate count of authorized entrants in the permit space and ensures that the means used to identify authorized entrants accurately identified who is in the permit space.
- Remains outside the permit space during entry operations until relieved by another attendant.
- Communicates with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space.
- Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:
 - If the attendant detects a prohibited condition.
 - If the attendant detects the behavioural effects of hazard exposure in the authorized entrant.
 - If the attendant detects a situation outside the space that could endanger the authorized entrants.
 - If the attendant cannot effectively and safely perform all the duties required.
- Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards.
- Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:
 - Warn the unauthorized persons that they must stay away from the permit space.
 - Advise the unauthorized persons that they must exit immediately if they have entered the permit space.
 - Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.
- Performs non-entry rescues as specified by the “Rescue and Emergency Services” section of this program.
- Performs no duties that might interfere with the attendant’s primary duty to monitor and protect the authorized entrants.

Entry Supervisor – Those employees trained and managing site specific confined space areas.

- Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
- Verified by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment

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specified by the permit are in place before endorsing the permit and allowing entry to begin.

- Terminates the entry and cancels the permit as required.
- Verifies that rescue services are available and that the means for summoning them are operable.
- Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations.
- Determines, whenever responsibility for a permit space operation is transferred and at intervals indicated by the hazards and operations performed within the space, that entry operations remain consistent with the terms of the entry permit and acceptable entry conditions are maintained.

The following shows which employees are responsible for the tasks outlined:

RESPONSIBILITY	PERSON ASSIGNED THIS RESPONSIBILITY
Evaluate our work locations and determine if: <ul style="list-style-type: none"> • Confined space(s) exist at the worksite. • Permit-required confined space(s) exist at the worksite. 	Entry Supervisor (Site Foreman/Super)
Evaluate the confined space(s) to determine whether hazards are present.	Entry Supervisor (Site Foreman/Super)
Evaluate hazards and determine the appropriate entry procedure for the space. Note: <ul style="list-style-type: none"> • Until evaluation and documented otherwise, all confined spaces will be considered permit-required spaces. • Alternate entry procedure may apply when the only hazard remaining in the space is a potential hazardous atmosphere controlled using forced air ventilation. 	Entry Supervisor (Site Foreman/Super)
Re-evaluate the space when the use, configuration, or hazards of a confined space change.	Entry Supervisor (Site Foreman/Super) and authorized attendants (any trained field employee)
Monitoring and testing as follows: <ul style="list-style-type: none"> • Conduct initial monitoring to identify and evaluate any potentially hazardous atmospheres. • Complete atmospheric testing in the following order: oxygen, combustible gases, toxic gases and vapors. • Record the data. 	Entry Supervisor (Site Foreman/Super)

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<ul style="list-style-type: none"> Keep these records on site (paper copy or digital copy on foreman’s iPad) 	
Inform exposed or potentially exposed entrants of the existence and hazards in confined spaces using the methods described below under “Control Confined Space Entry”.	Entry Supervisor (Site Foreman/Super)
<p>Provide entrants entering confined spaces, or their designated representative, an opportunity to participate in and review pre-entry testing, calibrated air monitoring data and any subsequent testing before entry.</p> <p>Entrants must participate in the permit review and signing.</p> <ul style="list-style-type: none"> The space will be re-evaluated during work if entrants or their representatives believe that the permit space was inadequately tested or require additional monitoring. 	Entry Supervisor (Site Foreman/Super)
Make sure that all equipment needed for safe entry into any confined space is available, ventilation is in place and in proper working order.	Entry Supervisor (Site Foreman/Super)
Conduct a review using the canceled entry permits to identify and correct any deficiencies in our program.	Entry Supervisor (Site Foreman/Super)

IDENTIFY CONFINED SPACES AND HAZARDS

The following table provides a list of some of Advanced Excavating Specialists and Five Rivers Construction common confined spaces and hazards:

Confined Space	Location	Hazards
Manholes, Catch Basins	Varies	Harmful vapors, gasses, and/or liquids
Vaults	Varies	Harmful vapors, gasses, and/or liquids
Pipes	Varies	Harmful vapors, gasses, and/or liquids
Large Vehicle Tanks	Water Truck Tank	Harmful vapors, gasses, and/or liquids

CONTROL OF CONFINED SPACE ENTRY

Advanced Excavating Specialists and Five Rivers Construction use a combination of verbally

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informing, posted danger signs, caution/danger tape, fencing/barricades at permit spaces to inform employees about the existence and hazards of confined spaces, and prevent unauthorized entry.

PERMIT ENTRY PROCEDURES

Advanced Excavating Specialists and Five Rivers Construction entry procedures for permit spaces include the following:

- Complete a Confined Space Entry Permit with minimum information listed in WAC 296-809-50004.
 - Use provided owner/hiring contractor form.
 - If the owner/hiring contractor does not provide a form, use the form at the end of this document.
- Eliminate unsafe conditions before removing entrance covers.
 - After removing entrance covers, promptly guard the opening with a railing, temporary cover, or other temporary barrier to prevent accidental falls through the opening and protect entrants from objects and external hazards to include pedestrians, vehicles, debris from falling into the space.
 - Certify that pre-entry measures have been taken (such as safe removal of the cover and having protection needed to gather pre-entry data), with the date, location of the space, and signature of the person certifying.
 - Make the pre-entry certification available to each entrant before entry.
- Before an employee enters the confined space, make sure that you have a dedicated attendant outside the confined space for the duration of entry operations, test the internal atmosphere with a calibrated, direct-reading instrument for all the following in this order.
 - Oxygen content.
 - Flammable gases and vapors.
 - Potential toxic air contaminants.
- Provide entrants, or their authorized representatives, with an opportunity to observe the pre-entry and periodic testing.
 - Make sure the atmosphere within the space is not hazardous when entrants are present.
- Use continuous forced air ventilation, as follows:
 - Wait until the forced air ventilation has removed any hazardous atmosphere before allowing entrants into the space.
 - Direct forced air ventilation toward the immediate areas where employees are, or will be, and continue ventilation until all employees have left the space.
 - Provide the air supply from a clean source and make sure it does not increase hazards in the space.
- Test the atmosphere within the space as needed to make sure hazards do not accumulate.

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- If a hazardous atmosphere is detected during entry, we will do all the following:
 - Evacuate employees from the space immediately.
 - Evacuate the space to determine how the hazardous atmosphere developed.
 - Implement measures to protect employees from the hazardous atmosphere before continuing the entry operation.
 - Verify the space is safe for entry before continuing the entry operation.
- The written documentation is available to each employee entering the space or to that employee's representative.

CLASSIFY A CONFINED SPACE AS A NONPERMIT SPACE

A space will be classified non permit only for as long as all the hazards remain eliminated. If someone must enter the space to eliminate any of the hazards, we will follow all the requirements listed under the permit entry procedures.

Documentation that no permit-required confined space hazards exist will include the following:

- The date, location, and signature of the person making the determination.
- How we determined that no permit-required confined space hazards exist.
- Documentation will be available to entrants or their authorized representatives by posting at the entry to the space.

CANCELLED ENTRY PERMITS

The entry supervisor must cancel entry permits when an assignment is completed or when new conditions exist. New conditions must be noted on the canceled permit and used in revising the permit space program.

TRAINING

We will provide documented permit space training to employees at the following times by a third-party licensed training company:

- Upon hire of new employees when applicable to their job description.
- Before assigned permit space entry duties.
- When assigned duties change.
- When there is a change in space that creates hazards for which they have not been trained.

Advanced Excavating Specialists and Five Rivers Construction will certify that the required training has been completed. The certification shall include employee name, trainer signature/initials, and dates of training. Certification will be made available to employees and their authorized representatives.

OUR RESPONSIBILITIES FOR CONTRACTORS

A copy of this Confined Space Entry Program will be provided to each contractor involved in permit space entry work at our company. Each contractor will be briefed on the following:

- The location of the permit spaces.
- Entry into permit spaces is only allowed by following the written entry program.
- The reasons for listing the space as a permit space, including both of the following:
 - The identified hazards.
 - Our experience with the particular space.
- Precautions we have implemented to protect employees working in or near the space.
- Who will debrief the contractor at the completion of entry operations, or during entry if needed, on whether any hazards were confronted or created during their work.
- Other personnel or contractors working within the same confined space if any.

OUR RESPONSIBILITIES WITH HOST EMPLOYERS

Our entry supervisor will do the following to make sure entry operations are coordinated with host employers:

- Obtain any information on the hazards of the permit space and information from previous entry operations.
- Determine if other workers will be working in or near the space.
- Coordinate entry operations with other workers.
- Inform the host employer of the permit space program that we follow.
- Hold a debriefing conference at the completion of the entry operation, or during the entry operation if needed, to inform the host employer of any hazards confronted or created during work in the space.

RESCUE AND EMERGENCY SERVICES

We have developed the following rescue and emergency action plan:

- Rescue services are to be provided by the host facility.
- Single confined space attendants may not monitor several confined spaces at once during an emergency.
- Emergency services crews will need to be notified in the event of any and all emergencies. Call 911 in case of emergencies.
- Rescue procedures will operate on a site-specific basis with the specified emergency services and first aid information as listed on the “Emergency Response Guide” on the next page.

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Emergency Response Guide

<p>Activate 911 and Emergency Actions</p> <ol style="list-style-type: none"> 1. Job Location/Address: _____ 2. Superintendent Name: _____ Phone: _____ 3. Foreman Name: _____ Phone: _____ 4. Provide lifesaving procedures when necessary. 5. Hospital Locations <ol style="list-style-type: none"> a. Clark County Hospitals: <ol style="list-style-type: none"> i. Peace Health Southwest: Emergency Department 400 Northeast Mother Joseph Place, Vancouver WA ii. Legacy Salmon Creek: Emergency Department 221 NE 139th Street, Vancouver WA b. Cowlitz County Hospitals: <ol style="list-style-type: none"> i. Peace Health St. John: Emergency Department 1615 Delaware St, Longview WA c. Out of Area Hospital: <ol style="list-style-type: none"> i. Hospital Name: _____ (confirm ER available) Hospital Address: _____ 6. Fire Department: Call 911 7. Ground Ambulance Service: Call 911 8. Air Ambulance Service for Southwest Washington and Northwest Oregon Life Flight: Call 911 	<ol style="list-style-type: none"> 9. Check protocols for emergency services and hospitals for operations outside of Clark and Cowlitz County to ensure the needs for job sites are met. For Jobs in the Portland Metro area, Call 911. There are multiple hospitals. 10. Confined Space Entry Action Steps: Confirm Provisions for Technical Rescue Availability and/or develop an Emergency Action Plan prior to initiating action: <ol style="list-style-type: none"> a. Develop and Brief and emergency action plan prior to beginning work b. Confirm availability of technical resources with local Fire Department prior to beginning jobsite operations c. Utilize available equipment ie, winch, tripod, fan, air monitor. d. Complete appropriate documentation e. Identify designated Competent Person, Entry and Standby Personnel f. Identify on site First Aid/CPR certified personnel g. Conduct pre-entry safety briefing h. Initiate Operations <p style="text-align: center;"><u>Notifications/Actions</u></p> <p style="text-align: center;">In an emergency call 911</p> <p style="text-align: center;"><small>Notify your immediate supervisor as soon as possible. Keep all witnesses onsite until released by Superintendent or Safety Manager</small></p> <p style="text-align: center;">There is no replacement for Common Sense and Good Judgement!</p>
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CONFINED SPACE PERMIT FORM TEMPLATE
USE FULL SCALE VERSION LOCATED IN THE SAFETY PROGRAM FILE

Confined Space Entry Permit

Permit Number _____

Rescue # _____ Gas Coordinator # _____ Emergency Services # _____

Company Name: _____	Date & Time Issued: _____
Job Site / Space ID: _____	Date & Time Expires: _____
Purpose of Entry: _____	

HAZARDS IN THE CONFINED SPACE: (☑)

- Oxygen deficiency (<19.5%)
- Toxic gasses or vapors > PEL
- Engulfment or Entrapment (circle selections)
- Electrical hazards
- Flammable hazards (gasses, vapors, high oxygen)
- Heat or Cold (circle one)
- Hazardous configuration
- Rotating or moving equipment
- Chemical hazards
- Other _____

REQUIRED ENTRY EQUIPMENT: (☑)

- Respirator
- Coveralls
- Hearing protection
- Explosive proof lighting
- Fire Extinguishers
- Harnesses
- Emergency Escape Equipment
- Resuscitator - Inhalator
- Emergency Escape Respirator
- Other: _____

COMMUNICATION

- Line of sight
- Radios
- Other _____

ADDITIONAL NOTES

AUTHORIZED WORKERS

Entrants: _____
Attendants: _____
Supervisors: _____

Written Rescue Plan Posted

- Employee Rescue
- Employee Non Entry Rescue
- Outside Rescue – Contact # _____

Acceptable Entry Conditions:

ENTRY PREPARATIONS

- Notify affected employees of work
- Isolate hazardous energy
- Apply locks and tags
- Verify isolation
- Secure area with posts and flags
- Clean, drain and purge space
- Establish required ventilation

Review hazards and work procedure

- Notify available emergency team
- Atmospheric test satisfactory
- Additional permits obtained
- Required PPE worn
- Communication plan works
- Other _____
- Other _____

ATMOSPHERIC TESTING

Test will be done before entry
 Continuous monitoring? Yes No
 Test frequency: _____
 Tester name: _____
 Tester ID #: _____
 Tester name: _____
 Tester ID: _____

TEST	PEL	☑	1	2	3	4	5	6	7	8
O ₂ Min	19.5%	<input type="checkbox"/>								
O ₂ Max	23.5%	<input type="checkbox"/>								
Flammability	10% LFL	<input type="checkbox"/>								
Carbon Monoxide	35 ppm	<input type="checkbox"/>								
H ₂ S	10 ppm	<input type="checkbox"/>								
Sulfur Dioxide	2 ppm	<input type="checkbox"/>								
Toxic		<input type="checkbox"/>								
Temperature		<input type="checkbox"/>								
Other		<input type="checkbox"/>								
Other		<input type="checkbox"/>								

Instrument #1 _____ Model / Type _____ ID Number _____
 Instrument #2 _____ Model / Type _____ ID Number _____

Notes: _____

AUTHORIZATION	Time: _____	Name: _____	
I certify required entry conditions are met	Date: _____	Signature: _____	
& it is safe to commence work in this space.	Phone: _____		

Notes: _____

Date / Time Work Complete: _____ Work Verified By: _____ Permit Closed