



**Berry Bros. General Contractors, Inc.
Corporate Policy Procedure**

Section # 14

Issue Date: 10-6-08

**(HSE) Health, Safety & Environmental
Policies and Procedures Manual**

Doc # SWP - 14

Page: 1 of 11

Revision: 2

Approver: Joe Berry

CONFINED / INERT SPACE PROGRAM

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SUBPART A - PURPOSE

The Confined Space Entry Program is provided to protect authorized employees that will enter confined spaces and may be exposed to hazardous atmospheres, engulfment in materials, conditions which may trap or asphyxiate due to converging or sloping walls, or contains any other safety or health hazards.

Reference: *OSHA-Permit-Required Confined Spaces (29 CFR 1910.146).*

The entry supervisor will complete the entry permit with everyone on the crew involved in its preparation. The permit can be canceled at any time during the confined space operation, and anyone can exercise stop work authority to bring the job to a halt if a dangerous condition is observed that was not anticipated.

At Berry Bros., all internal training is performed on an awareness level. Employees who are actually required to perform Confined Space services are Third-Party trained and certified to protect their health and well-being. A training database is maintained and employees are notified when to attend required re-certification training.



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SUBPART B - RESPONSIBILITIES

Workplace Analysis and Hazard Evaluation

Regulatory standards require employers (Berry Bros. General Contractors, Inc.) to perform a workplace analysis to determine if any spaces fit the criteria for a permit required confined space.

Berry Bros. must conduct a walk-through analysis of the workplace, both permit and non-permit, and identify all confined spaces and their hazards evaluated.

Employees' time inside a confined space shall be kept to a minimum. Whenever possible, tanks or vessels should be cleaned from the outside.

TRAINING:

HS&E / Risk Management Departments

1. Ensure proper training for entry & rescue teams has been accomplished. Each affected employee must be trained prior to initial assignment, prior to a change in assigned duties, if a new hazard has been created or special deviations have occurred.
2. Provide that training and certification has been accomplished. The certification shall include employee name, trainer signature, and dates of the training. (Documented)
3. Certification must be made available to employees and their authorized representatives. Proper equipment for entry & rescue teams shall be provided for employees at no cost to them.
4. Ensure confined space assessments have been conducted.
5. Ensure all permit required confined spaces are posted
6. Annually review this program and all Entry Permits.
7. Evaluate Rescue Teams/Service to ensure they are adequately trained and prepared.
8. Ensure rescue team at access during entry into spaces with IDLH atmospheres.

EMPLOYEES



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1. Duties of Entry Supervisor, Entrant, and Attendants.
2. Confined Space Entry permits.
3. Hazards of Confined Spaces.
4. Use of Air Monitoring Equipment.
5. First Aid and CPR Training.
6. Emergency Action & Rescue Procedures.
7. Confined Space Entry & Rescue Equipment.
8. Rescue training, including entry and removal from representative spaces.

SUBPART C - ENTRY SUPERVISOR

Entry supervisors are authorized and responsible for the overall permit space entry and must coordinate all entry procedures, tests, permits, equipment and other relevant activities. The following entry supervisor duties are required:

1. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
2. Verifies, by checking that the appropriate entries have been made on the permit, all test specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.
3. Terminate the entry and cancel the permit when the entry is complete and there is a need for terminating the permit.
4. Verify that rescue services are available and that the means for summoning them are operable.
5. Remove unauthorized persons who enter or attempt to enter the space during entry operations.
6. Determine whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space that entry operations remain consistent with the permit terms and that acceptable entry conditions are maintained.

SUBPART D - ENTRY ATTENDANTS

At least one authorized and trained attendant is required outside the permit space for the duration of the entry operation. Responsibilities include:



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1. To know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
2. To be aware of possible behavioral effects of hazard exposure on entrants.
3. To continuously maintain an accurate count of entrants in the permit space and ensures a means to accurately identify authorized entrants.
4. To remain outside the permit space during entry operations until relieved by another attendant (once properly relieved, they may participate in other permit space activities, including rescue if they are properly trained and equipped).
5. To communicate with entrants as necessary to monitor entrant status and alert entrants of the need to evacuate.
6. To monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the entrants to immediately evacuate if: the attendant detects a prohibited condition, detects entrant behavioral effects of hazard exposure, detects a situation outside the space that could endanger the entrants; or if the attendant cannot effectively and safely perform all the attendant duties.
7. In the event that more than one confined space is being entered at one time there will be a separate attendant monitoring each respective confined space.
8. To summon rescue and other emergency services as soon as the attendant determines the entrants need assistance to escape the permit space hazards.
9. To perform non-entry rescues as specified by that rescue procedure and entry supervisor.
10. Not to perform duties that might interfere with the attendants' primary duty to monitor and protect the entrants.
11. To take the following action when unauthorized persons approach or enter a permit space while entry is under way:
 - a. Warn the unauthorized persons that they must stay away from the permit space.
 - b. Advise unauthorized persons that they must exit immediately if they have entered the space.
 - c. Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.
12. BBGCI employees are not allowed to monitor more than one space at a time.

SUBPARTS E - ENTRANTS

All entrants must be trained and authorized by the entry supervisor to enter permit spaces. They must have received the required training, be familiar with the proper



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equipment, and observe the entry procedures and permit. The following entrant duties are required:

1. Prior to commencement of confined space operations, each person involved with the operation will be assigned a duty as either an authorized entrant, an attendant, an entry supervisor, and if needed a rescue team member. The person performing the atmospheric testing in the confined space will also be trained in one of the aforementioned positions so the air monitoring person is aware of the hazards involved. Also, they must appear on the authorized list of involved personnel both in the site office and on the actual site notice.
2. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.
3. Properly use the equipment required for safe entry.
4. Communicate with the attendant as necessary to enable the attendant to monitor the status of the entrants and to enable the attendant to alert the entrants of the need to evacuate the space if necessary.
5. Alert the attendant whenever; the entrant recognizes any warning signs or symptoms of exposure to a dangerous situation, or any prohibited condition is detected.
6. Exit the permit space as quickly as possible whenever; the attendant or entry supervisor gives an order to evacuate the permit space, the entrant recognized any warning signs or symptoms of exposure to a dangerous situation, the entrant detects a prohibited condition, or an evacuation alarm activated.
7. Monitoring of the space must inform the entrants of the potential hazards and results; they must participate in the permit review and signing. Ventilation must be used and permit review and signing. Ventilation must be used and testing must be conducted before entry and during work.

NOTE: *A confined space can be re-classified as a non-permit required confined space if the confined space:*

8. Poses **no** actual or potential atmospheric hazards and if all hazards in the space are eliminated without entry into the space, the permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards are absent.
9. If it is necessary to enter the permit space to eliminate hazards, such entry shall be performed as required. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated,



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the permit space may be reclassified as a non-permit confined space as long as no hazards are present.

10. When there are changes in the use or configuration of a non-permit confined space that might increase the hazards to entrants, the space shall be reevaluated and, if necessary, reclassified as a permit-required confined space. If it is unclear whether a space might be a non-permit confined space, a permit shall be required.

SUBPART F - CONFINED SPACE HAZARDS

All entrants or their superintendents or representatives must be given an opportunity to participate in the review of calibration data and or participate in the calibration of air monitoring equipment before entering a confined space. He or she must also be aware that the air must be periodically tested while continuous ventilation is applied. Permit must be readily available for review by all involved personnel.

The following is a list of examples of what constitutes a hazard in for a confined space:

1. Explosive / Flammable Atmospheres
2. Toxic Atmospheres
3. Engulfment
4. Asphyxiation
5. Entrapment
6. Mechanical hazards
7. Slips & falls
8. Chemical Exposure
9. Electric Shock
10. Thermal / Chemical Burns
11. Noise & Vibration

HAZARD CONTROL

Engineering Controls

1. Locked entry points.
2. Temporary ventilation.

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3. Temporary lighting.

Administrative Controls

1. Signs.
2. Employee training.
3. Entry procedures.
4. Atmospheric monitoring.
5. Rescue procedures.
6. Use of prescribed PPE.

SUBPART G - DEFINITIONS

Confined Space: Is defined as any space large enough or so configured that an employee can physically enter and perform work, has limited or restricted means for entry or exits (i.e. tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry). In addition, the area in question is not designed for continuous employee occupancy.

Permit required confined space (permit space), is a confined space that has one or more of the following characteristics:

1. Contains or has a potential to contain a hazardous atmosphere.
2. Contains a material that has the potential for engulfing an entrant.
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly covering walls or by a floor, which slopes downward and tapers to a smaller cross-section.
4. Contains any other recognized serious safety or health hazard.

Whenever a confined space entrance is open, danger signs shall be posted near the entrance. Signs shall include, but are not limited to the following wording:





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Unopened confined spaces which can only be accessed through the use of tools or keys do not require signage. However, spaces with easy access (for example, open doorways or pressure vessels) shall be labeled. Employees who are expected to gain entry into said spaces shall be trained to recognize the hazards involved.

SUBPART H – **PERMIT REQUIRED CONFINED SPACE ENTRY GENERAL RULES**

The entry permit means that a written or printed document was issued to control the entry into a given confined space. The individual issuing the permit must provide a clear statement for the issuance, use, and cancellation of the entry permits.

In the event that a confined space entry project would involve more than one contractor, the program by definition must include procedures for coordinating entry operations for multi employers so that employees of one employer do not endanger the employees of any other employer. In addition, the confined space entry permit, the JSA or JSEA should reflect the planning of all involved employers/ contractors in their simultaneous work scenarios.

During all Confined Space Entries, the following Safety Rules must be strictly enforced:

1. Only Authorized and Trained Employees may enter a Confined Space or act as Safety Watchmen.
2. No Smoking is permitted in a Confined Space or near entrance/exit area.
3. During Confined Space Entries, a Watchman must be present at all times so the attendant can maintain contact with the entrants for the duration of entry operations.
4. Constant visual or voice communication will be maintained between the Safety Watchmen and Employees entering a Confined Space.
5. The attendant of the confined space must be capable of immediate action to rescue the employee(s) wearing respiratory protection while in work areas defined as being an IDLH atmosphere.
6. No bottom or side entry will be made or work conducted below the level any hanging material or material which could cause engulfment.
7. Air and Oxygen Monitoring is required before entering any Permit- Required Confined Space. Oxygen levels in a Confined Space must be between 19.5



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and 23.5 percent. Levels above or below will require the use of an SCBA or other approved air supplied respirator. Additional ventilation and Oxygen Level Monitoring is required when welding is performed. The monitoring will check Oxygen Levels, Explosive Gas Levels, and Carbon Monoxide Levels. Entry will not be permitted if explosive gas is detected above one-half the Lower Explosive Limit (LEL).

8. To prevent injuries to others, all openings to Confined Spaces will be protected by a barricade when covers are removed.
9. Following the completion of the project, the permit will be cancelled and kept on file for a period of one year. Note: A confined space project may also be cancelled at any time if certain hazards pose harm to any involved employee.
10. Employees or their representatives are entitled to request additional monitoring at any time during a job.
11. Provisions and procedures for pedestrian, vehicle & other barriers as necessary to protect entrants from external hazards and a method for verifying that conditions in the permit space are acceptable for entry during this operation.

SUBPART I - CONFINED SPACE ENTRY PROCEDURES

Each employee and contractor who enters or is involved in the entry must:

1. Understand the procedures for confined Space Entry.
2. Know the Hazards of the specific space.
3. Review the specific procedures for each entry.
4. Understand how to use entry and rescue equipment.

Review of Procedures

Examples of program review are:

1. An unauthorized entry of a confined space.
2. A hazard not covered by the permit.
3. The occurrence of an injury or near miss.
4. Employee complaints.

If any of the aforementioned conditions exist, a revision is more than necessary.

SUBPART J - CONFINED SPACE ENTRY PERMITS

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The Permit must be completed by an authorized and competent supervisor that has completed Confined Space training before entry. In the event that there is a change in the scope of operation of a confined space entry job, the job shall be halted and a new permit shall be constructed to address the changes. (This might include items such as any unauthorized entry or a hazard that was not covered by the existing permit. It could also include a near miss or an employee complaint.)

The Entry Permit must be reviewed annually if it remains open and active. This is unless no entries were made during the prior 12-month period. The permit must be revised as necessary to protect employees from confined space hazards. Canceled entry permits must be kept 1 year to help facilitate the review process in the event problems are encountered during the review.

- Permits will expire before the completion of the shift or if any pre-entry conditions change. Permits will be maintained on file for 12 months.

SUBPART K - CONTRACTOR ENTRY

All work by non-company employees that involves the entry into confined spaces will follow the procedures of this program, if the contractor does not have a Confined Space Program. If the contractor has a program, the program must be submitted to the HS&E / Risk Management Departments for review. Whichever program is more stringent, that program will take precedence.

The information of this program and specific hazards of the confined spaces to be entered will be provided to Contractor Management prior to commencing entry or work.

SUBPART L - RESCUE SERVICES

Berry Bros. provides rescue services on confined space entry projects. The rescue personnel are trained at a third-party certified training facility. Employees must be provided the PPE at no cost to them and train and practice rescues at least every twelve (12) months. All rescue personnel will be trained in CPR/First Aid and hold current certification cards. Non-entry rescue retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase overall risk or would not contribute to the entrant's rescue.



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Emergency phone numbers shall be posted at the work site for the following:

- Local Law Enforcement agency. (Police, Sheriff, State Police)
- Emergency Medical Personnel (Ambulance)
- Fire Department
- Hospital or Health Clinic

In the event that Berry Bros. does not have a rescue team available, outside third-party rescue contractors may be used. (Local Fire Department) If they are used, they must be given an opportunity to examine the entry site, practice rescue, and decline as appropriate.

If there is a reliance on the client to provide the rescue services for use, this must be stated and agreed to in contract language.

Attachment: Confined Space Permit Attendant’s Pre-Entry Checklist

Revision Date: 06-09, 01-16

Approved By: Safety Committee 06-08

Berry Bros. General Contractors, Inc.



CONFINED SPACE PERMIT

Effective Date: _____
 Expiration Date: _____

Time: _____ A.M. / P.M.
 Time: _____ A.M. / P.M.

Types of atmospheric hazards: Oxygen Deficiency Flammable Toxic

Physical Hazards: Mechanical Electrical Engulfment Other

PRE-ENTRY CHECKLIST

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is entry area free of debris?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are warning signs and barriers in place?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has atmospheric monitoring been conducted?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all hazardous lines been isolated?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have other permits been issued (Hot work)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the area require additional ventilation?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has all energy sources been neutralized/locked out?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is electrical equipment grounded?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has the confined space been cleaned and purged?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are GFCI's provided?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are non-sparking tools used?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there compressed gas cylinders in the confined space?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have the client and other contractors been notified?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have entry and emergency procedures been reviewed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all personnel (entrant, attendant, supervisor, and rescue personnel) been trained?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all personnel been informed of the potential hazards (JSEA / Safety Meeting)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has the attendant stationed at the entrance been properly instructed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is rescue equipment on location or readily available if needed?

ATMOSPHERE TESTING

Type	Oxygen	Flammable	H2S	CO2	Meter Information
Time					Instrument Make
% LEL or PPM					Cal. Date
Tested By					Serial #
Action Levels	Less than 19.5% More than 23.5%	10% LEL	10 PPM	35 PPM	



PROTECTIVE EQUIPMENT

Yes	No		Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Hard Hat	<input type="checkbox"/>	<input type="checkbox"/>	Protective Clothing
<input type="checkbox"/>	<input type="checkbox"/>	Eye/Face Protection	<input type="checkbox"/>	<input type="checkbox"/>	Hearing Protection
<input type="checkbox"/>	<input type="checkbox"/>	Boots	<input type="checkbox"/>	<input type="checkbox"/>	Retrieval Device
<input type="checkbox"/>	<input type="checkbox"/>	Gloves	<input type="checkbox"/>	<input type="checkbox"/>	Harness and Lifeline
<input type="checkbox"/>	<input type="checkbox"/>	Communications Equipment	<input type="checkbox"/>	<input type="checkbox"/>	Respiratory Protection (Type)
<hr/>					
<input type="checkbox"/>	<input type="checkbox"/>	Fire Extinguisher	<input type="checkbox"/>	<input type="checkbox"/>	Other

EMERGENCY NOTIFICATION

Emergency Phone Number _____
 Location of Phone / radio _____

APPROVALS

I certify that all necessary precautions have been taken to make this confined space safe for entering and have reviewed all operations and emergency response procedures.

Client Representative: _____ Date: _____

Entry Supervisor's Signature: _____ Date: _____

Permit Prepared By: _____ Date: _____

Atmosphere Tester: _____ Date: _____

Attendant: _____ Date: _____

Response Team Leader: _____ Date: _____

I have been properly instructed for safe entry into this confined space and understand my duties:

Signature of Entrant(s)	Date
_____	_____
_____	_____
_____	_____

This permit is valid only so long as work conditions existing at the time of issuance continue. It expires on any change in condition that adversely affects safety of the work area while work is in progress or at the end of the normal shift.