

Boise State University
PERMIT-REQUIRED CONFINED SPACE PROGRAM
Developed/Revisions by the Campus Environmental Safety and Health Office

I. INTRODUCTION

Boise State University is committed to providing a safe work environment and University management personnel at all levels are directly accountable for employee health and safety within the units for which they are administratively responsible. Furthermore, *Environmental Health and Safety Policy # 6802C* charges certain organizations within the University to identify, develop and enforce specific programs for implementation by individual departments and to interface with regulatory agencies as necessary. The purpose of this program is to respond to this charge in requiring practices and procedures for the control or elimination of potential worker exposures to hazards of *Permit-Required Confined Spaces* located on University properties and to comply with Section 043 of the Idaho General Safety/Health Standards.

II. DEFINITIONS

For full definitions of terms used in this program and to understand how the University has classified its confined spaces, refer to Appendix A of this program or the OSHA Permit-Required Confined Space Standard, 29 CFR 1910.146.

III. PROGRAM RESPONSIBILITIES

The *Environmental Health and Safety Office* and *Department Heads* and their delegated *Confined Space Entry Supervisors* of the following departments or personnel groups have defined roles in the development, implementation and successful maintenance of this program:

- Maintenance and Operations
- Facilities Planning
- Student Housing, Building Facilities
- Student Union, Building Facilities
- Office of Information Technology
- Morrison Center, Building Facilities
- Pavilion

A. Responsibilities: Departments Heads

1. Overall Program Compliance - The Heads of the departments listed above shall ensure that all employees or contractors under their administrative control achieve full compliance with the requirements of this program.

2. Program Review and Evaluation of New Confined Spaces - The Heads of the departments listed above shall conduct an annual review¹ of the program using the cancelled entry permits and other applicable records or experiences to identify any deficiencies in this program. A review may be conducted sooner if there is reason to believe that the program does not adequately protect employees. Any corrective measures shall be documented by a revision of the program and employees must be trained on any changes.

Note: If no permit space entry operations in a department are conducted during the previous year, a review shall NOT be needed by that Department Head.

3. New or Remodeled Properties - The Heads of the departments listed above shall ensure that new or remodeled properties under their jurisdiction are evaluated for the existence of *Permit-Required Confined Spaces (PRCS)* by promptly notifying the Environmental Health and Safety Office to conduct an inspection survey.

4. Employee Training - The Heads of the departments listed above shall ensure that those employees under their administrative control whose work involves or may involve entry into any PRCS will acquire the understanding and skills necessary for the safe performance of their assigned duties (see [Appendix F](#)).

5. Contractor Services - The Heads of the departments listed above shall ensure that when employees of another employer (contractor) must, for any reason, enter a *Permit-Required Confined Space (PRCS)* under that department's administrative

¹ OSHA requires the employer to conduct a review of the Permit-Required Confined Space program using canceled permits within one year after each entry [29 CFR 1910(d)(14)]. The program may be reviewed sooner if needed, to ensure employees are protected from Permit-Required Confined Space hazards. Employers can perform a single annual review covering all entries performed during a 12-month period if they desire. If no entry is performed during a 12-month period no review is necessary. Paragraph (d)(13) requires that the employer must institute a review of entry operations if the employer has reason to believe that the control measures taken under the program are not adequately protecting employees. Correct any deficiencies found before subsequent entries are authorized. Circumstances that may prompt such review include:

- . any unauthorized entry into the Permit-Required Confined Space,
- . detection or discovery of a Permit-Required Confined Space hazard not covered by the entry permit,
- . detection of a condition prohibited by the entry permit,
- . a change in the use or configuration of the confined space, and
- . employee complaints about the effectiveness of the program.

control or building, the following duties are carried out:

a. Inform the contractor that entrance into the *PRCS* for any reason must be in accordance with a company *PRCS* program meeting the requirements of the OSHA standard (29 CFR 1910.146), unless *alternative procedures* or *reclassification procedures* can be utilized and certified to allow safe entry [see section C. 3) and 4) of this program and/or contact the Environmental Health and Safety Office for assistance].

b. Inform the contractor of any known hazards of the *PRCS* and the University's experiences with the space including any precautions used by the University to protect employees in or near the *PRCS* and whatever information was used for identifying the space as a permit space.

c. Coordinate² entry operations when both the University and the contractor have employees working in the space.

d. At the conclusion of the entry operation, hold a debriefing session with the contractor concerning the *PRCS* program used and any hazards confronted or created while working in the space. Any information concerning hazards or potential hazards shall be documented and steps taken to control or eliminate the situation. The above information shall be provided to the contractor in written form to ensure all required responsibilities are performed and available information is communicated. Appendix I may be used for this purpose.

². OSHA's *PRCS* standard, 29 CFR 1910.146, paragraph (c)(9) contains requirements pertaining to the responsibilities of contractors who are retained to perform permit space entry operations, including:

- 1) Paragraph (c)(9)(i) requires contractors to obtain any available information from the host employer regarding any hazards and entry operations in the permit space.
- 2) Paragraph (c)(9)(ii) requires contractors to coordinate entry operations with the host employer if both parties will have personnel working in the permit space.
- 3) Paragraph (c)(9)(iii) requires the contractors to inform the host employer of the contractors' permit space program that will be followed during the entry operation.

Coordination requirements between the host employer and contractor are included in paragraphs (c)(8)(iv), (c)(9)(ii), and (d)(11) of the standard. Paragraph (d)(11) requires employers to coordinate entry operations when employees of more than one employer are working simultaneously as authorized entrants in a permit space, so that employees of one employer do not endanger the employees of any other employer. This provision applies generally to all multi-employer permit space entry operations. The potential hazards of multi-employer permit space entry operations exist whether or not one of the employers acts as a host employer. For example, a manhole that is shared by two utility companies (gas and water, for example) is one case in which neither employer may be considered the host employer. If employees of both employers are present, but neither employer acts as the host, paragraph (d)(11) would still require coordination of permit space entry operations. Therefore, OSHA has adopted paragraph (d)(11) to cover coordination among all employers whose employees are present during entry operations. Paragraphs (c)(8)(iv) and (c)(9)(ii) direct the host employer and contractor, respectively, to the basic requirement for coordination including a determination of what permit program is to be used by the contractor. The standard does not prohibit the host employer from requiring a contractor to use the host's permit program, nor does it require the contractor to use the host's program. However, the host employer may choose to condition its contract on the contractor's compliance with the host's program, as is often the case in the petrochemical industry. Additionally, contractors are required to inform host employers of the permit program to be followed and of any hazards confronted or created in the permit space during entry operations. At the completion of the operation, a debriefing session must be held between the host employer and contractor to exchange any information and hazards found or created in the permit space.

B. Responsibilities: Environmental Health and Safety Office

1. Confined Space Identification/Evaluation - The Environmental Health and Safety Office shall ensure that all University campuses and properties are evaluated for the existence of *Permit-Required Confined Spaces*, determine their actual and potential hazards and maintain a list of them in Appendix B of this program.

2. Employee Training - The Environmental Health and Safety Office shall ensure that appropriate initial and refresher confined space entry training as outlined in Appendix F is made available to all affected departments who have personnel entering *Permit-Required Confined Spaces* on any Boise State University (BSU) property. The Environmental Health and Safety Office shall receive and review records of all confined space training delivered and ensure that the training meets the requirements of this program.

3. Atmospheric Testing Instrumentation: Maintenance/Calibration - The Environmental Health and Safety Office shall ensure that all atmospheric testing instruments to be used by employees entering *Permit-Required Confined Spaces* are maintained in proper operating condition and are kept in current calibration.

4. Compliance Assistance and Program Revision - The Environmental Health and Safety Office shall ensure that assistance is provided to the departments listed above to achieve compliance with all requirements of this program; make written program revisions as necessary; and that the University is kept informed of new or revised regulations affecting confined spaces.

C. Responsibilities: Entry Supervisors

1. Use of Authorized Entrants and Attendants – The *Entry Supervisors* shall identify *Authorized Entrants* and/or *Attendants* who are expected to enter or attend to any of the *Permit-Required Confined Spaces (PRCS)* shown in Appendix B under their administrative control and ensure that they complete the appropriate level of confined space training as outlined in Appendix F of this program.

NOTE: Any person who discovers a location that meets this program's definition of a *Permit-Required Confined Space (PRCS)* but is not listed on the inventory shown in Appendix B shall notify the Environmental Health and Safety Office as soon as possible.

The *Entry Supervisors* shall ensure that their *Authorized Entrants* and *Attendants*

know the potential hazards associated within a specific *PRCS*, are able to recognize the signs, symptoms and consequences of potential hazard exposures in the *PRCS* to be entered, and are instructed that all entries into *PRCS* are performed in compliance with applicable sections of this program.

The *Entry Supervisors* shall ensure that during an entry, *Attendants* are located outside the *PRCS* to monitor the status of *Authorized Entrants* to watch for hazards that may arise in and around the space, keep unauthorized employees away from the space and promptly summon rescue services in the event of an emergency.

2. Required Use of the Written SAFE ENTRY PERMIT FORM - Before workers are allowed to enter and work in any *Permit-Required Confined Space*, the *Entry Supervisors* shall ensure that acceptable entry conditions are verified in writing using the "Safe Entry Permit Form" as shown in Appendix C. The procedures shall specify the proper methods and equipment necessary to conduct the entry operation in a safe manner.

A Special Hot Work Permit shown in Appendix C-1 must also be filled out by the *Entry Supervisor* whenever welding, torch cutting and grinding are performed in a *confined space*.

3. Use of Alternative Procedures to Enter Permit-Required Confined Spaces - The *Entry Supervisors* shall ensure that when a *Permit-Required Confined Space* has been found to have an actual or potential hazardous atmosphere as its **only single** hazard, *alternative procedures*³ for worker entry may be used and full implementation of this program shall NOT be required. In each such case, however, the *Entry Supervisors* shall ensure that an "Alternative Procedures Work Sheet" as shown in Appendix D has been completed in writing and is followed.

4. Reclassification Procedures - The *Entry Supervisors* shall ensure that when allowing employee entries into any *Permit-Required Confined Space* where **total elimination** of all its hazards can be accomplished, such spaces are eligible to be

³. It has been determined that it is not always necessary to require a full permit entry program where the **ONLY hazards** are atmospheric in nature and if the employer can demonstrate that the hazard can be controlled with continuous forced air ventilation alone. Historically, some industries such as telecommunications have successfully protected employees from atmospheric hazards in work spaces through testing and continuous ventilation, without following all the requirements stated in OSHA's confined space standard (29 CFR 1910.146). Accordingly, OSHA has decided to allow employers, under certain conditions, to control atmospheric hazards within a Permit-Required Confined Space following specific **alternative procedures** that are spelled out in paragraph (c)(5)(i) and (c)(5)(ii) in lieu of compliance with paragraphs (d) through (f) and (h) through (k). The only requirements from the full Permit-Required Confined Space program that would apply are the training requirements in paragraph (g).

temporarily reclassified⁴ as a Non-Permit Confined Space (NPCS). In each such case, the Heads of the departments listed above shall ensure that a “Reclassify Permit-Required Confined Space Work Sheet”⁵ as shown in Appendix E has been completed and is followed. These procedures specify the proper methods and equipment necessary to conduct the entry operation in a safe manner and yet without the need of full implementation of this Permit-Required Confined Space Program.

5. Prevention of Unauthorized Entry (Posting Requirements and Signs) – The *Entry Supervisors* shall inform and warn exposed or potentially exposed employees or other persons of the existence of *Permit-Required Confined Spaces* under their administrative control by Posting each entry to the *Permit-Required Confined Space* with a sign with the following wording (or similar and equally effective language):

DANGER
CONFINED SPACE
ENTER BY PERMIT ONLY
CALL 426-1409 FOR ASSISTANCE

IMPORTANT: Where it is not practical or advisable to post signs at the entrance to a space (e.g., underground utility access vault covers or steam tunnel entrance covers on sidewalks), other equally effective means of access prevention shall be employed including but not limited to the use of barriers, locks or opening of covers with special tools, or supplemental training.

6. Equipment and Instrumentation - The *Entry Supervisors* shall ensure that all

⁴. A *Permit-Required Confined Space* may be **reclassified to a Non-Permit Confined Space** (NPCS) if there are no existing or potential atmospheric hazards AND if all other hazards within the space are totally eliminated without workers entering into the space. The *reclassification* would be valid as long as the non-atmospheric hazards remain eliminated.

Permit-Required Confined Spaces that do contain hazardous atmospheres can still be reclassified as a **Non-Permit Confined Space** (NPCS) if the space is isolated, purged and ventilated to ELIMINATE the hazard. The elimination of an existing or potential hazardous atmosphere must be verified by testing the atmosphere and inspecting the interior conditions of the space. Also, if the space must be entered for air testing and interior inspection to ensure that the hazards have indeed been eliminated, then this entry must be conducted in accordance with the full permit space program requirements.

By contrast, if the hazardous atmosphere can be only controlled rather than *removed or eliminated*, an entrant could be injured upon failure of the ventilation exhaust system. For example, during hot work in a space, the *control* of atmospheric hazards with forced air ventilation is different than elimination of the hazard because air contaminants may continue to be generated. Forced air ventilation may *control* the hazard but does not constitute its *elimination*. If the forced air ventilation is terminated, the hazardous atmosphere may return.

⁵. OSHA requires employers who desire to reclassify a permit confined space to provide written certification which includes documentation to substantiate that all hazards have been eliminated; the date of the certification; the location of the space; and signature of the individual certifying the elimination of the hazards.

employees under their administrative control who are permitted to enter any *Permit-Required Confined Space* properly use all equipment and instruments needed for safe entry into such spaces and that such equipment and instruments are maintained in proper working condition. Instructions on the use, calibration and maintenance of atmospheric testing instruments shall be obtained from the Environmental Health and Safety Office and from Appendix G.

- a. Be informed that entry into BSU's *Permit-Required Confined Spaces* is allowed only through compliance with a program meeting the requirements of this section;
- b. Be informed of the *Permit-Required Confined Space* hazards identified and the University's experience with the space;
- c. Be informed of any precautions or procedures that the University has implemented for the protection of employees in or near *Permit-Required Confined Spaces* where contractor personnel shall be working;
- d. Coordinate entry operations with the University when both BSU personnel and contractor personnel shall be working in or near *Permit-Required Confined Spaces*;
- e. Be debriefed at the conclusion of the entry operations regarding the *Permit-Required Confined Space* program followed and regarding any hazards confronted or created in these spaces during entry operations.

8. Rescue Services - The *Entry Supervisors* shall ensure that employees under their administrative control use appropriate rescue equipment and services as outlined in Appendix H of this program when required to enter a *Permit-Required Confined Space* with hazards that cannot be eliminated or controlled⁶. Rescue/extrication equipment and services must be in place before any entry into a *Permit-Required Confined Space* is allowed and all such equipment and services must be used at all times while employees are in the *Permit-Required Confined Space*.

⁶. As set forth in this program, a Permit-Required Confined Space can be *re-classified* as a non permit-required confined space (NPCS) or an entry can be made using *alternative procedures* if certain conditions are strictly followed and documented in writing. In such cases, rescue services and equipment may not be required for personnel to enter the space. However, if any employee enters a PRCS when its hazards cannot be eliminated OR entry is required to verify the elimination of its hazards, then a full compliance with this PRCS program is needed that includes provision of rescue services.