

# Permit Required Confined Space Entry Program

## Purpose

The purpose of this program is to inform employees, that Virginia State University is complying with the OSHA Confined Space Standard, Title 29 Code of Federal Regulations 1910.146. We have determined that the Virginia State University needs written procedures for the evaluation of confined spaces, and where permit-required spaces are identified, we have developed and implemented a permit-required confined space entry program. This program applies to all work operations at the University where employees must enter a permit-required confined space as part of their job duties.

The safety office has overall responsibility for coordinating safety and health programs at the University. The shop supervisors have the overall responsibility for the Permit-Required Confined entry. Shop supervisor will review and update the program along with the safety department, annually or as necessary.

Under this program, we identify permit-required spaces at the University, and provide training for our employees according to their responsibilities in the permit space. These employees receive instructions for safe entry into specific types of confined spaces, including testing and monitoring, appropriate personal protective equipment, rescue procedures, and attendant responsibilities. This program is designed to ensure that safe work practices are utilized during all activities regarding the permit space to prevent personal injuries and illnesses that could occur.

If, after reading this program, you find that improvements can be made, please contact the safety office or your shop supervisor. We encourage all suggestions because we are committed to creating a safe workplace for all our employees and a safe and effective permit-required confined space entry program; it is an important component of our overall safety plan. We strive for clear understanding, safe work practices, and involvement in the program from every level of involvement.

## Definition of a Confined Space

A confined space as defined by OSHA is:

- A space large enough to be entered
- Has limited means of entry and exit; and
- Is NOT designed for continuous employee occupancy

## Hazard Evaluation for Permit Spaces

To determine if there are permit-required confined spaces at Virginia State University, the safety office has conducted a hazard evaluation on campus. This evaluation has provided us with the information necessary to identify the existence and location of permit-required confined spaces on our campus that must be covered by the Permit-Required Confined Space Entry Program. This written hazard evaluation is kept at Police and Public Safety building.

## **Preventing Unauthorized Entry**

To provide a safe work environment and to prevent employees from accidentally entering a permit space, we have implemented the following procedures to inform all employees of the location, and danger posed by permit spaces at the University. To inform employees of the existence of a permit space, we post all areas with applicable signs and notifications ensuring that unauthorized employees do not enter and work in permit spaces.

### **DANGER**

### **PERMIT-REQUIRED CONFINED SPACE DO NOT ENTER**

#### **Safe Permit Space Entry Procedures**

The shop supervisor is the Entry Supervisor responsible for authorizing entry and issuing entry permits for work at VSU permit spaces. The file of permits and related documents are kept in the Confined Space Entry Log book. The procedures we follow for preparing, issuing, and canceling entry permits includes the following elements:

- Evaluate the need to enter such a space
- Contact shop supervisor and advise of necessity
- Shop supervisor will contact safety office for evaluation and monitoring, (O<sub>2</sub>, LEL, H<sub>2</sub>S, CO)
- Shop supervisor will generate Confined Space Permit
- All equipment will be staged and erected
- Safety office will contact Chesterfield Fire Dept. and VSU Police Dept. to notify them of entry and location, and activate standby conditions for rescue.
- Safety will monitor air sampling evaluations, noting on permit findings, monitor serial #, calibration date.
- Safety will verify all equipment in place and in good condition.
- Shop supervisor will verify Lock Out / Tag Out
- Shop Supervisor will assign an attendant
- Shop Supervisor will verify all paper work to be valid and in order.
- Shop Supervisor will notify safety office upon completion of work
- Shop Supervisor will post original copy of permit in Confined Space Entry Log Book located in the Safety Office.
- Shop Supervisor will verify all entry's are out and in good health
- Safety office will notify Chesterfield Fire Dept. and VSU Police Dept. upon Completion of tasks and area has been resecured.

### **Pre-Entry Evaluation**

To ensure the safety and health of VSU employees, before allowing authorized workers to enter a permit space, we evaluate conditions in that space to determine if the conditions are safe for entry. Any employee, who enters the space, or that employee's authorized representative, has the opportunity to observe the pre-entry and any subsequent testing. The authorized entrant or that employee's representative also has the option of requesting a reevaluation of the space if they feel that the evaluation was not adequate.

Virginia State University follows the procedures to evaluate each permit space before entry according to 1910.146(c)(5)(ii)(C). This includes testing the internal atmosphere with a calibrated direct-reading instrument for oxygen content, flammable gases and vapors, and potential toxic air contaminants. We also periodically test the atmosphere of the space to ensure that the continuous ventilation is preventing the accumulation of a hazardous atmosphere.

### **Certification**

According to 1910.146(c)(5)(ii)(H), Virginia State University verifies that the space is safe for entry and that the pre-entry measures required by 1910.146(c)(5)(ii) have been taken. A written certification that contains the date, location of the space, and signature of the person providing the certification will be visible during the time of actual entry. Virginia State University is responsible for verifying these procedures. The certification is made before entry and is available to each employee entering the space.

According to 1910.146(c)(5)(iii), Virginia State University documents the basis for determining that all hazards in a permit space have been eliminated, through a certification that contains the date, location of the space, and signature of the person making the determination. The University is responsible for documenting this information. The certification is available to each employee entering the space.

### **Equipment**

To ensure the safety and health of our employees, the University provides appropriate equipment to all employees who work in or near our permit spaces. According to 1910.146(k)(3)(i), each authorized entrant will use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level.

We maintain all equipment in excellent working condition, train the entrants in the correct usage of this equipment, and ensure that all equipment, including that used for personal protection, is used properly.

#### **Duties: Authorized Entrants**

Those persons who have completed the training and are authorized to enter our permit spaces (authorized entrants) are assigned specific duties and responsibilities which they must perform when they work in the permit space.

The elements covered in the training program for authorized entrants include:

- All personnel involved in the entry into a permit-confined space shall receive appropriate training.
- The requirements of this program and the conditions that must be met for entry into a confined space
- The conditions or work practices that may produce a hazard in a permit confined space that may require the space to be reevaluated.
- Hazard recognition including information on the mode, signs and symptoms and consequences of an exposure.
- The use of personnel protective equipment including rescue harnesses, respiratory equipment (only certified personnel) and so forth.
- Entry procedures and precautions to include:

1. Maintaining communication with the attendant as necessary to enable the attendant to monitor status and to enable the entrants of the need to evacuate the space;

. Alerting the attendant whenever:

a.) The entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or

b.) The entrant detects a prohibited condition.

- Requirements to evacuate whenever so ordered by the entry supervisor or attendant, whenever the entrant recognizes any warning sign or symptom of exposure to a dangerous situation, if the entrant detects a prohibited condition, or whenever an evacuation alarm is activated.
- Emergency and non-entry rescue methods, and procedures for calling rescue services.
- Duties: Attendants

Those persons who have completed the training and have been designated as permit space attendants are assigned specific duties and responsibilities, which they must perform in, permit space job duties.

- Their duties and responsibilities include:
  - Continuously maintain an accurate count of authorized entrants in the permit space and ensure that the means used to identify authorized entrants are accurate.
  - Remain outside the permit space during entry operations until relieved by another attendant.
  - Communicate with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space.
  - Monitor 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:

1. If the attendant detects a dangerous condition,
2. If the attendant detects behavioral effects of a hazard exposure with the authorized attendants,
3. If the attendant detects a situation outside the space that could endanger the authorized entrant
4. If the attendant can not effectively and safely perform the requirements of this section.

The elements covered in the training program for permit space attendants includes:

- The attendant shall receive all the training detailed above as an authorized entrant as well as the following training,
- Hazards that may be faced during entry.
- Possible behavior effects of hazard exposure in authorized entrants.

Duties: Entry Supervisors

Those persons who have completed the training and have been designated as permit space entry supervisors are assigned specific duties and responsibilities, which they must perform in, permit space job duties. Their duties and responsibilities and training are to include:

- Know the hazard(s) that may be faced during entry, including information on the mode signs or symptoms and consequences of the exposure. This information will be contained on the Permit-Confined Space permit form for the space in question.
- Verify, by checking that the appropriate entries have been made on the permit and that all air monitoring has been performed as well as all procedures followed and equipment in place as specified before endorsing permit.
- Terminate the entry and cancel the permit when the operations covered by the entry permit have been completed or a condition that is not allowed under the entry permit arises in or near the permit space.
- Verify with the VSU Safety office that rescue services are available and that the means for summoning them are operable
- Remove unauthorized entrants
- Upon completion of tasks notify Safety office
- File original permit with the Safety office into Confined Space Logbook
- Make a copy for shop records
- The entry supervisor shall receive training as for attendants above, and additional training as required to evaluate confined space hazards.

### **Training Program**

Every employee at the University who faces the risk of confined space entry is provided with training so that each designated employee acquires the understanding, knowledge and skills necessary for the safe performance of the duties assigned to them. The Safety office reviews the permit-required confined space training.

New employees are always trained before their initial assignment of duties. When changes occur in permit-required confined space areas additional training will be provided. Training will also be reevaluated upon request of any involved employee as requested. Upon successful completion the permit-required confined space training program, each participant receives a wallet card which they sign verifying that they understand the material presented, and that they will follow all company policies and procedures regarding permit space entry.

### **Rescue and Emergency Services**

Virginia State University utilizes Chesterfield Fire Dept. to perform rescue and emergency services in the event of a permit space incident. To familiarize this service with our facility and emergency needs, we provide access to all permit spaces from which rescue may be necessary so the rescue team can develop appropriate rescue plans and practice rescue operations. We also inform the rescue team of the hazards they may confront when called on to perform rescue at the site.

### **Multiple Employer Entry Procedures**

When outside employers/contractors enter our facility to perform work in permit spaces, we coordinate entry and work operations. All contractors and subs will follow all applicable and preceding requirements while performing duties at the University.

### **Post-operations Procedures**

Upon completion of work in a permit space, we follow these procedures to close off the space and cancel the permit:

- Contact safety for final closure
- Safety will notify rescue of completion and termination of support.
- All barriers and warnings will be removed
- Covers, doors and closures will be secured
- Signs re-hung at entry point for notification

### **Review-Procedures**

To ensure that all employees participating in entry operations are protected from permit space hazards, Virginia State University reviews the Permit-Required Confined Space Entry Program on a regular basis. We use the retained canceled permits from the past 12 months within one year after each entry and revise the program as necessary. The University performs a single annual review covering all entries performed during a 12-month period. If no entry is performed during a 12-month period, no review will be performed.

### **Enforcement**

Constant awareness of and respect for permit-required confined space entry hazards, and compliance with all safety rules are considered conditions of employment. Supervisors and individuals in the Safety and Human Resource's Department reserve the right to issue disciplinary warnings to employees.

# Virginia State University

## Confined Space Entry Permit

(All copies must remain at entry site until operation is complete)

Date of Entry: \_\_\_/\_\_\_/\_\_\_ Location: \_\_\_\_\_

Time of Entry: \_\_\_\_\_

Expiration: \_\_\_\_\_

### TESTS TO BE TAKEN PRIOR TO ENTRY

ALL READINGS ARE VALID FOR 8 HOUR PERIODS ONLY

Test	PEL	Yes/No	Results	Initials	Date/Time
Oxygen	Entry Level >19.5% & <23.5%				
%LEL	<10%				
CO	<50ppm				
Hyd. Sulfide	<10ppm				
Other (if _____)					

### Testing and Monitoring Equipment Used

Model Number \_\_\_\_\_ Calibration \_\_\_\_\_

Date \_\_\_\_\_

Special Requirements Y/N Employee Installing Initials Date/ Time Comments

Lockout / Tagout

Lines Capped

Purge – FI/V

Ventilation

Secured Area

Hot Work Permit

Supervisor in charge of Operation: \_\_\_\_\_

Department: \_\_\_\_\_ Phone: \_\_\_\_\_

Entry Attendant: \_\_\_\_\_

### AUTHORIZED ENTRANTS

\*IN THE EVENT OF AN EMERGENCY DIAL 911 &

VSU Police and Public Safety – 524 5411

\*\*\*TASKS COMPLETE AND SAFETY BRIEFING COMPLETE \*\*\*

Signature of Supervisor Authorizing Entry: \_\_\_\_\_

Date / Time: \_\_\_\_\_

AREA HAS BEEN RETURN TO NORMAL OPERATION AND CONFINED

SPACE SECURED

Signature: \_\_\_\_\_ Date / Time \_\_\_\_\_