

PERMIT REQUIREMENTS CONFIDENTIAL RISK ASSESSMENT AND MITIGATION PLAN

- 3) has an internal configuration such that it could be tripped or actuated by falling objects, falling walls or by other means such as high steam pressure and tapping of steam lines.
- 4) contains any equipment that poses a safety or health hazard (i.e. electrical equipment, etc.)

List of space

Permit required

- Eastern Energy Plant
- HTHW Boilers A&B
- Cooling Tower Condensate Water Pit
- Water pit for HWC pool
- Amman- Sewage treatment plant-

PERMIT REQUIRED CONFINED SPACE PLAN

Caumsett Hall Utility Tunnels to Cottages

Sewer Pit at Nesconset Hall South

Sewer Pits around the Campus: 2 places in Parking Lot #1, 3 in Parking Lot #2, 2 in Parking Lot #4

PERMIT REQUIRED CONFINED SPACE PLAN

IV. Permit Required Confined Space Entry Procedures

Responsibilities

College

- Ensure confined space assessments have been conducted
- Ensure all permit required confined spaces are posted near entry point
- Annually review this program and all Entry Permits

Contractors

- Evaluate Rescue Teams/Service to ensure they are adequately trained and prepared
- Ensure rescue team at access during entry into spaces with IDLH Atmospheres

PERMIT REQUIRED CONFINED SPACE PLAN

Thermal / Chemical Burns
Noise & Vibration

Hazard Control

Engineering Controls

Temporary ventilation
Temporary Lighting

Administrative Controls

Signs
Employee training
Entry procedures
Atmospheric Monitoring
Rescue procedures
Use of prescribed PPE

Permit Required Confined Space Entry General Rules

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 on College property
3. During Confined Space Entries, attendant must be present at all times.
4. Constant visual or voice communication will be maintained between the Safety Watchmen and Employees entering a Confined Space.
5. No bottom or side entry will be made or work conducted below the level any hanging material or material which could cause engulfment.
6. Atmosphere monitoring is required before entering any Permit-Required Confined Space. Oxygen levels in a Confined Space must be between 19.5 and 23.5 percent. Oxygen levels below 19.5% 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). Record pre-entry levels on permit.
7. To prevent injuries to others, all floor entrances to Confined Spaces will be protected by a barricade when covers are removed.

Confined Space Entry Procedures

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

- Understand the procedures for confined Space Entry
- Know the Hazards of the specific space
- Review the specific procedures for each entry
- Understand how to use entry and rescue equipment

Confined Space Entry Permits

Confined Space Entry Permits must be completed before any employee enters a Permit-

PERMIT REQUIRED CONFINED SPACE PLAN

Contractor Entry

All work by non-college employees that involves the entry into confined spaces will follow the procedures of this program. 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.

Training

Training for Confined Space Entry includes:

- Duties of Entry Supervisor, Entrant and Attendants
- Confined Space Entry permits
- Hazards of Confined Spaces
- Use of Air Monitoring Equipment
- First Aid and CPR Training
- Emergency Action & Rescue Procedures
- Confined Space Entry & Rescue Equipment
- Rescue training, including entry and removal from representative spaces

Confined Space Hazards

Flammable Atmospheres

A flammable atmosphere generally arises from enriched oxygen atmospheres, vaporization of

PERMIT REQUIRED CONFINED SPACE PLAN

ignite a flammable atmosphere. These sparks may also cause explosions when the right air or oxygen to dust or gas mixture is present.

Toxic Atmospheres

The substances to be regarded as toxic in a confined space can cover the entire spectrum of gases, vapors, and finely divided airborne dust in industry. The sources of toxic atmospheres encountered may arise from the following:

The sewage treatment process

The product stored [removing decomposed organic material from a tank can liberate toxic substances, such as hydrogen sulfide (H₂S)].

The operation performed in the confined space (for example, welding or brazing with metals capable of producing toxic fumes).

Chemical reactions or use in pool pit.

During loading, unloading, formulation, and production, mechanical and/or human error may also produce toxic gases which are not part of the planned operation.

Carbon monoxide

Carbon monoxide (CO) is a hazardous gas that may build up in a confined space. This odorless, colorless gas that has approximately the same density as air is formed from incomplete combustion of organic materials such as wood, coal, gas, oil, and gasoline; it can be formed from microbial decomposition of organic matter in sewers, silos, and fermentation tanks. Carbon monoxide is an insidious toxic gas because of its poor warning properties. Early stages of CO intoxication are nausea and headache. Carbon monoxide may be fatal at 1000 ppm in air, and is considered dangerous at 200 ppm, because it forms carboxyhemoglobin in the blood which prevents the distribution of oxygen in the body.

It must be noted that a safe reading on a combustible gas indicator does not

PERMIT REQUIRED CONFINED SPACE PLAN

oxygen level at 21% by volume, the body can tolerate deviation from this ideal. When the oxygen level falls to 17%, the first sign of hypoxia is deterioration of night vision which is not noticeable until a normal oxygen concentration is restored. Physiologic effects are increased breathing volume and accelerated heartbeat. Between 14-16% physiologic effects are increased breathing volume, accelerated heartbeat, very poor muscular coordination, rapid fatigue, and intermittent respiration. Between 6-10% the effects are nausea, vomiting, inability to perform, and unconsciousness. At less than 6%, spasmodic breathing, convulsive movements, and death in minutes.

Mechanical Hazards

If activation of electrical or mechanical equipment would cause injury, each piece of equipment should be manually isolated to prevent inadvertent activation before workers enter or while they work in a confined space. The interplay of hazards associated with a confined space, such as the potential of flammable vapors or gases being present, and the build-up of static charge due to mechanical cleaning, such as abrasive blasting, all influence the precautions which must be taken.

To prevent vapor leaks, flashbacks, and other hazards, workers should completely isolate the space. To completely isolate a confined space, the closing of valves is not sufficient. All pipes must be physically disconnected or isolation blanks bolted in place. Other special precautions must be taken in cases where flammable liquids or vapors may re-contaminate the confined space. The pipes blanked or disconnected should be inspected and tested for leakage to check the effectiveness of the procedure. Other areas of concern are steam valves, pressure lines, and chemical transfer pipes.

PERMIT REQUIRED CONFINED SPACE PLAN

Whole body vibration may affect multiple body parts and organs depending upon the vibration characteristics. Segmental vibration, unlike whole body vibration, appears to be more localized in creating injury to the fingers and

PERMIT REQUIRED CONFINED SPACE PLAN

***SUFFOLK COUNTY COMMUNITY COLLEGE
PLANT OPERATIONS DEPARTMENT***

The undersigned, as a duly authorized representative of the contractor specified below, state that I have been informed by the Director of Plant Operations, or his designee, that the workplace has Permit Required Confined Spaces and entry is allowed, only, through compliance with a permit space program meeting the requirements of §29 CFR 1910.146.

I have been apprised of the hazards and/or potential hazards identified by the College for each Permit Required Confined Space my employees will enter. I have also been apprised that the College has implemented procedures prohibiting its employees from entering Permit Required Confined Spaces. I further agree to debriefing by the Director of Plant Operations, or his designee, regarding any hazards confronted, created, or eliminated in the permit spaces.

LOCATION

PRINT NAME

DATE

CONTRACTOR NAME

SIGNATURE

PERMIT REQUIRED CONFINED SPACE PLAN

10.	Test(s) To Be Taken	Permissible Entry Levels	Test 1	Test 2	Test 3	Test 4
A.	Percent of Oxygen	19.5% to 23.5%				
B.	Flammable Atmosphere	10% or less LFL				
C.	Toxic Atmosphere Exposure	At or below PEL				
D.						
E.						