

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

PERMIT REQUIRED

CONFINED SPACE PLAN



Version 1.1A

June 2019

PERMIT REQUIRED CONFINED SPACE PLAN

I. GENERAL

SUFFOLK COUNTY COMMUNITY COLLEGE is committed to providing all staff with a safe and healthy working environment. In pursuit of this endeavor, the following Permit Required Confined Space Written Program has been developed. The program identifies any permit required confined spaces (PRCS) within the College and contains procedures and measures for the elimination or control of hazards associated with permit required confined space operations. The program has been developed in accordance with the Occupational Safety and Health Administration's (OSHA) Permit Required Confined Space Standard, Title 29, Code of Federal Regulations 1910.146.

II. RESPONSIBILITIES

- A. **OVERALL PROGRAM RESPONSIBILITIES:** The Assistant Director of Public Safety for Environmental Health is responsible for the overall implementation and maintenance of any written program or any clarification of the requirements set forth by the Permit Required Confined Space Standard within our College.
- B. **PERMIT SPACE EVALUATION:** The Campus Director of Plant operations in association with the Assistant Director of Public Safety for Environmental Health is responsible for evaluating the workplace to determine if any permit spaces are present.
- C. **CONTRACTOR NOTIFICATION:** Campus Director of Plant Operations will insure that contractors and College employees are aware of the Permit Required Confined Space Program. Contractors will be provided a copy of the College's plan.

III. PERMIT SPACE IDENTIFICATION

The Assistant Director of Public Safety for Environmental Health has evaluated the College's workplaces and determined permit required confined spaces do exist. Confined Spaces also exist. The following guidelines were used to assist in the determination and identification of areas in question:

A confined space is a space which:

- 1) is large enough and so configured that an employee can bodily enter and perform assigned work; and
- 2) has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and
- 3) is not designed for continuous employee occupancy.

A permit required confined space is a confined space that has one or more of the following characteristics:

- 1) contains or has potential to contain a hazardous atmosphere;
- 2) contains a material that has the potential for engulfing an entrant;

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- 3) has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross section; or
- 4) contains any other recognized serious safety or health hazard (i.e. electrical, mechanical, etc.)

List of spaces:

Permit required confined spaces

Eastern- Central Energy Plant

- HTHW Boilers A&B
- Cooling Tower Condenser Water Pit
- Water pit for HWC pool

Ammerman- Sewage treatment plant- vault

Babylon Student Center- Electrical Vault

Grant-

1. Back Flow Preventer Vaults main water service:
 - a. College Rd Entrance
 - b. Crooked Hill Rd Entrance
2. Sewer Discharge Pit at intersection of college Rd & Crooked Hill Road
3. Work Force Development Building:
 - a. Fire Protection Shut off valve pit/vault
 - b. Main water shut off valve/back flow pit/vault
4. Health Sports Center – Swimming pool pump pit & Skimmer Valve/Surge Tank

Confined Spaces

Eastern- Electrical vaults

Manholes

- HTHW 1-8
- Chilled Water 1-8
- Signal 1-8
- Telephone 1-8
- Electric Vaults 1-8
- Sanitary
- Storm Drains

-Chemical mixing pit for HWC Pool

Grant-

- Captree RPZ (Water Service) pit West Side
- College Rd. Entrance RPZ (Water Service) pit
- Caumsett South Side RPZ (Water Service) pit
- Pool Skimmer Cycle Valve Pit, off pool deck in West Equipment Rm.
- Pool Main Pump Pit, off pool deck in East Equipment Rm.
- Sagtikos 3rd Floor HVAC Room

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- 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

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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
- Have a Rescue/Response Plan in place before any person enters the confined space.

Employees

- Follow program requirements
- Report any previously un-identified hazards associated with confined spaces

Entry Supervisor

Entry supervisors are 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:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure
- 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
- Terminate the entry and cancel the permit when the entry is complete and there is a need for terminating the permit
- Verify that rescue services are available and that the means for summoning them are operable
- Remove unauthorized persons who enter or attempt to enter the space during entry operations
- 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.

Entry Attendants

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

- To know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure
- To be aware of possible behavioral effects of hazard exposure on entrants
- To continuously maintain an accurate count of entrants in the permit space and ensures a means to accurately identify authorized entrants and records information on permit.
- 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).

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- To communicate with entrants as necessary to monitor entrant status and alert entrants of the need to evacuate.
- 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.
- To summon rescue and other emergency services as soon as the attendant determines the entrants need assistance to escape the permit space hazards.
- To perform non-entry rescues as specified by that rescue procedure and entry supervisor
- Not to perform duties that might interfere with the attendants' primary duty to monitor and protect the entrants.
- To take the following action when unauthorized persons approach or enter a permit space while entry is under way:
 - Warn the unauthorized persons that they must stay away from the permit space,
 - Advise unauthorized persons that they must exit immediately if they have entered the space, and
 - Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.

Entrants

All entrants must be authorized by the entry supervisor to enter permit spaces, have received the required training, used the proper equipment, and observes the entry procedures and permit. The following entrant duties are required:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- Properly use the equipment required for safe entry;
- 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;
- Alert the attendant whenever; the entrant recognizes any warning signs or symptoms of exposure to a dangerous situation, or any prohibited condition is detected; and
- 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.

Hazards

Explosive / Flammable Atmospheres
Toxic Atmospheres
Engulfment
Asphyxiation
Entrapment
Slips & falls
Chemical Exposure
Electric Shock

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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-Required Confined Space. The permit must be completed and signed by an authorized member of management before entry. 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 by Plant Operations.

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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 flammable liquids, byproducts of work, chemical reactions, concentrations of combustible dusts, and desorption of chemical from inner surfaces of the confined space. An atmosphere becomes flammable when the ratio of oxygen to combustible material in the air is neither too rich nor too lean for combustion to occur. Combustible gases or vapors will accumulate when there is inadequate ventilation in areas such as a confined space. Flammable gases such as acetylene, butane, propane, hydrogen, methane, natural or manufactured gases or vapors from liquid hydrocarbons can be trapped in confined spaces, and since many gases are heavier than air, they will seek lower levels as in pits, sewers, and various types of storage tanks and vessels. In a closed top tank, it should also be noted that lighter than air gases may rise and develop a flammable concentration if trapped above the opening. The byproducts of work procedures can generate flammable or explosive conditions within a confined space. Specific kinds of work such as spray painting can result in the release of explosive gases or vapors. Welding in a confined space is a major cause of explosions in areas that contain combustible gas. Chemical reactions forming flammable atmospheres occur when surfaces are initially exposed to the atmosphere, or when chemicals combine to form flammable gases. This condition arises when dilute sulfuric acid reacts with iron to form hydrogen or when calcium carbide makes contact with water to form acetylene. Other examples of spontaneous chemical reactions that may produce explosions from small amounts of unstable compounds are acetylene-metal compounds, peroxides, and nitrates. In a dry state, these compounds have the potential to explode upon percussion or exposure to increased temperature. Another class of chemical reactions that form flammable atmospheres arise from deposits of pyrophoric substances (carbon, ferrous oxide, ferrous sulfate, iron, etc.) that can be found in tanks used by the chemical and petroleum industry. These tanks containing flammable deposits will spontaneously ignite upon exposure to air. Combustible dust concentrations are usually found during the process of loading, unloading, and conveying grain products, nitrated fertilizers, finely ground chemical products, and any other combustible material. High charges of static electricity, which rapidly accumulate during periods of relatively low humidity (below 50%), can cause certain substances to accumulate electrostatic charges of sufficient energy to produce sparks and

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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 ensure that CO is not present. Carbon monoxide must be tested for specifically. The formation of CO may result from many different chemical reactions or work activities.

In welding operations, oxides of nitrogen and ozone are gases of major toxicologic importance, and incomplete oxidation may occur and carbon monoxide can form as a byproduct.

Asphyxiating Atmospheres

The normal atmosphere is composed approximately of 20.9% oxygen and 78.1% nitrogen, and 1% argon with small amounts of various other gases. Reduction of oxygen in a confined space may be the result of either consumption or displacement.

The consumption of oxygen takes place during combustion of flammable substances, as in welding, heating, cutting, and brazing. A more subtle consumption of oxygen occurs during bacterial action, as in the fermentation process. Oxygen may also be consumed during chemical reactions as in the formation of rust on the exposed surface of the confined space (iron oxide). The number of people working in a confined space and the amount of their physical activity will also influence the oxygen consumption rate.

A second factor in oxygen deficiency is displacement by another gas. The total displacement of oxygen by nitrogen will cause immediate collapse and death. Carbon dioxide and argon, with specific gravities greater than air, may lie in a tank or manhole for hours or days after opening. Since these gases are colorless and odorless, they pose an immediate hazard to health unless appropriate oxygen measurements and ventilation are adequately carried out.

Oxygen deprivation is one form of asphyxiation. While it is desirable to maintain the atmospheric

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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.

Thermal Effects

Four factors influence the interchange of heat between people and their environment. They are: (1) air temperature, (2) air velocity, (3) moisture contained in the air, and (4) radiant heat. Because of the nature and design of most confined spaces, moisture content and radiant heat are difficult to control. As the body temperature rises progressively, workers will continue to function until the body temperature reaches approximately 102F. When this body temperature is exceeded, the workers are less efficient, and are prone to heat exhaustion, heat cramps, or heat stroke. In a cold environment, certain physiologic mechanisms come into play, which tend to limit heat loss and increase heat production. The most severe strain in cold conditions is chilling of the extremities so that activity is restricted. Special precautions must be taken in cold environments to prevent frostbite, trench foot, and general hypothermia.

Protective insulated clothing for both hot and cold environments will add additional bulk to the worker and must be considered in allowing for movement in the confined space and exit time. Therefore, air temperature of the environment becomes an important consideration when evaluating working conditions in confined spaces.

Noise

Noise problems are usually intensified in confined spaces because the interior tends to cause sound to reverberate and thus expose the worker to higher sound levels than those found in an open environment. This intensified noise increases the risk of hearing damage to workers which could result in temporary or permanent loss of hearing. Noise in a confined space that may not be intense enough to cause hearing damage may still disrupt verbal communication with the emergency standby person on the exterior of the confined space. If the workers inside are not able to hear commands or danger signals due to excessive noise, the probability of severe accidents can increase.

Vibration

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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 hands of workers using tools, such as pneumatic hammers, rotary grinders or other hand tools which cause vibration.

Other Hazards

Some physical hazards cannot be eliminated because of the nature of the confined space or the work to be performed. These hazards include such items as scaffolding, surface residues, and structural hazards. The use of scaffolding in confined spaces has contributed to many accidents caused by workers or materials falling, improper use of guard rails, and lack of maintenance to insure worker safety. The choice of material used for scaffolding depends upon the type of work to be performed, the calculated weight to be supported, the surface on which the scaffolding is placed, and the substance previously stored in the confined space. Surface residues in confined spaces can increase the already hazardous conditions of electrical shock, reaction of incompatible materials, liberation of toxic substances, and bodily injury due to slips and falls. Without protective clothing, additional hazards to health may arise due to surface residues.

Structural hazards within a confined space such as baffles in horizontal tanks, trays in vertical towers, bends in tunnels, overhead structural members, or scaffolding installed for maintenance constitute physical hazards, which are exacerbated by the physical surroundings. In dealing with structural hazards, workers must review and enforce safety precautions to assure safety.

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***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

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CONFINED SPACE ENTRY PERMIT

1.	Permit Space To Be Entered	
2.	Purpose of Entry	
3.	Date of Entry	Authorized Duration of Entry Permit
4.	Authorized Entrants	

5. Attendants(s) _____

6. Name of Current Entry Supervisor(s)	1.	Time
	2.	Time

Entry Supervisor who Originally Authorized Entry _____

				<i>Signature or Initials</i>	
7.	Record hazards of the permit space to be entered.			8.	Check or list the measures used to isolate the permit space and to eliminate or control permit space hazards before entry.
	Hazard	Yes	No	N/A	
	A. Lack of Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> A. Purge-Flush and Vent
	B. Combustible Gases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	C. Combustible Vapors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> B. Ventilation
	D. Combustible Dusts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	E. Toxic Gases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> C. Lockout/Tag Out
	F. Toxic Vapors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	G. Chemical Contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> D. Inerting
	H. Electrical Hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	I. Mechanical Exposure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> E. Blanking, Blocking, Bleeding
	J. Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	K. Engulfment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> F. External Barricades
	L. Entrapment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	M. Others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> G. Confined Space Identification/Signs
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> H. Other
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**DO NOT DESTROY THIS PERMIT
AFTER CANCELLATION THIS ENTRY PERMIT MUST BE RETAINED
BY EMPLOYER FOR AT LEAST ONE YEAR.
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9. Acceptable Entry Conditions _____

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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.					
F.					
G.					
H.					
I.					
Name or Initials of Tester					
Test Times					

11. Rescue and Emergency Services Available:

Name	Name
Telephone	Telephone

12. Communication procedures to be used by authorized entrants and attendants.

13. Equipment supplied to the employee.

Yes	No	N/A	Equipment	Description
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(i) Gas Test and Monitoring	Name Serial/Unit No.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(ii) Ventilating	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(iii) Communications	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(iv) Personal Protective Equipment	<input type="checkbox"/> Safety Harness <input type="checkbox"/> With Life Lines <input type="checkbox"/> Wristlets (if appropriate) <input type="checkbox"/> Respiratory <input type="checkbox"/> Hard Hats <input type="checkbox"/> Eye <input type="checkbox"/> Ear <input type="checkbox"/> Face <input type="checkbox"/> Hand <input type="checkbox"/> Foot <input type="checkbox"/> Clothing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(v) Lighting	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(vi) Barriers/ Shields	<input type="checkbox"/> Pedestrian <input type="checkbox"/> Vehicle <input type="checkbox"/> Other
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(vii) Safe Ingress/Egress	<input type="checkbox"/> Ladders
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(viii) Rescue and Emergency	<input type="checkbox"/> Lifelines <input type="checkbox"/> Hoists <input type="checkbox"/> Medical/First-aid
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(ix) Other Safety Equipment	

14. Other information for this particular confined space to ensure employee safety.

15. Additional Permits Required. Hot Work Other

THIS CONFINED SPACE ENTRY PERMIT HAS BEEN CANCELLED:

BY _____ AM PM _____
Entry Permit Supervisor Time Date