

**WFBMC ENVIRONMENTAL HEALTH & SAFETY /
ENGINEERING CONFINED SPACE PROGRAM**

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INTRODUCTION

POLICY

This policy establishes a Confined Space Program designed to protect Wake Forest Baptist Medical Center (WFBMC) Engineering Personnel from hazards associated with confined spaces in accordance with OSHA 29 CFR 1910.146.

PURPOSE

To provide confined space hazard information and procedures for evaluation and entry into a Permit Required Confined Space.

SPECIAL EMPHASIS

Confined Space Entry Permits for entry into Permit Required Confined Spaces are only available through Environmental Health and Safety (EH&S).

If a Permit Required Confined Space cannot be reclassified to a Non Permit Required Confined Space by eliminating the hazards prior to entry, then WFBMC Personnel will not be allowed to enter the space.

A Certified and Trained Confined Space Contractor will be contracted to enter the spaces that cannot be reclassified. These arrangements will be made and approved by Environmental Health & Safety and WFBMC Engineering.

SCOPE

This policy applies to all Medical Center facilities including satellite locations where there is need to perform preventive or corrective maintenance.

REGULATORY OVERVIEW

OSHA 29 CFR 1910.146	Permit Required Confined Space
OSHA Directive CPL 02-00-100 – CPL 2.100	Application of the Permit-Required Confined Space (PRCS) Standards, 29 CFR 1910.146

DEFINITIONS

Acceptable entry conditions - the conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter into and work within the space.

Attendant - an individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the employer's permit space program.

Authorized entrant - an employee who is authorized by the employer to enter a permit space.

Blanking or blinding - the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Confined space - a space that has the following three specific features:

- Is large enough and so configured that an employee can bodily enter and perform assigned work. Small machine enclosures and inspection portals are not confined spaces.
- 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.)
- Is not designed for continuous employee occupancy.

Double block and bleed - the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Emergency - any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.

Engulfment - the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

Entry - the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

Entry permit - the written or printed document that is provided by the employer to allow and control entry into a permit space.

Entry supervisor - the person responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations and for terminating entry as required.

- An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required for each role he fill and the duties of one activity do not conflict with the duties of the other. Also, the duties of entry supervisor may be passed from one individual to another during the course of an entry operation.

Hazardous atmosphere - an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

- Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
- Airborne combustible dust at a concentration that meets or exceeds its LFL;
 - This concentration may be approximated as a condition in which the dust obscures vision at a distance of 5 feet (1.52 m) or less.
- Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;
 - Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, Occupational Health and Environmental Control, or in Subpart Z, Toxic and Hazardous Substances, of this Part and which could result in employee exposure in excess of its dose or permissible exposure limit;
 - An atmospheric concentration of any substance that is not capable of causing death, incapacitation and impairment of ability to self-rescue, injury, or acute illness due to its health effects is not covered by this provision.
- Any other atmospheric condition that is immediately dangerous to life or health.
 - For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Material Safety Data Sheets that comply with the Hazard Communication Standard, section 1910.1200 of this Part, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

Hot work permit - the employer's written authorization to perform operations (for example, riveting, welding, cutting, burning, and heating) capable of providing a source of ignition.

Immediately dangerous to life or health (IDLH) - any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

- Some materials, hydrogen fluoride gas and cadmium vapor, for example may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim "feels normal" from recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be "immediately" dangerous to life or health.

Inerting - the displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

- This procedure produces an IDLH oxygen-deficient atmosphere.

Isolation - the process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

Line breaking - the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

Non-permit confined space - a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

Oxygen deficient atmosphere - an atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen enriched atmosphere - an atmosphere containing more than 23.5 percent oxygen by volume.

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

- Contains or has a potential to contain a hazardous atmosphere;
- Contains a material that has the potential for engulfing an entrant;
- 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
- Contains any other recognized serious safety or health hazard.

Permit-required confined space program (permit space program) – WFBMC program for controlling and where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

Permit system – written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

Prohibited condition - any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

Reclassified Permit Required Confined Space – a space in which poses no actual or potential (atmospheric and/or non-atmospheric) hazards or the hazards can be eliminated or the hazard can be eliminated and maintained through continuous forced air ventilation before entry into a space.

Rescue service - the personnel designated to rescue employees from permit spaces.

Retrieval system - the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

Testing - the process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.

- Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to, and during, entry.

ROLES AND RESPONSIBILITIES

A. ENVIRONMENTAL HEALTH AND SAFETY

- Maintain and provide annually review this Program with WFBMC Engineering.
- Develop and provide Confined Space Awareness Training.
- As appropriate, develop and provide training for entrants, attendants and supervisors.
- Provide safety, industrial hygiene expertise and regulatory guidance as required by program components.
- Issue permits for Permit Required Confined Space Entry and verifies the requirements and completion of the entry permit.
- Determine if acceptable entry conditions are present for reclassification of the Permit Required Confined Space.
- Determine that entry and work conditions remain consistent and safe conditions are maintained.
- Terminates entry and cancels entry permit whenever acceptable entry conditions are not present.
- Review and evaluate Contractor's Confined Space Program, qualifications, training and rescue procedures before contract is issued. Coordinate contract entry with WFBMC Engineering.
- Inform the contractor that the workplace contains confined spaces and that permit space entry is allowed only through compliance with a confined space program meeting the requirements of 29 CFR 1910.146, Permit Required Confined Spaces.
- Advise the contractor of any precautions of procedures that Engineering has implemented to protect employees in or around the confined space.
- Appraise the contractor of the element, including the hazards identified and the Engineering's experience with the space.
- Provide the contractor with the Entry Permit Form and require that it be completed. A completed copy of the form is to be given to Environmental Health and Safety to be kept on file.
- Debrief the contractor at the conclusion of the entry operations regarding the confined space and any hazards confronted or created in the space during entry.

B. WFBMC FACILITIES PLANNING

- Attend initial and annual Confined Space Awareness Training.
- Familiar with the potential hazards, consequences and behavioral effects of exposure during the entry and work.

C. WFBMC ENGINEERING

- Attend initial and annual Confined Space Awareness Training.
- Familiar with the potential hazards, consequence and behavioral effects of exposure during the entry and work.
 - Verifies that all personal protective equipment, communications equipment and procedures required for entry operations are in place and operational.
 - Verifies that communications (electronically, hand signals, etc.) are in place in the event of an emergency requiring assistance.
 - Prevents and remove unauthorized personnel from entry into a confined space.
- Ensures that the entrance to the confined space is properly closed and secured after all Entrants have exited and work is complete.
- Must be trained on equipment use and use equipment properly.
- Must communicate with the attendant.
- Must alert the attendant of hazards, signs of a dangerous situation, or a prohibited condition. A prohibited condition in a permit space is one that is not allowed by the permit during the period when entry is authorized.
- Ensure that the entrance to the confined space is properly closed and secured after all entrants have exited and work is complete.

D. CONTRACTORS

- The contractor will provide assurance of the contractor's confined space program, qualifications, training and rescue procedures prior to issuance of the contract.
- Follow all WFBMC Safety Requirements.
- Contact EH&S in the event of an injury or death.
- Contact EH&S in the event that OSHA arrives on the scene.

EVALUATION OF WORKPLACE

Environmental Health and Safety and WFBMC Engineering will evaluate the various confined spaces located throughout WFBMC facilities utilizing the flow chart in **APPENDIX A** to identify Permit Required Confined Spaces. The spaces identified as Confined Spaces and Permit Required Confined Spaces are listed in **APPENDIX B**.

The Permit Required Confined Spaces will be identified by posting signs or by any equally effective means, of the existence and location of and the danger posed. A sign stating "**DANGER - CONFINED SPACE ENTER BY PERMIT-ONLY,**" will be posted at the Permit Required Confined Spaces access port.



When a Permit Required Confined Space cannot be identified by posting a sign, then these spaces and their dangers will be communicated through training and this written program.

PREVENTING UNAUTHORIZED ENTRY

Steps shall be taken to prevent unauthorized entry into a Permit Required Confined Space. These steps shall include:

- Posting signs near permit spaces to notify employees of the potential hazards and allowing only authorized entrants to enter the Permit Required Confined Space.
- Training employees to recognize confined spaces and request authorization to enter.
- Erecting barriers and installing locks or covers at entrances to permit required spaces as necessary.

CONFINED SPACE ENTRY

A. CONFINED SPACE ENTRY PERMIT

Before entry can occur into a Permit Required Confined Space an Entry Permit Form (**APPENDIX C**) must be obtained from EH&S.

Once a Permit Form is obtained, it may be used to reclassify the space to a Non Permit Required Confined Space. If the Space cannot be reclassified, then WFBMC Personnel will not be allowed to enter the space.

If the space cannot be reclassified, then the work will be deferred to a qualified contractor.

B. RECLASSIFICATION OF PERMIT REQUIRED CONFINED SPACE

A space must be reclassified in order for WFBMC Personnel to enter the space.

A space may be reclassified as a Non Permit Confined Space under the following conditions.

1. The space poses no actual or potential (atmospheric or non-atmospheric) hazards.
2. The hazards can be eliminated.
3. The hazard can be eliminated and maintained through continuous forced air ventilation.

EH&S will document that the space has been reclassified from a Permit Required Confined Space to a Non Permit Required Confined Space using the Confined Space Entry Permit Form, **APPENDIX C, Section B and C**.

If hazards arise or introduced, (welding, painting, grinding, etc) within a Permit Required Confined Space that has been reclassified to a Non Permit Required Confined Space, each employee in the space will exit the space. Then, EH&S will reevaluate the space and determine whether it must be reclassified as a Permit Required Confined Space.

NOTE: APPENDIX D, E and F provide specific procedures to assist with reclassifying the sanitary and storm sewers at NRC and Piedmont Plaza I

C. SAFE ENTRY PRACTICES FOR RECLASSIFIED SPACES

Safe entry practices will include the following items.

- Completing the pre-entry checklist as each procedure is completed on the Confined Space Entry Permit, **APPENDIX C**.
- Power driven equipment that might affect the confined space must be made inoperable by lock out and tag out procedures in compliance with lockout tag out program.
- Provide barriers as necessary to protect entrants from external hazards (i.e.; barriers at manholes in roadway or walkway).
- Verify that the conditions in the reclassified permit-required space are acceptable for entry, work, and exit. Record all monitoring results on the entry permit.
- Identify the means of escape and rescue that will be used in the event of an emergency. This will include self rescue and coordination with an offsite rescue team. An escape route must be designated from the non permit required confined space and must be clear of any obstructions.
- Retrieval Systems, i.e, full body harness with a retrieval line should be worn to facilitate non entry rescue in vertical confined spaces greater than 5 feet.
- Wear appropriate Personal Protective Equipment.

NON ENTRY RESCUE EQUIPMENT

On site rescue capability is not necessary when a space has been reclassified as Non Permit Required Confined Space.

A rescue retrieval device must be deployed for non-entry rescue when personnel enter into vertical confined spaces more than **5 feet** deep unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant.

Retrieval systems shall meet the following requirements:

- Each authorized entrant shall use a full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, or above the entrant's head.
- The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

Non entry rescue equipment must be inspected before each use.

Equipment that exhibits damage (beyond normal wear and tear) that has the potential for affecting the safe, functional use or that equipment must be tagged as unusable and removed from service for repair or replacement.

TESTING AND MONITORING

- EH&S will ensure that all confined space gas meters are calibrated monthly, before each use and sent back to the manufacturer annually for preventive maintenance.
 - Sampling will be taken as follows in order to reclassify the Permit Required Confined Space.
 - Initial sampling will be accomplished from outside of the confined space.
 - At least three readings will be taken covering the bottom, middle and top of a confined space.
 - Once the space has been reclassified, then an entrant will wear a personnel unit, i.e, MSA Solaris to ensure continuous monitoring.

PARAMETER	LIMIT
Oxygen (O ₂) (OSHA)	Between 19.5% and 23.5%
Flammable Vapors / Combustible Gas	LEL < 10%
Hydrogen Sulfide (ACGIH)	< 10 PPM
Carbon Monoxide (ACGIH)	< 25 PPM

TRAINING

All WFBMC Personnel working in confined spaces will be trained initially and annually in Confined Space Awareness by EH&S. The training will be provided to those whose work is regulated by this program to acquire the understanding and knowledge necessary for the safe performance of the duties assigned.

The training will establish employee proficiency in the duties required and will introduce new or revised procedures, as necessary.

Training will be provided:

- Before the employee first assigned duties.
- Before there is a change in assigned duties.
- Whenever there is a change in permit space operations that presents a new hazard.
- Whenever EH&S have reason to believe either that there are deviations from the permit space entry procedures either that there are inadequacies in the employee's knowledge or use of these procedures.

RECORD KEEPING

- Training records will be maintained by EH&S and WFBMC Engineering.
- Completed Confined Space Entry Permits will be maintained by EH&S for at least one year.

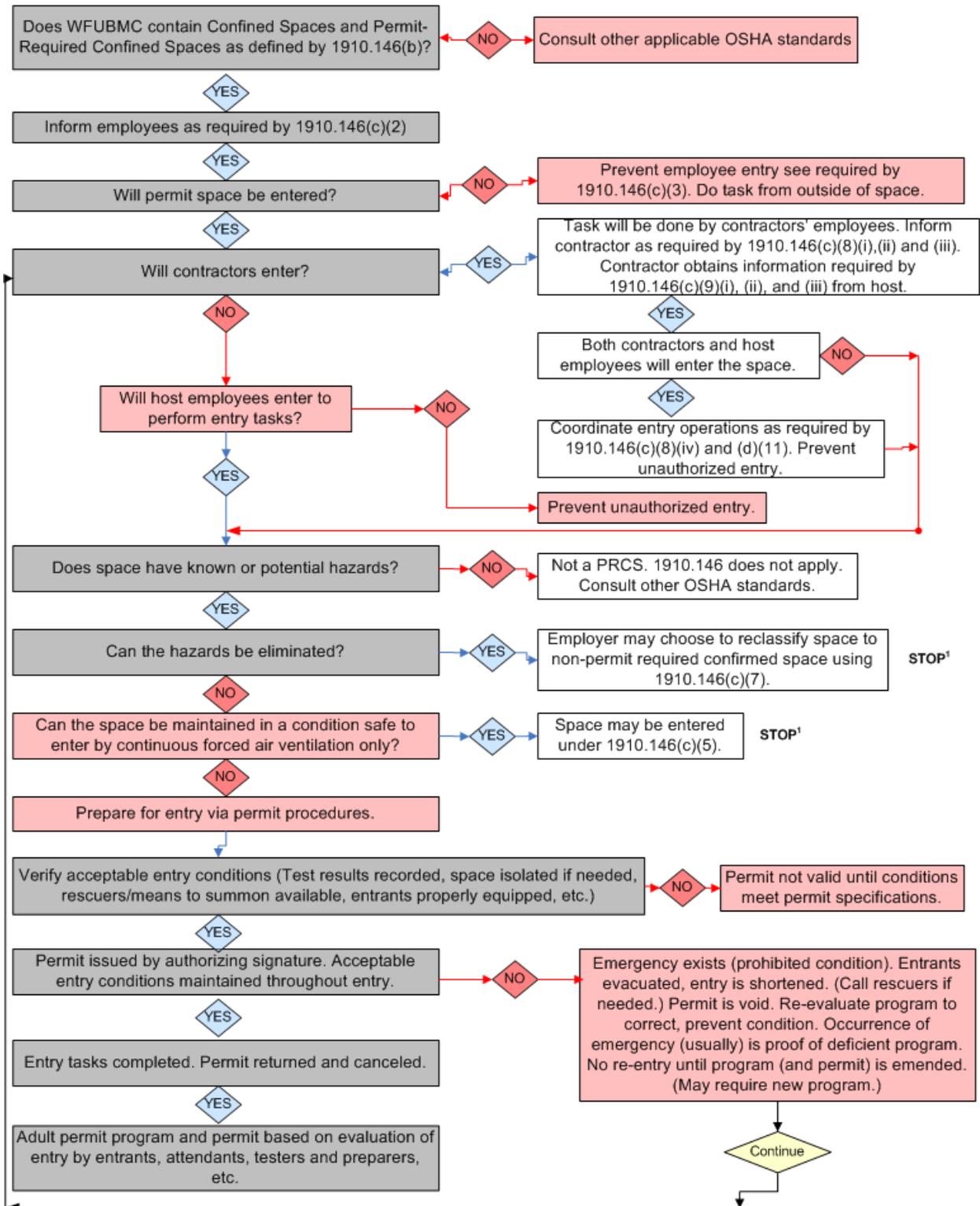
ANNUAL REVIEW

The Confined Space Program and the records will be reviewed by the Environmental Health and Safety and WFBMC Engineering annually.

DATE	INDIVIDUAL	REVIEW TYPE
March 6, 2012	C.CASKEY	ANNUAL

Appendix A - Permit Required Confined Space Decision Flow Chart

Confined Spaces



¹ Spaces may have to be evacuated and re-evaluated if hazards arise during entry.

APPENDIX B - CONFINED SPACES LOCATIONS THROUGHOUT WFBMC

CONFINED SPACES

- Air Plenum
- Electrical Chases
- Electrical Vaults
- Elevator Pits
- Mechanical Chases
- Plumbing Chases
- Laundry Washers
- Laundry Dryers
- Laundry Lint Collector

PERMIT REQUIRED CONFINED SPACES

- Sanitary Manholes
- Storm Sewer Manholes
- Fuel Tanks
- Grease Pits

AUTHORIZED CONTRACTOR ENTRY ONLY

- Water Meter Vaults
- Back Flow Preventer Vaults
- Boilers
- Tanks
- Sump Pump Pits
- Pump Sewage Vaults/Pits

These spaces may be reclassified to Non Permit Required Confined Spaces if all the hazards within the space have been eliminated without entry into the space and no new hazard will be introduced in to the space, i.e, welding, painting, grinding, etc.

APPENDIX C - CONFINED SPACE ENTRY PERMIT

CONFINED SPACE ENTRY PERMIT

SECTION A	PROJECT/WO #
NAME OF CONFINED SPACE TO BE ENTERED	DATE
PREPARED BY	AUTHORIZED BY
LOCATION /BUILDING	AUTHORIZED DURATION OF PERMIT (Date/Time)
PURPOSE OF ENTRY: _____ _____ Permit Space Hazards (check specific hazards) <input type="checkbox"/> Oxygen deficiency, less than 19.5% <input type="checkbox"/> Oxygen enrichment, greater than 23.5% <input type="checkbox"/> Flammable gases or vapors, greater than 10 % of LFL <input type="checkbox"/> Airborne combustible dust, meets or exceeds LFL <input type="checkbox"/> Toxic gases or vapors, greater than PEL <input type="checkbox"/> Mechanical hazards <input type="checkbox"/> Electrical shock <input type="checkbox"/> Materials harmful to skin <input type="checkbox"/> Engulfment <input type="checkbox"/> Other: _____ PREPARATION FOR ENTRY (Check after steps have been taken.) <input type="checkbox"/> Notification of affected department of service interruption. Isolation Methods: <input type="checkbox"/> Lockout/tagout <input type="checkbox"/> Blank blind <input type="checkbox"/> Inert <input type="checkbox"/> Purge/Clean <input type="checkbox"/> Ventilate <input type="checkbox"/> Atmospheric Test <input type="checkbox"/> Barriers <input type="checkbox"/> Other: _____ <input type="checkbox"/> Personnel Awareness: <input type="checkbox"/> Pre-entry briefing on specific hazards and control methods <input type="checkbox"/> Entry time: _____ <input type="checkbox"/> Additional permits required and /or attached: <input type="checkbox"/> Hotwork <input type="checkbox"/> Line Breaking <input type="checkbox"/> Other: _____	EQUIPMENT REQUIRED FOR ENTRY AND WORK Specify as required <input type="checkbox"/> Personal Protective Equipment: _____ <input type="checkbox"/> Respiratory protection: _____ <input type="checkbox"/> Atmospheric testing/monitoring: _____ <input type="checkbox"/> Communication: _____ <input type="checkbox"/> Positive Mechanical Ventilation <input type="checkbox"/> Rescue equipment: _____ <input type="checkbox"/> Other: _____ COMMUNICATION PROCEDURES To be used by attendants and entrants: _____ _____ _____ AUTHORIZED ENTRANTS (List by name or attach roster if contractor is used.) _____ _____ _____ AUTHORIZED ATTENDANTS (List by name.) _____ _____ _____
Emergency Number: 6-9111 ; 911	NAME OF ATTENDANT

Instrument Used		Time / Reading			Serial Number		Time / Reading		Time / Reading
Testing Record	Acceptable Entry Conditions	Time / Reading							
Oxygen	19.5 – 23.5%								
Combustible Gas	Below 10% LEL								
Carbon Monoxide	0-25 ppm								
Hydrogen Sulfide	0-10 ppm								
Recorded by (initials)									

NO HAZARDS OBSERVED	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
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RECLASSIFICATION SECTION FOR NON PERMIT CONFINED SPACE, Complete Section B and C

IF SPACE CANNOT BE RECLASSIFIED, THEN STOP. 

SECTION B	Measures Uses to Isolate the space and to control the hazards before entry (To be completed by authorized Entry Supervisor) Initial if hazards have been eliminated or controlled using any methods below.	
<input type="checkbox"/> Area Secured (barriers)	<input type="checkbox"/> Isolate input lines	<input type="checkbox"/> Continuous Monitoring Outside Space
<input type="checkbox"/> Continuous Ventilation	<input type="checkbox"/> LOTO in Place	<input type="checkbox"/> Other (Specify) _____

SECTION C	Certification for reclassification of Permit Required Space to Non Permit Required Confined Space The confined space and this entry is reclassified as non-permit required as follows:
<input type="checkbox"/>	The space poses no actual or potential atmospheric hazards
<input type="checkbox"/>	The space poses no actual or potential non-atmospheric hazards
<input type="checkbox"/>	The hazards have been eliminated via forced air ventilation
<input type="checkbox"/>	Without Entry

EH&S Signature for Reclassification of Permit Required Space to Non Permit Required Space

PRINT NAME	SIGNATURE	DATE	TIME

THE SECTION BELOWS IS TO BE COMPLETED WHEN SPACE IS A PERMIT REQUIRED CONFINED SPACE

AUTHORIZED ENTRANTS/ATTENDANTS

AUTHORIZED ENTRANTS (AE)/ AUTHORIZED ATTENDANT (AA)	NAME	Time IN	Time OUT

AUTHORIZATION BY ENTRY SUPERVISOR

I certify that all required precautions have been taken and necessary equipment is provided for safe entry and work in this confined space.

PRINT NAME	SIGNATURE	DATE

THIS PERMIT MUST BE POSTED ON THE JOB SITE – GOOD ONLY ON INDICATED DATE

APPENDIX D – STANDARD OPERATING PROCEDURE FOR ENTRY INTO SANITARY SEWER VAULT - NRC

PURPOSE: This SOP applies to the Sanitary Sewer Pump Vault located in NRC. This SOP must be followed in order to enter into the space.

1. Obtain a Confined Space Entry Permit from EH&S.
2. Turn off / lock out the domestic water to the north basement restrooms and lab area. Valves: N27 for CW, N28 for HW, and N29 for HWR.
3. Turn off AHU-B1 & AHU- B2 if the CHW coil condensate is draining to the floor drains.
4. Verify that all the water is off to the restrooms, labs, water fountain, and equipment room floor drains.
5. Turn off / lockout pump control circuit 23 @ panel EM-RP-B2.
6. Turn off / lockout disconnect for sewer pump 3.
7. Turn off / lockout disconnect for sewer pump 4.
8. Close / lockout pump discharge valve for sewer pump 3.
9. Close / lockout pump discharge valve for sewer pump 4.
10. Remove access panel from vault.
11. Contact Forsyth Rooter Service, 768-8494 to pump out vault.
12. Spray down vault interior with 10% hypochlorite solution to sanitize.
13. Rinse vault interior.
14. Pump out vault again.
15. WFBMC EH&S to test inside vault for hazardous atmosphere.
16. Record test result below.
17. If no hazardous atmosphere exists, then reclassify the space as a Non Permit Required Confined Space and completed Section B and C of the Confined Space Permit, **APPENDIX C**.

APPENDIX E – STANDARD OPERATING PROCEDURE FOR ENTRY INTO STORM SEWER VAULT - NRC

PURPOSE: This SOP applies to the Storm Sewer Pump Vault located in NRC. This SOP must be followed in order to enter into the space.

**** Influent to the vault cannot be stopped if it is raining outside. The area drains for the transformer area, west intake areaway, east intake area way, east exhaust area way, and the northwest entrance bottom landing drain to the pit. ****

1. Obtain a Confined Space Entry Permit from EH&S.
2. Turn off / lockout pump circuit 25, 27, 29 at Panel EM-RP-B2.
3. Turn off / lockout disconnect for sump pump 1.
4. Turn off / lockout disconnect for sump pump 2.
5. Close / lockout pump discharge valve for sump pump 1.
6. Close / lockout pump discharge valve for sump pump 2.
7. Contact Forsyth Rooter Service, 768-8494 to pump out vault.
8. Spray down vault interior with 10% hypochlorite solution to sanitize.
9. Rinse vault interior.
10. Pump out vault again.
11. WFBMC EH&S to test inside vault for hazardous atmosphere.
12. Record test result below.
13. If no hazardous atmosphere exists, then reclassify the space as a Non Permit Required Confined Space and completed Section B and C of the Confined Space Permit, **APPENDIX C.**

APPENDIX F – STANDARD OPERATING PROCEDURE FOR ENTRY INTO SANITARY SEWER VAULT - PPI

PURPOSE: This SOP applies to the Sanitary Sewer Pump Vault Entry located in PPI. This SOP must be followed in order to enter into the space.

1. Obtain a Confined Space Entry Permit from EH&S.
2. Turn off / lockout the domestic water to restrooms G-72 & G-74, Valves: P1-3 for HW, P1-4 for CW.
3. Turn off / lockout the domestic water to rooms G-52 & G-54, Valves: P1-5 for HW, P1-6 for CW.
4. Turn off / lockout domestic water to rooms G-09, G-12, G-37, Valves: P1-7 for HW, P1-8 for CW.
5. Turn off AHU1, AHU2, AHU3, and AHU4 if CHW coil condensate is draining to the floor drains.
6. Turn off the cooling tower blowdown if the cooling tower is operating.
7. Turn off / lockout disconnect for sewer pump 1
8. Turn off / lockout disconnect for sewer pump 2.
9. Close / lockout pump discharge valve for sewer pump 1.
10. Close / lockout pump discharge valve for sewer pump 2.
11. Contact Forsyth Rooter Service, 768-8494 to pump out vault.
12. Spray down vault interior with 10% hypochlorite solution to sanitize.
13. Rinse vault interior.
14. Pump out vault again.
15. WFBMC EH&S to test inside vault for hazardous atmosphere.
16. Record test result below.
17. If no hazardous atmosphere exists, then reclassify the space as a Non Permit Required Confined Space and completed Section B and C of the Confined Space Permit, **APPENDIX C**.