UNIVERSITY of NEW HAMPSHIRE

Confined Space Entry Program

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The most current version of this document can be found at:
http://www.unh.edu/ehs

UNH Confined Space Entry Program

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I. POLICY

The University of New Hampshire (UNH) contains numerous work areas that require a worker to enter a space that could present some physical or environmental hazard to the health and safety of affected personnel. Wherever entry into these spaces is required, entry will be performed in accordance with all federal, state, and local regulations and Best Management Practices. UNH employees and contractors shall not enter confined spaces without reviewing and following the UNH Confined Space Entry Program. A permit program is in place at UNH in order to ensure safe work practices in hazardous confined spaces.

UNH employees and contractors shall make every effort to avoid entry into permit-required confined spaces. Where entry is unavoidable, confined space entry supervisors shall strive to either eliminate all serious recognized hazards prior to entering the space, or determine if all serious recognized hazards can be controlled to acceptable levels through the use of forced air ventilation. Entry into permit-required confined spaces under full permit procedures shall be considered only after all other options for accomplishing the task have been exhausted.

II. SCOPE AND APPLICATION

This program document contains the requirements for UNH employees to enter confined spaces. These requirements apply to entry into spaces owned or leased by UNH ***and*** spaces owned by another entity (including, but not limited to, the Town of Durham, NH) where UNH employees are required to enter. The requirements for contractors are outlined in Section VIII of this document.

III. DEFINITIONS AND ACRONYMS

Affected Employees: For the purposes of this program document an affected employee is one who may encounter confined spaces and permit-required confined spaces. Affected employees are permitted to enter non permit required confined spaces if the conditions in Section V are met.

Confined Space: A space that meets all of the following conditions:

- The space is large enough and so configured that an employee can bodily enter and perform assigned work;
- Has limited or restricted means for entry or exit (e.g., tanks, vessels, silos, storage bins, hoppers, vaults, and pits); and
- Is not designed for continuous employee occupancy.

Confined Space Attendant: An individual stationed outside a permit-required confined space who monitors the confined space entrants and who performs all attendant's duties assigned in this program document.

Confined Space Entrant: An individual who will enter a permit-required confined space to perform work.

Confined Space Supervisor: The individual 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 described in this program document.

Contract Coordinator: The UNH Project Manager or UNH Contract Manager.

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.

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.

LEL: Abbreviation for Lower Explosive Limit. This is the minimum concentration in air of a gas or vapor that can be ignited by a spark or flame.

LFL: Abbreviation for Lower Flammable Limit. For the purposes of this program, “LEL” and “LFL” are equivalent.

OEHS: Abbreviation for the Office of Environmental Health and Safety

OEL: Abbreviation for Occupational Exposure Limit. This is a generic term referring to OSHA Permissible Exposure Limits, ACGIH Threshold Limit Values, and/or NIOSH recommended exposure limits as applicable.

OSHA: Abbreviation for the Occupational Safety and Health Administration

Permit Required Confined 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.

PPE: Abbreviation for Personal Protective Equipment

UNH: Abbreviation for the University of New Hampshire

IV. RESPONSIBILITIES

Confined Space Entrants

- Comply with the requirements listed in this program document
- Know and understand the hazards of the confined space
- Know and understand the hazards introduced by work procedures in the space
- Use atmospheric air monitors in the space if directed by the Supervisor
- Stay in constant contact with the Attendant during permit-required confined space entry
- Evacuate the space immediately when hazardous conditions arise or when ordered to do so by an Attendant or Supervisor
- Attend initial and refresher training as required by law and outlined in this program document

Confined Space Entry Attendants

- Comply with the requirements listed in this program document
- Know and understand the hazards of the confined space
- Know and understand the hazards introduced by work procedures in the space

- Ensure appropriate safety equipment, personal protective equipment, and air monitoring devices are used as specified in the entry plan
- Conduct and/or oversee air monitoring in the space as directed by the Supervisor
- Ensure any necessary procedures relative to the control of hazardous energy (lockout/tagout) are completed prior to entry
- Remain in constant contact with Entrants
- Remain just outside the space until relieved by another trained Attendant
- Issue an evacuation to Entrants when hazardous conditions arise during entry
- In the event of an emergency call for rescue services
- In the event of an emergency perform non-entry rescue
- Attend initial and refresher training as required by law and outlined in this program document

Confined Space Entry Supervisors

- Comply with the requirements listed in this program document
- Perform pre-entry planning and evaluation/classification of space prior to entry
- Ensure all Entrants and Attendants have received training as outlined in this program document
- Specify appropriate safety equipment, personal protective equipment, and air monitoring devices
- Perform any pre-use ”bump testing,” field calibration, or other verification procedures for air monitoring equipment as specified in the equipment manual
- Specify procedures relative to the control of hazardous energy (lockout/tagout)
- Review entry plan with rescue team prior to entry
- Authorize permit-required confined space entry, certify confined space reclassification, and/or certify alternate entry procedures
- Complete the confined space entry permit/record or certificate form as required
- Ensure completed permits and certificates are properly filed in accordance with Section X of this document

All Participating Departments

- Provide appropriate safety equipment necessary for confined space entry, including but not limited to fall arrest equipment, other PPE devices, ventilation equipment, ladders, and air monitoring equipment
- Ensure department-owned air monitoring equipment is kept in good repair, maintained in calibration, and available for use
- Designate staff members who will serve as Entry Supervisors and Attendants/Entrants
- Ensure employees comply with the requirements of this program
- Ensure employees receive appropriate training
- Follow up on entry permit investigations initiated by OEHS and respond in writing within 3 weeks with corrective action plans

Energy and Campus Development

In addition to the responsibilities that Energy and Campus Development (ECD) may have for staff members who enter confined spaces, ECD has the following responsibilities:

- Post confined space warning signs at the entry to all permit-required confined spaces (except manholes) that have been newly created as a result of construction or renovation activities, and take measures to prevent unauthorized entry.
- Make every reasonable attempt to avoid the creation of new confined spaces during construction and renovation activities. Wherever feasible during renovations, incorporate measures to eliminate existing spaces or recognized hazards within spaces.

Facility Operations Department

In addition to the responsibilities that Facility Operations may have for staff members who enter confined spaces, the Facilities Operations Department has the following responsibilities:

- Maintain the condition of permit-required confined space warning signs that are posted at or near the entry to spaces that occur within any building envelope.

Office of Environmental Health and Safety

- Establish and update the Confined Space Entry written program
- Schedule training opportunities for affected personnel
- Provide technical consultation to departments that enter confined spaces upon request, and
- Review completed Confined Space Entry Permits. Identify possible issues or problems and contact the managing department for review and corrective action.

Confined Space Rescue Team

- Perform rescue operations involving entry into confined spaces
- Perform confined space rescue drills once per year in spaces representative of confined space present at UNH, and
- Train confined space rescue team members in accordance with OSHA 29 CFR 1910.146.

V. GENERAL

- With the exception of manholes, all known permit-required confined spaces on the UNH Durham Campus have been marked or labeled.
    - Spaces with a recognized hazard are marked as “Danger, Permit-Required Confined Space” (PRCS). Each PRCS has an alphanumeric identifier unique to that space on the signage.
    - Some spaces that meet the definition of confined space but do not contain a recognized hazard (e.g., a non-permit required confined space) are marked with a “Warning, Confined Space” sign or sticker.
- Manholes will be considered permit-required confined spaces regardless of whether they have been marked or labeled. During entry planning for manholes every effort will be made to either eliminate all serious recognized hazards prior to entry, or to determine if all serious recognized hazards can be controlled to acceptable levels through the use of forced air ventilation.
- Only employees trained and knowledgeable of the requirements of the procedures listed in this program document will be authorized to enter a permit-required confined space or oversee entry planning and operations.
- Affected employees who are not authorized Entrants under this program may enter spaces marked with Confined Space signs/labels demarcating a non-permit required confined space if all of the following conditions are met:
    - The employee has received Confined Space Awareness training.
    - The employee will not introduce any hazards into the space (e.g., chemicals, equipment, hot work)

VI. ENTRY PROCEDURES

A. Pre-entry planning

An entry supervisor has the responsibility for planning and approving safe entry operations. An entry supervisor must evaluate all confined spaces prior to employee entry. The purpose of the evaluation will be to determine if:

- A space marked as Non-Permit Confined Space will (temporarily or permanently) become a Permit-Required Confined Space due to the work processes or other actions of the Entrant(s),
- A space marked "Danger, Permit Required Confined Space" can be reclassified to a Non-Permit Confined Space prior to entry if all hazards can be eliminated (see Section VI(B)),
- A space marked "Danger, Permit Required Confined Space" has only an atmospheric hazard that can be controlled through continuous force air ventilation. In this case the Supervisor can determine that the entry will be performed under Alternate Entry Procedures (see Section VI(C)), or
- The entry will be performed under full permit-required entry procedures

Where it is determined that the space will require a permit for entry, the entry supervisor must create an entry plan. The entry plan shall describe the following:

- Appropriate ventilation equipment
- Ventilation purge time required to achieve acceptable atmospheric conditions
- Non-entry rescue equipment
    - Entrants must utilize retrieval equipment for all permit-required vertical entries of depths greater than 4 feet.
    - Supervisors may specify retrieval equipment for non-vertical entries as they determine to be appropriate.
- PPE for Entrants
- Appropriate air monitoring equipment and monitoring methods
- Appropriate traffic control systems
- Requirements for the control of hazardous energy in the space (lockout/tagout procedures)
- The personnel or group who will be summoned to perform confined space rescue.

The entry supervisor shall communicate the entry plan to the Attendants and Entrants. The entry supervisor may act as the entry Attendant. The entry supervisor shall review the entry plan with the rescue team prior to beginning any work.

In Durham, UNH confined space entry teams utilize the Durham Fire Department for confined space rescue services. Contact 862-1426 to review pre-entry plans or make entry notifications if required. For confined space entries at satellite locations, UNH at Manchester, or other locations not previously described, the Entry Supervisor is responsible for arranging for rescue services with appropriately trained personnel. Confined space rescue services for contractor personnel are discussed in Section VIII.

B. Reclassification to Non-Permit Confined Space

Some spaces which are marked, “Danger, Permit Required Confined Space” may be temporarily reclassified as a Non-Permit Confined Space [see OSHA 29 CFR 1910.146(c)(7)]. This determination must be performed and documented by an Entry Supervisor. Spaces may only be reclassified if the following conditions exist:

- The space has no actual or potential hazardous atmosphere, and
- All hazards within the space are eliminated before entry

If the Supervisor verifies that these conditions can be met, the space can be reclassified for the duration of the operation or one (1) shift, whichever is shorter.

Supervisors must document the space reclassification using the Certificate form in Appendix A. The certificate must be filled out prior to entry and be available to each employee entering the space. This form must be filed with the originating Department AND Office of Environmental Health and Safety after the entry is complete, as detailed in Section X of this document.

C. Alternate Entry Procedures

Some spaces which are marked, “Danger, Permit Required Confined Space” may be entered using Alternate entry procedures (see OSHA CFR 29 1910.146(c)(5). This determination must be performed and documented by an Entry Supervisor. Spaces may only be entered using alternate entry procedures if the following conditions exist:

- The only hazard in the space is the potential for a hazardous atmosphere
- The potential hazard can be eliminated through the use of continuous forced ventilation, and
- Previous and current air monitoring data demonstrate the above two conditions

If a Supervisor determines that Alternate Entry Procedures may be used, the Supervisor will ensure the following procedures are utilized:

1. Ensure that air has been tested for oxygen and hazardous contaminants and the environment has been made safe for entry.
2. Record pre-entry conditions on the Certificate form in Appendix B.
3. Set up ventilation for the space. Allow appropriate purge time as calculated by the Supervisor.
4. Proceed with entry.
    a. No Attendant is required during Alternate Entry Procedures.
5. Perform periodic air monitoring in the space as directed by the Entry Supervisor.
6. Immediately evacuate the space under any of the following conditions:
    a. The Entrant becomes aware of a previously unrecognized hazard
    b. Ventilation equipment fails, or
    c. Air monitoring equipment goes into alarm

Supervisors must document the alternate entry procedures using the Certificate form in Appendix B. The certificate must be filled out prior to entry and be available to each employee entering the space. This form must be filed with the originating Department AND the Office of Environmental Health and Safety after the entry is complete, as detailed in Section X of this document.

D. Permit-Required Confined Space Entry Procedures

The following is a general outline of procedures for permit-required confined space entry. These procedures assume that a Supervisor has created a pre-entry plan, and reviewed the pre-entry plan with the rescue team.

1. Designate Entrant(s) and Attendant(s). The Supervisor may also be the Attendant.
2. Acquire, inspect, and set up equipment designated in the entry plan, including ventilation, safety equipment, personal protective equipment, non-entry rescue equipment (e.g., harness/tripod), and traffic control systems.
3. Lock out or tag out all sources of hazardous energy. On the Durham campus, contact the Facilities Support Center at 862-1437 to advise of lock-outs or tag-outs.
4. Perform any pre-use ”bump testing,” field calibration, or other verification procedures for air monitoring equipment as specified in the equipment manual.
5. Perform air monitoring prior to entry (see next section for air monitoring information)
6. Record all information on the Permit (see Appendix C).
7. Perform periodic air monitoring as directed by the Entry Supervisor.
8. Immediately evacuate if safety equipment fails, if the air monitoring equipment goes into alarm, or if any other unforeseen hazards arise.
9. Upon completion of the job, the Entry Supervisor will cancel the permit and file the completed permit in his/her originating Department AND the Office of Environmental Health and Safety in accordance with Section X of this document.

Air Quality/Hazardous Atmospheres

The Entry Supervisor is responsible for ensuring that the correct air monitoring device is specified for the entry. The Entry Supervisor is encouraged to consult OEHS for technical assistance where necessary. Air monitoring will be performed prior to an employee entering a space, continuously when hazardous air contaminants exist or are generated (e.g., hot work, painting), periodically throughout the entry, and at any other time deemed necessary by the Entry Supervisor. The entry team shall ensure the following when working in a space with a real or potential hazardous atmosphere:

- Ensure all air monitoring devices have received appropriate calibration in accordance with the manufacturer’s instructions. The date of calibration should be stated on a sticker affixed directly to the device.
- Perform any pre-use ”bump testing,” field calibration, or other verification procedures for air monitoring equipment as specified in the equipment manual.
- Sample the air quality of the space by slightly moving the lid or access panel, or by testing the space through the hole in the lid (if available) before completely opening the space.
- For vertical spaces, lower the sampling tube slowly to sample air quality at all depths. Consult the manufacturer’s instructions for the amount of time to wait per foot of tubing before taking readings from the instrument.
- Record the results of air monitoring on the permit.
- Perform air monitoring prior to entry and periodically during the entry operations as directed by the Entry Supervisor.
- Cease operations and evacuate entry personnel under the following conditions:
    - Oxygen levels less than 19.5% or greater than 23.5%
    - Combustible gas levels equal to or greater than 10%
    - Hydrogen sulfide levels equal to or greater than 10 ppm
    - Carbon monoxide levels equal to or greater than 35 ppm, or
    - Other hazardous air contaminants are detected at values above established acceptable limits.

General Safety Procedures

- Non-sparking tools are less likely to create a spark with metal-metal friction, however ignition is still possible. Non-sparking tools are not rated for use in flammable/combustible environments. Use ventilation/purging to remove flammable atmospheres. Use air monitoring to continuously verify atmospheric conditions.
- All lighting, radios, monitoring equipment, and other powered items used in confined spaces must be marked “intrinsically safe” and/or “explosion-proof” (as applicable).
- Use of compressed gas cylinders, except cylinders used for self-contained breathing apparatus, will be avoided.
- Confined space ventilation equipment shall be located such that hazardous air contaminants are not entrained into the fan and subsequently into the space.
- Vehicles shall not be left running near confined space work or near air moving equipment being used for confined spaces.
- Smoking in confined spaces is prohibited at all times.

VII. CONFINED SPACE EMERGENCIES

In the event of an emergency, entry rescues in confined spaces shall only be attempted by persons who are properly trained and have the rescue equipment to do so.

- In the event of an emergency, the Attendant(s) and/or Supervisor will attempt non-entry rescue only.
- Where the Durham Fire Department acts as the rescue service on the Durham campus, emergency rescue services shall be obtained by calling 911. In other locations, confined space rescue services are summoned according to the pre-entry plan.

VIII. CONTRACTORS

When UNH arranges to have employees of another employer perform work that involves permit required confined space entry, the UNH Contract Coordinator will:

- Notify contractors of confined spaces in their work area and the hazards therein
- Notify the Director of the UNH department with managerial oversight of the space regarding the intent to enter at least two (2) business days prior to planned entry operations.
- Ensure that the contractor has an appropriate confined space entry procedure or program and that all contractor employees are trained according to their role in the entry, and
- Coordinate entry operations with the contractor when UNH employees are working in or near the permit space.

The Contractor will:

- Obtain applicable information about permit space hazards from the Contract Coordinator
- Coordinate entry when UNH employees are working in or near the area
- Provide documentation on the company’s confined space entry procedures to the Contract Coordinator
- Provide all necessary equipment for safe entry into a space, including but not limited to
    - Appropriate ventilation equipment
    - Non-entry rescue equipment
    - PPE for Contractor Entrants
    - Appropriate air monitoring equipment and monitoring methods, and

    - Appropriate traffic control and barrier systems.
- Arrange for rescue services and notify the Contract Coordinator of rescue service provisions. Contractors who wish to use the Durham Fire Department for rescue services must make arrangements with the Durham Fire Department and receive written approval *in advance* of entry.
- Immediately notify the UNH OEHS of any instance where entry operations were terminated due to unforeseen hazardous conditions.

IX. EMPLOYEE TRAINING AND INFORMATION

UNH employees who work near Confined Spaces or who will enter Permit-Required Confined Spaces must receive training. The following are the training requirements for UNH employees:

Affected Employees

Affected employees who are not authorized Entrants under this program may enter non-permit required confined spaces marked with Confined Space warning signs if the employee has completed Confined Space Awareness Training. Confined Space Awareness training will be approximately 15 minutes in length and will be available for delivery via in-service programs and/or Blackboard. Confined Space Awareness in-service programs may be delivered by department supervisors and/or training coordinators using the materials developed by OEHS. Affected employees shall receive training and information on the following:

- The definition of confined spaces
- Identifying confined spaces at UNH
- Permissible activities for affected employees
- Conditions causing the reclassification of non permit confined spaces to confined spaces

Confined Space Entrants and Attendants

For the purposes of training, UNH makes no distinction between Confined Space Entrants and Attendants. Employees who will act as either will receive training annually. Initial training for Confined Space Entrants and Attendants will be 6 hours in length. Refresher training for Confined Space Entrants and Attendants will be 3 hours in length. Refresher training is suggested annually. Confined Space Entrants and Attendants shall receive training and information on the following:

- Definition of confined spaces
- Confined space regulations
- Hazards in confined spaces
- Duties of Entrants
- Duties of Attendants
- PPE for confined space entry
- Entrant/Attendant communications
- Air monitoring methods and specific equipment operation
- Activating emergency rescue services
- Non-entry rescue techniques
- Permit/documentation procedures

Entry Supervisors

Employees who will act as entry Supervisors will receive training annually. Initial training for Supervisors will be 8 hours in length. Refresher training for Supervisors shall be 4 hours in length. Refresher training is suggested annually. Entry Supervisors shall receive training and information equivalent to the training and information provided to Entrants/Attendants. In addition, Entry Supervisors will receive the following training:

- Pre-entry planning overview
- Space reclassification procedures
- Hazard recognition and hazard evaluation
- PPE selection
- Selection of non-entry rescue/retrieval equipment
- Selection of air monitoring equipment
- Hands-on air monitoring equipment calibration and operation
- Calculating ventilation purge time
- Lockout/tagout procedures
- Hot work permit procedures
- Permit/documentation procedures

X. RECORDKEEPING

Completed permits and certificate forms must be maintained by the originating department for a minimum of 1 year. A copy of each completed permit and/or certificate form shall be sent to OEHS for use during program reviews.

Attendance records for employee initial and refresher training programs shall be preserved and maintained in the Office of Environmental Health and Safety for a minimum of the duration of the employee's employment with UNH.

Appendix A

Reclassification Certificate: Permit Space to Non Permit Space

CAUTION!!! THIS IS NOT A CONFINED SPACE ENTRY PERMIT.

This form must be filled out and signed by a Confined Space Entry Supervisor or a Qualified Health and Safety Professional. Reclassification of a Permit Required Confined Space to a Non Permit Required Confined Space is valid for a single shift. The following evaluation is consistent with OSHA 29 CFR 1910.146(c)(7).

Entry Supervisor (or Health and Safety Professional) - Complete the following:

Space ID:	**Yes**	**No**	**Method of Hazard Elimination**
Is the space free of atmospheric hazards (including, not limited to drifting vapors from tanks, pipes, or sewers)?			
Considering industrial or other discharges, is this area likely to remain free of air contaminants while occupied? (Consider the potential of equipment failure, other activities happening near the space, etc.)?			
Have all sources of hazards been isolated from the confined space without personnel entry? (All hazardous energy is controlled, lockout tagout procedures are in use, etc.)?			

If the answer to any of the above question is “No” then the space cannot be reclassified from Permit Required Confined Space to Non Permit Required Confined Space.

A copy of this form must remain at the entry site for the duration of the entry or shift, whichever is shorter. This reclassification is considered valid for no greater than 1 shift or 8 hours. A copy of this form must be provided to the UNH Office of Environmental Health and Safety upon completion of entry into the space. The department overseeing the entry is responsible for maintaining a copy of this form on file for a minimum of 1 year.

_____ _____

Name Supervisor or Health & Safety Professional (Print) Signature

_____ _____

Date Time

Appendix B

Alternate Entry Certificate

CAUTION!!! THIS IS NOT A CONFINED SPACE ENTRY PERMIT.

This form must be filled out and signed by a Confined Space Entry Supervisor or a Qualified Health and Safety Professional. An Alternate Entry Certificate is valid for a single shift. The following evaluation is consistent with OSHA 29 CFR 1910.146(c)(5).

Entry Supervisor (or Health and Safety Professional) - Complete the following:

Space ID:	**Yes**	**No**	**Comments/Results**
Is an actual or potential hazardous atmosphere the ONLY hazard associated with this confined space?			
The entrant will not perform any hot work or use any hazardous chemicals that present a respiratory hazard. any form of hot work be performed during entry operations? (If either or true, refer to permit entry procedures.)			
Is the Entry Supervisor trained in operation of the gas monitor in use?			
Has a gas monitor functional test been performed this shift on the gas monitor to be used (in accordance with the manufacturer's instructions)?			
Has a ventilation blower in good working condition been set up to ventilate the space? Has the Entry Supervisor calculated the appropriate purge time and allowed the space to be purged of hazardous air contaminants prior to air testing? Does the blower achieve 20 air changes per hour?			
Has the atmosphere of the confined space been tested prior to entry? Were results within acceptable limits (Oxygen between 19.5% to 23.5%; Combustible gas less than 10% LEL, Hydrogen Sulfide less than 10 ppm, Carbon Monoxide less than 35 ppm)? (Document air measurements in comments section.)			

If the answer to any of the above question is "No" then alternate entry procedures cannot be used.
A copy of this certificate must remain at the entry site for the duration of the entry or shift, whichever is shorter. This certificate is considered valid for no greater than 1 shift or 8 hours. A copy of this form must be provided to the UNH Office of Environmental Health and Safety upon completion of entry into the space. The department overseeing the entry is responsible for maintaining a copy of this form on file for a minimum of 1 year.

_____ _____

Name Supervisor or Health & Safety Professional (Print) Signature

_____ _____

Date Time

APPENDIX C: UNH PERMIT
PERMIT-REQUIRED CONFINED SPACE ENTRY

SECTION A: GENERAL

Date _____/____/____ Start Time: _____ AM/PM End Time: _____AM/PM

Rescue Team:_____ Notification (method, date and time): _____

Permit Space ID Number: _____ Permit Space Location: (Building/Area #) _____

Purpose of Entry _____

All Competently Trained Individuals: **Entry Supervisor** _____

Entry Attendant :_____ Authorized Entrant: _____

Authorized Entrant: _____ Authorized Entrant: _____

SECTION B: ENTRY PLAN

REQUIREMENTS	Yes	No	N/A	REQUIREMENTS	Yes	No	N/A
Hot Work				Retrieval equipment			
Lock Out - De-energize				Intrinsically Safe Lighting			
Lines Broken - Capped or Blanked				Personal protective equipment(e.g., goggles, hard hat, gloves)			
Purge - Flush and Vent							
Traffic controls/Secure area				Respirator			
Describe all equipment and procedures for entry:							
Describe communication procedures during entry:							

SECTION C: ATMOSPHERIC TESTING- *Only personnel trained in the operation of specific air monitoring equipment may make air measurements.*

Manufacturer:	Sensor(s)/analyte(s) (list all):
Model:	Date of last annual calibration:
Serial number:	Time of bump test:

Manufacturer:	Sensor(s)/analyte(s) (list all):
Model:	Date of last annual calibration:
Serial number:	Time of bump test:

ATMOSPHERIC TESTING		Test 1	Test 2	Test 3	Test 4
	Acceptable Entry Levels	Time:	Time:	Time:	Time:
Percent of Oxygen	19.5% to 23.5%				
Combustible Gas	Less than 10% LEL				
Hydrogen Sulfide	Less than 10 ppm				
Carbon Monoxide	Less than 35 ppm				

SECTION D: SIGNATURE BLOCK

I certify that I know and understand the requirements of the UNH Confined Space Entry Program and that I will comply with these criteria.	
Entrant sign & date here:	***Attendant sign& date here:***
I certify that all of the above information is correct and that the space entrant and attendant are fully competent to perform work described above*:*	
Supervisor sign& date here:	

Note: This permit is not required for entries conducted as reclassifications or alternate entries as described by the UNH Confined Space Entry Program sections VI(B) and VI(C).

INSTRUCTIONS: Confined Space Supervisors fill out this form completely and communicate entry plans to the entry team.

SECTION A: GENERAL

- **Date:** Fill in the date of the entry
- **Start Time:** Fill in the proposed start time of the entry
- **End Time:** Fill in the proposed end time of the entry. Confined space entry permits are valid for a single shift or no greater than 8 hours.
- **Confined Space Rescue Team:** Fill in the name of the Confined Space Rescue Team. The acronym DFD is acceptable to indicate the Durham Fire Department. The rescue team must be notified in advance of the entry and may require a pre-evaluation prior to entry.
- **Notification:** Indicate the pre-entry notification to the rescue team by method (e.g., phone call, fax, meeting), and the date and time of pre-entry notification. NOTE- if the rescue team is the Durham Fire Department, notifications must be made by fax of the permit and record form, or personal meeting.
- **Permit Space ID Number:** Indicate the number of the space, if applicable. Permit-required confined spaces in the inventory which are not manholes are labeled with an alpha-numeric identifier on the entry portal.
- **Permit Space Location:** Indicate the building and room number or, if outdoors, indicate the street and nearest landmarks. Both the ID Number and Location blanks must be filled.
- **All Competently Trained Individuals:** Clearly print the names of the Supervisor, Attendant, and all Entrants. At a minimum there must be an Entrant and a Supervisor/Attendant.

SECTION B: ENTRY PLAN

- **Requirements – Hot Work:** Mark yes if hot work will be performed during the entry. Hot work includes welding, cutting, brazing, and soldering. If yes, refer to the UNH Hot Work Program and permit system.
- **Requirements – Lockout/De-energize:** Mark "yes" if the entry will require the control of hazardous energy (including electrical, chemical, pneumatic, hydraulic). Mark "no" if the entry will proceed without locking out or tagging out sources of hazardous energy (explain fully below). Mark N/A if there are no sources of hazardous energy in the space.
- **Requirements – Lines Broken (Capped or Blanked):** Mark yes if the entry will require capping or blanking of lines carrying fluids. Mark no if the entry will not require capping or blanking of lines carrying fluids. Mark "N/A" if no lines carrying fluids are present.
- **Requirements – Purge (flush and vent):** Mark "yes" if the entry will require forced air ventilation to purge and maintain a safe atmosphere. Mark "N/A" if there is no real or potential hazardous atmosphere and ventilation will not be used.
- **Requirements – Traffic controls/Secure Area:** Mark "yes" if traffic controls or site security will be used. Some form of traffic controls or site security is required for all entry. Traffic controls and site security may include guard rails, traffic cones, and/or cordoning.
- **Requirements – Retrieval equipment :** Mark "yes" if non-entry rescue retrieval equipment will be used. Mark "no" if non-entry retrieval equipment will not be used. If marked No, explain in detail. Fall arresting equipment is required for all vertical entries greater than 4 feet in depth.
- **Requirements – Intrinsically safe lighting:** Mark "yes" if intrinsically safe lighting will be used. Required in flammable or combustible atmospheres. Mark "N/A" if there is no real or potential flammable/combustible atmosphere.
- **Requirements – Personal Protective Equipment:** Mark "yes" if personal protective equipment will be used. Personal protective equipment may include steel-toed shoes, hard hats, safety glasses, and/or protective clothing. Some form of personal protective equipment is required for all confined space entries.
- **Requirements – Respirator:** Mark "yes" if entrants will wear respiratory protection. Mark "No" if entrants will not use respiratory protection. Mark "N/A" if there are no real or potential atmospheric hazards. All employees who wear a respirator must participate in the UNH Respiratory Protection Program.
- **Describe all equipment and procedures for entry:** Use this space to describe the requirements for confined space entry from the above list and additional requirements as deemed necessary by the Supervisor.
- **Describe communications procedures during entry:** Use this space to describe communications procedures, such as radios.

SECTION C: ATMOSPHERIC TESTING

- **Manufacturer:** Instrument manufacturer
- **Model:** Instrument model number
- **Serial Number:** Instrument serial number
- **Sensor(s)/Analyte(s):** Indicate all sensors or detectors in the instrument (e.g., combustible gas, oxygen)
- **Date of last annual calibration:** Date instrument was last calibrated in a laboratory by the instrument manufacturer or qualified repair technician.
- If more than one instrument is in use, use both boxes to indicate monitoring equipment
- **Atmospheric Testing:** Give the time and results of atmospheric testing. At a minimum, each space must be tested for oxygen, combustible gas, and carbon monoxide. Additional analytes may be monitored as required for the space and/or entry operations. Use the blank spaces to indicate tests for other air contaminants. If the results do not fall within permissible entry levels, DO NOT ENTER. For analytes not listed above, conditions acceptable for entry will be considered to be one half of the OSHA Permissible Exposure Limit unless deemed otherwise by a qualified health and safety professional.

SECTION D: SIGNATURE BLOCK

- All members of the entry team must sign and date the signature block indicating that they have read and understand the entry plan prior to commencement of work.