



Confined Space Program

Northern Illinois University

Department of Environmental Health and Safety

Updated 7/29/2016

Table of Contents

Contents

<i>I. PURPOSE</i>	2
<i>II. DEFINITIONS</i>	3
<i>III. GENERAL PROGRAM MANAGEMENT</i>	8
Department of Environmental Health and Safety Responsibility	8
Administrative Personnel Responsibilities	8
Authorized Attendant Responsibilities	9
Entry Supervisor Responsibility	9
Authorized Entrant Responsibility	10
Employee Responsibility	10
<i>METHODS OF COMPLIANCE</i>	11
Training	11
Initial Training	11
Refresher Training	11
Confined Space Hazard Identification	12
Confined Space Labeling and Site Security	13
Confined Space Entry Determination	13
Confined Space Entry Procedures	14
Permit Required Confined Space (PRCS) Entry Procedure	15
PRCS Entry Permit System	19
Rescue Operations	20
Equipment/Sampling	21
Contractors	22
Recordkeeping/Documentation	23
<i>REFERENCES</i>	24

I. PURPOSE

Northern Illinois University (NIU) strives to maintain safe living, learning, and working conditions free of environmental, health, and safety hazards. All members of the university community must conduct university operations in a safe and healthy manner to achieve this goal. Compliance with all federal, state, and local regulations is essential in providing such an environment for the university. The purpose of this program is to provide employees with information and training to assist in understanding the hazards of entry into permit required (PRCS) or non-permit required confined space (NPRCS). In addition, this program is intended to assist the university in complying with OSHA 29 CFR 1910.146.

This program shall apply to all NIU employees during entry into confined spaces and/or potential confined spaces. These mandatory procedures prescribe the minimum criteria for preventing employee exposures to hazardous conditions when entering and working within a confined space. Additional requirements may be designated for confined space entry by the NIU Department of Environmental Health and Safety (EH&S) prior to permitting entry.

An initial assessment and classification has been performed by the Department of EH&S for all identified confined spaces utilizing the “Confined Space Identification and Classification Forms” located in Attachment CS-1. Based on an initial assessment and classification, the Department of EH&S has identified the permit required and non-permit required confined spaces listed in Attachment CS-2 to which this program applies.

II. Definitions

Acceptable Entry Conditions: 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.

Administrative Personnel: Those NIU personnel with responsibility for overseeing and enforcing the effectiveness of the Confined Space program. These personnel include the Director of Physical Plant, Chief Heating Plant Operating Engineer and Architectural and Engineering Services project managers..

Authorized Attendant: An individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant's duties assigned, as listed in the NIU Confined Space permit program.

Authorized Entrant: A trained employee authorized by NIU to enter a permit required confined space to perform a specific type of duty.

Blanking or Blinding: 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.

Class II Chest Harness: A chest-waist harness used for side entry into confined spaces where only a limited fall hazard exists and where personnel retrieval may be necessary.

Class III Full-Body Harness: A full-body harness used for top entry into confined spaces where a vertical free fall hazard exists and where personnel retrieval may be necessary.

Confined Space: A space has all of the following characteristics:

1. Is large enough and so configured that an employee can bodily enter and perform assigned work;
2. Has limited or restricted means for entry or exit;
3. Is not designed for continuous employee occupancy;

Confined Space Entry Permit: The written or printed document that is provided by NIU to allow and control entry into a permit space and contains, at minimum, the following information:

1. Permit space to be entered;
2. Purpose of the entry;
3. The date and authorized duration of the entry permit;
4. Authorized entrants within the permit space, by name or other means (for example, through the use of roster or tracking system) as will enable the attendant to determine quickly and accurately, for the duration of the permit, which authorized entrants are inside the permit space;
5. The personnel, by name, currently serving as attendants;

6. The individual, by name, currently serving as entry supervisor, with a space for the signature or initials of the entry supervisor who originally authorized the entry;
7. The hazards of the permit space to be entered;
8. The measures used to isolate the permit space and to eliminate or control permit space hazards before entry;
9. The acceptable entry conditions;
10. The results of initial and periodic tests performed to assure acceptable conditions within the permit space, accompanied by the names or initials of the tester and by an indication of when the test was performed;
11. The rescue and emergency services to be summoned in the event of need;
12. The communication procedures to be used by authorized entrants and attendants to maintain contact during entry;
13. Equipment such as personal protective equipment, testing equipment, communications equipment, and rescue equipment to be used or ready during this permitted entry into permit space;
14. Any other information the inclusion of which is necessary, given the circumstances of the particular space in order to ensure employee safety;
15. Any other permits, such as for hot work, that have been issued to authorize work in the permit space.

Contaminant: Any organic or inorganic substance, dust, fume, mist, vapor, or gas, the presence of which in air can be harmful or hazardous to human beings.

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.

Physical or Heating Plant Representative: This term refers to NIU Physical or Heating Plant employees and/or supervisors/managers who actively participate in confined space entry.

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, capturing, or both, of a person by a finely divided particulate matter or liquid 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: Ingress by persons into a permit required confined space which occurs upon breaking the plane of the confined space portal with any part of the entrant's body; and all periods of time in which the confined space is occupied.

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.

Hazardous Atmosphere: Hazardous atmosphere poses risk of death, incapacitation, impairment of self-rescue ability, injury or illness from:

1. Flammable gas, vapor, or mist >10% LEL

2. Combustible dusts exceeding its LEL (obscures vision at distance of 5 feet)
3. Oxygen below 19.5% or above 23.5%
4. Chemical/physical hazards exceeding Permissible Exposure Limits
5. IDLH (Immediately Dangerous to Life or Health) atmospheres

Hoisting Device: A winch or similar mechanical device of specific design and rating to assist an entrant to safely enter and/or be removed through a top-opening of a confined space.

Hot Work: Work involving welding, burning, open flame, sparks or temperatures that could ignite combustible materials.

Hot Work Permit: A written authorization and posting issued for hot work operations.

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. Values established by NIOSH.

Inerting: Displacing an atmosphere with a non-reactive gas (e.g., nitrogen or carbon dioxide) so that the resulting atmosphere is noncombustible.

Isolation: A process of removing a confined space from service and preventing release of engulfing substances, or hazardous substances or energy. Isolation includes:

1. disconnection, removal or misalignment of lines;
2. blanking or blinding at flanges;
3. double block and bleed with valves;
4. electrical lockout and tagout or disconnection; and
5. mechanical lockout and tag out or disconnection.

Lockout/Tagout: Placement of a lock/tag on the energy generating device to isolate and prevent operation of the device.

Lower Explosive Limit (LEL): The minimum concentration of gas, vapor, or dust in air that can ignite in the presence of an ignition source.

Non-Permit Required Confined Space (NPRCS): A space meeting the definition of a confined space AND where all the following conditions apply:

1. it can be demonstrated that the ONLY hazard posed by the confined space is a potential hazardous atmosphere;
2. continuous forced air ventilation alone is sufficient to maintain acceptable atmospheres during confined space operations; and
3. monitoring and inspection data are available and documented which support the items above.

Exception: A space that's ONLY identified hazard is mechanical energy and which can be locked-out to fully eliminate this hazard, may be considered a NPRCS once the lockout has been performed and verified in the declassification permit.

Oxygen Deficiency: Any atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen Enriched Atmosphere: An atmosphere containing more than 23.5 percent oxygen by volume.

Permissible Exposure Limit (PEL): OSHA has published permissible exposure limits concerning various toxic and hazardous chemical substances and physical agents to which employees may be exposed during the course of employment without developing any adverse health effects.

Permit-Required Confined Space (PRCS): A space that meets all the requirements of a confined space AND that potentially has ANY one or more of the following characteristics:

contains or has a potential to contain a hazardous atmosphere

1. contains a material with the potential for engulfment of an entrant
2. has internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or a floor which slopes downward and tapers to a smaller cross-section
3. contains any other recognized serious safety or health hazard

Permit-Required Confined Space Program: Program for preventing unauthorized employee entry and for ensuring safe entry into and work within confined spaces by Authorized Entrants.

Retrieval Systems: Equipment used for non-entry rescue of persons from confined spaces consisting of the following items:

1. A cable, line, or rope of at least 1/2 inch diameter and capable of withstanding 2,000-pounds test. The line shall be equipped with fittings for attachment to a safety harness and shall be of a length that permits attachment to a hoisting device, or to an anchor point located outside the entry portal to the confined space;
2. A hoisting device, winch, or similar mechanical device of specific design for use to assist personnel in safe entry and/or removal through a top-opening of a confined space; and
3. Class II Chest Harness used for side entry into confined spaces where only a limited fall hazard exists and where personnel retrieval may be necessary; or
4. Class III Full-Body Harness used for top entry into confined spaces where a vertical free fall hazard exists and where personnel retrieval may be necessary.
5. Wristlets & Anklets may be utilized where it is determined by the entry supervisor that the use of a harness would create an additional hazard to the entrant due to space configuration.

Retrieval Line: A cable, line, or a rope of at least 1/2 inch diameter and capable of withstanding 2,000-pounds test. The line shall be equipped with fittings for attachment to a safety harness and shall be of a length that permits attachment to a hoisting device, or to an anchor point located outside the entry portal to the confined space.

Threshold Limit Value (TLV): The American Conference of Governmental Industrial Hygienists has established recommended threshold limit values (TLVs) concerning chemical substances and physical agents to which employees may be exposed during the course of employment. TLVs shall be used as guidelines only, and shall be considered as one of many contributing factors in evaluating the overall degree of hazard for confined space work.

III. General Program Management

Department of Environmental Health and Safety Responsibility

The Department of Environmental Health and Safety has the responsibility:

1. For SAFETY of the operation.
2. To Assist Facilities Planning and Operations (FPO) staff to ensure that all elements of the procedure are implemented for the protection of all employees.
3. To make the final determination of whether or not NIU employees will be permitted to enter all confined spaces, NPRCS only or no confined spaces and clearly institute a mechanism enforce.
4. To ensure that the overall program effectiveness is evaluated annually.
5. To establishing a mechanism to ensure the confined space program elements are being performed, including:
 - a. coordination of entrant, attendant, and supervisor required training.
 - b. all pre-entry conditions are met and entry permits reviewed prior to entry.
 - c. no unauthorized employee will enter or be exposed to a PRCS.
 - d. the confined space entry permit is completed and maintained at the worksite during confined space entry operations;
6. Providing timely follow-up to employee concerns.
7. Reviewing confined space program with employee involvement on annual basis.
8. Retaining and maintaining program documentation (per documentation section of this program).
9. Coordinating emergency response activities with the City of DeKalb Fire Department.
10. Issuing Hot Work Permits pending appropriate approvals
11. Overseeing the confined space identification/classification process.
12. Conduct confined space assessment for all new or significantly modified spaces.
13. Provide initial and refresher training in accordance with applicable sections of this program.
14. Maintain and calibrate direct read quad-gas instrumentation in accordance with manufacturer instructions.

Administrative Personnel Responsibilities

Administrative Personnel are responsible for:

1. Ensuring employees are performing their responsibilities defined in this procedure.
2. Notifying the Department of EH&S of any employee concerns and/or exposure potentials that they have identified in their areas.

3. Notifying the Department of EH&S of any significant equipment modification/ upgrade/addition that can be expected to create a new PRCS or substantially modifying an existing confined space.
4. Assist the Department of EH&S in coordinating confined space training for affected employees in their department.
5. Coordinating with contractor and Facility Planning and Operations (FPO) staff to ensure proper procedures are being followed per this program.

Authorized Attendant Responsibilities

1. Know the hazards, including information on the mode of exposure (e.g., inhalation or dermal absorption), signs or symptoms, and consequences of the exposure;
2. Be aware of possible behavioral effects in entrants due to exposure;
3. Know the number and identity of entrants in the space at all times;
4. Remain outside the space until relieved by another attendant;
5. Maintain communication with entrants, via two-way radio, throughout the entry;
6. Monitor activities inside and outside space to determine whether it is safe for entrants to remain in the space;
7. Perform air monitoring and surveillance of the confined space prior to and during entry into a confined space;
8. Evacuate the space if:
 - a prohibited condition is detected
 - behavioral effects in entrants due to hazard exposure are detected
 - a situation outside the space which could endanger entrants is detected
 - these duties cannot be adequately performed;
9. Summon rescue/emergency services, via two-way radio or cellular phone, if entrants need assistance to escape (perceived or actual);
10. While entry is underway:
 - warn unauthorized persons to stay away from space;
 - inform entrants and entry supervisor if unauthorized persons have entered the space;
11. Perform non-entry rescues as specified by rescue procedure.
12. Perform no duties that may interfere with the primary duty of monitoring and protecting authorized entrants; and
13. Never enter a permit space to attempt a rescue.

Entry Supervisor Responsibility

1. Be responsible for SAFETY
2. Know the hazards, including information on the mode of exposure (e.g., inhalation or dermal absorption), signs or symptoms, and consequences of the exposure;
3. Verify that the entry permit is complete with all pertinent information and signed, all tests have been conducted, all pre-entry conditions have been met and all

procedures/equipment specified by permit are in place before endorsing permit and authorizing entry;

4. Terminate entry and cancel permit when tasks are completed or when a condition not allowed by the permit arises;
5. Verify the availability and means of summoning rescue/emergency services;
6. Remove unauthorized individuals who enter or attempt to enter the space; and determine, whenever responsibility for entry is transferred, that operations remain consistent with the terms of the permit and acceptable entry conditions are maintained.

Authorized Entrant Responsibility

1. Be responsible for SAFETY
2. Know confined space hazards, including information on the mode of exposure (e.g., inhalation or dermal absorption), signs or symptoms, and consequences of the exposure;
2. Use appropriate personal protective equipment properly (e.g., face and eye protection, and other forms of barrier protection such as gloves, aprons, and coveralls);
3. Maintain communication (e.g., telephone, radio, visual observation) with Attendant(s) to enable the Attendant to monitor the Authorized Entrant's status as well as to alert the Authorized Entrant to evacuate;
4. Alert the Attendant whenever a warning sign or symptom of exposure to a dangerous situation exists or a prohibited condition is detected;
5. Exit from confined space as soon as possible when ordered by an Authorized Attendant/Entry Supervisor, when the Authorized Entrant recognizes the warning signs or symptoms of exposure exists, when a prohibited condition exist, or when an automatic alarm is activated on the confined space gas monitor.

Employee Responsibility

1. SAFETY
2. Notify his/her supervisor and/or the Department of EH&S immediately of any adverse or unanticipated reactions/incidents occurring during or after entering a confined space.
3. Notify his/her supervisor and/or the Department of EH&S if he/she has ANY safety concerns or notices any unsecured PRCS.
4. To not enter any confined space unless authorized and performed per the procedures outlined in this program.

METHODS OF COMPLIANCE

Training

Initial Training

All NIU employees who may, in whole or part of the duties/job description, be expected to take part in activities in or around any confined space must be trained to the appropriate level for the confined space operation in which they are taking part. The required training to be provided by NIU is as follows:

1. Confined space awareness training is required for NIU employees who are not permitted to enter any confined space, including those employees in divisions where confined space entry is permitted, but they are not authorized to enter. Initial training is required and shall include the following elements:
 - a. the hazards associated with confined spaces
 - b. the identification and classification of existing confined spaces
 - c. clarification of no entry policy
 - d. the characteristics of NPRCS and PRCS and their labeling requirements.
2. Full confined space program training is required for employees authorized to perform all PRCS and NPRCS entries. Initial shall include the following elements:
 - a. all training topics required above PLUS the following
 - b. respiratory protection (if applicable)
 - c. permit entry procedures
 - d. designation and certifications of entrants, attendants, entry supervisor, and rescue team
 - e. emergency egress and rescue procedures (including annual simulated non-entry rescue operations)

Refresher Training

Refresher training is dependent upon the type(s) of confined space entries permitted and shall include a review of all information discussed in the initial training as well as any changes to the Confined Space Program. The refresher must also include data regarding new PRCS or spaces that have been declassified or otherwise altered. As the Department of EH&S has elected to enter PRCS and NPRCS, the following refresher training applies to our employees:

- a. Refresher training must be conducted as applicable based on an annual review of the program, contractor permits and NPRCS declassification forms or every three (3) years, whichever comes first.
- b. Refresher training must include simulated practice non-entry rescue.

Confined Space Hazard Identification

The Department of EH&S will evaluate the university property for all potential confined spaces and classify each as either "non-permit required" or "permit-required." Applicable staff from FPO are responsible for advising the Department of EHS to changes to existing confined spaces and/or the creation of new confined spaces as a result of maintenance and capital renovation projects. This evaluation shall be performed in writing (using the form in Attachment CS-1) for each individual identified space and retained for the duration of that space existence. An evaluation is required for any new potential confined space introduced or when a significant change in a characteristic(s) of an existing space occurs. When a space evaluation is updated/revised, it shall be retained with the original evaluation for the duration of the space existence. A listing of the identified PRCS & NPRCS is provided in Attachment CS-2 of this procedure.

Attachment CS-1 outlines two tests of the space to determine if a PRCS exists:

1. The first test verifies if the space is a confined space.
For an enclosure to be considered a confined space, it must meet the definition of a confined space as outlined in the definition section of this procedure. Clarification: If access is any more difficult than walking through an ordinary door or walking up an ordinary flight of stairs, it is to be considered limited.
2. The second test determines the type of confined space.
Permit required confined spaces are confined spaces that are hazardous to enter unless special precautions are taken. To be a PRCS, the space must possess any ONE of the following characteristics:
 - a. actually, or potentially, contain a hazardous atmosphere such as oxygen deficiency or enrichment, flammable gases or vapors, or toxic air contaminants at levels exceeding OSHA established permissible exposure limits (PEL). [i.e., afterburners/thermal oxidizers, solvent recovery absorber beds, ductwork, sewers],
 - b. possess a potential for engulfment by liquids or finely divided solids, that can surround an entrant or be aspirated into the lungs,
 - c. has inwardly converging walls that taper to a smaller cross-sectional area that could trap an entrant (i.e., cone-shaped hoppers, bins or tanks, cyclones),
 - d. present any other serious health or safety hazard such as unguarded mechanical equipment, energized conductors, temperature extremes or hazardous radiation. (i.e. press ovens).

Non-permit required confined spaces are those that don't present any of the above mentioned hazards that could cause death or serious harm, [i.e. spaces above drop ceilings, mechanical cabinets, telephone equipment closets and some building crawl spaces].

Confined Space Labeling and Site Security

Signs or labels identifying each space as either "non-permit required" or "permit required" per the assessment above shall be permanently affixed outside of each opening leading to the space. Sign wording shall comply with OSHA 1910.146(c)(2). Additionally, each entry port or access to a confined space shall be secured such as to prevent unauthorized access.

Confined Space Entry Determination

Prior to entry into any confined space, the Entry Supervisor, Authorized Attendant and Entrants must perform a thorough evaluation of the space and task(s) to be performed. Results of this evaluation will determine how the space should be classified. Regardless, Authorized Entrants are still required for entering a NPRCS since the potential exists that conditions may change during entry that would trigger the implementation of PRCS procedures.

Confined Space Entry Procedures

Non-Permit Required Confined Space (NPRCS) Entry Procedure

The following requirements and procedures apply to entry into a designated NPRCS or a PRCS declassified to a NPRCS that meet the conditions as defined within this program:

1. Any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed;
2. When entrance covers are removed, the opening shall be promptly guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space;
3. The entry supervisor will coordinate any joint NPRCS entries made with outside contractors to ensure this procedure is understood and followed by all involved parties.
4. Prior to each entry into a space where the potential for a hazardous atmosphere exists, the internal atmosphere shall be tested and documented using the declassification permit in Attachment C-3. Testing shall be performed using calibrated, direct-read instrumentation. ***NOTE:** If initial entry into the space is necessary to conduct the sampling required, the entry must be accomplished utilizing the “Permit Required Confined Space (PRCS) Entry Procedure.”
 - oxygen content;
 - flammable gases and vapors; and
 - potential toxic air contaminants.
5. Prior to each entry into a space where there is NOT a potential for a hazardous atmosphere AND the only identified hazard is mechanical energy, the declassification permit in Attachment C-4 shall be utilized.
6. The determinations and data required above are made available to each employee who enters the confined space.
7. There must be no hazardous atmosphere in the confined space whenever any employee is inside.
8. Any personal protective equipment deemed necessary shall be available and utilized by the entrant(s) prior to entry into the confined space.
9. When appropriate, continuous forced air ventilation shall be so directed as to ventilate the immediate areas where an employee is or will be present within the confined space and shall continue until all employees have left the confined space;
10. The air supply for the forced air ventilation shall be from a clean source and shall not increase the hazards.
11. Where initial air testing is required due to the potential for a hazardous environment, the atmosphere shall be monitored continuously to ensure that the continuous forced air ventilation is preventing the accumulation of a

Hazardous Atmosphere; these readings shall be documented periodically on the Declassification Permit (Attachment CS-3).

12. If a Hazardous Atmosphere is detected during entry: each employee shall leave the confined space immediately; the confined space shall be evaluated to determine how the hazardous atmosphere developed; and measures shall be taken to eliminate the hazardous atmosphere before any subsequent entry takes place.
13. A declassification permit verifying that the confined space is safe for entry and that all required measures have been taken will be completed prior to each entry and shall be available to each employee required to enter the confined space. The NIU Department of EH&S or designated individual shall be notified prior to entry to review the declassification permit; the Department of EH&S shall retain a copy of the declassification permit (see Recordkeeping).
14. The Department of EH&S or designated individual shall cancel the declassification permit only after it is confirmed that the space has been properly secured and covered so as to prevent unauthorized access.
15. Training shall be provided as outlined in Section A- Training. All documentation shall be maintained as outlined in the section H. "Recordkeeping/Documentation" of this program.

Permit Required Confined Space (PRCS) Entry Procedure

Pre-Entry

The following procedures shall be performed to verify that acceptable entry conditions exist before a Confined Space Entry Permit will be completed and entry into a PRCS will be permitted:

1. A safety meeting will be conducted with employees involved in the entry to review:
 - the elements of the permit
 - job specific information regarding the nature of the work to be performed,
 - the potential hazards associated (including atmospheric conditions),
 - the correct use of required personal protective equipment and monitoring equipment, and emergency procedures;
2. A sign shall be posted at the entrance to a permit-required confined space containing the following language:

**DANGER
PERMIT-REQUIRED CONFINED SPACE
AUTHORIZED ENTRANTS ONLY**

3. All pipes and lines shall be cleaned out and locked/tagged-out prior to entry. Double block and bleed is the preferred method if possible and practical.
4. All electrical and mechanical equipment shall be disconnected and/or de-energized and locked/tagged out; power supplies to pumps shall be shut-off and the controls locked in the "OFF" position by means of padlocks; the Entry Supervisor will retain positive control of all padlock keys; each electrical panel is to be tagged/labeled to indicate the reason why the panels are locked out.
5. Air monitoring will be conducted prior to and continuously throughout the entry; the atmosphere shall be checked in an area that would represent the breathing zones of the employees while performing work inside the confined space; measurements shall be taken and recorded for the following:
 - a. Oxygen content (**Note: no entry shall be made if the oxygen concentration is less than 19.5% without approved supplied air respirators; no entry shall be made if the oxygen content is greater than 23.5% by volume**);
 - b. Flammability level (**Note: no entry shall be made if the level is greater than 10% of the LEL or if the oxygen content is greater than 23.5% by volume**); and
 - c. Other air contaminants (**Note: no entry shall be made if the level is above the IDLH; air contaminants above PELs but below IDLH will require use of respiratory protection for entry**).
7. The Department of EH&S or designated representative shall be notified before entry into hazardous atmospheres to review confined space procedures.
8. The entrance to the confined space shall be maintained free of obstructions, debris and/or other conditions that prevent ready entry into and exit from the confined space.
9. Confined spaces with both side and top openings shall be entered from side openings when practical.
10. At least one Authorized Attendant shall be stationed at the entrance to the confined space. An Authorized Attendant must remain at the entrance at all times while the Authorized Entrant(s) is inside the confined space. (Note: The Authorized Attendant(s) shall have some means to summon medical or other emergency assistance without leaving the confined space entrance).
11. A minimum of one additional employee, who may have other assigned duties, must be immediately available within sight or call of the Authorized Attendant to help in case of an emergency. This additional employee must also be trained as an Authorized Attendant.
12. Communication shall be maintained between the Authorized Attendant and Authorized Entrants in the confined space; radio or retrieval line signals must be used when Authorized Entrants are out of sight of the Authorized Attendant; both Authorized Attendants and Authorized Entrants shall be trained in the use of the communication system which shall be tested before each use.

13. When entering confined spaces which previously contained flammable or combustible materials, the following ADDITIONAL requirements shall apply:
 - a. No hot work or ignition sources shall be allowed in or adjacent to the confined space; (**If hot work must be performed, contact NIU's Department of EH&S for further guidelines)
 - b. All electrical equipment, including lighting, shall be explosion proof and safe for use in Class I, Division I atmospheres;
 - c. All monitoring equipment shall be intrinsically safe for use in Class I, Division I atmospheres;
 - d. Ground fault circuit interrupters shall be used as appropriate; and non-sparking tools shall be used.
14. The availability of a rescue team shall be verified as able to respond within a five minute response time or must be stationed on site.
15. Isolation of a confined space shall be performed to prevent unauthorized entry or the release of hazardous substances/ energy into the space.
 - a. In spaces containing flammable, toxic, corrosive, irritating or engulfing liquids and solids must be emptied, flushed or otherwise purged from the space whenever possible;
 - b. Pipes or hoses conveying flammable, toxic, incapacitating or engulfing substances must be disconnected, blanked, or double blocked and bled;
 - c. Mechanical or electrical equipment that could force substances into a confined space or injure workers in the space if energized must be disconnected or de-energized and locked/tagged out;
 - d. Appropriate warning signs and barriers shall be posted at the entrances to confined spaces to protect employees. Signs and barriers shall be removed only after the operation is completed and the confined space is secured.
16. If ventilation is required during confined space work in order to minimize concentrations of air contaminants and to maintain the oxygen content at safe levels in the confined space; the following ADDITIONAL requirements apply:
 - a. Confined spaces shall be ventilated prior to entry and during occupancy;
 - b. whenever a ventilation system is employed, the system shall be evaluated before and during each workshift to ensure that it is functioning properly and that acceptable atmospheres are maintained;
 - c. The physical properties of the contaminants within the confined space and the configuration of the confined space shall be considered in determining the ventilation technique to be employed;
 - d. Only explosion proof air movers shall be used to ventilate confined spaces;

- e. Whenever possible, air movers shall be used with ducting to increase the efficiency of the ventilation system in the confined space and to prevent recirculation of contaminated air due to ventilation "short circuiting;" and
 - f. When ventilating confined spaces previously containing flammable or combustible products, ventilation equipment shall be bonded or grounded to prevent the build-up and release of static electricity.
17. Monitoring for oxygen content, flammable gases or vapors and potential toxic contaminants shall be performed continuously and documented periodically on the entry permit to ensure that changes in atmospheric conditions are identified and workers are adequately protected. Air monitoring instruments acceptable for use include quad-gas direct read air contaminant measuring devices.
18. When preparing to enter a permit-required confined space, the following air testing requirements shall apply:
- a. A person with adequate knowledge and training (e.g. Authorized Entrant, Attendant, or an Department of EHS representative) shall perform appropriate confined space testing. Instruments are calibrated and maintained by the Department of EH&S according to manufacturer requirements;
 - b. Initial air testing of the confined space shall be made from outside of the confined space. Initial testing of the confined space shall be completed with mechanical ventilation equipment off so that "worst case" conditions can be assessed;
 - c. All air testing results shall be recorded on the entry permit;
 - d. If the configuration of the confined space prevents initial testing from outside, entry shall not be made until authorization is obtained from the Department of EH&S.
19. In addition to atmospheric testing, positive steps shall be taken to ensure that employees are protected from physical hazards in the permit-required confined space, which include, but are not limited to, the following:
- a. Discharge of steam, high-pressure air, water or oil into the confined space, or failure of confined space structural support members;
 - b. Falling objects;
 - c. Openings and elevated work areas from which persons may fall, hoses, pipes, tools, or equipment posing trip and fall hazards;
 - d. Wet or oily surfaces posing slip hazards;
 - e. Inadequate lighting;
 - f. Insufficient or faulty personal protective equipment;
 - g. Insufficient or faulty equipment or tools;
 - h. Noise in excess of permissible levels;
 - i. Temperature extremes that could cause heat or cold stress;

- j. Electrical shock due to faulty wiring or improper grounding procedures (GFCI protected circuits must be used when electrical equipment is used in a potentially wet environment or outside).
20. Assigned staff should consult with the Department of EH&S for assistance in the selection and use of personal protective and associated safety equipment.. Selection of such equipment is based on the following conditions:
- a. Specific work activities of personnel inside the confined space;
 - b. Type of chemical residues inside the confined space;
 - c. Actual or potential for development of dangerous air contamination and/or oxygen deficiency; and
 - d. Potential physical hazards associated with the confined space;
The personal protective and associated safety equipment that may be required and should be available includes, but is not limited to:
Eye and face protection - safety glasses, chemical goggles, faceshields or full face respirators;
Head protection - hard-hats;
Body protection - chemical resistant coveralls, suits, and aprons;
Foot protection - steel-toe boots and boot covers;
Respiratory protection - air-purifying respirators, supplied air-line respirators, escape packs, and self-contained breathing apparatus;
Hearing protection - ear plugs and ear muffs;
Retrieval devices - Class II chest harness and Class III full-body harness, wristlets, retrieval line, hoisting device properly-rated top entry extraction winch or hoist;
Fall protection - chest harness, full-body harness and lanyard;
Warning devices - barricades, signs, caution tape and cones; and
Other safety equipment - first aid kit, eye wash, emergency shower, fire extinguisher, lighting equipment, and ladders.

PRCS Entry Permit System

The PRCS entry permit authorizes the entry into a confined space with a hazardous atmosphere and documents compliance with applicable regulations. A PRCS permit (Attachment CS-5) must be completed prior to entry into any identified PRCS. The permit shall include the following items:

1. tester's initials or signature;
2. the identification of the confined space to be entered;
3. the purpose of the entry;
4. the date and authorized duration of the entry permit;
5. the Authorized Entrants within the confined space, by name, roster, or other such tracking system, so that the Authorized Attendant knows exactly who is inside the confined space during the entire duration of the permit;
6. Name(s) of Authorized Attendant(s);
7. Signature and printed name(s) of Entry Supervisor(s);

8. The hazards of the confined space to be entered;
9. The measures used to isolate the confined space and eliminate or control permit space hazards before entry (e.g., lockout/tagging of equipment, procedures for purging, inerting, ventilating, and flushing permit spaces, etc.);
10. Acceptable entry conditions;
11. Results of initial and periodic testing accompanied by the names or initials of the testers, and time that tests were performed;
12. The rescue and emergency services that can be summoned and phone numbers to call;
13. The communication system used to maintain contact between Authorized Entrants and Attendants during an entry operation;
14. Equipment including personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment to be provided;
15. Any other information necessary to ensure the safety of employees;
16. Any additional permits which have been issued for the confined space, such as hot work permits.
17. Instrument calibration results – type/model of instruments used to monitor hazardous conditions.
18. The permit shall be posted at the entry portal, or otherwise available for inspection by all Authorized Entrants, so that they may confirm all pre-entry preparations have been made.
19. The Entry Supervisor shall sign the permit, thus allowing the entry operation to begin.
20. The duration of the permit shall not exceed the time required to complete the job or task specified on the permit.
21. The Entry Supervisor shall terminate the entry and cancel the entry permit if the operations covered by the entry permit have been completed or a condition not allowed under the entry permit arises in or near the confined space.
22. The Entry Supervisor shall sign-off to cancel an entry permit after it is confirmed that the space has been properly secured and covered so as to prevent unauthorized access.

Rescue Operations

Appropriately trained employees of the Heating Plant and Physical Plant may perform non-entry rescues. Retrieval systems shall be used to facilitate non-entry rescues whenever an Authorized Entrant enters a PRCS, unless the retrieval system increases the overall risk of entry.

All university rescues requiring entry into a PRCS space will be performed by a qualified outside service. Rescue personnel must be trained in accordance with OSHA Standard for General Industry 29 CFR Part 1910.146(k). The DeKalb Fire Department will be contacted in the case of emergency during confined space entry. During the pre-entry briefing procedures shall be developed for summoning rescue and emergency services, for rescuing

entrants from permit spaces, for providing emergency services to rescue employees, and for preventing unauthorized personnel from attempting a rescue.

Equipment/Sampling

The Department of EH&S shall maintain and calibrate confined space monitors in accordance with the manufacturer's specifications. Monitors shall be calibrated monthly and prior to each use.

Monitoring of a space shall be conducted continuously throughout the entire entry for any PRCS and spaces declassified from PRCS to NPRCS where a hazardous atmosphere may occur.

In order for a space to be declassified from PRCS to NPRCS, the existing or potential hazard present can only be atmospheric in nature which is controlled through the use of forced ventilation alone and a written certified declassification permit (CS-3) must be completed. Results of atmospheric testing shall be recorded and retained with the permit or declassification document. (see the H- Recordkeeping/ Documentation Section)

Air testing shall be conducted using a properly maintained confined space monitor capable of monitoring (at a minimum) oxygen, LEL and carbon monoxide (CO) simultaneously plus any additional toxin known to be present in potentially hazardous concentrations.

Testing requirements are as follows (in the order listed):

TEST Permissible Level for entry

- a % oxygen between 19.5% and 23.5%
- b % LEL less than 10% of LEL for flammable present (10% of LEL for toluene= 1,200 ppm)
- c. CO less than 50 ppm (unless proper respiratory protection provided)
- d. Hydrogen sulfide less than 10 ppm

*Any other identified potentially hazardous chemical must be measured in addition to the above and levels maintained below the established OSHA PEL and STEL through continuous forced ventilation. Documented site evaluation and classification for each confined space present shall be maintained for the duration of occupancy or until permanently removed from service.



Example of Direct Read Air Monitoring Device

Contractors

1. Contractors used by NIU to enter confined spaces, shall be informed in advance of potential hazards associated with the confined space if known. **Contractors shall have and follow a written PRCS program and utilize their own entry permit.** Both the contractor program and entry permit must be at least as stringent as those required by this procedure.
2. The contractor's entry permit shall be reviewed prior to entry into a PRCS to ensure that it is acceptable to NIU. NIU shall also have the authority to review the contractor's atmospheric testing results prior to and during entry.

3. NIU and the contractor shall establish, prior to permit-required confined space operations, who will serve as the rescue responder in an emergency and what system will be used to notify the responder that an emergency exists.
 - Plans will be developed as needed and implemented to coordinate entry operations when employees of more than one contracted employer are working simultaneously in a permit-required confined space.

Recordkeeping/Documentation

1. The Department of EHS will retain documented site evaluation and classification for each confined space for the duration of occupancy or until permanently removed from service.
2. Contractor confined space entry permits, training records and air monitoring data shall be retained by the contractor.
3. The Department of EHS will retain document(s) and other media of training provided by EH&S related Confined Space. A roster of attendees (either electronic or paper) will be retained by EH&S.
4. Supervisors shall maintain Confined Space training records of each employee.

5. Records of all declassification documents and all PRCS permits, including all supporting air monitoring results, shall be retained and maintained with the Department of EH&S for a period of one year from the date of entry.
6. The Department of EHS will retain documentation of annual review of all declassification documents and PRCS permits (both NIU and contractor) to determine continued program/permit effectiveness for a period of three years from the date of the review.
7. Documentation of confined space monitor, rescue equipment, rescue and PPE inspection (monthly and prior to each use) and maintenance (per mfr. recommendations) shall be retained by the Department of EH&S for a minimum of three years.
7. Documentation of confined space monitor calibration (required monthly and prior to each use) should be maintained in the Department of EH&S for a minimum of three years.
8. Documentation of any agreement(s) made with the DFD to act as rescue team for confined space entries. [Note: documentation must include initial assessment performed by NIU (Attachment CS-6) and the most recent Off-Site Rescue Performance Evaluation (Attachment CS-7)].

References

- OSHA 29 CFR 1910.146- Permit Required Confined Spaces
- Federal Register 58 FR4462
- American National Standards Institute (ANSI), "Safety Requirements for Working in Tanks and Other Confined Spaces," ANSI Z117.1-1989.
- National Institute for Occupational Safety and Health (NIOSH), Criteria Document, "A Guide to Safety in Confined Spaces," July, 1987

**CS – 1:
Confined Space Identification and Classification Form**

Description/Name of Space _____

Location of Space _____

A. Confined Space Determination:

Yes No

A confined space means a space that: (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/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.

This space meets all three of the above criteria.

Note: A “NO” answer means that this is not a confined space. Go no further.
A “YES” answer means that this is a confined space; proceed with the next section.

B. Identification of Potential Hazards:

1. Potential for Hazardous atmosphere?

- ⇒ Oxygen deficiency (less than 19.5%)
- ⇒ Oxygen enrichment (greater than 23.5%)
- ⇒ Flammable gas or vapor (greater than 10% LEL or LFL)
- ⇒ Airborne combustible dust (dust explosion hazard)
- ⇒ Toxic contaminant (greater than PEL/TLV for any chemical present)

2. Engulfment by liquid or finely divided, flowable solid substance that can be aspirated to cause death by filling or plugging the respiratory system, or that can surround and effectively capture a person or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.?

3. Entrapment and/or constriction of torso (asphyxiation hazard) by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section?

4. Hazardous energy (mechanical, electrical, thermal, chemical, pneumatic, etc)?

5. Significant fall hazard (slippery surfaces, 10 foot or more drop/fall potential, etc.)?

C. Classification of Confined Space:

Non-permit Confined Space. (Section A is answered YES. Section B has all NO answers.) The Permit Required Confined Space Standard has no further application. Follow the Non-Permit Required Confined Space Procedures found In the RR Donnelley & Sons Confined Space Procedure.

Permit-Required Confined Space. (Section A is answered YES. Section B has one or more YES answers.) The Permit-Required Confined Space Standard (1910.146) and the CNA Confined Space Procedure requirements must be met.

Assessment and classification performed by:

(print name & title)

(signature)

(date)

CS - 2: List of Confined Spaces

Please contact the Department of EH&S for detailed information pertaining to identified permit and non-permit required confined spaces. The compiled list is extensive but may not include all spaces that could be classified as a Confined Space. If a space is encountered that is not included in the compiled list, form CS-1 should be utilized to classify the space. The completed CS-1 form must be forwarded to The department of Environmental Health & Safety for inclusion on the CS-2 list.

CS - 3: Declassification Permit (Potentially Hazardous Atmosphere)

Date and Time Issued: _____ Date and Time Expires: _____

Job site/Space I.D.: _____ Job Supervisor: _____

Equipment to be worked on: _____

Work to be performed: _____

1. Atmospheric Checks: Time _____

Oxygen _____%

Explosive _____% L.F.L.

Toxic _____PPM

2. Tester's signature: _____

3. Source isolation (No Entry): N/A Yes No

Pumps or lines blinded, () () ()

disconnected, or blocked () () ()

4. Ventilation Modification: N/A Yes No

Mechanical () () ()

Natural Ventilation only () () ()

5. Atmospheric check after
isolation and Ventilation:

Oxygen _____% > 19.5 < 23.5

Explosive _____% L.F.L. < 10 %

Toxic _____PPM < 10 PPM H(2)S

Time _____

Testers signature: _____

6. Communication procedures: _____

7. Rescue procedures: _____

8. Equipment:	N/A	Yes	No
Direct reading gas monitor - Tested & calibrated	()	()	()
Safety harnesses and lifelines for entry and standby person	()	()	()
Hoisting equipment	()	()	()
Powered communications	()	()	()
Protective Clothing	()	()	()
All electric equipment listed Class I, Division I, Group D and Non-sparking tools	()	()	()

9. Periodic atmospheric tests:

Oxygen	____%	Time	____	Oxygen	____%	Time	____
Oxygen	____%	Time	____	Oxygen	____%	Time	____
Explosive	____%	Time	____	Explosive	____%	Time	____
Explosive	____%	Time	____	Explosive	____%	Time	____
Toxic	____%	Time	____	Toxic	____%	Time	____
Toxic	____%	Time	____	Toxic	____%	Time	____

We have reviewed the work authorized by this declassification permit and the information contained here-in. Written instructions and safety procedures have been received and are understood. Entry cannot be approved if any squares are marked in the "No" column. This declassification permit is not valid unless all appropriate items are completed.

Permit Prepared By: _____

Approved By:
(Unit Supervisor) _____

Reviewed By
(Engineering Department or Representative):

(printed name & title)

(signature)

This permit to be kept at job site. Return job site copy to EHS Department following job completion.

Copies: Original (Department of EH&S)
 Copy (Project Coordinator)
 Hard(Job site)

CS - 4: Declassification Permit (Hazardous Energy Only)

Date and Time Issued: _____ Date and Time Expires: _____

Job site/Space I.D.: _____ Job Supervisor: _____

Equipment to be worked on: _____

Work to be performed: _____

1. Source isolation (No Entry): N/A Yes No

Equipment Locked Out () () ()

Pumps or lines blinded, () () ()

disconnected or blocked () () ()

2. Lockout Verified N/A Yes No

Verification performed by () () ()

attempting to energize

equipment.

Tester Signature: _____

3. Communication procedures: _____

4. Rescue procedures: _____

5. Equipment: N/A Yes No

Safety harnesses and lifelines
for entry person () () ()

Hoisting equipment () () ()

Powered communications () () ()

Protective Clothing () () ()

All electric equipment listed
Class I, Division I, Group D
and Non-sparking tools () () ()

We have reviewed the work authorized by this declassification permit and the information contained here-in. Written instructions and safety procedures have been received and are understood. Entry cannot be approved if any squares are marked in the "No" column. This declassification permit is not valid unless all appropriate items are completed.

Permit Prepared By: _____

Approved By:
(Unit Supervisor) _____

Reviewed By
(Engineering Department or Representative):

(printed name & title)

(signature)

This permit to be kept at job site. Return job site copy to the Department of EH&S following job completion.

CS - 5: Permit Required Confined Space Entry Permit

PERMIT VALID FOR 8 HOURS ONLY. ALL COPIES OF PERMIT WILL REMAIN AT JOB SITE UNTIL JOB IS COMPLETED.

Date and Time Issued: _____ Date and Time Expires: _____

Job site/Space I.D.: _____

Equipment to be worked on: _____

Work to be performed: _____

SUPERVISOR(S) in charge of entry

COMMUNICATION PROCEDURES _____

RESCUE PROCEDURES (PHONE NUMBERS AT BOTTOM) _____

* BOLD DENOTES MINIMUM REQUIREMENTS TO BE COMPLETED AND REVIEWED PRIOR TO ENTRY*

<u>REQUIREMENTS</u>	<u>COMPLETION DATE</u>	<u>TIME</u>
----------------------------	-------------------------------	--------------------

Lock Out/De-energize	_____	_____
Line(s) Broken-Capped-Blanked	_____	_____
Purge-Flush and Vent	_____	_____
Ventilation	_____	_____
Secure Area (Post and Flag)	_____	_____
Breathing Apparatus	_____	_____
Resuscitator - Inhalator	_____	_____
Standby Safety Personnel	_____	_____
Full Body Harness w/"D" ring	_____	_____
Emergency Escape Retrieval Equip	_____	_____
Lifelines	_____	_____
Fire Extinguishers	_____	_____
Lighting (Explosive Proof)	_____	_____
Protective Clothing	_____	_____
Respirator(s) (Air Purifying)	_____	_____
Burning and Welding Permit	_____	_____

Note: Items that do not apply enter N/A in the blank.

**RECORD CONTINUOUS MONITORING RESULTS EVERY 30 MINUTES

CONTINUOUS MONITORING** Permissible

<u>TEST(S) TO BE TAKEN</u>	<u>Entry Level</u>	<u>Readings Taken</u> _____
PERCENT OF OXYGEN	19.5% to 23.5%	_____
LOWER FLAMMABLE LIMIT	Under 10%	_____
CARBON MONOXIDE	+50 PPM	_____
Aromatic Hydrocarbon	+ 1 PPM * 5PPM	_____
Hydrogen Cyanide	(Skin) * 4PPM	_____
Hydrogen Sulfide	+10 PPM *15PPM	_____
Sulfur Dioxide	+ 2 PPM * 5PPM	_____
Ammonia	*35PPM	_____

* Short-term exposure limit: Employee can work in the area up to 15 minutes.

+ 8 hr. Time Weighted Avg.: Employee can work in area 8 hrs longer with appropriate respiratory protection).

REMARKS: _____

GAS TESTER NAME	INSTRUMENT(S) USED	MODEL &/OR TYPE	SERIAL &/OR UNIT #
_____	_____	_____	_____
_____	_____	_____	_____

ATTENDANT IS REQUIRED FOR ALL CONFINED SPACE WORK

CONFINED
SPACE ATTENDANT(S)

CONFINED
SPACE ENTRANT(S)

SIGNATURES REQUIRED BY ENTRY SUPERVISOR
ENTRY AUTHORIZATION

All actions and or conditions for safe entry have been performed.

(signature) _____ title _____

ENTRY CANCELLATION

Entry has been completed, all entrants have exited permit space and space has been properly closed to prevent unauthorized entry.

(signature) _____ title _____

CS - 6: Off-Site Rescue Initial Evaluation

Name of Rescue Service being evaluated: _____

1. Is the service willing to perform rescues at this facility?

Yes _____ No _____

2. How quickly can the rescue team or service get from its location to the permit spaces from which rescue may be necessary?

3. What is the availability of the rescue service? Is it unavailable at certain times of the day or in certain situations?

4. If the rescue service becomes unavailable while an entry is underway, does it have the capability of notifying university employees so that the entry can be aborted immediately?

Yes _____ No _____

5. Does the rescue service meet all the requirements of paragraph (k)(2) of the standard? If not, has it developed a plan that will enable it to meet those requirements in the future? If so, how soon can the plan be implemented?

Yes _____ No _____

6. Is an adequate method for communications between the attendant, NIU and the prospective rescuer available so that a rescue request can be transmitted to the rescuer without delay? How soon after notification can a prospective rescuer dispatch a rescue team to the entry site?

Yes _____ No _____

7. If university employee enter spaces with a vertical entry over 5 feet in depth, can the prospective rescue service properly perform entry rescues? Does the service have the knowledge and equipment to perform rope work or elevated rescue, if needed?

Yes _____ No _____

8. Does the rescue service have the necessary skills in medical evaluation, patient packaging and emergency response?

Yes _____ No _____

9. Does the rescue service have the necessary equipment to perform rescues or must the equipment be provided by NIU?
Service_____ NIU_____

Using the information obtained in this assessment, the Environmental Health and Safety Department has elected to utilize the above named company for permit required confined space entry rescue operations.

Signature of Safety Officer

Date

CS - 7: Off-Site Rescue Performance Evaluation

In accordance with the requirements of OSHA 29 CFR 1910.146 (k)(2) (iv), an annual performance evaluation is required. Please complete the following questions and return to the Environmental Health and Safety Department, Dorland Building 203, DeKalb, Illinois 60115-2854. Thank you for your cooperation.

Name of Rescue Service being evaluated: _____

Person Completing Evaluation: _____

1. Have all members of the service been trained as permit space entrants, at a minimum, including training in the potential hazards of all permit spaces, from which rescue may be needed?
Yes____ No____
2. Is every team member provided with, and properly trained in, the use and need for PPE, such as SCBA or fall arrest equipment, which may be required to perform permit space rescues in this facility?
Yes____ No____
3. Is every team member properly trained to perform his/her functions and make rescues, and to use any rescue equipment, such as ropes and backboards, that may be needed in a rescue attempt?
Yes____ No____
4. Are team members trained in the first aid and medical skills needed to treat victims overcome or injured by the types of hazards that may be encountered in the permit spaces at this facility?
Yes____ No____
5. Do all team members perform their functions safely and efficiently?
Yes____ No____
6. If necessary, can the rescue service properly test the atmosphere to determine if it is IDLH?
Yes____ No____

7. Can the rescue personnel identify information pertinent to the rescue from entry permits, hot work permits, and MSDS's? Yes _____ No _____
8. If necessary, can the rescue service properly package and retrieve victims from a permit space that has a limited size opening(less than 24 inches in diameter), limited internal space, or internal obstacles or hazards? Yes _____ No _____
9. If necessary, can the rescue service safely perform an elevated (high angle) rescue?
Yes _____ No _____
10. Does the rescue service have a plan for each of the kinds of permit space rescue operations at this facility? Is the plan adequate for all types of rescue operations that may be needed at this facility?
Yes _____ No _____

According to OSHA 29 CFR 1910.146 (k)(2)(iv), the rescue service is required to practice a simulated rescue at least once every 12 months, provided that the service has not successfully performed a similar type permit space rescue within that time. Should you wish to schedule a time to perform a simulated confined space rescue on-site, please contact {enter name and telephone here}.

The information provided in this performance evaluation is truthful to the best of my knowledge.

Signature of evaluator

Date