

PROCEDURE 12 - Confined Space Entry

<u>Table of Contents</u>	<u>Page</u>
Synopsis	12-ii
Confined Space Entry Checklist	12-iii
12 CONFINED SPACE ENTRY.....	12-1
12.1 Purpose and Scope	12-1
12.2 Definitions.....	12-1
12.3 Procedure	12-3
12.4 Responsibilities	12-9
12.5 References	12-10
12.6 Attachments	12-11
Attachment A	12-A-1
Permit-Required Confined Space Entry Permit	12-A-1

Synopsis

The purpose of this procedure is to provide employees with guidelines concerning hazards associated with entry into and performance of work in confined spaces. This procedure applies to all NWS facilities and work locations which have confined spaces and to NWS employees at these facilities and locations performing confined space entry.

Initial Implementation Requirements:

- **Analyze Site Operations versus Procedure Requirements**
 - Evaluate Confined Spaces. (12.4.2)
 - Conduct Atmospheric testing (if applicable). (12.3.3h)
- **Develop/Obtain Documentation/Information required for Site**
 - Prepare Listing of Permit-Required Confined Spaces. (12.3)
 - Develop Confined Space Entry Permits. (12.3.3)
 - Develop Emergency Response Agreements (ERA) for Emergency Rescue. (12.3.3i)
- **Designate Person to Administer Confined Space Entry Procedure Requirements**
- **Provide Local Training of Site Personnel**
 - Confined Space Training for Designated Site Personnel. (12.3.3.d)
 - Visitor/Contractor Safety Briefings. (12.5.2d)
- **Inventory Material/Equipment (Procure as required)**
 - Hand-held Monitors (if applicable). (12.5.2e, 12.3.3k)
 - Safety Equipment. (12.5.2e, 12.3.3k)
 - Personal Protective Equipment (PPE). (12.5.2e, 12.3.5.b)
 - Communication Equipment. (12.5.2e, 12.3.5.c)
 - Confined Spaces Postings, Barriers and Warning devices. (12.5.2e, 12.3.3)

Recurring and Annual Task Requirements:

- **Perform Inspection/Assessment/Testing**
 - Re-evaluate confined spaces (if applicable). (12.3)
 - Conduct Atmospheric Testing (if applicable). (12.3.3h)
- **Review/Update Documentation/Information required for Site**
 - Update Listing of permit confined spaces. (12.3)
 - Prepare Confined Space Entry Permits. (12.3.3)
 - Maintain ERA for Emergency Rescue. (12.3.3.i)
- **Provide Refresher Training of Site Personnel (If applicable)**
 - Confined Space Training for Designated Site Personnel. (12.3.3.d)
- **Inspect/Replace/Recalibrate/Maintain Material/Equipment**
 - Hand-held monitors. (12.5.2e, 12.3.3.k)
 - Safety Equipment. (12.5.2e, 12.3.3.k)
 - Personal Protective Equipment. (12.5.2e, 12.3.16b)
 - Communication Equipment. (12.5.2e, 12.3.5.c)
 - Confined Spaces Postings, Barriers and Warning devices. (12.5.2e, 12.3.3)

Confined Space Entry Checklist

Requirements	Reference	YES	NO	N/A	Comments
Is initial and annual review of this procedure conducted and documented?	12.4.2				
Are all confined spaces evaluated using the “Permit-Required Confined Space Entry Decision Flowchart (Attachment B) with regard to confined space requirements?	12.3				
Are non permit confined spaces reassessed if new hazard are introduced?	12.3				
Can any permit required confined space be temporary re-classified? If yes, is the reclassification procedure documented?	12.3 .2.d				
Are there written Entry Permits for all Permit Required Confined Spaces prior to entry?	12.3.3 Attachment A				
Is a listing of all Permit Required Confined Spaces maintained at the site?	12.3				
Are appropriate signs for permit required confined spaces posted and access restricted from unauthorized personnel?	12.3.1 a,b				
Are contractors briefed on hazards of confined spaces and operations coordinated between contractor and government employees?	12.3.1 c				
Do all Entry Permits contain the required information?	12.3.3 a-g Attachment A				
Are Entry Permits available at the space or posted in a conspicuous location near the space during the entry and kept on file at the office for at least a year?	12.3.3.				
Are appropriate atmospheric tests performed to check for oxygen deficiency, toxic substances and explosive concentrations in the confined space before entry and continuous monitoring is conducted to ensure a safe atmosphere?	12.3.3h				

Requirements	Reference	YES	NO	N/A	Comments
Are plans for rescue and emergency situation developed, and kept on file?	12.3.3.i				
Are means of communication between attendant and entrant established and documented?	12.3.3.j				
Are all personnel involved in entry into a confined space, trained?	12.3.1.d				
Is the authorized attendant appropriately trained and equipped to handle an emergency?	12.3.5				
Is there an assigned safety observer (attendant) outside of the confined space, when required, whose sole responsibility is to watch the work in progress, sound an alarm if necessary, and render assistance?	12.3.6				
Is the authorized attendant prohibited from entering the confined space and trained to summon rescue services in the event of an emergency?	12.3.6i				
Does the entry supervisor specify entry conditions and the appropriate safety equipment required for entry into a permit confined space?	12.6.d(1)				
Have a listing of all permit required confined spaces on site been prepared?	12.3.1 d				
Is there a signed permit located in a conspicuous location near the permit confined space point of entry?	12.3.4				

12 CONFINED SPACE ENTRY

12.1 Purpose and Scope

As part of its goal to provide a safe and healthful workplace, the National Weather Service (NWS) is implementing this procedure related to the hazards associated with the entry into and performance of work in confined spaces. OSHA developed confined space regulations because some spaces have a combination of physical characteristics and existing/potential hazards that make them particularly dangerous. The heightened danger comes from the fact that rescue (self-rescue or rescue by others) is hampered by obstacles. The regulations dictate how these spaces are handled and mandate certain measures when they must be entered. This procedure applies to all NWS facilities and work locations which have confined spaces and to NWS employees performing work in those spaces.

12.2 Definitions

Attendant. One of three roles required for a permit entry, the attendant is stationed somewhere outside the permit-required confined space and is responsible for maintaining contact with the authorized entrant(s) conducting work inside and initiating rescue actions if necessary. Full responsibilities are defined in Section 12.3.6.

Authorized Entrant. One of three roles required for a permit entry, the authorized entrant (or entrants) performs the specified work in the permit-required confined space. Full responsibilities are defined in Section 12.3.5.

Confined Space. A space that meets all of the following criteria:

- a. Is large enough for a person to bodily enter; and
- b. Has limited means of egress (OSHA is concerned about people being able to quickly escape a space in an emergency situation - they are looking for impediments to escape); and
- c. Is not designed for continuous human occupancy (continuous human occupancy must consider occupancy while the space is in its normal operating state).

Entry. Entry of a confined space occurs when any part of a person's body breaks the plane of the entrance. For example, placing a hand through the hatch of a confined space is considered entry.

Entry Permit (or Permit). A document establishing acceptable entry conditions, methods of personnel protection, communication protocol, rescue procedures and other details required when a permit-required confined space is entered. See Section 12.3.3.

Entry Supervisor. One of three roles required for a permit entry, the entry supervisor manages activities associated with entry of the permit-required confined space including signing the entry permit. Full responsibilities are defined in Section 12.3.4.

Field Office. A Field Office may include the following: Weather Forecast Office (WFO), River Forecast Center (RFC), Weather Service Office (WSO), and a Data Collection Office (DCO).

Isolation. A process whereby the confined space is removed from unwanted forms of energy and completely protected against the inadvertent release of material or energy by the following: blank flange installation, removing sections of lines and piping, electrical lockouts and/or the disconnection of any other energy source or mechanical linkage that could cause personal harm if released unexpectedly.

Lockout/Tagout (LO/TO). The placement of lock(s) and tag(s) on energy isolating devices in accordance with 29 CFR 1910.147 to assure the energy isolating devices are not inadvertently defeated.

Non-Permit Required Confined Space. A confined space that does not contain hazards that qualify it as a permit-required confined space.

Operating Unit. For the purpose of this procedure, Operating Unit includes the National Centers for Environmental Prediction (NCEP), National Data Buoy Center (NDBC), NWS Training Center (NWSTC), National Reconditioning Center (NRC), Radar Operations Center (ROC), or the Sterling Field Support (SFSC).

Permit Entry. The process of entering a permit-required confined space, conducting work, and exiting the space. All aspects are planned and the evolution is managed via an Entry Permit.

Permit-Required Confined Space. A confined space that meets at least one of the following conditions:

- a. The space has a hazardous atmosphere or is capable of developing a hazardous atmosphere; or
- b. The contents of the space can present an engulfment hazard (“engulfment” means the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing); or
- c. The space is of such configuration that a worker could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
- d. The space contains any other recognized serious hazard (operational conditions must be considered when evaluating potential hazards).

<p>NOTE: Examples of permit-required confined spaces at NWS facilities include NEXRAD radomes, large air handlers, electrical and sewer manholes, river gauge pits, and buoys.</p>

Reclassification. A process by which hazards associated with certain permit-required confined spaces are temporarily eliminated, allowing them to be temporarily treated as non-permit required confined spaces.

NOAA SECO. NOAA Safety and Environmental Compliance Office

Safety Briefing. Prior to entry, safety instruction will be provided by the Station Manager or his/her designee for visitors and contractors. This instruction will include confined space entry procedure highlights, specific hazards associated with entry and precautions to be taken during entry. The briefing shall also cover the provisions for authorizing a confined space entry performed by a visitor or contractor.

Station Manager. For the purpose of this procedure, the Station Manager shall be either the NWS Regional Director; Directors of Centers under NCEP (Aviation Weather Center, NP6; Storm Prediction Center, NP7; and Tropical Prediction Center, NP8; Space Weather Prediction Center, NP9); Directors of the NDBC, NWSTC, and Chiefs of NRC, ROC and SFSC facilities; or Meteorologist in Charge (MIC), Hydrologist in Charge (HIC), or Official in Charge (OIC).

12.3 Procedure

Each NWS facility shall conduct and document an assessment of spaces with regard to confined space requirements. Personnel conducting space assessments should contact their Regional or Operating Unit Safety or Environmental/Safety Coordinator or National Headquarters Safety Office if questions arise. These resources must be contacted any time a hazardous atmosphere is identified or suspected. The assessment must be kept on file by the Safety or Environmental/Safety Focal Point.

Spaces that are not confined spaces require no action. Spaces that are determined to be non-permit required confined spaces should be identified and documented. Such spaces meet the three criteria for a confined space but do not have serious hazards (do not meet any of the four criteria) that would classify them as permit-required confined spaces. Non-permit required confined spaces require no action, but must be reassessed if new hazards are introduced. For example, a crawlspace under a building may be a non-permit required confined space. If a proposed new task includes painting components in the crawlspace with a volatile paint, the space would require reassessment. Use of the paint in the crawlspace could lead to development of a hazardous atmosphere, which would cause the space to be classified as a permit-required confined space. Based on this assessment, personnel would have to figure out the best way to complete the task. One idea would be using a lower volatility paint and providing ventilation. Another idea could involve the use of a supplied air respirator. The point is that non-permit required confined spaces are sensitive to the introduction of new hazards and should be watched accordingly.

Spaces that are determined to be permit-required confined spaces require development of a permit-required confined space program. The program addresses signage, access control, training personnel, coordination with contractors, entry procedures and other topics. A listing of permit required confined spaces shall be maintained on the site by the Safety or Environmental/Safety Focal Point. Entry into a permit-required confined space can be conducted in one of two ways. If the hazards in the space can be eliminated from outside the space, the space can be temporarily reclassified as a non-permit required

confined space. If the space cannot be reclassified, entry must be conducted through a process called permit entry.

12.3.1 General Requirements

- a. Signs. OSHA requires employers to inform employees who have access to permit-required confined spaces of the nature of the spaces, their location and their hazards, by posting danger signs or by other equally effective means. A typical sign states: **“DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER.”**

Posting of signs is not necessary if the space is protected from unauthorized entry (typically by locks) and all unauthorized personnel and visitors are told not to enter them. This constitutes “equally effective means.” Signs may still be posted as an added safety measure even if equally effective means are put in place.
- b. Access. OSHA requires the public and unauthorized personnel be restricted from access to permit-required confined spaces. Common means to restrict access include locked perimeter fences, and/or a lock on the entrance of a space.
- c. Use of Contractors. If an employer chooses to use a contractor to perform work that involves a permit-required confined space, the employer must notify the contractor of the presence of the permit-required confined space and indicate that entry is only allowed through compliance with a confined space program. The employer must identify the hazards associated with the space and identify precautions and procedures that the employer has in place to protect personnel. If both employer and contractor personnel are to enter the space, entry operations must be coordinated before entry begins. The employer shall debrief contractors at the conclusion of entry operations regarding hazards confronted or created during the entry. The contractor shares responsibility for ensuring coordination is conducted when work involves permit-required confined spaces.
- d. Training. Training in regards to the permit-required confined space must be provided for site personnel. Those with a need for access to the space must be trained on the hazards present and the procedures put in place to control the hazards. They must understand entry procedures and be proficient in the use of any special equipment including LO/TO equipment. The training must be documented and records maintained on site. Training records must include the employee names and signatures, name of trainer(s), and dates of training. Personnel who do not access permit-required confined spaces must be made aware of permit-required confined space issues and warned to observe signs and access controls. Awareness training may be conducted via memorandum, with each person signing that they have read and understand the hazards. Awareness training should also be incorporated into the facility’s visitor/contractor orientation. Additional training is required when job duties change, there is a change in the permit-confined space program or the permit confined space operation presents a new hazard or when an employee's confined space performance shows deficiencies. Confined Spaces Awareness Course can be found at OPS1 environmental and safety web page:

https://www.ops1.nws.noaa.gov/Secure/env_new.htm.

- e. Contractors working in NWS permit-required confined spaces must be briefed on hazards of spaces and furnished a copy of applicable procedures. Verification of this coordination shall be in writing and kept on file at the facility.

12.3.2 Reclassification

- a. OSHA allows temporary reclassification of a permit-required confined space to a non-permit required confined space if the following conditions are met:
 - (1) The space is not subject to actual or potential atmospheric hazards*, and
 - (2) All hazards within the space are eliminated before entering the space.

* - The responsible Regional or Operating Unit Environmental/Safety Coordinator or National Headquarters safety personnel must be contacted any time a hazardous atmosphere is identified or suspected.

Such a permit-required confined space will remain reclassified as a non-permit required confined space for as long as the hazards remain eliminated and as long as no new hazards are introduced.

- b. A key concept in reclassification is the elimination of hazards. Software commands, software interlocks, electro/mechanical interlocks and other similar means do not qualify as hazard elimination methods. Indisputable, physical disruption of hazard sources is required. Valid methods of hazard elimination are defined by OSHA in 29 CFR 1910.147, The Control of Hazardous Energy (Lockout/Tagout).
- c. If a permit-required confined space is a candidate for reclassification, a reclassification procedure must be developed and documented. All reclassification procedures must contain LO/TO procedures. OSHA requires that LO/TO procedures be reviewed annually for accuracy.

12.3.3 Permit Entry

If a permit-required confined space is not a candidate for reclassification, entry must be conducted via a permit entry process and additional preparations must be made. The preparations are demonstrated in a document called an entry permit, which must be available at the space or posted in a conspicuous location near the space during the entry and must be kept on file at the office for at least a year. A permit template is included as Attachment A of this document. The following paragraphs identify the information required for the entry permit and describe the necessary preparations. If work is to be accomplished solely by a contractor, NWS personnel will not create a permit.

- a. Permit-Required Confined Space to be Entered. The name and location of the space must be entered on the template. A street address should be included when available.

- b. Purpose of Entry. The issue or problem prompting the entry, and the work to be accomplished by conducting the permit entry must be documented on the template.
- c. Date and Duration of the Entry Permit. The date, start and completion times of the permit entry must be documented on the permit.
- d. Authorized Entrant(s)/Attendant(s)/Entry Supervisor. Three roles are required for conduct of the permit entry: the Entry Supervisor; Entrant; and Attendant. The responsibilities of each role are discussed in general terms here and described in detail in later paragraphs.
 - (1) The Entry Supervisor manages activities associated with entry of the permit-required confined space including signing the entry permit. His/her signature certifies that all personnel are properly trained and that acceptable entry conditions are met before entry. Therefore, the Entry Supervisor must be at the site during the permit entry. Despite the title, the Entry Supervisor does not have to be a supervisor in respect to the normal chain of authority. Any NWS employee can serve as an Entry Supervisor provided he/she has the proper training and understanding of the issues. The Entry Supervisor role may be performed by the Authorized Entrant or Attendant. Therefore, a permit entry may be conducted with as few as two people.
 - (2) The Authorized Entrant performs the specified work in the permit-required confined space. Multiple entrants are allowed provided they can all be safely accommodated in the space.
 - (3) The Attendant is stationed outside the permit-required confined space and is responsible for maintaining contact with the Authorized Entrant(s) conducting work inside, and initiating rescue actions if necessary. The attendant does not have to maintain visual contact with the entrant(s) but must maintain communication. Multiple Attendants are allowed as backups, but only one may act as the Attendant at any given time. At least one attendant on site must have current certification in First Aid and CPR.

The names of personnel who will fill each of the three roles must be documented on the template.

- e. Hazards of the Space. The hazards associated with the space are described in this section of the template. Examples include rotating machinery, high voltage, radiation, etc.
- f. Measures to Eliminate or Control Hazards Before Entry. Steps must be developed to eliminate or control hazards to the extent possible before entry.
- g. Acceptable Entry Conditions. The conditions required prior to entry are documented. Typically they correspond with measures to eliminate or control hazards. When all of the acceptable entry conditions are met and verified, the entry supervisor may sign the permit and entry may proceed.

- h. Initial and Periodic Test Results. In some instances initial measurements or tests will be performed to validate entry conditions. These may be repeated on a periodic basis depending on the circumstances. For example, if hazardous atmosphere is a potential hazard, the atmosphere shall be tested with remote or hand-held monitors for oxygen content, combustible and toxic atmospheres, in that order prior to entry. While work is being performed in the permit-confined space, continuous monitoring shall be conducted to ensure a safe atmosphere. If at any time the alarm is activated, personnel inside the space will evacuate immediately.
- i. Rescue and Emergency Services. NWS personnel shall not perform emergency confined space rescue. Planning for rescue and emergency services must be performed before a permit entry is conducted. At a minimum, reliable means for summoning help must be available during a permit entry. Further measures may include stocking advanced first aid supplies/equipment and should consider the response time of rescue and emergency services. Plans for rescue and emergency services must be documented on the permit. Each facility should pre-plan rescue scenarios with local emergency responders or qualified rescue organizations so they are aware of unique rescue issues, such as the NEXRAD radome stairway and hatch, and so they are aware of any rescue equipment that will be kept on site for their use. Rescuers ability to rescue must be evaluated in terms of proficiency with rescue-related tasks and equipment:
 - (1) Do they have the capability to reach the victims within a time frame that is appropriate for the permit space hazard(s) identified?
 - (2) Are they equipped for and proficient in performing the needed services?
 - (3) Are rescue teams or rescue services personnel aware of the hazards they may confront when called on to perform rescue at the site?

If possible, an Emergency Response Agreement should be developed in accordance with NWSM 50-1115, Chapter 23. Rescue pre-planning efforts should be documented and kept on file.

- j. Communication Procedures. The attendant and entrant must have a reliable means of communication during the permit entry. If the attendant cannot see the entrant at all times, a communication protocol must be developed before a permit entry is conducted. A break in the communication protocol will be presumed to indicate an emergency and prompt the attendant to begin an emergency response. The means of communication and description of the communication protocol must be documented on the permit. All personnel involved in a permit entry must be trained on the communication protocol.
- k. Required Equipment. Special equipment required for entry into a permit-confined space shall be designated in writing on the permit by the entry supervisor. Special equipment may include LO/TO equipment, monitoring equipment, special tools, etc.
- l. Other Information. A general description of the permit entry process is suggested. Other information unique to a given permit entry should be included on the

permit. The name of the person responsible for keeping completed entry permits and any other pertinent information should be documented on the template.

Upon completion of the work inside the permit-required confined space, associated equipment shall be removed and the permit-confined space prepared for service. Upon completion of all work inside the permit-required confined space, the entry supervisor will cancel the confined space entry permit by recording the end time.

NOTE: Evaluations of NWS NEXRAD Radomes, Air Handlers and Upper Air Radomes with regards to OSHA confined space requirements is posted on the NWS OPS1 Environmental and Safety web page:
https://www.ops1.nws.noaa.gov/Secure/env_new.htm

12.3.4 Entry Supervisor's Duties

- a. Know space hazards including information on the mode of exposure, signs, or symptoms and consequences of exposure.
- b. Verify emergency plans and specified entry conditions such as permits, tests, procedures, and equipment before allowing entry.
- c. Terminate entry and cancel permits when entry operations are completed or if a new condition exists.
- d. Take appropriate measures to remove unauthorized entrants.
- e. Ensure that entry operations remain consistent with the entry permit and that acceptable entry conditions are maintained.

12.3.5 Authorized Entrant's Duties

- a. Know space hazards, including information on the mode of exposure (e.g., inhalation or dermal absorption), signs or symptoms, and consequences of the exposure.
- b. Use appropriate personal protective equipment properly (e.g., face and eye protection, and other forms of barrier protection such as gloves, aprons, and coveralls) when applicable.
- c. As necessary, maintain communication (i.e., telephone, radio, visual observation) with attendants to enable the attendant to monitor the entrant's status as well as to alert the entrant to evacuate.
- d. Exit from permit-confined space as soon as possible when ordered by an authorized person, when the entrant recognizes the warning signs or symptoms of exposure exist, when a prohibited condition exists, or when an automatic alarm is activated.
- e. Alert the attendant when a prohibited condition exists or when warning signs or symptoms of exposure exist.
- f. Read and sign the confined space entry permit prior to start of work.

12.3.6 Attendant's Duties

- a. Perform no other duties that interfere with the attendant's primary duties.

- b. Remain outside permit-confined space during entry operations unless relieved by another authorized attendant.
- c. Know existing and potential hazards, including information on the mode of exposure, signs or symptoms, consequences of the exposure, and their physiological effects.
- d. Maintain communication with and keep an accurate account of those workers entering the permit-required confined space.
- e. Order evacuation of the permit-confined space when a prohibited condition exists, when a worker shows signs of physiological effects of hazardous exposure, when an emergency outside the confined space exists, or when the attendant cannot effectively and safely perform required duties.
- f. Summon rescue and other services during an emergency.
- g. Ensure that unauthorized persons stay away from permit confined spaces or exit immediately if they have entered the permit space.
- h. Inform authorized entrants and entry supervisor of entry by unauthorized persons.
- i. In the event of the incapacitation of the authorized entrant, NWS attendants will not enter the permit-confined space. Rescue shall be performed in accordance with paragraph 12.3.3.i.

12.4 Responsibilities

12.4.1 Regional or Operating Unit Environmental/Safety Coordinators

- a. Will monitor and promote compliance with the requirements of this procedure at field offices or Operating Unit facilities.
- b. Will ensure that applicable procedures are implemented at regional headquarters or Operating Unit facilities.

12.4.2 Station Manager

- a. Will have oversight over the implementation of this procedure and shall ensure that the requirements of this procedure are followed by individuals at the NWS facility.
- b. Will ensure confined-space entry supervisors, attendants and entrants receive appropriate training.
- c. Will designate the safety equipment required for entry in writing on the permit.
- d. Will provide a briefing to visitors before they enter a confined space.
- e. Will ensure that initial and periodic inventory of hand-held monitors, PPE, communication equipment, confined spaces postings, barriers and warning devices is accomplished and adequate stock is maintained.
- f. Will review, or delegate review, of this procedure on an annual basis to ensure that the facility is complying with its requirements. Confirmation of this review

shall be forwarded to the Regional or Operating Unit Environmental/Safety Coordinator.

- g. Before initial work assignment begins, the Station Manager Will ensure that proper training for all workers who are required to work in permit confined spaces.

12.4.3 NWS Headquarters (NWSH)

- a. The NWS Safety Office will provide assistance to Regional Headquarters, Operating Units, and field personnel to ensure that NWS facilities comply with requirements of this procedure.
- b. NWSH will coordinate with NOAA SECO, as necessary, regarding compliance issues related to this procedure.

12.4.4 Safety or Environmental/Safety Focal Point

- a. Will ensure that any responsibilities delegated to them by the Station Manager are implemented in accordance with the requirements of this procedure.
- b. Will maintain a listing of all permit-required confined spaces located within the facility.

12.4.5 Employees

- a. Individual employees affected by this procedure are required to read, understand and comply with the requirements of this procedure and report unsafe or unhealthful conditions and practices to their supervisor or safety focal point.

<p>NOTE: Reference NWS PD 50-11 for complete list of responsibilities http://www.weather.gov/directives/050/pd05011c.pdf</p>
--

12.5 References

Incorporated References. The following list of references is incorporated as a whole or in part into this procedure. These references can provide additional explanation or guidance for the implementation of this procedure.

- 12.5.1 American National Standards Institute, ANSI Z117.1, Safety Requirements for Confined Spaces.
- 12.5.2 National Institute for Occupational Safety and Health, NIOSH Alert Request for Assistance in Preventing Occupational Fatalities in Confined Spaces, 1986.
- 12.5.3 National Institute for Occupational Safety and Health, NIOSH Criteria for a Recommended Standard Working in Confined Spaces, November 1979.
- 12.5.4 National Institute for Occupational Safety and Health, NIOSH A Guide to Safety in Confined Spaces, July 1987.

12.5.5 U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1910.146, Permit Required Confined Spaces, and 1910.252, Welding Cutting and Brazing.

12.5.6 U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR 1910.147, The Control of Hazardous Energy (Lockout/Tagout).

12.6 Attachments

Attachment A. Permit-Required Confined Space Entry Permit

Attachment A

Permit-Required Confined Space Entry Permit

Permit-Required Confined Space to be Entered:

Confined space located at _____

Purpose of Entry

Date and Duration of the Entry Permit

Date: _____ Start Time: _____ Completion Time: _____

Authorized Entrant(s)

Attendant(s)*

* At least one attendant must have current certification in First Aid and CPR.

Entry Supervisor

Print Name

Signature**

** Signature certifies all personnel are trained and acceptable entry conditions are met before entry.

Hazards of the Space

Potential Hazards	<input checked="" type="checkbox"/>	Comments
Corrosive Materials		
Hot Equipment		
Flammable Materials		
Toxic Materials		
Inert Gases		
Flame/Spark-Producing Operations		
Electrical Shock		
Stored Energy		
Moving Machinery		
Spilled Liquids		
Pressurized Systems		
Other		

Measures to Eliminate Hazards Before Entry:

Acceptable Entry Conditions:

Initial and Periodic Test Results:

Rescue and Emergency Services:

Should emergency occur, the attendant will summon the help from:

Name Phone

If necessary, the attendant will perform first aid.

Communication Procedures

Entrant(s) and attendant will communicate by _____

Communication protocol: _____

Required Equipment

PERSONAL SAFETY EQUIPMENT (Check those that are applicable and comment)

Eye Protection		
Head Protection		
Hand Protection		
Foot Protection		
Protective Clothing		
Respiratory Protection		
Recovery Device		
Retrieval Lines and Harness		
Supplemental Lighting		
Communication Equipment		(Entrants ____ Security ____)
Auxiliary Ventilation		
Atmospheric Monitoring Equipment		
Other		

Other Information

This permit must be kept at the _____ site during entry. The completed permit must be retained for at least one year at the WFO. Provide completed permit to:

Name