HO-CHUNK NATION CODE (HCC) TITLE 6 – PERSONNEL, EMPLOYMENT AND LABOR CODE SECTION 8 – OCCUPATIONAL SAFETY AND HEALTH PROGRAM ACT OF 2002 SUBSECTION 15 – PERMIT-REQUIRED CONFINED SPACES

ENACTED BY LEGISLATURE: MAY 20, 2002

CITE AS: 6 HCC § 8-15

1. Authority. See basic document (Occupational Safety and Health Program Act).

2. **Purpose.** This subsection of the Occupational Safety and Health Program Act contains the requirements for practices and procedures to protect the employees of the Ho-Chunk Nation from the hazards of entry into permit-required confined spaces.

3. **Scope.** Each facility of the Ho-Chunk Nation, as required by this subsection, shall develop and implement a written confined space program which will require each facility to do the following:

a. Identify and evaluate all confined spaces and determine if they will be classified as Permit-Required. (See Appendix A - Flow Chart.)

b. Inform employees by posting signs reading **Danger Permit Required, Confined Space, Do Not Enter** or similar language at the entrance of the confined space. (See Appendix B – Sample Sign.)

c. Identify and evaluate permit-space hazards prior to allowing employee entry.

d. Test the atmospheric conditions in the permit space before entry operations and monitor the space during entry as necessary using a direct reading instrument. The direct reading instrument must be calibrated per manufacturer's recommendation.

e. Perform testing in a manner that oxygen is monitored prior to or simultaneously with combustible gases or vapors and toxic vapors and in this order if done separately.

f. Implement necessary measures to prevent unauthorized entry.

g. Establish and implement the means, procedures, and practices, such as specifying acceptable entry conditions, isolating the permit space, providing barriers, verifying acceptable entry conditions, purging, making inert, flushing, or ventilating the permit space in order to eliminate or control hazards necessary for safe permit-required space entry operations.

h. Identify employee job duties.

i. Provide training to all affected employees.

j. Provided, maintain and require the use of personal protective equipment and any other equipment necessary for safe entry such as communications, grounding faults, lowvoltage lighting, etc.

k. Ensure that at least one attendant is stationed outside the permit-required confined space for the duration of entry operations.

1. Coordinate entry operations when employees of more than one employer are to be working in the permit-required confined space.

m. Establish, equip, and train an in-house rescue team or ensure an outside team is available within a timely response period and that an effective method to summon them is provided for.

n. Establish in writing and implement a system for the preparation, issuance, use, and cancellation of entry permits.

o. Review established entry operations annually and revise the program as necessary.

4. **Definitions**.

a. "Acceptable Entry Conditions" mean those conditions that must exist in a permitrequired confined space to allow entry and to ensure employees can safely enter into and work within the space.

b. "Attendant" means an individual stationed outside a permit-required confined space who monitors the authorized entrants and who performs all attendant's duties assigned in the permit-required confined space program.

c. "Authorized Entrant" means an employee who is authorized by the supervisor to enter a permit-required confined space.

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

e. "Confined Space" means a space that:

(1) Is large enough and so configured that an employee can bodily enter and perform assigned work; and

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(2) Has limited or restricted means for entry or exit (for example tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry); and

(3) Is not designed for continuous employee occupancy.

f. "Double Block and Bleed" means the closure of a line, duct, or pipe by closing and locking two in-line valves and by opening and locking a drain or vent valve in the line between the two closed valves.

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

h. "Engulfment" means the surrounding and effective capture of a person 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 exert enough force on the body to cause death by strangulation, constriction, or crushing.

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

j. "Entry Permit" means the written or printed document that is provided to allow and control entry into a permit-required confined space and that contains the information specified in paragraph 5a of this subsection.

k. "Entry Supervisor" means a qualified 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 by this subsection. (**Note:** Any entry supervisor may also serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this subsection for each role he/she fills. Also, the duties of the entry supervisor may be passed from one individual to another during the course of an entry operation.)

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

(1) Flammable gas, vapor, or mist in excess of 10% of its Lower Flammable Limit (LFL). (**Note:** Entry not allowable until appropriate methods are used to lower LFL.)

(2) Airborne combustible dust at a concentration that meets or exceeds its LFL. (Note: This concentration may be approximated as a condition in which the dust obscures

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vision at a distance of five (5) feet (1.52m) or less. Entry shall not BE allowed until appropriate methods are used to lower LFL.)

(3) Atmospheric oxygen concentration below 19.5% or above 23.5%.

(4) Toxic atmospheric conditions with potential to be dangerous to life or health.

m. "Hot Work Permit" means written authorization to perform hot work operations (e.g., welding, cutting, burning, or heating) capable of providing a source of ignition.

n. "Immediately Dangerous to Life or Health (IDLH)" means 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-required space.

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

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

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

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

s. "Oxygen Deficient Atmosphere" means an atmosphere containing less than 19.5% oxygen by volume.

t. Oxygen Enriched Atmosphere" means an atmosphere containing more than 23.5 oxygen by volume.

u. "Permit-Required Confined Space" means a "confined space" (see paragraph e, above) that has one or more of the following characteristics:

(1) Contains or has the potential to contain a hazardous atmosphere.

(2) Has the potential for engulfing an entrant.

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(3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section.

(4) Contains any other recognized uncontrolled physical hazard.

v. "Permit-Required Confined Space Program" means the overall program for controlling, and where appropriate, protecting employees from permit-required space hazards and for regulating employees entry into permit spaces.

w. "Permit System" means a written procedure for preparing and issuing permits for entry and for returning the permit-required space to service following termination of entry.

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

y. "Purging" means to clean out various impurities which may create a hazardous atmosphere (i.e., steam heating, hot water, or using chemical solutions to remove combustible or flammable or other difficult to remove substances).

z. "Rescue Services" mean in-house or outside personnel designated to rescue employees from permit-required spaces.

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

bb. "Testing" means the process by which the hazards that may confront entrant of a permit-required space are identified and evaluated. Testing includes specifying the tests that are to be preformed in the permit space. (**Note:** Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to and during entry.)

cc. "Ventilation" means that air supply for confined space ventilation must be from a clean source, which will not increase the hazard in the space. Forced air ventilation shall be so directed as to avoid recirculation of contaminated air and when possible cross ventilation with one air mover as an intake and one as an exhaust should be established.

5. Permit System/Procedures.

a. Permit-required confined space entry will be controlled by the use of the Confined Space Entry Permit. (See Appendix C – Confined Space Permit).

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(1) The permit shall be signed by the appropriate supervisor or team leader. This signature shall designate them as the "Entry Supervisor."

(2) This permit shall be displayed in a conspicuous place close to the entrance of the permit-required confined space.

(3) The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit.

(4) Each permit shall be dated and carry an authorized duration time. Permits will be filled out on the shift in which the work is to be performed. The checking and testing that precedes the issuing of a permit should be as close as practicable to the time the work is to be started. The results of each atmospheric test, initials of the tester, and the time the tests were taken shall be written on the permit. The Entrant(s) shall be provided an opportunity to observe the testing procedure and the completion of the permit.

(5) Every permit shall be filled out completely before entry into a permit-required confined space is permitted.

(6) The Permit-Required Confined Space Attendant shall sign their name on the line provided on the permit.

(7) Each Entrant shall sign the permit in the area provided signifying they understand and agree with air testing procedures and preparation of the confined space. Signatures are also a personnel accountability tool. Entrants will sign before every entry and every exit from the permit-required confined space.

(8) If conditions change due to a possible hazard, the Confined Space Entry Permit shall be invalid. No work shall be resumed until a new permit is properly issued.

(9) Once all work has been completed inside the permit-required confined space and it is returned to service, the Entry Supervisor shall sign off and date the permit that the job is completed. The permit shall than be sent to the directed Department to be kept on file.

b. <u>Confined Space Procedures</u>. Confined Space Procedures will be indexed and maintained in each facility and one copy posted at the confined space entrance. These procedures shall provide the following information:

(1) The recommended cleaning and ventilating method to eliminate atmospheric hazards.

(2) Isolation of energy is required (LOTO).

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(a) All pipelines connected to the confined space and how to identify and secure them.

(b) All electrical/mechanical equipment to be locked out for each confined space and where to be locked.

(3) The specific gases to be checked in each confined space.

(4) Special considerations (i.e., radioactive materials, lead seals, asbestos gaskets, combustible or flammable material, continuous gas monitoring required and why).

(5) Special requirements when necessary for communication between entrants and Attendant.

(6) Low voltage or electrical lighting safety requirements (12-volt transformers or ground fault interrupters (GFCI)).

(7) Rescue preparation necessary for the confined space.

(8) A drawing or sketch of the confined space may be used to help illustrate the hazards listed.

(9) Entrapment situations, if present, shall be identified. Self-closing hatches, or doors that may be accidentally closed, should be locked open.

(10) Barriers required to protect entrants from external hazards (i.e., pedestrian, vehicle traffic).

c. Training for Confined Space Supervisor, Attendant, and Entrant.

(1) Persons assigned duties under this subsection shall be properly trained to ensure they have the knowledge and skills necessary for the safe performance of their duties.

(2) Training documentation shall include employee name, instructor signatures, and date.

6. Responsibilities/Duties.

a. Facility managers/supervisors shall have all the confined spaces in their area surveyed and procedures documented as required by paragraph 5b of this subsection.

b. Entry Supervisor.

(1) Know the hazards that may occur during entry including information on the mode of exposure, sign or symptoms, and consequences of exposure.

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(2) Verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted, and that all procedures and equipment specified by the permit are in place.

(3) Determine the duration the permit will cover (see paragraph 5a(3) and terminate the entry when entry operations are completed or thee arises a condition in or near the permit space which is not allowed under the permit (see paragraph 5a(7)).

(4) Verify that rescue service are available and that the means for summoning them are operable.

(5) Take appropriate measures to remove unauthorized entrants.

(6) Determine whenever responsibility for a permit-required space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

(7) Authorized the permit entry and closure by signature, date, and time, prior to entry, and when the project is complete.

c. <u>Attendants</u>. Each permit-required confined space entry will have a capable person, that has the knowledge of the hazards that may be faced during entry including information on the mode, signs, symptoms, behavioral effects, and consequences of exposure, stationed outside to serve as an attendant. Authorized attendant duties are:

(1) Maintain communications with authorized entrants as necessary to monitor their activity and status. (Visual communication is preferred if possible.)

(2) Alert entrants of the need to evacuate when a prohibited condition is detected inside or outside the space.

(3) Remain at their post during entries until relieved by another authorized attendant and perform no duties which might interfere with monitoring or protection of the entrants.

(4) Maintain an accurate record of authorized entrants in the space.

(5) Summon rescue and other emergency services as soon as authorized entrants may need assistance to escape, and know facility communication procedures.

(6) Perform non-entry rescue techniques as appropriate as soon as practical after emergency contacts are made.

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(7) Prevent unauthorized persons from entering the space and report violators to the entry supervisor.

d. <u>Authorized Entrant</u>. Authorized confined space entrants must have knowledge of the hazards they may face during entry, including information of mode, signs, or symptoms, and consequences of the exposure. Authorized entrant duties:

(1) Maintain communications with attendants as necessary to enable attendants to monitor entrant's status and enable attendants to alert them to evacuate if required.

(2) Alert attendant, if warning signs or symptoms are detected in their own or other entrant's status or they detect a prohibited condition.

(3) Evacuate space immediately if ordered to do so or an evacuation alarm is activated or they or other entrants detect a prohibited condition.

(4) Wear personal protective equipment and retrieval equipment as provided.

(5) Harness and lifeline shall be worn by entrants unless it increases the risk of injury or would not contribute to the rescue effort. Wristlets would be an acceptable alternative if a harness could not be used. The free end of the retrieval line must be attached to a mechanical hand-power lifting device or fixed point outside of the space.

(6) Prepare for non-entry rescue retrieval with a mechanical hand-powered lifting device from vertical type entries that are more than five feet deep.

7. Securing the Confined Space.

a. The Entry Supervisor shall see that the confined space is emptied, cleaned, cooled and ventilated.

b. All electrical and mechanical equipment on the Confined Space Entry Procedure shall be secured according to the Lock-Out/Tag-Out procedures. (See 6 HCC § 8-5.)

c. All lines (including sewer lines) connected to the confined space shall be secured in one the following manners (valves and blanks are to be locked or tagged per Lock-Out/Tag-Out procedures (6 HCC § 8-5).

8. Terminating Entry Permit.

a. The permit may be terminated after the following conditions are met:

(1) All repair material has been cleaned up.

(2) The Confined Space Attendant shall make sure all individuals listed on the Permit have exited the confined space.

(3) All locks have been removed as required by Lock-Out/Tag-Out procedures.

b. After notification that work is completed and no other entry is authorized in the confined space, the Entry Supervisor shall ensure that no employees are still inside by whatever means necessary including, but not limited to:

- (1) Inspection of the sign-in list.
- (2) Communication with the attendant.
- (3) Personal visual inspection of the space.

c. The Confined Space Entry permit shall be removed at this time and the Entry Supervisor shall sign the permit indicating the job is complete. The permit shall than be sent to the directed Department to be retained on file for one calendar year.

d. The confined space can now be put back into operation.

9. Rescue and Emergency Service.

a. Facilities Providing Confined Space Rescue Teams.

(1) Facilities must insure that each member of the rescue service is provided with, and trained to use properly, the personal protective equipment and rescue equipment necessary for making rescues from permit spaces.

(2) Each member of the rescue service shall be trained to perform the assigned rescue duties.

(3) Each member of the rescue service shall also receive the training required of authorized entrant.

(4) Each member of the rescue service shall practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies or manikins or actual persons from the actual permit spaces or from representative permit spaces. Representative permit spaces shall, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed. (**Note:** It is not recommended to use actual persons for hazardous vertical type rescues.)

(5) Each member of the rescue service shall be trained in basic first-aid and in cardiopulmonary resuscitation (CPR). At least one member of the rescue service holding current certification in first aid and CPR shall be available.

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b. Facilities choosing outside rescue services shall: (See also Appendix F, 29 C.F.R. § 1910.146.)

(1) Inform the rescue services of the hazards they may confront when called on to perform rescue at the host employer's facility, and

(2) Provide the rescue service with access to permit spaces from which rescue may be necessary so that the rescue service can develop appropriate rescue plans and practice rescue operations.

10. **Special Situations or Alternate Methods**. Certain spaces may fit the definition of a confined space but have very limited hazard potential as evidenced by its design, use, or testing history. Each space must be evaluated on a case by case basis to see if all aspects of a permit entry system must be followed or if some may be safely excepted. Examples include:

a. Certain non-permit spaces may have characteristics, which if liberally interpreted could be called confined spaces. If these spaces have no physical hazards and history shows there is no potential for atmospheric hazards, then no mandated precautions are required. Activities and conditions in the immediate area must be noted prior to entry to ensure the space will not be affected. A permit is not necessary.

b. If a confined space has no potential for atmospheric hazards and all other hazards can be controlled or eliminated without entering the space (e.g., by remote lock-out), than a Confined Space Entry Permit is not needed. Conformance to the provisions of the Lock-Out/Tag-Out provisions of 6 HCC § 8-5 is required.

c. A confined space classified as a permit-required confined space may be reclassified as a non-permit confined space by the entry supervisor.

d. Additional permits such as Hot Work Permits may be necessary under special circumstances and shall be used if required.

11. Outside Contractors.

a. Outside contractors who enter a confined space will be briefed by facility personnel on the procedural requirements of the space to be entered.

b. Facility personnel will ensure the safe start of the entry by making initial air tests, supervising lockouts by contractors, and confirming the availability of a rescue team. This will be documented on a facility permit and will be signed at the bottom left hand corner in space provided for the contractor's signature. The contractor will then provide their own permit.

c. The contractor will provide an entry supervisor and will be responsible for all subsequent air tests, attendant requirements, and job safety.

d. Contractors will furnish all required safety equipment, hardware, and permits required for their safety.

12. Administrative and Enforcement. See paragraph 12 of basic document (Occupational Safety and Heath Program Act).

Appendices:

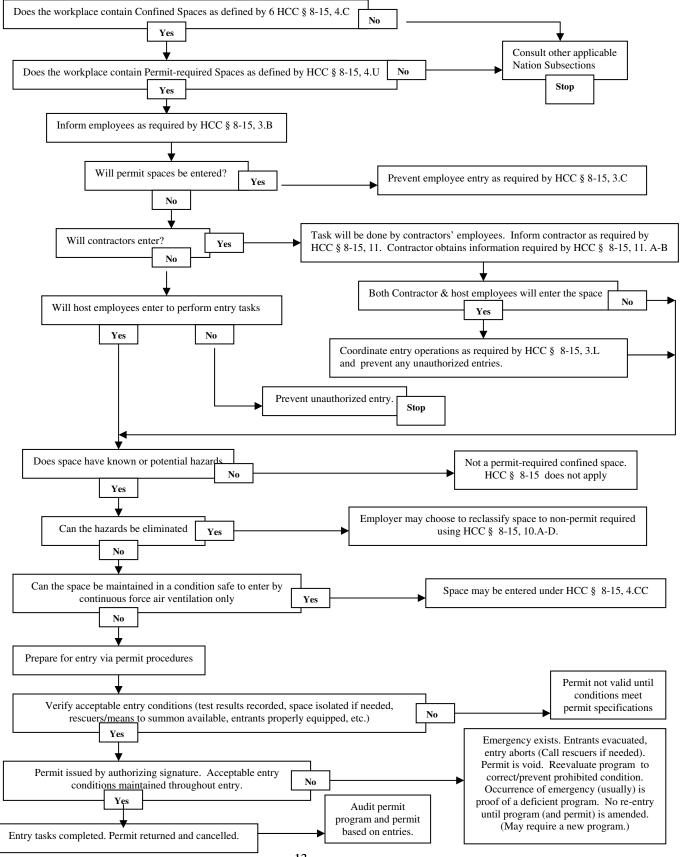
- A. Confined Space Decision Flow Chart
- B. Sample Confined Space Sign
- C. Confined Space Permit

Legislative History:

12/6/01 Reviewed by Administration Committee.

- 1/9/02 Legislature posts for 45-day Public Review.
- 5/20/02 Enacted as Permit-Required Confined Spaces (6 HCC § 8-15) by Legislative Resolution 5/20/02E.

APPENDIX A (CONFINED SPACE DECISION FLOW CHART) (29 C.F.R. § 1910.146)



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APPENDIX B (SAMPLE CONFINED SPACE SIGN)



(This sign will posted on the entrance of each confined space identified.)

APPENDIX C (CONFINED SPACE PERMIT) Ho-Chunk Nation Confined Space Entry Permit

Permit valid for 8 hours only. All permit copies remain at site until job completed.
Date: ______ Site Location/Description: ______
Purpose of Entry: _____

	Atmospheric Checks: Time Oxygen Explosive H ₂ S CO Other ster's signature:	% % LFL LFL LFL PPM PPM PPM PPM PPM PPM PPM PPM PPM PPM PPM PPM
Type of Monitor used:		
2.	 Entry Checklist: a. Toxic Atmosphere b. Source Isolation (No Entry) -Pumps or lines blinded -disconnected, or blocked -lockout/Tagout c. Ventilation Modification - Mechanical - Natural, only d. Engulfment e. Equipment Needed: (check if needed) 	N/A Yes No (see Atmospheric Checks) N/A Yes No () () () () () () () () () () () () () () () N/A Yes No () () () N/A Yes No () () () N/A Yes No Safety Harness and lifelines
3.	Communications: a. Telephone b. Radio c. Other means:	N/A Yes No Telephone No. () () () Channel
4.		
5.	Confined Space Entrants: Signature required	
6.	Attendant:)
Approved By:		
Contractor: (Signature)		
Permit Closed by: Date & Time:		