Training the Competent Person for the New OSHA Confined Spaces in Construction Standard

Presenters

Gary Auman, Esq.

- Gary Auman is a shareholder with the law firm of Dunlevey Mahan & Furry. He concentrates his practice in safety and health law.
- Gary defends employers nationally in federal and state OSHA cases with the majority of his cases being for construction companies.
- He is general counsel for the National Insulation Association, the Midwest Insulation Contractors Association, the National Frame Builders Association, and the Midwest Roofing Contractors Association.
- He is a frequent speaker on Occupational Safety and Health covering topics from compliance to litigation. Gary has presented papers on OSHA topics at the International Roofing Expo, the Ohio Self-Insurers Association, and many others.
- Email: gwa@dmfdayton.com

Mason Knowles

- Mason Knowles is the President of Mason Knowles Consulting LLC, a consulting company specializing in providing technical information, education and training for the SPF industry.
- He has more than 46 years experience in the spray polyurethane industry as a consultant, contractor, material supplier/manufacturer, equipment manufacturer and trade association professional.
- Knowles is a member of ICAA and contributes frequent web-based presentations on SPF issues. He is a SPFA Certified Field Examiner, Chair of SPFA Consultant's Committee, accredited building envelope and roofing inspector and instructor. Knowles chaired the ASTM committees on SPF roofing (D08.06) and standard specification for closed cell SPF (C-1029) for 20 years. He regularly writes articles for national trade journals, provides presentations for trade groups and other organizations on the SPF industry.
- Website: www.masonknowles.com

History of Construction Industry Confined Spaces Standard

03/25/80	ANPR by OSHA re confined spaces in construction industry - OSHA received 75 comments on the ANPR
06/05/89	NPRM – for general industry confined space standard
01/14/93	Final rule – general industry confined space
1993	Settlement with United Steel Workers on challenges to general industry standard – OSHA agreed to issue proposed rule for construction

History of Construction Industry Confined Space Standards

02/18/94	**Draft proposed standard to Advisory Committee for Construction Safety (ACCSH)**
03/22/94	**ACCSH established a work group**
1996	**ACCSH submits draft proposed standard to OSHA**
1998	**OSHA completed its draft proposed standard**
10/2000	**OSHA holds stake holder meetings**
Late 2003	**OSHA complete draft of standard and convened a panel under Small Business Regulatory Enforcement Fairness Act (SBREFA)**
11/28/07	**OSHA issues proposed rule**
05/04/15	**Final Rule**

Competent Person's Responsibilities

Before it begins work at a worksite, each employer must ensure that a **competent person** identifies all confined spaces in which one or more of the employees it directs may work, and identifies each space that is a permit space, through consideration and evaluation of the elements of that space, including testing as necessary.

Competent Person's Responsibilities

- Identify all confined spaces
- Identify permit spaces
- Visit worksite regularly and frequently (1926.20(b)(2))
- Ensure that exposed employees are informed of permitted space through posting of danger signs

Competent Person's Responsibilities

- Ensure that authorized employee representatives and the controlling contractor are informed of the existence and location of dangers
- Ensure unauthorized employees are restricted from entering permitted space
- **Competent person must be authorized to take prompt corrective action to eliminate hazards**

29 CFR 1926.1203 General Requirements

- If employees are to enter space, employer must have a written permit space program that complies with 1926.1204
  - May use alternate procedures found in 1926.1203(e)(2)
- Permit spaces may only be reclassified by a competent person
- **Training**
  - Train each employee whose work is regulated by standard before assigned any duties under the standard
  - Training must result in an understanding of the permit space
  - Must occur before employees are assigned any duties under the standard

Competent Person Determines Type of Space

- Confined space or non-confined space
- If confined space:
  - permit-required or non-permit required

Identifying a Confined Space

- Large enough and configured so that an employee can enter it
- Has limited or restricted means for entry and exit
- Is not designed for continuous employee occupancy

Limited Means of Access

- Can you get in and out easily?
  - Trip hazards
  - Poor illumination
  - Slippery floors
  - Inclined surfaces
  - Ladders
  - Hatches
  - Pull down ladders
  - Small doors
  - Obstacles such as pipes, conduits or equipment

Not Made for Continuous Occupancy

- Space used for storage of occasionally used items
- No furniture or fixtures used on a regular basis
  - Tables, chairs, desks, lamps, exercise equipment etc.
- Entry for service of utilities

What is a Non-Permit Confined Space?

- ✓ Large enough and configured so that an employee can enter it
- ✓ Has limited or restricted means for entry and exit
- ✓ Is not designed for continuous employee occupancy
- ○ Does not contain physical hazards or potential hazardous atmosphere

No Hazardous Atmosphere or Physical Hazards

- Hazards that can affect self rescue or cause serious injury or death

What Kind of Space?

Need More Information

Large enough to enter

Designed for service of utilities

Not made for continuous occupancy

Does it Have?

Limited Access

Hazardous atmosphere?

- Confined Space?

Easy access

Standard size door make this not a confined space

- Not a Confined Space

- Confined Space?

NO!

Windows

Floor

Indicate space is used for continuous occupancy

- Confined Space?

NO!

Attic floor is open to the lower level

- Confined Space?

Yes!

Limited Access

Overhead hazard

Need More Information

Does it have?

Limited access

Floor

- Confined Space?

What is a Permit-Required Confined Space?

- Contains or has potential to contain a Hazardous Atmosphere
- Immediately dangerous to life and health
- Contains a material that has the potential for engulfing the entrant
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward towards a smaller cross-section
- Contains any other recognized serious safety or health hazard

Confined Space Hazards

- Attic Hazards
  - Atmospheric conditions
  - Heat stress
  - Mechanical hazards
  - Electric hazards
  - Slip, trip and fall hazards
  - Asbestos insulation
  - Overhead obstructions
- Crawlspace Hazards
  - Atmospheric hazards
  - Electrocution (wet conditions, unprotected wires)
  - Standing water
  - Poor lighting
  - Structural collapse
  - Asbestos insulation

Hazardous Atmosphere

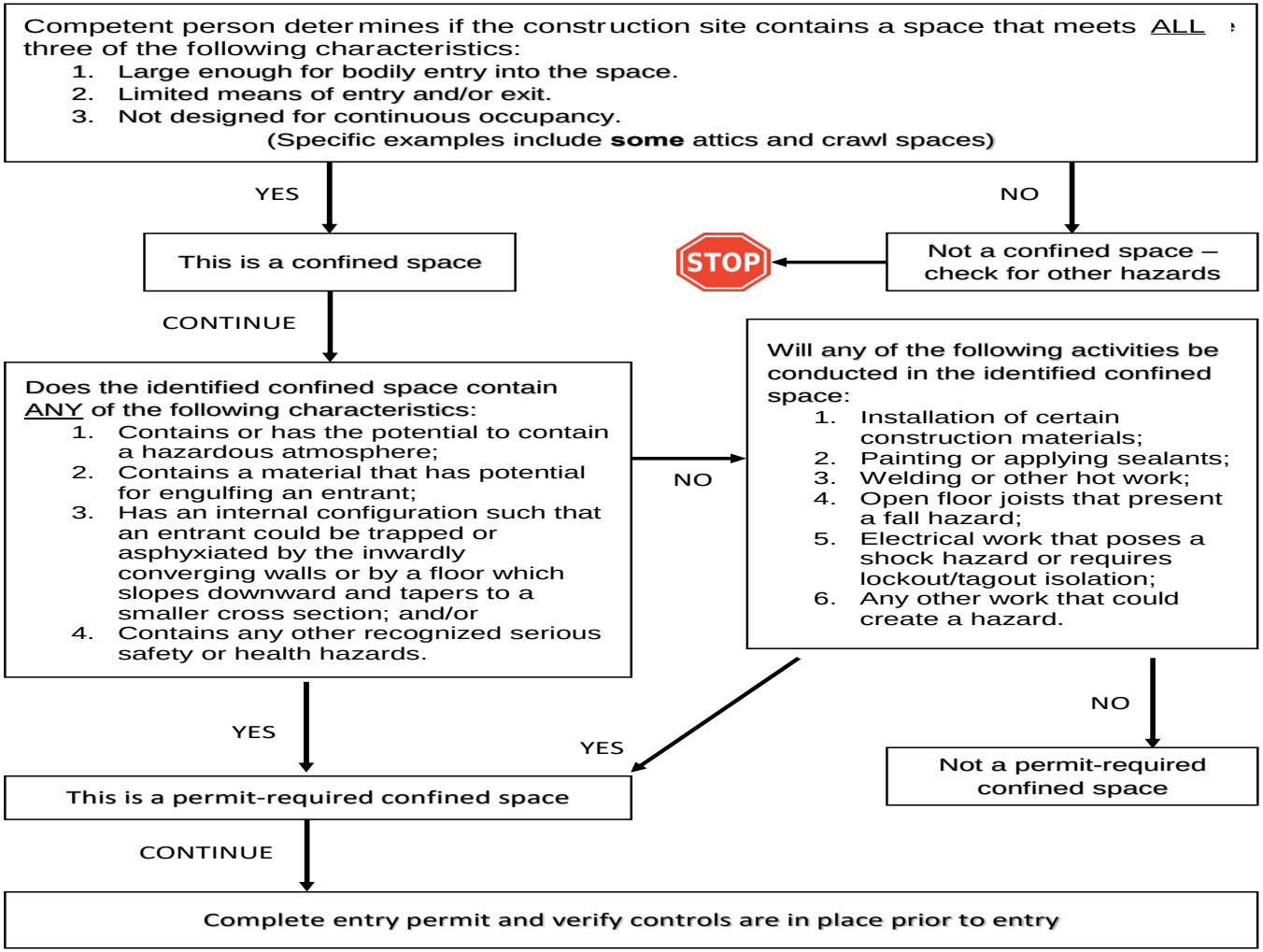
- 10% above a detected substance LFL
- Oxygen content less than 19.5% or greater than 23.5%
- Airborne concentrations of a substance that exceeds the permissible dose or exposure limit specified by OSHA
  - Address only substances that could result in immediate harm or impair ability to self-rescue
  - Includes threat to life or capacity to cause irreversible health effects

Hazardous Atmosphere

- Any atmosphere that exposes employees to risk of:
  - Death
  - Incapacitation
  - Impairment of ability to self-rescue
  - Acute illness

INSULATION CONTRACTORS ASSOCIATION OF AMERICA

IDENTIFYING CONFINED SPACES AND PERMIT-REQUIRED CONFINED SPACES IN CONSTRUCTION



INSULATION CONTRACTORS ASSOCIATION OF AMERICA

IDENTIFYING CONFINED SPACES AND PERMIT-REQUIRED CONFINED SPACES IN CONSTRUCTION

The company's competent person will evaluate the site and determine if any workspace meets all of the following characteristics to make it a confined space.

- Large enough for bodily entry into the space.
  - There must be a means of entry (door, hatch, etc), and an average size person must be able to fit their entire body in the space.
- Limited means of entry and/or exit.
  - A space has limited or restricted means of entry or exit if an entrant's ability to escape in an emergency would be hindered. Such conditions include, but are not limited to, trip hazards, poor illumination, slippery floors, inclining surfaces, and ladders.
- Not designed for continuous occupancy.
  - The space is not a workstation, and may be designed to store a product (insulation), enclose materials or processes, transport products or substances, and allow for occasional worker entry for inspection, repair, cleanup, maintenance, etc.

If it meets all three characteristics, it is a confined space. It must then be evaluated to determine if it is a permit-required confined space. A permit-required confined space is a confined space that has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere.
- Contains a material that has the potential for engulfing an entrant.
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which sloped downward and tapers to a smaller cross-section
- Contains any other recognized serious safety or health hazard.

You must analyze for hazards. Does the confined space contain any of the following:

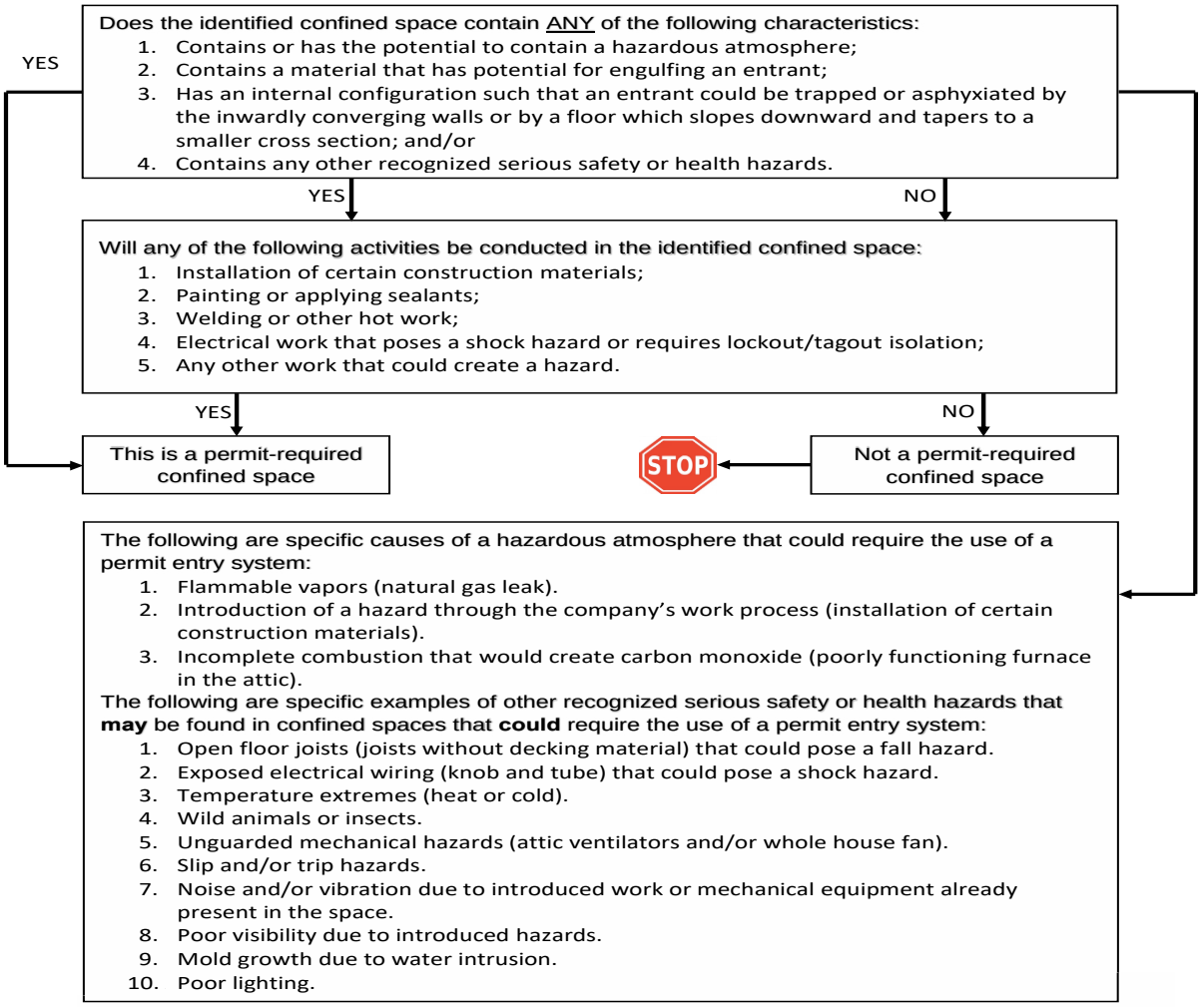
- Immediately dangerous to life and health (IDLH)
- Capable of causing death
- Capable of causing incapacitation
- Conditions that may create an impediment to self-rescue

Will you be introducing any hazards into the space while you conduct your work in the space? Specifics hazards include:

- Installation of certain construction materials;
- Painting or applying sealants;
- Welding or other hot work;
- Open floor joists that present a fall hazard;
- Electrical work that poses a shock hazard or requires lockout/tagout isolation;
- Any other work that could create a hazard.

INSULATION CONTRACTORS ASSOCIATION OF AMERICA

IDENTIFYING PERMIT-REQUIRED CONFINED SPACE HAZARDS IN CONSTRUCTION



Strategies for Mitigating Hazards in Confined Spaces

- Identify the hazard – potential hazard
- Must be relatively immediate or cumulative
  - Physical hazard – design of structure, engulfment, electrical
  - Environmental – heat, mold, methane
  - Toxic materials – asbestos, lead, IDLH, etc.

Strategies for Mitigating Hazards in Confined Spaces

Physical

- Eliminate the hazard
- Neutralize the hazard
- Guard the hazard

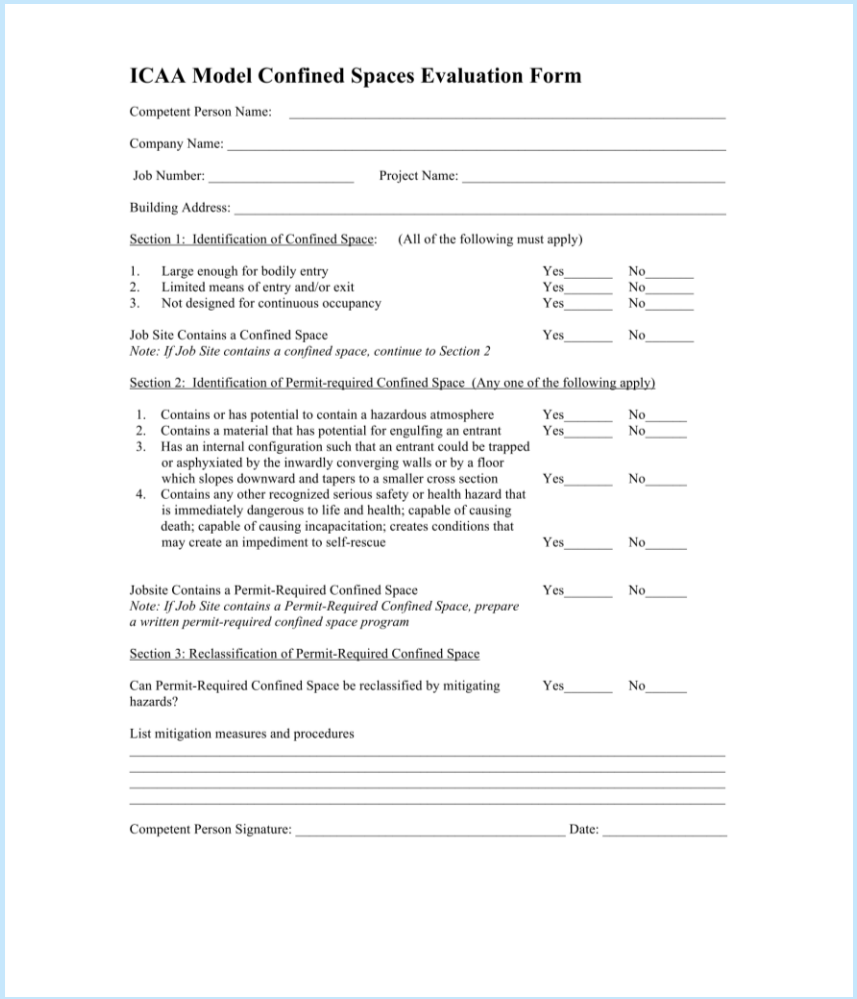
Environmental

- Eliminate the hazard
- Neutralize the hazard – PPE

Toxic Materials

- Eliminate the hazard
- Neutralize the hazard – PPE, work practices

ICAA Model Confined Spaces Evaluation Form



ICAA Model Confined Spaces Evaluation Form

Competent Person Name: _____

Company Name: _____

Job Number: _____ Project Name: _____

Building Address: _____

Section 1: Identification of Confined Space: (All of the following must apply)

1. Large enough for bodily entry	Yes_____	No_____
2. Limited means of entry and/or exit	Yes_____	No_____
3. Not designed for continuous occupancy	Yes_____	No_____

Job Site Contains a Confined Space Yes_____ No_____

Note: If Job Site contains a confined space, continue to Section 2

Section 2: Identification of Permit-required Confined Space (Any one of the following apply)

1. Contains or has potential to contain a hazardous atmosphere	Yes_____	No_____
2. Contains a material that has potential for engulfing an entrant	Yes_____	No_____
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by the inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross section	Yes_____	No_____
4. Contains any other recognized serious safety or health hazard that is immediately dangerous to life and health; capable of causing death; capable of causing incapacitation; creates conditions that may create an impediment to self-rescue	Yes_____	No_____

Jobsite Contains a Permit-Required Confined Space Yes_____ No_____

Note: If Job Site contains a Permit-Required Confined Space, prepare a written permit-required confined space program

Section 3: Reclassification of Permit-Required Confined Space

Can Permit-Required Confined Space be reclassified by mitigating hazards? Yes_____ No_____

List mitigation measures and procedures

_____

_____

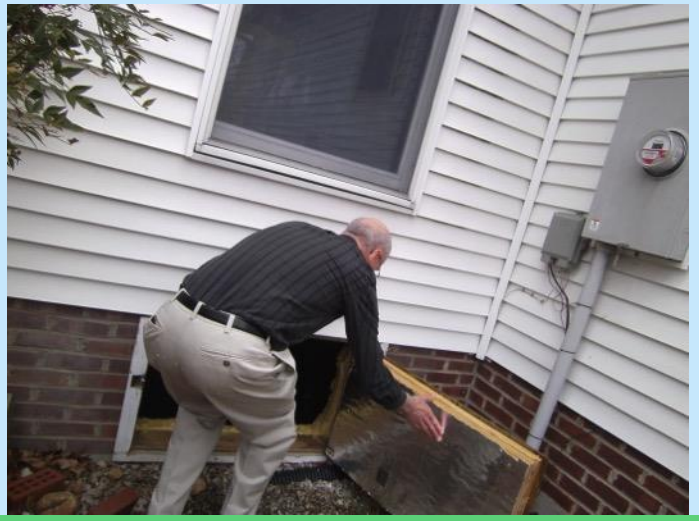
_____

_____

Competent Person Signature: _____ Date: _____

Real World Scenarios

- Limited Access



Tight Spaces

Limited Mobility
Lack of Ventilation
Overhead Hazard

- Real World Scenarios

Confined Space Hazards

Crawlspace hole, fall hazard

No floor, fall hazard

Non-Typical Jobsite Hazard

Confined Spaces Hazards

- Cluttered attic; slip, trip and fall

Confined Spaces Hazards

- Overhead hazards; low ceiling, nails

Confined Space Hazards

- Mold

Mitigating Hazards

- Cooling air equipment

Mitigating Hazards

- Mechanical Ventilation Fans

Review of Construction Worksite Hazards Permit or Non-Permit?

- Confined spaces: Attics and crawlspaces
  - Knob and tube wiring
  - Rat feces
  - Extreme heat
  - Moderate heat
  - Mold
  - Fiberglass, cellulose, rockwool, spray foam
  - Asbestos
  - Lead
  - Low ceilings
  - Protruding nails
  - Electrical wiring
  - Possibility of CO

Classification of Permit-Required Confined Spaces

- Permit-required entry
  - Hazards cannot be eliminated or controlled
- Alternate Procedures
  - Hazards are atmospheric only and can be controlled through additional ventilation
- Reclassification to non-permit space
  - Hazards can be eliminated (not controlled)

Alternate Procedures for Permit-Required Space Entry

- Used only if hazard is determined by Entry Supervisor:
  - Atmospheric in nature
  - Can be controlled by mechanical ventilation alone
  - Will not become immediately dangerous to life and health if mechanical ventilation fails
- Still requires an entry permit that Entry Supervisor posts at entry site
- Entry Supervisor re-evaluates if unrecognized hazard becomes discovered by Entrant
- No Attendant Required

- Entrant can enter without an Attendant and must:
  - Establish and ensure mechanical ventilation is working properly
  - Tests the atmosphere prior to entry into the space
  - Use and continually operate a 4 gas-detector during confined space operation
  - Evacuate the space if ventilation fails or if unrecognized hazards are discovered.
  - Inform Entry Supervisor if this happens.

Reclassification to Non-Permit Confined Space Procedures

- Eliminate physical and atmospheric hazards (not just control)
- Survey surrounding area for potential hazards and sources of drifting vapors and gases
- Test with 4-gas meter before & during and document pre-entry results
- No Attendant or rescue service is required
- Steps to reclassify permit-required space to non-permit space written on the entry permit
- Follow company's safety rules and use general safe work practices
- Do not create a hazardous atmosphere by introducing paints, thinners, chemicals or welding
- Don't introduce atmospheric, mechanical or electrical hazards into spaces.

(Attachment A)
CONFINED SPACE ENTRY PERMIT

SEE REVERSE FOR DESCRIPTIONS AND PROCEDURES

1. ____ This is a permit-required confined space entry. ____ This is a CERTIFICATE for an alternate procedure confined space entry.

2. GENERAL INFORMATION

Confined Space Location: _____Date Issued: _____ Time Issued: _____ Time Permit Expires: _____

Purpose of Entry: _____

3. List hazard(s) associated with this entry:

4. PREPARATION __ Drained __ Flushed __ Inerted __ Purged __ Ventilated __ Other _____

Openings: __ Barricaded __ Guarded __ Flagged

5. ISOLATION

Equipment: __ Lockout/Tagout __ Other: _____

Lines: __ Disconnected __ Blanked __Other: _____

6. COMMUNICATION PROCEDURES at confined space:

__ Voice __ Radio __ Intercom __ Rope Signals

7. OTHER REQUIRED PERMISSIONS (e.g. Hot Work Permit):

8. EMERGENCY RESCUE SYSTEM:

System Check Was Completed

Initials: _____

9. IDENTIFY SPECIAL EQUIPMENT REQUIRED:

__ Safety Harness/Lifeline __ Hoist __Other: _____

10. SPECIFY REQUIRED PERSONAL PROTECTIVE EQUIPMENT (PPE):

Eye protection: _____ Head protection: _____ Foot protection: _____ Gloves: _____

Respirator (type/cartridge used): _____ Protective clothing: _____ Other: _____

11. ROSTER

Entry Supervisor:	Entry Approved Initial:	Entry Terminated Initial:	Permit Transferred Initial:
Attendant: **Initial:**	**Dept./Shop:**		
Entrant: **Initial:**	**Entrant:**		**Initial:**
Entrant: **Initial:**	**Entrant:**		**Initial:**

12. AIR MONITORING READINGS (use additional sheets if needed)

Hazard	**Acceptable Conditions**	**Pre-Entry Check (At 4' intervals)**			**After Ventilating and/or Isolation**			**Periodic Checks (Take every 20min. unless specified)**				
Oxygen	19.5 - 23.5%											
LEL	< 10%											
H_2S	< 10 PPM											
CO	< 25 PPM											
Other												
Time		:	:	:	:	:	:	:	:	:	:	:
Initial												

Instrument make, model, serial #:	Last calibrated:	Tester's signature:

13. Notes and additional comments/problems during entry:

Post this Permit at job site. Return Permit to Entry Supervisor immediately after completion. Forward copy of Permit to company. Retain Permit in company files indefinitely.

CONFINED SPACE ENTRY PERMIT
Sample 1

Date:		
Site location or description:		
Purpose of entry:		
Supervisor(s) in charge of crews:	Type of crew (welding, plumbing, etc)	Phone #:
Permit duration:		
Communication procedures (including equipment):		
Rescue procedures (also see emergency contact phone numbers at end of form):		

REQUIREMENTS COMPLETED (Put N/A if item doesn't apply)	DATE	TIME	REQUIREMENTS COMPLETED (Put N/A if item doesn't apply)	DATE	TIME
Lockout/De-energize/Try-out			Supplied Air Respirator (N/A if alternate entry)		
Line(s) Broken-Capped-Blank			Respirator(s) (Air Purifying)		
Purge-Flush and Vent			Protective Clothing		
Ventilation			Full Body Harness w/ "D" ring		
Secure Area (Post and Flag)			Emergency Escape Retrieval Equip		
Lighting (Explosive Proof)			Lifelines		
Hotwork Permit			Standby safety personnel (N/A if alternate entry)		
Fire Extinguishers			Resuscitator—Inhalator (N/A if alternate entry)		

Add other specific information, if needed, or attach additional instructions or requirements. See the following examples in bold print.

Line(s) to be bled/blanked:			
Ventilation equipment:			
PPE clothing:			
Respirator(s):			
Fire extinguisher(s):			
Emergency retrieval equipment:			

CONFINED SPACE ENTRY PERMIT
Sample 1 (continued)

AIR MONITORING												
Substance Monitored		**Permissible Levels**		**Monitoring Results**								
Time monitored (put time) Percent Oxygen		Record the time 19.5% to 23.5%										
LEL/LFL		Under 10%										
Toxic 1:		____ PEL	___STEL									
Toxic 2:		____ PEL	___STEL									
Toxic 3:		____ PEL	___STEL									
Toxic 4:		____ PEL	___STEL									

REMARKS:

_____

_____

Air Tester Name	ID#	Instrument(s) Used (For example: oxygen meter, combustible gas indicator, etc.)	Model # or Type	Serial# or Unit

ATTENDANTS AND ENTRANTS

Attendant(s) (Required for all confined space work except alternate entry)	ID#	Confined Space Entrant(s)	ID#

REMARKS:

_____

_____

SUPERVISOR AUTHORIZATION - ALL CONDITIONS SATISFIED

Department or phone number: _____

EMERGENCY CONTACT PHONE NUMBERS:

AMBULANCE: _____ FIRE: _____ SAFETY: _____ RESCUE TEAM: _____ OTHER: _____

Entry Permit Must Identify:

- Permit space to be entered
- Purpose of the entry
- Date and authorized duration
- Authorized entrants by name or other means
- Means of detecting an increase in atmospheric hazard levels in the event the ventilation system stops working
- Each person, by name serving as an attendant
- Person by name serving as entry supervisor
- Hazards of the permit space
- Measures used to isolate the permit space or eliminate or control permit space hazards
- Acceptable entry conditions
- Results of tests or monitoring
- Rescue and emergency services
- Communications procedures used by entrants and attendants
- Equipment such as PPE, testing, communications, alarms, rescue, etc.
- Any additional permits such as hot work

Permitting Process

- Employer prepares an entry permit
- Entry supervisor signs in anyone entering permit space
- Entry permit posted at entry portal or other effective means
- Duration of permit not to exceed time required to complete the task or job
- Cancel entry permit when the operations are completed or conditions occur that is not allowed under entry permit
- Entry employer retains each canceled permit for 1 year.

Permit-Required Confined Space Program

- Employer Must:
  - Designate a competent person to identify and evaluate the hazards of permit spaces before employees enter
  - Implement measures necessary to prevent unauthorized entry
  - Develop and implement the means, procedures, and practices necessary for safe permit space entry including:
    - Specify acceptable entry conditions
    - Provide each authorized entrant with opportunity to observe monitoring or testing
    - Isolate the permit space and physical hazards in the space
    - Purging, inerting, flusing or ventilating the permit space as necessary to eliminate or control atmospheric hazards

Permit-Required Confined Space Program

- Determine if ventilation system stops working, monitoring procedures will detect an increase in atmospheric levels in sufficient time for entrants to safely exit the permit space
- Provide barriers as necessary to protect entrants from external hazards
- Verify that conditions in permit space are acceptable for entry and employees are not allowed to enter a hazardous atmosphere unless proper PPE can be used to protect each employee
- Provide proper PPE if required

Permit-Required Confined Space Program

- Provide attendant outside permit space
- Designate each person responsible for testing or monitoring the atmosphere in the permit space
- Develop and implement rescue and emergency services for entrants, prevent unauthorized persons from attempting rescue

If Hazard is Detected

- Each employee must leave space immediately
- Space evaluated to determine how the hazard developed
- Employer implements measures to protect employee from the hazard before any subsequent entry takes place

Gas Monitoring Required for All Permit-Required Confined Space

Test before & during entry

Detects 4 Gases:

- Oxygen
- Carbon Monoxide
- Hydrogen Sulfide
- Flammable Vapors

Employer Responsibilities

Host Employer

- Provide to Controlling Employer:
  - Location of each known permit-required confined space
  - Hazards or potential hazards in each space
  - Precautions implemented by host employer or others for protection of employees in confined space

Controlling Employer

- Provide host employers with:
  - Host information to each entity entering a permit space
  - Precautions implemented by host employer, controlling employer or entry employer to protect employees in permit spaces

Employer Responsibilities

Entry Employer

- Identify & maintain list of work locations that are confined spaces
- Determine if confined spaces are permit-required
- Provide confined space training for Entrants, Attendants and Entry Supervisors
- Provide exposure assessment & monitoring of airborne hazards
- Assist supervisors with identification of permit-required confined spaces
- Selection of safety equipment required
- Establish & document method of communication between Entrants and Attendants
- Ensure openings to permit-required spaces are posted with danger signs and if possible have secured doors
- Provide information, safety equipment & tools necessary to safely complete the work
- Maintain calibration of air monitoring equipment

Employee Responsibilities

- Understand requirements of confined space program
- Attend annual confined space training
  - Entrants complete Confined Space Entrant Training
  - Attendants complete Attendant Training
  - Entry Supervisors complete Confined Space Entry Supervisor Training
- Perform assigned duties
- Maintain entry equipment, clean & functional
- Verify all provisions of confined space program are in place before entry
- Immediately notify supervisor of any problem or question regarding confined space work

Prevention of Unauthorized Entry for Permit Required Spaces

- Entry is controlled by entry employer
- Entry Supervisor authorizes entry for each individual
- Entry Attendant verifies entrant is authorized
- Signs, barricades, locks and Attendants are used to prevent unauthorized entry

Sample Warning Sign

Employee Training

- Identifying confined spaces
- Identifying hazards in the confined space
- Best practices for insulation applications (ventilation recommendations)
- Strategies for mitigating and or isolating hazards in confined spaces

Employee Training

- Ensure employee possesses the understanding, knowledge and skills necessary to comply with the standard
- Training must establish employee proficiency in those duties
  - Training to be conducted in language the employee can understand
  - Training to be conducted before assigned duties
- Employee must maintain training records

Duties of Entry Supervisors

- Complete Entry supervisor training
- Ensure Attendant and Entrants have obtained training & understand hazards
- Minimize and list employees permitted to entry confined space
- Review job duties and entry permit requirements
- Ensure safety equipment and tools are present and in good condition
- Ensure functionality of communication method of Entrants, Attendants and method of summoning Emergency Response Team.
- Ensure entry conditions are acceptable
- Specify air monitoring on permit and verify all entrants have reviewed the results
- Eliminate or isolate hazardous energy sources
- Post copy of entry permit at entry site, submit copy to entry employer
- Terminate entry permit only after all entrants have safely exited the space and it is secure

Duties of Entry Attendants

- Complete Entry Attendant training
- Familiar with hazards
- Aware of behavioral effects of hazard exposure
- Maintain accurate count of entrants
- Remains outside the permit space during operations
- Communicates with entrants
- Assesses conditions & orders evacuation
  - If there is a prohibited condition
  - If behavioral effects or hazard exposure are apparent
  - If situation occurs the could endanger entrants
- Summons rescue and emergency services when needed
- Performs non-entry rescues as specified in plan
- Performs no other duties
- Takes following actions
  - Warns unauthorized persons to stay away from space
  - Advices unauthorized persons to leave space if entered
  - Informs authorized entrants & supervisor if unauthorized person has entered space

Duties of Authorized Entrants

- Complete Authorized Entrant training
- Familiar with hazards
- Properly trained in equipment
- Able to communicate with attendant
- Alert attendant when:
  - There is a warning sign or symptom of exposure
  - Entrant detects a prohibited condition
- Exit from permit space when:
  - Order is given by the attendant or entry supervisor
  - There is a warning sign or symptom of exposure
  - Entrant detects a prohibited condition
  - Evacuation alarm is activate

Rescue and Emergency Services Employer's Responsibility

- Evaluate rescuer's ability to respond to summons in timely manner
- Evaluate rescuer's proficiency with rescue tasks and equipment
- Inform rescue team of hazards
- Provide rescue team with access to all permit spaces
- Select a rescue team or service that:
  - Has capability to reach victim within an appropriate time
  - Is equipped for and proficient in performing rescue
  - Agrees to notify employer immediately in event the rescue service is unavailable

Rescue Team
Employer Responsibilities

- Provides each rescue team member with PPE needed to conduct rescues
- Provides training to performed rescue duties
- Ensures members are trained in basic first aid and CPR and at least one holds current certification in basic first aid and CPR
- Ensure members practice making permit space rescues before attempting real rescue, at least every 12 months.

Rescue Procedures

- Non-entry rescue required unless retrieval equipment would increase the overall risk of entry or would not contribute to the rescue
- When non-entry rescue is not selected, employer must designate an entry service rescue
- Employer must ensure that non-entry rescue retrieval systems or methods are used
- Employer must confirm that if non-entry rescue fails, that emergency assistance would be available

Retrieval Systems for Rescue

- Full body or chest harness with a retrieval line attached at the center of the entrant's back, above the head or another point which presents a small enough profile for successful removal of the entrant
  - Note: wristlets or anklets may be used if employer demonstrates that chest or full body harness is infeasible or creates a greater hazard.
- Other end of retrieval line is attached to a mechanical device or a fixed point outside the permit space
- Equipment that is unsuitable must not be used including:
  - Lines that might become entangled in other lines
  - Lines that won't work due to the internal configuration of the permit space

Review Questions

- Are all attics and crawlspaces confined spaces (Q14)?
- Must a competent person physically survey each confined space to determine if the space is a permit-required confined space? (Q50)
- When is atmospheric testing and continuous air monitoring required?
- What is an IDLH atmosphere?
- If attic temperature is 115 degrees and ventilation is used, is the space considered a non permit-required confined space? (Q20)

Review Questions

- Does the presence of a physical hazard in an attic or crawlspace make the space a permit-required confined space? (Q7)
- Does electrical equipment in an attic or crawlspace automatically make the space a permit-required confined space? (Q8)
- Does the presence of a fall hazard alone in an attic make an attic a permit-required confined space? (Q15)

Review Questions

- Does the presence of animals in an attic or crawlspace that is a confined space automatically make the space a permit-required confined space? (Q10)
- Is a dimly lit attic or crawlspace a permit-required confined space? (Q9)
- How do Safety Data Sheets help a competent person reach his/her evaluation?

Review Questions

- How often does a competent person have to evaluate a worksite?
- What are the recordkeeping requirements for worksite evaluations (Q49) and competent person training?
- Is training, including rescue training, required for work in non permit-required confined spaces?

Confined Space?

Confined Space?

Interior of Attic

Confined Space?

Only Access

Permit Required Confined Space?

Factors to Consider

Permit Required Confined Space?

Only access

Permit Required Confined Space?

Low ceiling

Tight space

Ventilation?

Appendix

- OSHA Confined Spaces in Construction Standard, Subpart AA
- Model Written Permit-Required Confined Spaces Program
- Confined Space Awareness Program
- ICAA Model Confined Spaces Evaluation Form
- OSHA's Frequently Asked Questions
- Flowchart: Identifying Confined Spaces and Permit-Required Confined Spaces in Construction
- Flowchart: Identifying Permit-Required Confined Spaces Hazards
- Strategies for Mitigating and/or Isolating Confined Spaces Hazards in Construction
- Eliminating or Controlling Potential Hazards in Confined Spaces
- Confined Spaces Entry Permit
- Confined Spaces Entry Descriptions and Procedures

To view all documents, go to www.icaaconvention.com/ConfinedSpaces.html