

# CONFINED SPACE ENTRY

## Confined Space Definition

1. Has adequate size and configuration for employee entry,
2. Has limited means for access or egress, and
3. Is not designed for continuous employee occupancy.

## Permit-Required Confined Space Definition

Permit space means a confined space that has one or more of the following characteristics (OSHA, 1993):

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

The first step for managers regarding confined spaces is to identify all permit-required confined spaces under their jurisdiction according to the above definitions.

## Contents

Section	Page
Introduction	1
Confined Space Definition	1
Permit-Required Confined Space Definition	1
Entry Definition	2
The Extent of the Problem	4
Elements of a Confined Space Entry Problem	9
Policy	10
Assignment of On-Site Personnel	12
Training	19
Safety Equipment	19
Confined Space Entry Checklist	21
Preentry Procedures	22
Removing Access Covers	27
Testing Workplace Atmosphere	30
Isolation/Lockout/Tagout	33
Ventilation	36
Set-up Equipment	36
Monitoring Workplace Atmosphere	37
Entering a Confined Space	37
Confined Space Evacuation Criteria	38
Non-Direct-Sight Entries	40
Summary	41
Review	45



### Entry Definition

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

Guidelines	45
Collection Systems	48
Types of Hazards	50
Types of Confined Space Structures	62
Establishment of Policy and Procedures	67
Basic Equipment	
Sample Procedures	
Appendix A National Institute for Occupational Safety and Health Case Studies	69
Appendix B Occupational Safety and Health Administration Sewer Entry Permit and Confined Space Entry Permit (Pre-entry/Entry Checklist)	105
Appendix C Sample Procedures for Collection Systems	111

Confined Spaces are those locations not intended for human occupancy and that represent certain hazards of toxic and flammable gases, asphyxiation, and entrapment. Improper entry into confined spaces still represents a significant danger in industry.

I had the opportunity to participate with a team of other engineers and facility operators to coauthor a Special Publication on Confined Space Entry earlier this year. Above is some descriptive material about that publication.

If you or your clients are involved in confined space entry, I suggest you consider this publication for your library.

Sincerely,

Gary M. Hutter, Ph.D.