

# H S E

HEALTH

SAFETY

ENVIRONMENT



Contact us

**Website:** <https://btsconsultant.com/>

**Email:** [info@btsconsultant.com](mailto:info@btsconsultant.com)

**UAE office Tel:** +971 26446633

**Egypt Office Tel:** +2 0502308081

## Confined Space Rescue Plan Management

---

**Duration:** 5 Days



### Introduction:

Confined spaces can be very dangerous places unless proper procedures are followed before and during entry. Working in confined spaces is an everyday occurrence in many occupations.

When these spaces are properly identified and assessed, entry plans are in place and the plans are followed, work performed within a confined space can be completed safely and efficiently. This course will provide participants with the information needed to understand the potential hazards of working in these spaces and the elements necessary to control those hazards prior to entry.

### Who Should Attend?

---

Team Leaders, Managers, Line Managers, Supervisors, Team Leaders, Project Managers, Control Center Operators and Supervisors, Emergency Dispatchers, Security Personnel and CCTV Operators, HSE Officers, HSE Personnel, HSE Professionals, Emergency Response Team Members, HSE Managers and Auditors, Health & Safety and Environmental Professionals,

Coordinators, Specialists and other full-time safety practitioners, Fire Officers, Loss Control Managers, Security Directors and Managers, Security Supervisors, Facilities Directors and Managers, HR and Administrative Managers with responsibility for security, Project Managers, Safety Inspectors, Plant Managers and Supervisors, Incident Control Point (Forward Control) Team Members, Supervisors, Advisors, Auditors, Laboratory Personnel, Emergency Personnel, Maintenance Personnel, Procurement and Supply Chain Managers,

## **Course Objectives:**

---

### **By the end of this course delegates will be able to:**

- Understand the hazards of confined spaces
- Become knowledgeable in the OSHA safety standards for safeguarding confined space entries
- Learn the duties and responsibilities of the confined space entry participants
- Achieve familiarity with atmospheric testing equipment and entrance equipment

## **Course Outline:**

---

### **Introduction to Confined Spaces**

- Definition of Confined Spaces
- Specifications of Confined Spaces
- Permit Required Confined Spaces

### **Confined Spaces**

- Not designed for human occupancy
- Atmospheric hazard, oxygen deficiency / enrichment, sour gas (H<sub>2</sub>S), methane (CH<sub>4</sub>), carbon monoxide (CO)
- Limited access or egress

### **Typical Hazards in Confined Spaces: Atmospheric Hazards**

- Oxygen Deficiency
- Combustible
- Flammable
- Explosive
- Toxic Gases / Vapors / Dust / Mists

### **Confined Space Hazard Assessment**

- Formal documentation by competent person
- Oxygen, flammable, toxic, biological, chemical, physical, surfaces, mechanical, electrical, thermal, engulfment, hot work

### **Physical Hazards in Confined Spaces**

- Unguarded Machine Parts
- Thermal Hazards
- Exposed Electrical Circuits
- Slip/Fall Hazards
- Engulfment
- Entrapment
- Hazardous Chemicals
- Biological Agents
- Noise
- Vibration

### **Other Possible Hazards in Confined Spaces**

- Rodents / Snakes / Spiders
- Poor Lighting
- Wind
- Weather

### **Confined Space Entry Plans**

- Duties of workers, contractors, management and attendants
- Rescue procedures, communication & equipment
- Personal protective equipment (PPE)

- Lockout and Tagout
- Ventilation, purging and inerting
- Atmospheric testing

### **Controlling Hazards of Confined Spaces**

- Lockout – Tagout
- Disconnecting Pipes
- Ventilation
- Cooling
- Dumping
- Rinsing – Flushing
- Fall Arrest Gear
- Air Sampling

### **Confined Space Permit Program: Ventilation Requirements**

- Purge if necessary
- 20 air changes per hour

### **Atmospheric Monitoring: Acceptable Entry Conditions**

- Company Confined Space Entry permit posted
- Oxygen 19.5 – 23.5%
- Lower Explosive Level 0%
- Toxic fumes/vapors less than PEL
- No engulfing material in space
- No hazardous chemicals or material
- Drained – Flushed
- Rescue Team Available on Site
- Attendant is present and equipment in place
- Space Temperature <100 degrees F
- LOTO Electrical components in space
- LOTO Mechanical Components in space
- LOTO All pipes to and from space
- Ventilation Established & Maintained
- Additional conditions required on permit

- Additional conditions required by Entry Supervisor

### **Duties**

- Entry Supervisor
- Attendant
- Entrant
- Rescue Team

### **Entry & Rescue Equipment**

- Air Monitor
- Fall Arrest System
- Ventilation Equipment
- Lighting Systems
- Communication Equipment
- Body Harnesses & Life Lines
- Working (man) Winch

### **Entry Procedures**

- Conduct Pre-Entry Briefing
- Assemble and check equipment
- Establish Acceptable Entry Conditions
- Conduct initial air
- Execute & Complete Entry Permit
- Station Entry Attendant
- Establish Monitoring of Atmosphere
- Establish Communication
- Execute Hot Work Permit if applicable
- Post Confined Space Entry Permit
- Enter Space
- Post-entry debrief if problems were encountered

### **Rescue Procedures**

- Rescue team required at access during entry to IDLH environments

- Rescue Team must be trained on specific type confined spaces
- Self-rescue
- Non-entry rescue