

	CONFINED SPACE HAZARD ASSESSMENT	Document No.:	HSE-BF-005
		Department:	Operations
		Revision Date:	19 AUG 2010
Release authorized by:	D. Slattery	Page	Page 1 of 2

Confined Space ID: _____ **Date:** _____

Date of Last Assessment: _____

A Hazard Assessment Form Must Be Completed for All Suspected Confined Spaces

Confined Space - must meet all the below criteria		Permit Required Confined Space must be a confined space and meet any one of the below criteria	
<input type="checkbox"/>	Is large enough or so configured that an employee can bodily enter and perform work... AND	<input type="checkbox"/>	Contains or has a potential to contain a hazardous atmosphere... OR
<input type="checkbox"/>	Has limited or restricted means for entry or exit AND	<input type="checkbox"/>	Contains a material that has the potential for engulfing an entrant... OR
<input type="checkbox"/>	Is not designed for continuous employee occupancy.	<input type="checkbox"/>	Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly covering walls or by a floor which slopes downward and tapers to a smaller cross-section... OR
		<input type="checkbox"/>	Contains any other recognized serious safety or health hazard

Acceptable Entry Conditions

<input type="checkbox"/>	Confined Space Entry permit posted	<input type="checkbox"/>	Lockout electrical components in space
<input type="checkbox"/>	Oxygen 19.5 – 23.5%	<input type="checkbox"/>	Lockout mechanical components in space
<input type="checkbox"/>	Lower Explosive Level 10%	<input type="checkbox"/>	Lockout all pipes to and from space
<input type="checkbox"/>	Toxic fumes/vapors less than PEL	<input type="checkbox"/>	Forced Mechanical Ventilation Established & Maintained
<input type="checkbox"/>	No engulfing material in space	<input type="checkbox"/>	No hazardous chemicals or material
<input type="checkbox"/>	Continuous Air Monitoring	<input type="checkbox"/>	Rescue Team Available (7)
<input type="checkbox"/>	Space Drained – Flushed	<input type="checkbox"/>	Pre-entry brief completed
<input type="checkbox"/>	Max Internal temperature _____ °F	<input type="checkbox"/>	Minimum Internal Temperature _____ °F
<input type="checkbox"/>	Training verified for supervisor, entrants and attendants	<input type="checkbox"/>	Training verified current for all Rescue Team Members

Authorized Entry Points

	Top		Side		Bottom	
	Hazards	Source/Type	Quantity & Quality (1)		Severity (Rate 1 to 5)	Hazard Abatement Method
	Explosive Atmosphere			___ LEL(2)		
	Combustible Material					
	Electrical Circuits					
	Toxic Gases			___ PEL		
	Toxic Material					
	Thermal Hazards			___ °F		
	Machinery					
	Slip / Fall Hazards					
	Engulfment Hazards					
	Entrapment Hazards					

Personal Protective Equipment Required

Check	Type	Check	Type	Check	Type
<input type="checkbox"/>	Gloves	<input type="checkbox"/>	Hearing Protection	<input type="checkbox"/>	Hard Hat
<input type="checkbox"/>	Coveralls	<input type="checkbox"/>	Safety Glasses	<input type="checkbox"/>	Goggles

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<input type="checkbox"/> Air Supplied Respirator <input type="checkbox"/> SCBA <input type="checkbox"/> Line Fed	<input type="checkbox"/> Air Purifying Respirator (3)	Acid	Org	DMF	N	R	P

Ventilation Requirements

<input type="checkbox"/>	Space Volume in cubic feet
<input type="checkbox"/>	Natural circulation - no atmospheric hazards in the space - additional ventilation may be required for worker comfort, hot work, grinding or other operations that would produce airborne fumes, mist or dust. Entry Supervisor must assess additional ventilation requirements based on tasks to be performed in the space prior to time of entry
<input type="checkbox"/>	Mechanical ventilation required for venting hazardous atmospheric contaminants
Supply	Exhaust
Volume _____ CU/FT per Min	Volume _____ CU/FT per Min
Point (5)	Point
Local (4)	
Volume _____ CU/FT per Min	Point

Ventilation Formulas & Requirements

20 Air Changes Per Hour (ACH) required for duration of entry 20 ACH = Space volume X 20	Adequate Blower Capacity (ABC) $ABC = \frac{\text{Space Volume} \times 20 \text{ ACH}}{60 \text{ Minutes}}$	Initial Purge Time $\frac{7.5 \times \text{Space volume}}{\text{Effective Blower Capacity}}$
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Required Rescue & Safety Equipment (check if required)

<input type="checkbox"/>	Life Line	<input type="checkbox"/>	Man Winch
<input type="checkbox"/>	Body Harness	<input type="checkbox"/>	Fall Arrest Unit
<input type="checkbox"/>	Floor level opening barrier	<input type="checkbox"/>	Emergency Retrieval Line
<input type="checkbox"/>	Tripod	<input type="checkbox"/>	Blower
<input type="checkbox"/>	Class I, Division I, Group D Electrical Equipment (6)	<input type="checkbox"/>	Vent Saddle
<input type="checkbox"/>	Powered Communication	<input type="checkbox"/>	Vent Trunks
<input type="checkbox"/>	Portable Lighting	<input type="checkbox"/>	Ladder
<input type="checkbox"/>	Atmospheric Monitor Make & Model	<input type="checkbox"/>	Emergency Escape Respirators

Communication Procedures - between attendant & entrants

☐ Wireless Radio ☐ Line Radios ☐ Verbal from Access

Rescue Procedures

☐ Self Rescue ☐ Non-entry Rescue ☐ Rescue Team Entry

Notes

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Foot Notes

- (1) Quantity & Quality - List volume or amount of material. For gases/dust/fumes, list the concentrations.
For electrical hazards, list voltage
- (2) LEL - Lower Explosion Level - lowest % of concentration in which an explosion could occur
- (3) Air Purifying Respirator - select type of filter or cartridge required - Acid Gas, Organic Vapor, (N) Not Oil Resistant, (R) Oil Resistant, (P) Oil Proof, (DMF) Dust- Mist-Fume
- (4) Local Ventilation - provide for worker comfort or for drawing away fumes or airborne particles caused by expected work in the space
- (5) Point - list location for entry of supply, local or exhaust ventilation
- (6) Class I, Division I, Group D - refers to hazardous locations that require explosion proof electrical equipment
- (7) Rescue team - required to be at access point for entries into spaces with IDLH (immediately dangerous to life and health) atmospheric condition. For all other entries, rescue team must be readily available