

HSE RISK ASSESSMENT

Company Name

TASK TITLE: Confined Space Entry into Column

Date:

Activity: Erection & Removal of Trays, Thickness monitoring, Internal Cleaning,
Erection & dismantling of scaffolding & relevant arrangements in Column

TRA No.

Location:

Description: The Overall task includes first time column entry, detailed gas testing, and entry of execution body, internal cleaning
And inspection of vessel, thickness monitoring test and internal scaffolding.

S / N o .	HAZARD	HAZARD EFFECT	RISK EVALUATION (Refer to Evaluation form)			CONTROLS	ACTION TO BE TAKEN		RESIDUAL RISK			A L A R P Y / N
			S	P	R		DESCRIBE ACTION	MANPOWER	S	P	R	
1.	Oxygen Deficiency	1. Unconsciousness / Fatality 2. Recordable Injury	E	8	11	1. Gas monitoring as per the define frequency 2. Confined space forced ventilated. 3. Mutual communication plan between SBM & Entrant 4. Time interval for maximum duration of work followed rest. 5. Emergency plan [Rescue/Evacuation]	1. Perform detailed gas analysis by competent person. 2. Gas meter should be Calibrated 3. No entry will be allowed unless Oxygen level is achieved within 20.8 - 21.0%. 4. The first entrant person should be competent. 5. The overall environment inside confined space (temperature, humidity, visibility etc) should be conducive for human entry. 6. Forced ventilation with the help of blowers / ejectors will be ensured. In case of no ventilation. 7. Set mode of communications (Visual Eye Contact, Voice Contact, Whistling, and Tag Line Signals) to be established and practiced between CSA & Entrant. 8. Emergency response plan (ERP) to be followed accordingly in case of emergency. 9. Nobody will be entering in the confined space without PFAS.	SPA: Site Supervisor CSA/SBM, Safety Watchman AGT (SGS)	E	4	7	Yes

2.	Poor illumination	1. Injuries due to striking in darkness 2. Property damage due to striking	F	8	10	1. Proper illumination using 24 volts ex-proof lights with glass covering	1. Ensure use of lights avoiding tripping hazards. 2. Stop working if visibility drops & making it hazardous to work	PA: Supervisor CSA	F	2	4	Yes
3.	Power failure in confined space	Personnel injury due to panic	G	8	9	1. Controlled evacuation 2. Emergency light	1. Don't panic in the result of power failure in confined space. 2. Ensure Controlled evacuation 2. Hand torch should be available	SPA: Site Supervisor CSA/SBM, Safety Watch	G	2	3	Yes
4.	Electrocution	1. Fatality	E	8	11	1. controlled voltage inside confined space 2. Connections through ELCB. 3. Industrial electrical appliances 4. Equipments checklist	1. Controlled (24 volts) and protected electrical supply to be ensured in the confined space. 2. Ensure the use of ELCB 3. Lighting arrangements should be as per standards, mean proper fixation, use of grounding cables and ELCB to be 4. Checklisted Equipments to be used duly inspected by inspectors.	SPA: Site Supervisor CSA/SBM, Safety Watchman	E	1	4	Yes
5.	Awkward ingress & egress	1. Recordable Injury	F	7	9	1. Use proper main access way for entry and exit.	1. Use proper access way provided at column for entry & exit.	PA: Supervisor CSA/SBM, Safety Watchman	F	2	4	Yes
6.	Striking of S/F material with the internal components Slip, trip, fall due S/F material shifting	1. Property damage 2. Recordable injury	F	8	10	1. Trained/skilled certified scaffolders. 2. Proper illumination 3. No simultaneous activities during scaffolding activities 4. No stacking inside CS	1. Ensure trained, skilled & certified personnel are involved to carry out S/F. 2. Adequate lighting arrangements should be made to avoid slip, trip, fall hazards. 3. SIMOPS are prohibiting during S/F. 4. Material should be stacking outside the Confined space.	PA: Supervisor CSA/SBM, Safety Watchman	F	5	7	Yes
7.	Falling objects	1. Recordable injury	F	7	9	1. Tie up of tools & material 2. Safety helmet with chins guards	1. Ensure tools are properly secured to use. 2. Ensure safety hats are used with chin guards by all personnel working inside confined space	PA: Supervisor CSA/SBM, Safety Watchman	F	1	3	Yes
8.	Scaffolding collapses	Fatality in case of head injury. Property damage	E	6	9	1. Complete Scaffolding 2. Scaffolding tags to be hang	Scaffolding should be erected as per standards. Apply scaffolding tags with respect to the nature of scaffolding.	PA: Supervisor CSA/SBM, Safety Watchman	E	2	5	Yes

9.	Falling from height	1. Fatality due to head injury	E	7	9	1. Guard railing 2. Use of PFAS 3. Install toe Boards	1. Proper railing system should be erected to prevent the falling of personnel. 2.. All the workforce required to use mandatory PPE's including additional PPE's Such as safety harness belt with dual lanyard and shock absorber. 4. Don't climb on scaffolding without Green Tag.	Supervisor, Safety Watchman	E	2	4	Yes
10	SIMPOS	Fatality, Recordable Injury,	E	6	9	1.No parallel activity 2.Access control	1. Simultaneous activities are strictly not allowed while working at height. 2. Access control to be implemented 3. Entry of unauthorized personnel is not allowed	Supervisor, Safety Watch	E	2	5	Yes
11.	Emergency situation in CSE	1.Unconsciousness 2. Dizziness 3. Fatality	E	7	9	1. Rest frequently 2. Come out if feel dizziness 3. Stop welding 4. Continuous ventilation	1. Maximum work duration inside confined space will be 30 minutes followed by 10 minutes rest. 2. In case of any uncertainty leave the area swiftly. 3. Continuous Ventilation required. 4. Make sure that the oxygen level achieved 20.8-21% before rescue operation.	Supervisor, Safety Watchman	E	2	4	Yes

GENERAL COMMENTS:

1. TBT will be conducted prior to job start.
- 2 Proper PPE's are mandatory for all workers.
3. Housekeeping of the area should be carried out on prior basis.
4. Supervisor full time must be available.
5. Stand by vehicle/Ambulance must be available at site to rescue the victim.

Abbreviations

SPA: Single Person Accountable
GCM: General Conversation Meeting
CSA: Confined Space attendant
ELCB: Earth Leakage Circuit Breaker
DB: Distribution Board

NAME OF TEAM MEMBERS Construction Manager HITRA Team Leader	SIGNATURE	RISK ASSISMENT APPROVAL I'm satisfied that the safeguard put in place will reduce the level of Risk to an acceptable level and the Task/Action is permitted to proceed. Reviewed by: _____ Date: _____ Time: _____
		Authorizing Signatory: _____ DATE: _____

S = Severity; P = Probability, R = Risk