RISK ASSESSMENT FOR THE INSTALLATION OF A MOTORIZED GATE VALVE

Activity:	Installation Of A Motorized Gate Valve	**RA No.**	ABC
Location:	ABC	**Date :**	00-00-0000

Equipment to be used:		**Revision Status**	
		Revision No.:	**Revised Date:**
Gas Dictator Dye testing kit (for visual detection of leaks) Pressure gauges and pressure testing equipment Repair clamps or sleeves (for temporary or permanent fixes) Epoxy putty or sealing compounds	Pipe wrenches and pipe cutters Flange or joint gaskets (if applicable) Welding equipment (if the pipe is metal and welding is required) Others, if any	NA	NA

Potential Hazards / Conditions considered (Tick Box)				**Persons at Risk**			
Fall From Height	☐	Falling of Materials	☐	Subcontractors	☐	Public	☐
Electricity	☐	Slips/Tripping	☐	Employees	☐	Visitors	☐

Personal protective equipment (PPE)								
☐	Safety Helmet	☐	Respiratory / Berating Apparatus	☐	Gloves	☐	Goggles	☐	Full Body Safety Harness
☐	Safety Boots	☐	Overalls	☐	Masks	☐	Ear Plugs/ Defenders	☐	Others, if any

Mandatory HSE requirements (Tick Box)								
☐	Safety Induction	☐	Proper PPE	☐	Work Permit	☐	Proper Tools/ Equipment	☐	Proper Barricade & Warning Sign in The Affected area
☐	Tool Box Talk	☐	Safe Work Place	☐	Proper Supervision	☐	Pre-Task Briefings	☐	Others, if any

Risk Level: H (HIGH-Potential to cause death or permanent injury) | M (MEDIUM –Potential to cause loss time injury) | L (LOW- An injury treatable with First Aid)

Likelihood (L)	Severity (S)	Class of risk (L*S)
Improbable	Negligible	High = 15-25
Remote	Minor	
Probable	Reportable	Medium = 07-14
Occasional	Serious	
		Low = 01-06

RISK MATRIX

LIKELIHOOD (L)					
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5
	1	2	3	4	5
	SEVERITY (S)				

Note:
1. Risk assessment must be addressed to workers by the worker in charge before starting a job.
2. Risk assessment is a continuous process hence to be reviewed depending on the activity and risk involved

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Sr.	Hazard	Risk	EVALUATION			Control Measures in place or to be implemented	RE-EVALUATION			Persons responsible for Implementation and Supervision.
			Consequences	Likelihood	Likelihood		Consequences	Likelihood	Likelihood	
1.	**Electrical Hazards** Live electrical wires or components.	• Electric shock or electrocution when working with electrical components.	4	4	16	• Ensure that power sources are de-energized and locked out/tagged out before starting any work. • Use proper personal protective equipment (PPE) such as insulated gloves and safety goggles. • Follow electrical safety protocols and guidelines.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
2.	**Mechanical Hazards** Moving gate valve parts and machinery.	• Injuries due to moving parts or equipment.	4	3	12	• Install safety guards and barriers around moving parts to prevent access during operation. • Ensure proper training for personnel working with the equipment. • Conduct regular equipment inspections for wear and tear.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians

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3.	**Falling Hazards** Unstable platforms, ladders, or scaffolding.	• Falls from heights when working on elevated platforms or structures.	4	3	12	• Use fall protection equipment such as harnesses and safety nets. • Ensure proper installation and inspection of scaffolding and ladders. • Implement a buddy system when working at heights.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
4.	**Chemical Hazards** Contact with lubricants, sealants, or cleaning agents.	• Exposure to hazardous chemicals during the installation process.	4	3	12	• Provide Material Safety Data Sheets (MSDS) for all chemicals used. • Ensure proper ventilation and use of respiratory protection if needed. • Store and handle chemicals according to safety regulations.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
5.	**Transportation and Handling** Heavy and awkward valve parts.	• Injuries while transporting and handling heavy valve components.	4	3	12	• Use mechanical aids such as cranes or forklifts for lifting heavy components. • Train personnel on safe lifting techniques and provide proper lifting equipment. • Maintain clear pathways and ensure a clutter-free work area.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
6.	**Confined Space** Limited space, potential for toxic gases, or lack of oxygen.	• Working in confined spaces when installing valves in underground systems.	4	3	12	• Conduct thorough atmospheric testing before entering confined spaces. • Implement a permit-to-work system for confined space entry. • Ensure workers are trained in confined space rescue procedures.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians

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7.	**Environmental** Accidental release of fluids or contaminants.	• Environmental damage due to spills or leaks during valve installation.	4	3	12	• Use spill containment measures such as absorbent materials and drip trays. • Have an emergency response plan in place for immediate spill cleanup. • Comply with environmental regulations and permits.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
8.	**Communication and Coordination** Confusion, delays, and errors in the installation process.	• Miscommunication or lack of coordination among team members.	4	3	12	• Implement clear communication protocols and roles/responsibilities. • Conduct regular team meetings to ensure everyone is on the same page. • Document installation procedures and follow a checklist.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians

Assessed by:			
Name:	**Designation:**	**Date:**	**Signature:**
Reviewed & Approved By:			

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