

RISK ASSESSMENT FOR ELECTRICAL PRESSURE TESTING

Activity:	Electrical Pressure Testing				RA No.	ABC				
Location:	ABC				Date :	00-00-0000				
Equipment to be used:					Revision Status					
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		Revision No.:		Revised Date:		
						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)	LIK ELI HO OD (L)	RISK MATRIX						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
Improbable	Negligible	High = 15-25		5	5	10	15	20	25	
Remote	Minor	Medium = 07-14		4	4	8	12	16	20	
Probable	Reportable			3	3	6	9	12	15	
Occasional	Serious			2	2	4	6	8	10	
		Low = 01-06		1	1	2	3	4	5	
					1	2	3	4	5	
SEVERITY (S)										

Sr.	Hazard	Harm/Consequences	EVALUATION			Control Measures in place or to be implemented	RE-EVALUATION			Persons responsible for Implementation and Supervision.
			C o n s e q u e n c e s	L i k e l i h o o d	L i k e l i h o o d		C o n s e q u e n c e s	L i k e l i h o o d	L i k e l i h o o d	



1.	Slip, trip, and fall at a different level	- Physical Injuries: Slip, trip, and fall accidents can result in a range of physical injuries, including sprains, strains, fractures, head injuries, and more. The severity of these injuries can vary, but they can lead to pain, medical expenses, and time off work. - Emotional and Psychological Impact - Lost Wages - Medical Expenses - Reduced Quality of Life - Decreased Job Performance: Even after returning to work, employees recovering from slip, trip, and fall injuries may experience reduced job performance due to physical limitations, pain, or psychological trauma. - Workplace Safety Concerns: Repeated slip, trip, and fall incidents in the workplace can lead to concerns about safety and morale among employees, impacting overall productivity and job satisfaction. - Workers' Compensation Claims - Potential Legal Actions	4	4	16	- Before entering high places, make sure they have the necessary collective protections to prevent falls, and if this is not the case, report it to your superior; - Make sure the edges of shutter work, gaps, and any different levels are protected with railings, safety nets, fencing with signs or similar; - All railings must be rigid, be at least 95 cm. in height, and be provided with an intermediate bar and skirting. - Work over 1.8 meters high, use a harness; - SCAFFOLDING must: - Be fixed to prevent undesired movements - Checked before use to make sure that it is in optimal state - Have railings and skirting for heights of over 1,8 meters - Have a separation of 30 cm at most from the facade - Have crosses on either side - Have railings of 95 cm on the working platforms, with intermediate bars and skirting; - The workers must follow the Method Statement and the preparation induction.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
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2.	Slip, trip, and fall at the same Level	Physical Injuries: Slip, trip, and fall accidents can result in a range of physical injuries, including sprains, strains, fractures, head injuries, and more. The severity of these injuries can vary, but they can lead to pain, medical expenses	4	3	12	- Site induction and wear PPE; - Whenever there is the need to move heavy-weight parts, perform the work with two or more workers; - Check the stability of the materials before completing the work; - Manual handling of loads must be performed correctly; - The maximum manual loading weight shall not exceed 25 Kg; - The workers must follow the Method Statement and the preparation induction; - Maintain tidiness and cleanliness in the whole of the work area: passages clear and areas used for gathering materials; - Store all materials correctly and in the right place.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
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3.	Falling objects by the collapse	Physical Injuries: Falling objects can cause severe physical injuries, including head injuries, fractures, lacerations, and internal injuries. The severity of injuries can vary depending on the size and weight of the falling object. Fatalities Emotional Trauma Medical Expenses Lost Wages Permanent Disabilities Reduced Quality of Life Workers' Compensation Claims Legal Actions Decreased Morale and Productivity	4	3	12	• Site induction • Do not stand under suspended loads. • Always ensure hooks with their safety latch. • Always check the state of cables, ropes, slings, etc. • Make sure materials are stored correctly.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
4.	Fall of objects by manipulation	Physical Injuries: Falling objects can cause severe physical injuries, including head injuries, fractures, lacerations, and internal injuries. The severity of injuries can vary depending on the size and weight of the falling object. Fatalities Emotional Trauma Medical Expenses Lost Wages Permanent Disabilities Reduced Quality of Life Workers' Compensation Claims Legal Actions Decreased Morale and Productivity	4	3	12	• Always ensure hooks with their safety latch. • Always check the state of cables, ropes, slings, etc. • Do not gather material on the edge of shutter work. • Do not leave tools, equipment, or materials in the working platforms of the scaffolding and/or mobile machinery.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
5.	Crash against stationary objects	Physical Injuries: Fatalities Emotional Trauma Medical Expenses Lost Wages Permanent Disabilities Reduced Quality of Life Workers' Compensation Claims Legal Actions Decreased Morale and Productivity	4	3	12	• Mobile machinery drivers must have a license • corresponding to the machine he/she is using • Notice any stationary object properly.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians

6.	Shock against mobile objects	Physical Injuries: Fatalities Emotional Trauma Medical Expenses Lost Wages Permanent Disabilities Reduced Quality of Life Workers' Compensation Claims Legal Actions Decreased Morale and Productivity	4	3	12	- Vehicle ways will be well-defined and delimited - Work areas will be well-lighted. - Safety distances about mechanism working ranges will be respected.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
7.	Entrapment by/between objects	Physical Injuries: Fatalities Emotional Trauma Medical Expenses Lost Wages Permanent Disabilities Reduced Quality of Life Workers' Compensation Claims Legal Actions Decreased Morale and Productivity	4	3	12	- All the mobile elements of the machines must be protected by the manufacturer. - Machinery maintenance works should be done with the engine cut-off.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
8.	Entrapment by vehicle rollover	Physical Injuries: Fatalities Emotional Trauma Medical Expenses Lost Wages Permanent Disabilities Reduced Quality of Life Workers' Compensation Claims Legal Actions Decreased Morale and Productivity	4	3	12	- Mobile machinery driver must have the license corresponding to the machine he/she is using - All times respect the mobile machinery limits. - Respect the speed limit at work.	2	3	6	
9.	Run-ins or blows with vehicles	Physical Injuries: Fatalities Emotional Trauma Medical Expenses Lost Wages Permanent Disabilities Reduced Quality of Life Workers' Compensation Claims Legal Actions Decreased Morale and Productivity	4	3	12	- Respect all signs, particularly in the areas and routes used for vehicles to pass and those reserved for pedestrians. - Enter the site through a defined entrance. - Use vehicles only if you are authorized to do so and follow the instructions received for suitable handling. - Use reflecting jackets to guarantee correct visibility. - Check and respect all vehicle reversing acoustic signals.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians

10.	Electrical contacts	Electric shocks can lead to muscle contractions, burns, cardiac arrhythmias, and even cardiac arrest. Burn Injuries: Electrical contact can cause burns at the point of contact, which can vary in severity. Electrical burns can damage skin, muscles, and internal organs, potentially leading to complications and long-term scarring. Internal injuries, such as damage to the nervous system, muscles, and organs. Cardiac Arrest leads to cardiac arrest. Respiratory Issues lead to breathing difficulties and require respiratory support. Psychological Trauma includes anxiety, depression, and post-traumatic stress disorder (PTSD), especially if they witnessed a colleague's injury or fatality. Long-Term Health Effects may experience long-term health issues, such as chronic pain, nerve damage, and cognitive impairments. Lost Wages and Work Disruption Workers' Compensation Claims Legal Consequences	4	3	12	• It is forbidden to manipulate any electrical connection box • Only trained and qualified workers can do electrical work. • All worn or peeled wires must be repaired immediately. • Any anomaly in an electrical installation should be reported. • Do not use electrical tools with wet hands or wet gloves. • If these are being carried out, these should be announced and notified with their corresponding WP and their special safety measures.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
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11.	Thermal contacts	Burn Injuries. Pain and Suffering Medical Expenses Scarring and Disfigurement Psychological Trauma Loss of Wages Reduced Work Capacity Disability Workers' Compensation Claims Legal Actions	4	3	12	• Use appropriate personal protection equipment. • Do not carry flammable materials (matches, lighters) during welding operations.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
12.	Extreme meteorological conditions	Physical Health Risks Injuries and Accidents Respiratory Problems Mental Health Impact Disruption to Daily Routine Financial Impact Job Security Long-Term Health Effects Safety Concerns During Commute	4	3	12	• Avoid working at high wind speeds • It is forbidden to work with energized lines on thunderstorms and periods of rain. <u>To mitigate the harm and consequences of extreme meteorological conditions on employees, employers should prioritize safety measures, including:</u> • Weather Monitoring • Safety Protocols • Flexible Work Arrangements • Emergency Response Plans • Training and Education • Protective Gear	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians

13.	Ergonomic and psychosocial risk	Ergonomic Risks: Musculoskeletal Disorders (MSDs) Repetitive Strain Injuries (RSIs) Fatigue and Discomfort Increased Absenteeism Reduced Job Performance Psychosocial Risks: Stress Anxiety and Depression Burnout Decreased Morale and Job Satisfaction Conflict and Bullying Increased Turnover Impaired Relationships	4	3	12	• Shifts must be set to ensure that the worker rests. • Do an annual medical examination for all workers. • Keep good interpersonal and professional relationships with the workers. • Keep high Qualitative, Environmental, and Security levels in the company through ISO Certificates.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
14.	Blows/cuts with objects or tools	Physical Injuries Pain and Suffering Medical Treatment Lost Wages Emotional and Psychological Impact Reduced Job Performance Permanent Disability Safety Concerns Workers' Compensation Claims Potential Legal Actions	4	3	12	• Use quality tools according to the type of work to be carried out. • Properly instruct personnel on the use of each type of tool. • Use gloves when handling sharp tools. • Perform regular maintenance of the tools (repair, sharpening, cleaning, etc.). • Periodically check the condition of the handles, insulating coatings, etc. • Store and/or transport the tools in boxes, tool bags, or appropriate panels, where each tool has its place.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians

15.	Fire/explosion	Trauma and Psychological Impact Fatalities Lost Wages and Job Disruption Medical Expenses Long-Term Health Issues Property Loss Legal and Insurance Issues Workplace Morale and Productivity				• It is forbidden to make fire at work • It is forbidden to smoke at work • Have fire extinguishers available on the site (carbon dioxide fire extinguisher and polyvalent powder); • Learn about electrical work procedures if you perform this kind of operation; • The workers must follow the Method Statement and the preparation induction.				Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
16.	Overexertion	Physical Injuries Musculoskeletal Disorders (MSDs) Fatigue and Exhaustion Reduced Productivity Increased Absenteeism Long-Term Health Implications Psychological Stress Workers' Compensation Claims High Turnover Reduced Quality of Life	4	3	12	• Use manual and power tools only for their specific • All faulty tools must be put out of use. • Do not carry tools in your pockets, but on the specific belts for them. • When you are not using them, leave them in places where they cannot cause accidents. • Plan de works to be done before starting them to avoid improvisations. • Avoid useless efforts, use mechanics tools, and request help when punctually have to move some heavy objects. • Keep your back straight, and avoid forced postures and trunk turns. • To lift loads, bend the knees without bending the back and lifting them by stretching the knees.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians

17.	Projection of fragments or particles	Physical Injuries Eye Injuries Respiratory Issues Hearing Damage Burns and Chemical Exposure Psychological Distress Lost Productivity Medical Expenses Workers' Compensation Claims Decreased Quality of Life	4	3	12	• Site induction & wear PPE; • Respect the manufacturer's instructions for the tools and equipment. • Replaces tools in poor condition with others that are in perfect condition and installs anti-projections elements always when it is necessary. • Do not use compressed air to de-dust or clean clothes or other objects.	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians
18.	Exposure to radiation	Acute Radiation Sickness Chronic Health Effects Genetic Damage Radiation Burns Skin Damage Eye Damage Psychological Stress Loss of Productivity Workplace Safety Concerns	4	3	12	• Respect all signs indicating RADIATION;-Don't cross barriers with RADIATION signs; • Ask the Site Manager, Supervisor, and/or SHEE officer if you doubt RADIATION signs and/or affected areas. <u>To mitigate the harm and consequences of radiation exposure, employers should adhere to strict safety measures, including:</u> • Radiation Monitoring • Training • Protective Equipment • Safety Protocols • Regulatory Compliance • Medical Surveillance	2	3	6	Project Manager/ Project Engineer/Project Supervisor/Project Safety Officer/MEP Technicians



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