RISK ASSESSMENT

(ELEVATOR EXAMINATION AND WEIGHT TESTING)

PROJECT / LOCATION:	DATE: 00-00-2024	DATE OF NEXT ASSESSMENT
Job No.		**00-00-2025**

TASK / ACTIVITY
ELEVATOR EXAMINATION AND WEIGHT TESTING

No.	Activities	Hazards	Risks	Risk Level			Risk Control Measures	Residual Risk			Remarks
				PR	S	E/H/M/L/N		PR	S	E/H/M/L/N	
1	Working at height	• Falls from height • Dropped objects • Unsecured harness or fall arrest system failure • Instability of working platform • Insufficient edge protection • Limited visibility or poor lighting • Inadequate access/egress • Weather conditions • Fatigue and loss of balance	• Risk of falling from ladders, scaffolding, or open elevator shafts. • Tools or materials falling from a height may cause injury to workers below. • Faulty or improperly used fall protection equipment can result in falls. • Inadequate or unstable scaffolding or ladders may lead to slips or falls. • The absence of guardrails or barriers increases the risk of falls. • Poor lighting in shafts or around elevators can lead to slips, trips, or missteps.	3	5	H	• Safe Access should be provide • Personnel Fall Arrester System should be worn at all times when working a meter & above. • Only Competent Personnel are allowed to work at heights. • Tool Box Talk. • PTW should be provided before commencement of job. • 100% tie off position must be maintained for fall protection. • Use of Proper PPE • In Case required for access use of MEWP, Scaffolding, Ladder • Statutory Third Party inspection Certification of MEWP, Scaffolding	2	2	L	

		● Improper use of equipment	● A lack of safe entry and exit points can make it difficult to maintain balance at height. ● Wind or rain can impact stability and grip, especially if working near open shafts. ● Extended periods at height may cause fatigue, increasing the risk of accidents. ● Using ladders, scaffolding, or harnesses incorrectly may compromise safety.				● Maintenance record of the ladder ● Statutory Third Party Training Certification				
2	Housekeeping	● Tripping Hazards ● Slipping Hazards ● Blocked Exits ● Falling Objects ● Poor Visibility ● Equipment Malfunction ● Fire Hazards ● Injury from Sharp Objects ● Restricted Movement ● Misplacement of Essential Tools	● Tools, equipment, or materials left on floors or work areas can cause trips and falls. ● Spills, grease, or lubricants on floors may lead to slip incidents. ● Cluttered walkways and exits can delay evacuation during an emergency. ● Unsecured tools or testing equipment on elevated platforms may fall, posing risks to workers below. ● Debris and clutter can obstruct views, increasing the risk of accidental collisions or mishaps. ● Inadequate cleaning and upkeep can cause	3	4	M	● Trained & Experience Worker ● Supervision of the Work ● Proper use of PPE ● Tool Box Talk ● Isolation the area of inspection	2	2	L	

			malfunctioning of elevators and testing apparatus. ● Accumulated debris and flammable materials can increase fire risk in confined areas. ● Unattended or improperly stored tools and equipment may cause cuts and other injuries. ● Excessive materials or equipment in the workspace can limit mobility, increasing the risk of strain or injury. ● Disorganized tools and equipment can delay responses in emergencies or disrupt the testing process.								
3	Electrical	● Electric Shock ● Arc Flash ● Short Circuits ● Faulty Grounding ● Contact with Live Wires ● Circuit Overload ● Electrical Burns ● Static Electricity	● Exposure to high-voltage circuits can cause severe shock or electrocution if proper precautions are not followed. ● Electrical arc flashes can occur due to improper contact with live components, causing burns and injuries. ● Faulty wiring or damaged insulation can lead to short circuits, increasing the risk of fire.	3	5	H	● Isolate the area of inspection ● Warning Signage ● LOTO ● Trained & Experience Worker ● Supervision of the Work ● Proper use of PPE ● Tool Box Talk ● PTW should be provided before commencement of job.	2	2	L	

		● Improper Lockout/Tagout (LOTO) ● Equipment Malfunction	● Inadequate grounding of electrical equipment can cause stray voltage, posing shock hazards to personnel. ● Unintentional contact with exposed live wires, often during maintenance, can lead to severe injury. ● Excessive load on circuits can cause overheating, potentially leading to equipment failure or fire. ● Direct or indirect contact with high-voltage components can result in severe burns. ● Accumulated static electricity can lead to shocks or ignite flammable materials in the work area. ● Failing to properly isolate and secure electrical sources can lead to accidental energization during testing. ● Faulty or poorly maintained electrical testing equipment can pose risks to operators and maintenance staff.								
4	Moving Objects	● Collision with Moving Elevator Cab ● Contact with Counterweights	● Risk of being struck by the elevator cab while it is in motion.	3	4	M	● Establish clear communication and signaling procedures to ensure workers are aware of cab movements.	2	2	L	

		• Crush Injuries from Misaligned Components • Impact of Falling Weights • Entrapment in Moving Mechanisms • Equipment Roll-away • Accidental Activation of Lift System • Interference with Other Moving Machinery • Contact with Moving Cables • Loss of Balance from Platform Shifts	• Potential for accidental contact with counterweights, which move in the opposite direction to the elevator cab. • Possibility of hands or other body parts being caught between moving parts like doors or safety interlocks. • Risk of testing weights dropping or shifting unexpectedly, leading to injuries or equipment damage. • Chance of limbs or clothing being trapped in moving mechanisms such as pulleys, cables, or sheaves. • Heavy testing weights or equipment on wheeled platforms may move unexpectedly, causing potential collision risks. • Unintended movement of the elevator due to improper controls or maintenance errors, posing a hazard to workers. • Risk of nearby machinery or tools moving unexpectedly and interfering with the elevator examination process.				• Implement lockout/tagout procedures to prevent unintended cab movement during testing. • Use warning signage and barriers around the elevator shaft to restrict access during testing. • Enclose or restrict access to areas with counterweights using safety guards. • Conduct testing only when personnel are trained on counterweight hazards. • Use physical barriers or signage to mark counterweight zones, ensuring they remain clear. • Ensure proper alignment and inspection of doors, safety interlocks, and other components before testing. • Train workers to keep hands and clothing away from potential pinch points. • Perform periodic checks on alignment to avoid unexpected component movement during testing. • Use secured weight-testing equipment and ensure all weights are properly attached.			

			● Risk of being struck by or entangled in elevator cables, especially during tensioning or maintenance. ● Sudden movements or shifts in test platforms can cause workers to lose balance and fall.			● Implement exclusion zones beneath or around areas where weights are handled. ● Use safety harnesses and fall protection for workers near elevated areas. ● Enforce strict lockout/tagout procedures to prevent machine activation during maintenance. ● Educate workers on the dangers of moving parts and require PPE, such as gloves and fitted clothing. ● Ensure guards and barriers are in place around mechanisms with moving parts. ● Secure equipment on stable surfaces or lock wheels to prevent movement. ● Inspect the testing area for inclines or hazards that might cause equipment to roll. ● Use chocks or wheel locks on movable items to avoid unexpected rolling. ● Implement lockout/tagout for the lift system controls to prevent unintended activation. ● Display clear signs indicating the testing status and limit access to authorized personnel only.				

							● Confirm all safety interlocks are functioning correctly before starting work. ● Schedule elevator testing separately from other equipment operations in the vicinity. ● Isolate the testing area and restrict non-essential machinery during the examination. ● Maintain open lines of communication between teams to prevent unexpected interferences. ● Use protective barriers or enclosures around cables to prevent accidental contact. ● Ensure that workers are aware of the location and movement patterns of cables. ● Secure cables and conduct visual checks for any unexpected movements during testing. ● Ensure that platforms are level, secure, and capable of handling the weight before any work starts. ● Train workers to stand clear of the platform edges and use guardrails when available.			

							● Inspect and stabilize platforms regularly, especially during elevator weight testing activities.				
5	Safe use of handle tools	● Pinching and Crushing Injuries ● Cuts and Abrasions ● Slips and Falls ● Eye Injuries ● Repetitive Strain Injuries ● Electrical Shock ● Tool Malfunction ● Overexertion ● Fire Hazard	● Improper handling or use of heavy tools can lead to pinching or crushing fingers and hands. ● Sharp edges or worn-out tools increase the risk of cuts or abrasions when handling or repairing elevator components. ● Leaving tools on floors or near edges can lead to tripping hazards in confined spaces. ● Small particles or tool fragments can cause eye injuries, especially when working with metal or concrete surfaces. ● Extended use of handheld tools may lead to muscle strain or repetitive motion injuries. ● Using tools near electrical circuits without proper insulation can result in electrical shock. ● Defective or poorly maintained tools can break,	3	4	M	● Always check the equipment is in good condition before use. ● Always wear cut protective gloves. ● Always use the appropriate equipment (an adjustable wrench is less safe than a spanner which is less safe than a hex key). ● Never use damaged tools. ● Always use the correct sized tool for the job ● To prevent for injury due to loose material and tools, must be keep in relevant tool boxes and secured safely.	2	2	L	

			causing injuries from sudden tool failure. ● Heavy or extended tool use without adequate breaks can cause fatigue, reducing focus and leading to errors. ● Certain hand tools, such as grinders, can generate sparks, posing a fire risk in flammable areas.								
6	Slips, trips and falls	● Wet or oily floors ● Loose or uneven flooring ● Poor lighting ● Obstructed pathways ● Unsecured ladders ● Missteps in confined spaces ● Improper footwear ● Open or exposed edges ● Unexpected movement	● Common in mechanical rooms or elevator pits, increasing slip risk. ● This can lead to trips, particularly around elevator entrances. ● Reduces visibility, increasing the likelihood of trips or missteps. ● Tools, equipment, or cables left in walkways create tripping hazards. ● Unstable ladders used in shaft access increase fall risks. ● Limited room to maneuver, particularly in elevator pits. ● Inadequate footwear may cause loss of grip on smooth or slick surfaces.	3	4	M	● Tidy site and provide clear defined walkways as per individual compound. ● Remove trip hazards around site; store materials in designated areas. ● The work will be clear to avoid slip & trip. ● All Tools are properly kept in bag/boxes to avoid fall injury. ● The area in the lobby is barricaded to prevent unauthorized entry. ● Suitable signage and safety net must be placed at workplace. ● Sufficient Light arrangement must be provided during work in progress.	2	2	L	

			● Elevator shafts and open doors may pose fall hazards if barriers aren't in place. ● Elevator or counterweight movement can cause imbalance or falls.								
7	Access to Site	● Unauthorized access to the site ● Slips, trips, and falls on uneven or cluttered surfaces ● Inadequate lighting in access areas ● Vehicular movement around site access points ● Weather-related hazards (e.g., rain, high winds) ● Lack of awareness among personnel regarding emergency exits and assembly points ● Poor communication about site hazards and ongoing activities	● Potential injuries to unauthorized personnel and increased liability. ● Physical injuries, such as sprains, fractures, or bruises. ● Reduced visibility, increasing the likelihood of trips and falls. ● Risk of collision or being struck by moving vehicles. ● Increased risk of slips, falls, and site access obstructions. ● Confusion and delays during an emergency, leading to potential injuries. ● Increased likelihood of accidents due to lack of awareness.	3	4	M	● Establish controlled access points with sign-in procedures. ● Implement access restrictions with security personnel or badge systems. ● Maintain clear and marked pathways. ● Regularly inspect and clear access routes of any obstructions or hazards. ● Provide appropriate footwear with anti-slip features for all personnel. ● Ensure sufficient lighting in all access routes. ● Install additional temporary lighting if required. ● Establish designated pedestrian pathways separate from vehicular routes. ● Use high-visibility signage and barriers. ● Implement traffic control measures, such as speed limits and warning signs.	2	2	L	

							● Monitor weather conditions and adjust work schedules if necessary. ● Use non-slip mats or coverings in wet conditions. ● Ensure all materials and equipment are secured against strong winds. ● Conduct site inductions, including orientation on emergency exits and assembly points. ● Place clear signage indicating exit routes and assembly points. ● Regularly review emergency response procedures with all site personnel. ● Hold daily briefings or toolbox talks to communicate site activities and hazards. ● Use signage to warn of specific hazards in access areas. ● Ensure two-way radios or communication devices are available for coordination.				
8	Elevator Inspection	● Mechanical Hazards ● Electrical Hazards ● Fall Hazards ● Load-Testing Hazards ● Slip, Trip, and Fall Hazards	● Crushing, entanglement, or impact injuries from moving elevator parts. ● Electric shock, electrocution, or fire hazards from faulty	3	5	M	● Fix appropriate warnings/ sing board ● Provide barriers to restrict unauthorized access to inspection area	2	2	L	

		● Hazardous Materials Exposure ● Manual Handling Hazards ● Noise Hazards ● Limited Lighting and Visibility Hazards ● Involvement of unauthorized personnel / Entrapment, Panic, Shock, Inquiry ● Incompetent maintenance personnel, fatalities ● Low overhead (Hitting), Head Inquiry ● Inspection of Moving / Rotating parts ● Pinch Hazards Caught in Between Moving Objects Cutting, Crushing ● Ungraded Object, counter weights, ● Entanglement, cutting, crushing, pinch hazard ● Physical / Mechanical Hazard	wiring or exposed electrical panels ● Falling from height or into elevator shaft during inspection. ● Overloading or incorrect weight distribution leading to elevator malfunction or structural failure. ● Slips, trips, or falls due to oily or wet floors, loose cables, or tools. ● Exposure to lubricants, oils, or chemicals during inspection and testing. ● Strains or musculoskeletal injuries from lifting heavy weights or equipment. ● Hearing damage due to loud noises from machinery. ● Reduced visibility leading to potential errors or accidents.				● Evaluate the maintenance representative as inspection to be carried out with professionally trained and qualified personnel only ● Forbid to operate the equipment without the presence of qualified maintenance provider ● Always be vigilant at working in low overhead area ● Sharp protruding fixtures to be covered ● Ensure adequate is paid throughout the duration of inspection for the moving or rotating parts ● Keep away from rotating / moving parts ● Isolate power supply prior to entry and tag out ● Ensure the adequate lighting ● Ensure adequate attention paid to work ● To prevent the activation or energizing of machinery ● Use of proper of PPE ● Isolate the area of inspection ● Warning Signage ● Trained & Experience Worker ● Supervision of the Work			

		● Electrocution, Electrical Shock and Burns ● Unexpected movement Cuts, Serious Injuries, Fatality ● Inspection instrument / Tools falling down from the top, Property / Equipment damage & Financial Loos ● Fire Hazard, Injuries (minor/major) burns, property damage ● Working at height/ insufficient illumination at site, Fatal Injuries ● Physiological and physical tiredness, stress and physical exhaustion ● Pinching of fingers Finger dislocation					● Check the condition of the brake and safety gear before entering car top or pit ● Ensure that mechanical car holding device are in active position ● Use the tools / instrument lanyard to avoid accidental falling down of equipment ● Proper housekeeping to be maintained ● Suitable fire extinguisher shall be use at work place ● Use had lamp to provide adequate lighting ● Inform the client to provide adequate illumination ● Don't allow to operate when illumination is insufficient ● Job Rotation ● Rest Breaks ● Supervision of the work ● Isolation of space ● Trained and Experience Inspector ● LOTO ● Proper use of PPE ● Tool Box Talk ● PTW should be provided before commencement of job.				

Risk Matrix

		SEVERITY					
LIKELIHOOD		Insignificant	Minor	Moderate	Serious	Major	Catastrophic
	1	1	2	3	4	5	6
	2	2	4	6	8	10	12
	3	3	6	9	12	15	18
	4	4	8	12	16	20	24
	5	5	10	15	20	25	30
	6	6	12	18	24	30	36

Consequences:

6 – Catastrophic – Multiple fatalities
5 – Major - Single Fatality
4 – Serious – Permanent disability
3 – Moderate – Lost Time Injury
2 – Minor – Medical Treatment
1 – Insignificant – First Aid Case

	24 - 36	Extreme	Immediate action required, Activity should not to proceed in current form
	15 - 20	High	Prompt action required, including interim actions. Activity should be modified to include remedial action and planning.

	8 - 12	Medium	Schedule action including any interim countermeasures e.g. implement safe work procedures, signage, instructions	
	4 - 6	Low	Activity can operate subject to management and or modification,	
	1 - 3	Very Low/ Negligible	Risk almost certainly acceptable, no action required unless escalation of risk is possible	

Likely Frequency:

Likelihood (of Adverse Event Occurring)			
	Description	**Health & safety**	**Environmental**
6	Almost certain or imminent	Occurs all the time	Continuous or will happen frequently
5	Highly likely	Common occurrence, Occurs multiple times in a year	Happens 5 – 10 times per year
4	Likely or could occur	Know to occur in the last 12 months	1 – 5 times per Year
3	Not likely, but possible	Has occurred in an industry worldwide	Once every 5 years
2	Unlikely	Has not occurred in over 10 years of the same activity	Not happened in over 10 years
1	Rare	Theoretically possible, but not expected to occur	theoretically possible, but not expected to occur

Prepared by: HSE Engineer		**Reviewed by: HSE Manager**		**Approved by:**	
Sign:	**Date:**	**Sign:**	**Date:**	**Sign:**	**Date:**