

	PROJECT DEPARTMENT (SAFETY)	Issue No.: 1	Document Effective Date: 01 Jan 2026	Page 1 of 4
	Risk Assessment & Safe Work Procedure For Telecommunication Works	Revision No.: 0	Document Ref: PD-S-PRO-021	

Purpose:	This document establishes a structured methodology for the execution of telecommunication works. Its purpose is to ensure that all hazards are systematically identified, risks are evaluated and reduced to a low and acceptable safe level.
Scope:	Applies to cable installation, routing, termination, testing, commissioning and rack installation for fibre optic and copper telecommunication systems.
Duties & Responsibilities:	(1) <u>Project Manager (PM)</u>: Responsible for ensuring that the risk assessment and safe work procedure are reviewed, approved and implemented. He shall ensure adequate resources are allocated and that all works comply with quality and occupational health and safety requirements. (2) <u>Site Supervisor (SS)</u>: Responsible for coordinating site activities, enforcing permit-to-work requirements and ensuring that all control measures identified in the risk assessment are effectively implemented on site. (3) <u>Safety & Health Officer (SHO) / Site Safety Supervisor (SSS)</u>: Responsible to monitor compliance with safety procedures, conduct inspections and verify that risk control measures remain effective throughout the execution of works. (4) <u>Project Engineer (PENG)</u>: Responsible for carrying out installation and testing works in accordance with approved procedures and telecommunication regulations. (5) <u>Wiring Technician (WT)</u>: Responsible to comply with this procedure, properly use personal protective equipment and report any unsafe conditions immediately.
ISO Reference:	MS ISO 45001:2018 Clause No. 6.1, 8.1 & 8.2.

Revision History			
Revision No.	Revision Date	Originator	Description of Changes

Definitions	
LOTO	Lockout-Tagout
PTW	Permit-to-Work
MEWP	Mobile Elevated Work Platform
OTDR	Optical Time Domain Reflectometer: fibre testing device
Bend Radius	Minimum allowable cable bending to prevent damage
Fluke Testing	Certification testing for copper cabling
ESD	Electrostatic Discharge: static electricity that can damage equipment
Hazard Identification	The primary hazards associated with specialist lighting installation include working at height, exposure to electrical shock and arc flash, falling objects during overhead work, manual handling of luminaires, and potential disruption when interfacing with live systems.

Risk Evaluation	Risks are evaluated using a likelihood and severity matrix, and high-risk activities such as work at height and energized testing are subject to strict control measures and permit requirements.
Risk Control Measures	Control measures are implemented in accordance with the hierarchy of controls. These include the use of certified access equipment, fall protection systems, LOTO procedures, insulated tools, exclusion zones, and proper lifting techniques.

Step	Activity	Responsibility	Reference
1	<u>Risk Assessment Methodology</u> (1) Likelihood (L): 1–5 (2) Severity (S): 1–5 (3) Risk Rating ($R = L \times S$) (4) Risk Levels: (a) 1–5: Low (b) 6–10: Medium (c) 11–25: High	PM / SHO / SSS	
2	<u>Risk Assessment Table</u>	PM / SHO / SSS	

Activity	Hazard	Consequence	L	S	R	Control Measures (Hierarchy Applied)	Residual Risk
Cable pulling	Snapback / tension failure	Hand/impact injury	3	3	9 (Med)	Use rollers, control pulling tension, trained personnel, gloves	Low
Fibre optic handling	Laser exposure	Eye injury	2	4	8 (Med)	Never look into fibre ends, warning labels, trained personnel	Low
Fibre shards	Skin/eye penetration	Injury	3	3	9 (Med)	Dispose in sealed container, gloves, eye protection	Low
Work at height	Fall from height	Fatality	3	5	15 (High)	MEWP/scaffold, harness, PTW, supervision	Medium
Rack installation	Tipping/crush	Serious injury	2	4	8 (Med)	Anchor racks, team lifting, proper handling	Low
Electrical exposure	Shock	Injury/fatality	2	4	8 (Med)	LOTO, insulated tools, supervision	Low
Testing activities	Equipment fault	Injury	2	3	6 (Low)	Calibrated equipment, trained personnel	Low

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Step	Activity	Responsibility	Reference
	4.6 <u>Testing and Commissioning</u> : Testing shall be conducted using calibrated equipment, and results shall be recorded and verified against acceptance criteria. Any defects shall be rectified before acceptance.	PM / PENG	
	4.7 <u>Rack and Equipment Installation</u> : Racks shall be securely installed and properly grounded. Equipment shall be handled with ESD protection measures to prevent damage.	PM / PENG	
	4.8 <u>Inspection and Quality Control</u> : All installations shall be inspected to ensure compliance with specifications and any non-conformities shall be corrected.	PM / PENG	
	4.9 <u>Housekeeping and Handover</u> : Upon completion, all tools, materials and waste shall be removed. The work area shall be restored to a safe condition. All documentation, including test reports and as-built drawings, shall be submitted for consultant approval.	PM / PENG / SS	
	4.10 <u>Emergency Preparedness</u> : Emergency procedures shall address fibre-related injuries, electrical incidents, and fall hazards, ensuring prompt response and reporting.	PM / SHO / SSS	

Prepared By: Name: Muhammad Zuhaili Azri Appointment: Safety & Health Officer (SHO) Date: 01 Jan 2026	Approved By: Name: Ong Lay Cheong Appointment: Managing Director (MD) Date: 01 Jan 2026
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