

	PROJECT DEPARTMENT (SAFETY)	Issue No.: 1	Document Effective Date: 01 Jan 2026	Page 1 of 5
	Risk Assessment & Safe Work Procedure For Special Lighting Installation	Revision No.: 0	Document Ref: PD-S-PRO-020	

Purpose:	This document establishes a structured methodology for the execution of specialist lighting installation 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 all activities associated with the installation, wiring, testing and commissioning of specialist lighting systems, including luminaires, emergency lighting and containment lighting. It also covers work at height, electrical interfacing and coordination with live or partially energized 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>Competent Electrician (CE)</u>: Responsible for carrying out installation and testing works in accordance with approved procedures, particularly ensuring strict adherence to LOTO and electrical safety practices. (5) <u>Electrical Technician (ET)</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
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.
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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 × 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	

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Step	Activity	Responsibility	Reference
	4.4 <u>Installation of Lighting Fixtures:</u> Lighting fixtures shall be transported safely to the installation location. Mechanical aids shall be used where necessary to reduce manual handling risks. Fixtures shall be securely mounted in accordance with approved drawings and specifications.	PM / SS	
	4.5 <u>Electrical Wiring and Termination:</u> All electrical connections shall be carried out only after verifying that circuits are de-energized. Wiring shall be completed in accordance with approved schematics and proper earthing shall be ensured. Insulation resistance and continuity tests shall be conducted to verify installation integrity.	PM / SS	
	4.6 <u>Testing and Commissioning:</u> The system shall be energized under controlled conditions and supervision. Functional testing shall be performed to verify proper operation and illumination levels shall be measured to ensure compliance with design requirements. Emergency lighting systems shall also be tested.	PM / CE	
	4.7 <u>Inspection and Quality Control:</u> A QAQC inspection shall be conducted to verify that the installation meets all specifications and acceptance criteria. Any non-conformities identified shall be rectified prior to final acceptance.	PM / CE	
	4.8 <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 / CE / SS	

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Step	Activity	Responsibility	Reference
	4.9 <u>Emergency Preparedness</u> : Emergency procedures shall be established in accordance with ISO 45001 requirements. These include fall rescue plans, electrical isolation procedures and first aid readiness. All personnel shall be briefed on emergency response actions.	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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