Electrical Safety Training for Construction

Service Objectives

- Identify and control hazards in temporary power, generator earthing/bonding, wet zones, buried/overhead services, and energised testing.
- Apply permits to work and test-before-touch; enforce LOTO for site plant and MEP systems, including stored energy control and reinstatement checks.
- Select and test RCD/GFCI protection and IP ratings; set inspection frequencies for boards, cords, and temporary lighting.
- Embed arc-flash awareness for LV/MV rooms during fit-out and pre-commissioning; adopt safe racking and testing practices.
- Establish auditable field standards aligned with OSHAD and Dubai Municipality; coordinate with DEWA/ADDC/TRANSCO and Civil Defence interfaces.
- Use practical checklists, inspection routines, escalation pathways, and incident response protocols for shocks, arcing, and equipment fires.

Who This Service Is For

Designed for construction environments across the UAE (high-rise, infrastructure, industrial plants, utilities interfaces, and fit-out).

- Main contractors, EPCs, and specialist subcontractors managing temporary installations and mobile generators/boards.
- HSE managers, construction managers, site engineers, electrical supervisors, chargehands, QA/QC inspectors, commissioning engineers.
- Proximity roles: crane operators, MEWP/scaffold teams, excavation crews, and finishing trades working near live or potentially energised equipment.
- Teams executing cable pulling, terminations, temporary lighting, testing and commissioning, and plant hook-ups.
- Sites with dynamic conditions: tight pour windows, night shifts, dust, heat, water exposure, and routine relocation of boards/leads.

> Multilingual delivery available (English/Arabic/Hindi/Urdu). Training aligns with OSHAD Abu Dhabi, Dubai Municipality, and supply authority requirements for temporary power and phased energization.

Duration & Process Overview

- Core Site Programme: 1 day (6–7 hours), mixed crews (12–18), onsite with supervised walkdown.
- Practitioner (Electrical/Commissioning): 2 days (12–14 hours), 8–14 participants, onsite or virtual.

- Focused Toolbox: 3–4 hours, 12–20 participants, onsite; single risk theme (e.g., overhead/underground, wet zones, boards).
- Blended Refreshers: 15–30 minute modules, scalable; eLearning plus toolbox at project milestones.

Methodology

Phase	Objective / Scope	Timing / Deliverable
Pre-delivery Needs Analysis	Define target roles, languages, and critical scenarios; collect drawings, SLDs, site photos, and temporary power standards.	Pre-delivery; tailored agenda and site-specific scenarios.
Foundation Concepts	Electrical principles; shock and arc mechanisms; energy control fundamentals; test-before-touch.	Course opening; shared vocabulary and baseline knowledge.
Site Applications & Demonstrations	Temporary LV distribution, protection coordination, generator earthing/bonding, cords in wet zones; RCD trip testing and cord/plug inspections.	During delivery; practical skill transfer on active workfaces.
Supervisor LOTO & Verification	LOTO workflows for construction plant and MEP systems; proving de-energisation; stored energy control; reinstatement checks.	Practitioner track; verified isolation routines.
Commissioning & Arc-Flash Awareness	LV/MV room practices; safe racking and testing; IR/continuity testing boundaries; staged energization during T&C.	Practitioner modules; safer energization planning.
Scenario Exercises & Case Studies	UAE-specific cases: crane slew near feeders, flooded basements, night-shift hot works, fit-out diversions; permit and boundary clarity.	During delivery; role-based decisions and controls.
Onsite Walkdown	Supervised review of temporary installations, boards, cords, and generators; validate controls in the field.	Onsite sessions; immediate improvement actions.
Assessment & Certification	Pre/post knowledge checks; practical demonstrations (RCD checks, LOTO, inspections); documented competencies.	End of course; NPM certificate with verification ID.
Post-Training Reinforcement	Micro-learning refreshers and toolbox scripts at milestones (pre-energization, fit-out start, night-shift ramp up).	Post-course; sustained behaviour and audit readiness.