

This is an extract from IOGP Report 577 - Fabrication site construction safety recommended practice - Hazardous activities, version 1.2 published November 2018. IOGP Reports are subject to regular review and update. In all cases only the current version of Report 577 is authentic.

14. Working with electricity

Electricity is a part of everyday life, but it can be fatal, seriously injure people or cause damage to equipment.

- 1) Site Management designates an Electrical Responsible Person/s for the site, and is responsible to verify to the Client Team that the Electrical Responsible Person(s) is trained and assessed as competent.
- 2) The Electrical Responsible Person(s) defines the knowledge, skills, and experience required for various types of electrical work such as High Voltage, Low Voltage, and Commissioning. The Electrical Responsible Person(s) also specifies local, regional and international recognized standards and permit to work requirements applicable to electrical work.
- 3) Working with electricity requires equipment isolation brought to a 'zero energy state' and verified (Lock-Out/Tag-Out). If not practical, it requires specific approval by Person In Charge or delegate, following the specified controls and communications established by the Electrical Responsible Person.
- 4) Signs, tags and label are used to recognize live electrical equipment and communicate its hazards in local language/s.
- 5) The tie-in of temporary electrical systems and equipment to permanent electrical distribution systems is prohibited unless specifically approved by the Electrical Responsible Person.
- 6) Conduit, cable, and wiring systems are protected from damage
- 7) Equipment requiring ground fault circuit interruption is defined.
- 8) Electrical system, electrical equipment and portable electrical apparatus (such as welding machines, generators, hand tools, etc.) brought onto the site is checked for general condition and conformance with industry or government standards.
- 9) Electrical system, electrical equipment and portable electrical apparatus is periodically inspected to verify integrity of the equipment (e.g. defective parts, faulty insulation, improper grounding, loose connections, ground faults, unguarded live parts). Inspection is easily verifiable by visual means (e.g. by using tags, and colored tape).
- 10) Electrical system and equipment that does not pass visual, periodic, or annual inspections are identified, taken out of service, repaired, or destroyed.

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- 11) Specialty Personal Protective Equipment appropriate to the electrical exposure level is provided as needed for working with electrical plant and equipment (e.g. arc flash Personal Protective Equipment, insulated gloves, non-conductive hard hats, non-conductive footwear, insulated tools and handling equipment, insulated blankets and insulated mats).
- 12) Only personnel trained in electrical 'hot work' are authorized to work with exposed energized equipment.

Relevant IOGP Life-Saving Rules, Report 459



Verify isolation and zero energy before work begins



Control flammables and ignition sources



Work with a valid permit when required