







## Construction Safety Guidelines No. 14

## Electricity At Site

		
<p style="text-align: center;"><b>DESIGN &amp; LOCATION</b></p> <ul style="list-style-type: none"> <li>Design &amp; installation of temporary electrical power systems must be carried out by a competent electrical engineer.</li> <li>Circuit breakers must be appropriate for the circuits they are protecting.</li> <li>Cables and connections must meet the requirements of BS4543 &amp; adequate steps must be taken to prevent cable damage in construction area.</li> <li>Shall meet the safety requirements specified in the EPSS Technical Guidelines No.9.</li> </ul>	<p style="text-align: center;"><b>PROTECTION</b></p> <ul style="list-style-type: none"> <li>Mechanically protected cable such as SWA must be used where any cables above 110V are run across site.</li> <li>Tools shall be disconnected before any adjustments are made or attachment changed.</li> <li>All distribution boards must be kept under lock and key.</li> <li>Distribution board must be covered to protect from weather.</li> <li>Always use industrial sockets for joining &amp; connecting cables.</li> <li>Inspect all cable regularly &amp; ensure any damage is repaired / replaced by a competent electrician.</li> </ul>	<p style="text-align: center;"><b>SAFETY MEASURES</b></p> <ul style="list-style-type: none"> <li>Provide necessary protective devices such as Earth Leakage Circuit Breaker (ELCB) in the circuit to avoid risk of shock, fire or burns.</li> <li>Where cranes or excavators etc. are in operation or scaffolding is being erected near overhead cables install warning barriers to keep persons &amp; plant clear.</li> <li>Ensure that supply cables for fixed plants shall be routed clear of construction work &amp; are protected against traffic movement &amp; water.</li> <li>Make use of reduced voltage of 110V where tools are available.</li> <li>Ensure that RCD with 30mA trip fitted on all 220-240V tools.</li> <li>Never insert loose wires of a tool cord into a socket.</li> </ul>
		
<p style="text-align: center;"><b>AUTHORISATION / CERTIFICATION</b></p> <ul style="list-style-type: none"> <li>Ensure that all electrical work at site is executed by qualified &amp; authorized electricians.</li> <li>Electrician appointed at site should possess a certificate issued by a recognized institute.</li> <li>Contact numbers of certified electricians shall be displayed prominently &amp; all the electrical connections shall be checked and approved through them.</li> </ul>	<p style="text-align: center;"><b>SAFETY NOTICES &amp; USE OF PPE</b></p> <ul style="list-style-type: none"> <li>Display sign board on work area for safety awareness.</li> <li>Display danger sign &amp; voltage details on all electrical panels / distribution boards used at site.</li> <li>The main contractor shall ensure that necessary PPE is worn by the electricians to prevent electrical shock or burns.</li> <li>All hand tools used by electricians shall be insulated &amp; in good condition.</li> </ul>	<p style="text-align: center;"><b>TRAINING / LOCK OUT &amp; TAG OUT</b></p> <ul style="list-style-type: none"> <li>Provide necessary training to all electricians and workers concerned.</li> <li>Conduct a tool box talk on safe use of electricity on site</li> <li>Use lock out &amp; tag out procedures when working on electric circuits coupled with permit to work systems.</li> <li>Only instigator can remove lock out or tags from electric sources.</li> <li>Place adequate no of CO2 Fire Extinguishers close by to all electrical installations.</li> <li>No live working to be carried out. All circuits must be isolated before work commences.</li> </ul>