EHS Guidance Notes

GN # 14 – Electricity At Site

Environment, Health and Safety
Ports, Customs & Free Zone Corporation




DESIGN & LOCATION	PROTECTION	SAFETY MEASURES
▪ Design & installation of temporary electrical power systems must be carried out by a competent electrical engineer. ▪ Circuit breakers must be appropriate for the circuits they are protecting. ▪ Cables and connections must meet the requirements of BS4543 & adequate steps must be taken to prevent cable damage in construction area.	▪ Mechanically protected cable such as SWA must be used where any cables above 110V are run across site. ▪ Tools shall be disconnected before any adjustments are made or attachment changed. ▪ All distribution boards must be kept under lock and key. ▪ Distribution board must be covered to protect from weather. ▪ Always use industrial sockets for joining & connecting cables. ▪ Inspect all cable regularly & ensure any damage is repaired / replaced by a competent electrician.	▪ Provide necessary protective devices such as Earth Leakage Circuit Breaker (ELCB) in the circuit to avoid risk of shock, fire or burns. ▪ Where cranes or excavators etc. are in operation or scaffolding is being erected near overhead cables install warning barriers to keep persons & plant clear. ▪ Ensure that supply cables for fixed plants shall be routed clear of construction work & are protected against traffic movement & water. ▪ Make use of reduced voltage of 110V where tools are available. ▪ Ensure that RCD with 30mA trip fitted on all 220-240V tools. ▪ Never insert loose wires of a tool cord into a socket.



AUTHORISATION / CERTIFICATION	SAFETY NOTICES & USE OF PPE	TRAINING / LOCK OUT & TAG OUT
▪ Ensure that all electrical work at site is executed by qualified & authorized electricians. ▪ Electrician appointed at site should possess a certificate issued by a recognized institute. ▪ Contact numbers of certified electricians shall be displayed prominently & all the electrical connections shall be checked and approved through them.	▪ Display sign board on work area for safety awareness. ▪ Display danger sign & voltage details on all electrical panels / distribution boards used at site. ▪ The main contractor shall ensure that necessary PPE is worn by the electricians to prevent electrical shock or burns. ▪ All hand tools used by electricians shall be insulated & in good condition.	▪ Provide necessary training to all electricians and workers concerned. ▪ Conduct a tool box talk on safe use of electricity on site ▪ Use lock out & tag out procedures when working on electric circuits coupled with permit to work systems. ▪ Only instigator can remove lock out or tags from electric sources. ▪ Place adequate no of CO2 Fire Extinguishers close by to all electrical installations. ▪ No live working to be carried out. All circuits must be isolated before work commences.