

CHAPTER 12

SAFETY AND SECURITY

12.1 GENERAL

In order to prevent accidents which may result in injury or death, or damage to public or **MEPCO** property, the consumers shall abide by the general safety requirement of the "Safety Code".

MEPCO shall take all the safety and security measures to avoid fatal / non fatal accidents. The consumer shall be educated through all possible means to observe safety measures in order to abide any casualty especially during the monsoon season.

12.2 OBLIGATIONS OF MEPCO

MEPCO / NTDC shall monitor and implement the safety and security plan for consumers. The safety and security objectives can be achieved by adopting good engineering practice, including the following measures.

- a) Operation and maintenance of **MEPCO's** electrical distribution system / Network shall be carried out only by the **MEPCO's** authorized and trained personnel.
- b) The **MEPCO's** system equipment, including overhead lines, poles/structures/Towers underground cables, transformers, panels, cutouts, meters, service drops, etc. shall be installed and maintained in accordance with good engineering and utility practice.
- c) To ensure proper operation of the **MEPCO's** network under abnormal conditions (short-circuit, overloading, etc.) appropriate protective relays shall be installed and properly coordinated.
- d) The earthing systems installed shall be dimensioned and regularly tested to ensure protection from fire and shock hazards.
- e) The steel structure installed on the public places shall be earthed at ONE point through steel/copper conductor, in accordance with the **MEPCO's** laid down procedures.

12.3 OBLIGATIONS OF THE CONSUMER

The consumer is responsible to monitor and implement safety and security standards within his own premises. The safety and security objectives can be achieved by adopting good engineering practice, including the following measures:

- a) No matter how small, electrical installations, including earthing system, must be designed, installed and maintained by competent Electrical Engineers and /or licensed electrical contractors, which must be inspected and certified by an Electric Inspector as per terms and conditions laid down in ECR-2003.
- b) Writing material and electrical equipment installed must conform to the approved relevant standards and be of a good quality.
- c) For the protection of the consumer, it is necessary that electrical installation at the consumer's premises conform to the rules established by the **MEPCO** and approved by the Authority as per the terms and conditions of the Eligibility Criteria, Performance Standards (Distribution) Rules, 2005, Distribution Code, Safety Code and Grid Code.
- d) No additions, alterations, repairs and adjustments to existing installation. (except such replacement of lamps, fuses, switches, low voltage domestic appliance and

fittings as in no way alter the capacity and the character of the installation), shall **be** carried out within a consumer's premises, except by a licensed electrical contractor.

- e) In case of fatal electrical accident to a person, an immediate report shall also be made to the nearest police station and to the **MEPCO's** Complaint Centre/ NTDC.
- f) Any consumer committing a breach of procedures / rules outlined above shall render himself liable for disconnection of his electric power and punishment with punitive damages.

12.4 **SOME USEFUL SAFETY TIPS**

Electricity, while being a very useful and convenient form of energy, has a number of hazards, and consumers would be wise to treat electrical installation with respect.

The following tips shall be kept in mind:

- a) Hazardous conditions on utility systems shall be monitored and immediately reported to the **MEPCO**:
 - i) Damaged or faulty insulators.
 - ii) Burns on conductors, insulator pins, or metal-work.
 - iii) Damaged cross – arms on poles / structures / towers.
 - iv) Broken strands or wires on overhead conductors, or fallen wires.
 - v) Uneven sagging of lines.
 - vi) Leaning or damage to poles / structures / towers.
 - vii) Branches of trees interfering with overhead conductors
 - viii) Loose stay – wires
 - ix) Construction of new roads, buildings, or other structures near the line.
 - x) Damaged or faulty transformer structures, including oil leakages
 - xi) Leakage of currents in poles and other structures / tower.
 - xii) Unsafe working practices by employees.
- b) RCDs (Residual Current Devices), also called Earth-Leakage Circuit Breakers (ELCBs), Ground-Fault Circuit Interrupters (GFCIs) are extremely sensitive circuit breakers that can prevent fires and shocks in electrical installations. Obtain specialist advice on their installation at appropriate locations in your electrical system.
- c) Electricity is more dangerous in the presence of water. During rains, near swimming pools, tanks or other water bodies, in laboratories, on construction site, for temporary functions/weddings, etc., special care must be taken to use proper wiring and protective equipment, especially RCDs. Such installation needs to be inspected on a regular basis.
- d) Use proper circuit-breakers in preference to re-wireable fuse cut-outs.
- e) Metallic and chemical string must not be used for kite flying as it poses serious danger to life and damages electricity installation.
- f) Safety clearance from electricity conductors and equipment (e.g. hazardous extension of balconies at the upper of houses in mohallas which comes close proximity of electric lines) must be maintained to avoid electrocution.
- g) Animals must not be tied to poles/structures/ towers of electricity lines in order to avoid accidents / electrocutions.