

Awareness Programme on

IS 5216 –Part 2 (1982) (Reaffirmed 2005)

Recommendation on

Safety Procedures and Practices in Electrical installations

PART II LIFE SAVING TECHNIQUES (First Revision)

Introduction

- Most accidents are generally due to carelessness and result in fall from heights, fire or electric shock to personnel. Panic ,Extreme care is to be taken while working on, or in close proximity to live mains or apparatus.
- The objective of this standard (Part II) is therefore to cover, the DO's and DON'TS instructions to be adhered to in the case of an accident and details of the life saving techniques in the event of all accidents to persons, whether minor or major.
- This standard (Part II) covers in detail the various alternative methods of inducing artificial respiration to a victim of electric shock.

2. ACCIDENTS

- Sec 2 DEFINITION First Aid, Fire Fighting and Resuscitation
- Cardio pulmonary resuscitation (CPR) is a technique of basic life support for the purpose of oxygenation to the heart, lungs and brain until and unless the appropriate medical treatment can come and restore the normal cardiopulmonary function.

CPR Cardio-Pulmonary Resuscitation



Artificial respiration techniques

- Sec 2.2.1 All technical staff should be familiar with first aid and artificial respiration techniques. They should be encouraged to obtain the Certificate of Proficiency issued by the St. John's Ambulance Association.
- 2.2.2 All technical staff should be made familiar with fire fighting techniques and the equipment in it.
- 2.2.3 The person-in-charge should also conduct mock drills in artificial respiration, rendering first aid and fire fighting.

- 2.2.4 First Aid Box - A box containing first aid equipment shall be kept handy for use when required. Medicines recommended by the Authorized medical professional should be made available.
- A periodical check shall be made of its contents. Any deficiencies shall be immediately made up.
- 2.2.5 Stretchers - Stretchers should be kept at all important electrical installations.

Sec 2.3 Reporting of Accidents

- 2.3.1 All accidents to persons; whether minor or major, fatal or nonfatal, including slight injuries/near misses (when the injured person is capable of performing his duties), shall be immediately reported.
- First aid shall be rendered, where necessary. The injured person shall be sent to the doctor for medical examination or the doctor sent for to attend on the patient.
- 2.3.2 Rules 44 and 44A of India Electricity Rules, 1956 shall be complied with for the purpose of intimation of accidents.
- IE Rule 44 says restoration of person suffering from Electric shock and 44A says reporting or intimation of accidents to higher authority.

Department reports

- 2.3.3 Department Reports - Every accident shall be thoroughly investigated and recorded. The records should show the date and time of the accident, name of person or persons involved,. nature of injury, name of investigating persons, their findings and preventive action taken, if any.

Section No.3. TREATMENT FOR ELECTRIC SHOCK

- 3.1.1 In most cases of electric shock and collapse, it is the lungs and the diaphragm (the thin sheet of muscles which lies below the lungs) that stop working and there is a very good chance of revival by applying quickly artificial respiration.

3.2 Removal From Contact

- 3.2.1 If the person is still in contact with the apparatus that has given him shock, switch off the electric circuit and remove the body from contact with the live conductor.
- 3.2.2 The victim's body should be touched by hands with gloves, instead if the rubber gloves are not available the victim should be pulled off from the live conductor by his coat, shirt, etc, . Wooden sticks or broom handle may also be used to raise the body or to detach it from live conductor.

3.3 Preliminary Steps

- If the patient's clothes are (with smoke but no flame) smoldering, the sparks should first be extinguished. The doctor should be immediately called for further treatment on the patient.
- 3.4 Immediate Action to Recover Patient
 - 3.4.1 No time should be wasted in calling for a doctor and to avoid unnecessary discussions, arguments among the staff available
 - 3.4.2 Cold water may be given in small quantities in cases of electric fire or asphyxia and smelling salts may also be administered
 - 3.4.3 Artificial respiration without interruption, until natural breathing is restored.
- 3.5 Upon Recovery - When, the patient revives, he should be kept lying down and not allowed to get up' or be raised under any circumstances without the advice of a doctor.

Preliminary Steps

- 4. ARTIFICIAL RESPIRATION
- 4.0.1 The various methods of-artificial respiration usually adopted are described below for general information only, and are not meant to replace the method actually followed in the area concerned in accordance with Rule 44 of the Indian Electricity Rules, 1956.
- 4.1 Schafer's Prone Pressure Method
- 4.2 Silvester's Method (Arm-Lift Chest-Pressure Method)
- 4.3 Eve's Rocking Method
- 4.4 Hip-Lift Back-Pressure Method
- 4.5 Arm-Lift Back Pressure Method 4.5.1 This is called Nielson's Method
- 4.6 Pole-Top Method
- 4.7 Mouth-To-Mouth Method

ELECTRIC SHOCK & it's MANAGEMENT

विद्युत्‌लाघात एवं उसके प्रबंधन विधान



EFFECTS	
1.	Respiratory arrest
2.	Loss of consciousness
3.	Severe burns
4.	Cardiac arrest
5.	Death

NEARBY ELECTRICAL WIRE



1. Turn off the power at the main switch.
2. Do not touch the person or the wires.
3. Call for help immediately.



1. Do not touch the wire.
2. Turn off the power at the main switch.
3. Call for help immediately.



1. Turn off the power at the main switch.
2. Do not touch the person or the wires.
3. Call for help immediately.



1. Do not touch the person or the wires.
2. Call for help immediately.

PRELIMINARY TREATMENT

1. Do not touch the person or the wires.
2. Call for help immediately.
3. Turn off the power at the main switch.
4. Do not touch the person or the wires.
5. Call for help immediately.



For more details please refer the original IS
specification 5216 –Part 2 for
Electric shock treatments

Thank You

For Dos and Don'ts refer the document

IS 5216 - Part III Safety posters.

IS 5216 - Part IV Special guidance for safety in electrical
work in hazardous areas.