

- ## 5. Fire Extinguishers

| Extinguishers                                         | Class of Fire | Indian Standard<br>New IS Standard   | Extinguishing medium  |
|-------------------------------------------------------|---------------|--------------------------------------|-----------------------|
| Water CO2                                             | A             | IS : 940-1976/IS :<br>15683-2006     | Water                 |
| Dry Chemical Powder/ABC<br>Type                       | B, C          | IS : 2171 – 1976/<br>IS: 15683-2006  | Dry Chemical Powder   |
| CO2                                                   | B, C          | IS : 2878 – 1976/<br>IS : 15683-2006 | CO2 gas               |
| Clean agent Fire extinguisher<br>(HFC, Halotron etc.) | A, B, C       | IS 15683:2006                        | Halon alternative Gas |



## STANDARD OPERATING PROCEDURE (SOP) ON FIRE PREVENTION

- a. For every 1000 sq. ft. of space or part thereof following portable fire extinguishers will be provided:-
  - i) Water CO<sub>2</sub>- 9 litres - I
  - ii) ABC/DCP- 6 Kg/5 kg - I
  - iii) CO<sub>2</sub>- 4.5 Kg - I
- b. Above scale may be increased depending upon concentration of inflammable material.
- c. The extinguishers should be easily accessible, should not be exposed to direct sunlight, and should be mounted on wall brackets at a height of about 1000 mm above floor level.
- d. To deal with special fire hazards if any, provision of special/additional fire extinguishers will be made upon the recommendations of the security officer.
- e. Fire extinguisher should be placed as near as possible to exits or staircase without hindering the escape route. Extinguishers should be sited in such a way that the user may not have to travel more than 15 meter from the site of the fire to reach the extinguisher. These should be placed at similar position on each floor area.
- f. The extinguisher should be placed either in a trolley or mounted on wall firmly.

### 9. Fire Fighting Instructions And Evacuation Procedures

- a. Necessary steps should be taken to provide fire resistance during construction.
- b. All server rooms in branches/offices should be protected through Automatic Modular Extinguisher, Clean Agent.
- c. Mock Fire Drill should be carried out at least once in a year in all our high rise buildings/occupancies. Floor Marshals should be identified and trained in evacuation and fire-fighting drills. Mock drills should also be practiced during Fire Safety Week ( 14 April to 20 April).
- d. The bank shall provide necessary fire protection measures in all its offices, particularly in high rise buildings. Fire safety is the responsibility of the Security Department, to plan, provision and maintain various equipment. It shall be the responsibility of the CO / ZO / RO to provide adequate knowledge create awareness and impart minimum required training to all staff members on fire safety measures.
- e. An analysis of fires in various buildings has brought out the fact that in most cases the cause of fire is attributable to carelessness or negligence on somebody's part. It remains a fact that if early action is taken to extinguish or contain fire, the loss due to it can be considerably reduced.
- f. The aim of all prevention and firefighting drills / procedures is:
  - i. Firstly, to ensure measures for prevention of fire.
  - ii. Secondly, should there be an outbreak of fire, to detect it early and attack it in its initial stage and put it off. If this cannot be accomplished, then at least to contain it and prevent it from escalations till the arrival of fire brigade.
  - iii. Thirdly, to bring all occupants of the premises to a central place of safety outside the building, in an orderly manner without causing panic and stampede.
  - iv. To salvage valuables, assets etc.

### 10. Evacuation, First Aid And Salvage

- a) Evacuation: Personnel not employed in firefighting must vacate the building using the staircase or escape route in a single file keeping to the wall. This will enable the firefighting squad to move unhindered. Lift must not be used for evacuation. The

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evacuation should be carried out silently and without getting into or creating a panic. First aid should be given to the needy.

- b) First Aid: Equipment to render first aid to fire casualties must be readily available. The first aid box should contain the following:

|                                    |                        |
|------------------------------------|------------------------|
| i) Spirit                          | ii) Triangular bandage |
| iii) Dettol                        | iv) Bum dressings      |
| v) Benzene                         | vi) Band aids          |
| vii) Burnol                        | viii) Splint           |
| ix) Nebosulph Powder               | x) Leucoplast roll     |
| xi) Absorbant Cotton               | xii) Scissor and blade |
| xiii) Bandage rolls -2", 4" and 6" | xiv) Tourniquet        |

### 11. Fire Prevention

#### a. Electricity

Electricity is a major source of fire. General electrical precautions should be ensured on the lines indicated hereunder:-

- i. It should be ensured at regular intervals that electrical equipment, machinery and circuits are checked for short circuiting, overloading and insulation.
- ii. All additional connections should be properly planned and installed by an approved electrical firm.
- iii. In case of concealed type electrical wiring, a plan of existing circuit should be drawn up and kept on record. Changes must be incorporated in this plan to keep it up-to-date at all times.
- iv. Electric wire should not be run under carpets. If unavoidable, conduit pipe must be used.
- v. Loose electric wire should not be lying / hanging around.
- vi. Overloading of a circuit by multiple electric connections from a single point is a potential risk. This should never be allowed. Adequate number of plug points should be provided.
- vii. Proper fuses should be used. Under no circumstances their rating should be increased than those recommended. Flickering tube lights, humming starters / chokes and overheated switches should be put right or replaced immediately.
- viii. Electric connection to Strong/Safe Room/SDV Locker room should be through a plug and socket. The plug with the wire should be kept inside the room and socket should be fixed on the wall outside and next to the room's door. A 15/ 30 Amps. Control switch should be provided with the socket to activate the circuit.
- ix. Electric Audit should be carried out once in every three (03) years and all rectification work should be taken as per the audit observations. This should be done on the following occasions:-
  - aa) When branch is shifted to alternate premises or when new branch is opened.
  - ab) When departments are added in the existing floor and the overall fire and electrical load of that floor/premises as a whole increases.
  - ac) After any incident of fire-particularly due to electricity.

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- ad) In case of flood, after the water recedes.
- ae) On carrying out major repairing works at branch premises.
- af) On specific recommendation by the Security Officer/Electrical Engineer
- ag) Electric consumption should be within the limit of approved electric load. Load distribution must be balanced in all three phases.
- ah) Power supply to computer system shall always be routed through UPS. Under no circumstances shall computers be connected directly to raw supply of current.
- ai) Master switch/Miniature circuit Breaker (MCB) should be installed at a prominent place to cut OFF the electric supply.
- aj) Earth leakage circuit breaker (ELCB) should be provided in the branches/offices.
- ak) UPS/battery room should be kept neat and clean. Storage & dumping of unwanted materials should not be permitted under any circumstances.
- al) In UPS/Battery room proper ventilation fan secured with strong MS grills or exhaust fan should be provided.
- am) It will be incumbent on the part of every employee in the branch to report immediately if he/she notices any dangling/loose electric wire or any portion of wire with damaged jacket/insulation.
- an) Fire Extinguishers, which are over 10 years' old shall not be retained. They should be destroyed and disposed off after carrying out pressure test and if declared unfit by the contractor.
- ao) While refilling the extinguishers during annual maintenance, it should be ensured that a demonstration is given to the staff of the branch, in handling the extinguishers.
- ap) In all our high rise buildings, it is not only mandatory to identify floor marshals but also impart refresher training during fire safety week
- aq) The Electrical Circuit for the UPS and the Branch should be separate. MCBs and ELCBs of the right capacity should be provided to cut off electricity during any electrical surge/short circuit.
- x. **Check Points for any work to be carried out in premises:**
  - aa) Fire Retardant Low Smoke (FRLS) Cable /Wires of reputed Makes such as Havells/Polycab/KEI/RR/MK/Finolex etc. should be used.
  - ab) All heavy load power circuits should be done with 4 sqmm wires or as per actual load calculation whichever is higher.
  - ac) All internal electrical points should be done with copper wiring for better current capacity.
  - ad) Lighting and Power circuits should be separate and should be routed through separate Distribution Boards (DBs).
  - ae) All circuits should be routed through separate MCB (Miniature Circuit Breaker) of reputed Makes such as Legrand / L&T / ABB / Siemens / Hager / Schneider/ Merlin etc.
  - af) MCB Short Circuit Capacity to be of minimum 9/10 KA.
  - ag) For lighting circuit Category 'B' MCB and for power circuits Category 'C' MCB should be preferably used to avoid nuisance tripping.

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- ah) All old fixtures which has been requiring frequent repair should be replaced. No loose wires or temporary wiring connection s should be allowed inside the premises.
- ai) Preventive maintenance of UPS and ACs should be done regularly.
- aj) Outdated / old / defective electrical appliances like UPS and air conditioners shall be replaced.
- ak) The rectification / defects observed in 'Electrical Safety Audit' shall be immediately undertaken.
- al) There should be two AC in Server room (24/7 load running) with alternate running provision using timer.
- xi. Annual Maintenance Contract (AMC):  
There should be an AMC of electrical gadgets like UPS and ACs. Further, it should be ensured that periodic proper preventive maintenance of equipment is carried out.
- b. Housekeeping  
Good housekeeping for fire prevention is a continuous process. Absolute cleanliness must be insisted upon at all times. Following precautions should be taken in this regard:
  - i. Combustible materials such as waste paper, oil, wooden packing cases, etc. should not be left lying around. Bins with lid should be provided at suitable places wherein waste paper and other garbage must be deposited. These bins should be emptied at the end of the day/following morning and their contents disposed off.
  - ii. The surroundings of the building should be kept free of combustible materials.
  - iii. Papers/stationery/etc. should be stacked carefully but never should stacks touch the ceiling/false ceiling. In fact, a clear gap of 3' must be kept between the top of the stack and the ceiling. In no case, such stacks should touch any electric wiring.
  - iv. Safety lights should adequately illuminate the staircase(s) escape route(s). All exits must be kept free from obstructions.
  - v. Stove, Gas cylinder, chemical, batteries etc. should always be kept away from escape route/combustible materials.
  - vi. Oil spillage must be avoided. In case of spillage, it must be cleaned immediately.
  - vii. All important papers, documents, legal deed, electronic data hardware etc. should be kept in fire resisting cabinets/fire resisting filling cabinets/fire resisting data cabinets of at least 02 hr. fire rating as per BIS specification given in Annexure II.
- c. Gas Connections
  - i. Gas line, if any, should be properly closed before closing the kitchen.
  - ii. Leakage in the gas pipe should immediately be attended to.
  - iii. Gas cylinders should not be exposed to intense heat. Valves of cylinders must be properly closed when not in use. The rubber pipe connecting the gas cylinder and the burner/oven must be examined every time a cylinder is changed and it be replaced with new one as and when required.
- d. Other Precautions

In addition to the preventive measures mentioned above, the following precautions should be observed :

- i. Smoking should not be permitted in Branch/Office premises, “NO SMOKING” boards should be prominently displayed.
- ii. Telephone numbers of Fire Brigade, dependent Police Station, Branch Manager / Officer, Security Officer, etc. must be prominently displayed near the telephone.
- ii. Do’s And Don’ts for fire prevention should be displayed at prominent place.
- iv. Do not pile materials near staircase, exit, electric panel etc.
- v. Keep minimum 03 feet distance between two racks or between electric panel to other combustible materials.

The main fire threads in ATMs and e-gallery/lounge are-

- a. UPS, Electrical Panel & batteries
- b. Split AC Units
- c. The following safety precautions should be observed for ATM and e-gallery safety-
  - i. Fire & Burglar Alarm system with Auto-dialer should be provided in ATM room and UPS room.
  - ii. Air Conditioning should be operated in alternate way with auto timer system.
  - iii. At least one 2 KG CO<sub>2</sub> Fire extinguisher/ 4 Kg ABC type fire extinguishers should be provided in ATM room. The scale may be increased depending upon concentration of inflammable material and size of ATM area.
  - iv. The electrical audit of ATM/e-galleries should be done once in 5(five) years.

The following actions should be taken to combat fire that takes place during working hours :

- i) Any person(s) noticing smoke or fire should raise alarm by shouting 'FIRE, FIRE, FIRE' or 'AAG, AAG, AAG' and also he/they should use fire alarm, if provided.
- ii) He/They should go to the place where fire has taken place and ascertain the cause of fire i.e. whether it is carbonaceous or electrical and try to contain and extinguish the fire using the right kind of fire-fighting equipment.
- iii) A member of staff should inform the Fire Brigade and the dependent Police Station / Police Control Room.
- iv) The main switch and the gas connection should be switched off.
- v) A senior person should organise fire-fighting in an appropriate manner till the arrival of Fire Brigade, who will assume charge on arrival. Strong Room/Safe Room/Locker Room should be closed and locked, if open.
- vi) All important documents should be removed/ placed in Strong Room or in Fire Proof Safe, if provided.
- vii) All combustible materials should be removed from the vicinity of fire.
- viii) In case of electrical fire, water jet or soda-acid type extinguishers should not be used. These may, however, be used after the Main Switch has been switched off.
- ix) In case anyone is trapped inside the room/place of fire and smoke, he should lie on the ground with head downwards and nose touching the floor and then try to crawl to the exit door in the same position.

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- x) Appropriate security arrangements should be ensured for the property that has been removed from the vicinity of fire.
- xi) Person not required for fire-fighting should be evacuated in a disciplined manner giving priority to physically challenged and aged person.
- xii) First-aid should be provided to fire casualties and, if necessary, the injured person(s) should be evacuated to the hospital.
- xiii) Assistance should be provided to the Fire Brigade if required by them.
- xiv) After the fire has been controlled and extinguished, salvage of Bank's property should be organized.

### **g. Fire Fighting During Non-Working Hours**

The following actions should be taken to combat fire during non-working hours:

- i) Guard(s) / Watchmen / any other person noticing smoke or fire should Raise alarm by shouting "FIRE, FIRE, FIRE" or "AAG, AAG, AAG" and / he they should operate the fire alarm, if provided.
- ii) He / she should go to the scene of fire, ascertain the cause of fire and try to contain and extinguish it using the right type of fire-fighting equipment.
- iii) Fire Brigade should be informed immediately.
- iv) The main switch and the gas connections should be switched off.
- v) The Branch Manager/Staff / Security Officer / Police Station be informed.
- vi) All combustible material should be removed from the vicinity of fire.
- vii) In case electrical fire, water jet or Soda-acid type fire extinguisher should be used only after the main switch has been switched off.
- viii) All assistance should be rendered to the Fire Brigade, if necessary.

### **h. Action After Extinction Of Fire**

After the fire is extinguished, the senior most person present will take the following action:

- i) Investigate the cause of fire.
  - ii) Assess the extent of damage.
  - iii) Comment on the fighting efficiency of the staff and recommend any cases of extreme devotion to duty and courage or otherwise.
- i. **Fire Report:** The Branch Manager should submit a telephonic/telex report about the outbreak of fire to the Controlling Authority, followed by a written report giving the following details:
- i) Time of outbreak and cause of fire.
  - ii) Detection of fire and by whom it was detected.
  - iii) Time of informing the Fire Brigade and time of their arrival
  - iv) Time of informing the police and time of their arrival
  - v) Time of informing the Branch Manager / Supervising Staff / Security Officer and time of his / her arrival.
  - vi) Time of extinction of fire.
  - vii) Action taken to salvage the Banks Property.
  - viii) Extent of loss / damage.
  - ix) Submit fire insurance claim to the nearest insurance office

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### **j. Fire Notice**

- i) Fire notice in English, Hindi and Regional languages containing the following information should be prominently displayed at the branch:
- ii) Fire Prevention – DOs and DONTs.
- iii) Action in case of fire.
- iv) Telephone numbers of local Fire Brigade, Police Station, Branch Manager, Electric Department, Ambulance, Local Hospital, Zonal Security Officer and Zonal Head.

### **k. Precautions in Godowns**

The following additional precautions should be observed in godowns:

- i) Packages / bundles should be so stacked as to provide easy access to the top.
- ii) There should be a clear gap of 3' between the ceiling and top of the stacks as well as on the side. If the depth of the stack is more than 50' then there should be a 3' wide central gangway at the centre. Under no circumstances, the packages / bundles should touch any portion of the wall / ceiling.
- iii) The packages/bundles must not touch any portion of the electrical wiring or appliances.
- iv) Where the stacks are covered with tarpaulins, free circulation of air should be ensured. The stack be aired by removing tarpaulin at least once a fortnight.
- v) Godown must be aired at least once a fortnight.
- vi) Smoking in godown be prohibited. "NO SMOKING" signs should be prominently displayed in and outside the godowns.
- vii) Flammable materials should be stored in a separate godown. License/permission from the Fire Brigade should be obtained before storing any flammable in the godown.
- viii) The entrance of the godown should be kept clear of all obstructions Door(s) and window(s) should open fully.

### **l. Precaution In High Rise Building**

The following additional precautions should be strictly observed in multi-storied building:

- i) The high rise building should have statutory fire protection measures as all National Building code 2005 and local bylaws applicable in the State / City.
- ii) All high rise building should have a Fire Control Room/Building Management System (BMS) room preferably located on Ground floor and having trained Fireman on 24x7 basis with fully equipped to handle any emergency. The Fire control room/BMS room should be equipped with the following-
  - aa) Fire Control Panel/Repeater Panel
  - ab) Public address system
  - ac) Reserve/Additional fire extinguishers of various type
  - ad) Spare fire hoses
  - ae) Stretcher and wheel chair
  - af) First aid box with recommended medicine/first aid kit
  - ag) Emergency Torches, Fire Axe and Megaphone
  - ah) Display of emergency telephone nos. like Fire Brigade, Police, Ambulance, Electric Dept. etc.

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- iii) Fire notices should be displayed prominently on each floor and in each lift.
- iv) Electronic Smoke Detectors and PA system should be fixed in multi-storeyed buildings. These should be connected to a control which must be manned round the clock.
- v) A plan of location of the fire-fighting equipment on each floor should be drawn; a copy of the same should provide to the Security Officer/Fire Officer /etc.
- vi) A plan for the electric circuits / installation should be drawn for the building floor-wise. A copy should be provided to the Security Officer / Caretaker of the building.
- vii) In case of out-break of fire in the buildings, the main gas line of the building, if any, should be immediately shut-off.
- viii) The water pressure of wet riser systems should be checked regularly.
- ix) A plan for the evacuation of personnel and property should be prepared and the occupants must be briefed about it.
- x) All escape routes / cases should be kept free from obstruction at all time and the safety lights should adequately illuminate these routes / stair-cases.
- xi) Lifts will NOT repeat NOT be used for evacuation.
- xii) Air conditioning ducts are excellent carriers of fire and must, therefore, be fitted with automatic anti-fire devices.
- xiii) The building should have adequate supply of water. Reservoir should provide at the base / overhead in building.
- xiv) Stand-by generator must be installed to run water pumps during power failure.
- xv) Fire Evacuation Drill should be carried out at least once every year.**
- xvi) The electrical energy and safety audit/fire safety audit should be conducted once in every three (03) years and rectification work should be completed within three month after completion of audit.
- xvii) The Security Officer / Caretaker of the building must be informed and his permission should be obtained before storing any inflammable liquid / material in the building.

### m. Fire Protection In High Rise Buildings

Any building with height of 15 meters and above is referred to as a “High Rise Building” in accordance with provisions of National Building Code (NBC) 2005. In accordance with the above and in terms of the provisions of local by-laws prevailing in a city/state all high rise building are required to comply with a number of fire prevention and fire-fighting provisions. Details of these may be obtained by bank’s Security officer/Fire officer. The Bank should have appoint Fire Officer for supervision/monitoring of Fire safety of high rise building as well as branches/offices. Vide the above mandatory provisions, all high rise building are required to be installed with the following system :

- i) Wet Riser-cum-Down comer.
- ii) Fire Detection & Alarm System.
- iii) Sprinkler System.
- iv) Alternate Powder Supply- Generator System
- v) Public Address System
- vi) Portable Fire Extinguishers
- vii) Fire Fighting Two Way Telephone Jack
- viii) IBMS (Integrated Building Management System)