

FIRE STANDING ORDERS

(Referred to in Para 7.3 of the Office Manual, 2011)

INTRODUCTION

The first endeavour should be to eliminate all causes that could possibly lead to an outbreak of fire i.e. all possible prevention measures should be strictly observed. Secondly there should be adequate provision for first aid, fire fighting equipment and training to the staff for dealing with accidental fires on the spot. In the following paragraphs the Fire Defence Organization has been worked out under the two headings viz Fire Prevention Arrangements and Fire Fighting Arrangements.

PART-I: FIRE PREVENTION ARRANGEMENTS

Most of the fires are the result of carelessness and can be avoided by common sense and good discipline. Some of the more common causes of fire and recommended measures to avoid these are given below:

SMOKING

Careless throwing of burning cigarette ends and matches has been the cause of many fires and should be avoided. Great care should be taken to ensure that all burning cigarette ends are deposited in ash trays or suitable containers (containing water/sand) and are never thrown about indiscriminately.

As a general rule smoking should not be allowed in the following places:

- (a) Corridors/passes and verandahs.
- (b) Record Rooms.
- (c) Store Rooms.
- (d) Laboratories where inflammable liquids are in use.
- (e) Operation theatres.
- (f) X-Ray Rooms.
- (g) Library (except in a separate enclosures provided with suitable ash trays/containers).
- (h) Any other places which the officer in charge may declare from time to time as a no-smoking area.

In all places where smoking is allowed, a sufficient number of ash trays/containers should be provided. "No Smoking" notices should be prominently displayed at places where smoking is prohibited and smoking restrictions should be strictly enforced by periodical check.

Smoking has been banned by the Governments in all offices, institutions, hospitals, buses, Rest Houses/Circuit Houses, etc.

ELECTRICAL WIRING AND FITTINGS

The second major cause of fire is due to defective electrical appliances or their improper use. The following general precautions are this regard may be observed. :-

- (a) All electric wirings and fittings should be of standard size and make and should be capable of carrying the required load. For heavy loads, the wiring should be carried in conduit pipes properly earthed.
- (b) All alterations to wirings and fittings should be carried out by authorized persons (qualified electricians) and no one else should be allowed to tamper with them in any way. Whenever any defect in electric wiring or connection is observed the current should immediately be switched off from the mains and must not be used till the electrician has checked and removed the defect.
- (c) All fuses should be of the correct size and periodically examined. Whenever blown they must be replaced by the correct size and only by the authorized persons (electricians). Use of copper and other wires instead of the regular lead fuses should never be allowed. Miniature Circuit Breakers (MCBs) are now available and can be conveniently used instead of wire fuses. M.C.Bs. of the right capacity should be used and it should be ensured that they are not tampered with.

- (d) All plugs and sockets should be periodically examined to ensure that they are in good condition and are not broken or cracked. Each plug point should be provided with a separate switch which must be in off position while inserting or removing the plug from the socket. Use of naked wires in the absence of plugs should never be allowed.
- (e) Special care must be taken in the use of all flexible wires. Such wires should not be run under linoleum, mats, durries, carpets, etc. or taken through doors/windows where they are likely to be crushed. Flexible wires must be frequently examined and if worn or damaged, immediately replaced.
- (f) Heave electrical appliances like heaters, stoves, irons etc. should never be left in the ON position if they are not being attended or if they are no longer required. Special care should be taken to switch off all such appliances whenever the electric supply fails. At closing each day special check should be carried out that all appliances have been disconnected.
- (g) It will be a very useful practice to switch off electric supply from the main switch at closing hours to all premises which are not required to be used during the night. This may not be possible for the wards, operation theatre etc. but the offices, out patient departments, laboratories, store rooms; library etc. can be covered by placing them on separate circuits.
- (h) All staff members should know the location and the method of operation of the main switch controlling the electric supply in the area of their work so that in case of any fire or accident the current can be immediately disconnected.
- (i) No inflammable/combustible material (including paper, cloth, wooden racks almirahs etc.) should be stores or kept within two feet of any electric fittings such as switch boards plug points etc. and such material should not be kept resting or touching any electric wiring.
- (j) All staff should be instructed to periodically examine the electric wiring and fittings in their places of work and immediately report any defect observed by them. In addition a responsible officer of the Public Works Department (Electrical Wing) should inspect all wiring and fittings at least once every six months to ensure that all such wiring and fittings are in good condition. The officer in charge should monitor the holding of these inspections to ensure that such inspections are carried out, that a report is received by him, and that action on the report is initiated.

OPEN FIREPLACES, OIL BURNING STOVES, LAMPS ETC.

Open fire always present great fire hazards and their use in different departments should be controlled by some responsible officer. These should normally be allowed only at places which are meant for such purposes. The following general precautions should be observed:-

- (a) Hearths should be made of concrete or brick work and surrounded by suitable fenders or raised curbs. Hearths and chimneys should be periodically cleaned and kept in good repair.
- (b) The use of improvised heating stoves (angithis and bukharis) should be avoided as far as possible but if they have to be installed, they should be fixed to an incombustible base or placed in metal trays of suitable dimensions. Flue pipes of such stoves should as far as possible be connected to regular chimneys. If they have to be taken through walls, windows etc. Precautions should be taken to protect combustible material by use of insulation. Air Space should always be provided round the pipes where they have to pass through walls or roofs of combustible material.
- (c) Oil burning stoves, lamps candles etc. should be placed in secure positions so that they can not be knocked over or endanger any combustible material. Filling of oil etc. should always be done in the open, away from any naked fire. These appliances should not be filled to the overflow point but sufficient air space left above the oil. They should never be filled while burning.
- (d) Open fires in any form should never be left un-attended and should always be completely extinguished after the purpose for which they were it has been completed. They must be completely extinguished before the premises are closed.

STORAGE AND USE OF INFLAMMABLE LIQUIDS

- (a) The storage of inflammable liquids like petrol, spirit, kerosene, other solvents, oils, paints, varnish etc. should as far as possible be in separate buildings away from living and other accommodation. They should under no circumstances be stored along with other combustible material like paper, textile, cotton etc.

- (b) Buildings used as inflammable liquid stores should be made of concrete, brick work, stone etc. and use of wood avoided as far as possible. Ample means of ventilation should be provided in such rooms at ground as well as roof level. The floor may be of concrete with drain and sump of sufficient capacity to hold any minor leakage that may occur.
- (c) Every such store must be fully equipped with foam extinguishes which must be easily accessible and maintained in good working order. In addition, dry sand may be kept in suitable containers adjacent to the store.
- (d) No naked lights should be allowed within a distance of 30 feet of such stores. Smoking in or near such stores should be strictly forbidden and "No Smoking" notices prominently displayed.
- (e) Inflammable liquid stores should always be kept securely locked and opened only in the presence of the in charge of that store. Issues of stores should be personally supervised by a responsible officer and as far as possible no such issues be made during the night when the use of naked lights may be required.
- (f) Only a limited quantity of inflammable liquids required for use in laboratories, test rooms, wards, operation theatres etc. should be kept there, the main stocks being securely kept in fully protected stores away from the main buildings.
- (g) Similarly, storage of large quantity of petrol for use in vehicles should not be allowed. However if storage of small quantities in garages for use in emergency cannot be avoided, it must be ensured that standard petrol containers (Jerry cans) are used. There should be no leakage of petrol or petrol vapour from these containers. The cans may be neatly stored in one corner of the garage on a sand bed suitably enclosed by bricks/stone.
- (h) Filling of petrol in vehicles should always be carried out in the open at a safe distance from any buildings and steps should be taken to ensure that there are no naked fires in the vicinity. Engines and lights of vehicles should be switched off before filling begins.
- (i) Tanks of vehicles should not be overfilled and care be taken to avoid spillage. Any spillage should be wiped off at once or absorbed by sand or earth before the vehicle is started.
- (j) Electric generators using petrol or diesel oil should as far as possible be located in separate building and only a limited quantity of petrol/diesel oil that is required for daily use should be kept in the generator room. Diesel oil is not readily inflammable but once involved in a fire can be a great source of fire spread. If a huge quantity is involved, this can even lead to the collapse of the buildings.

GENERAL CLEANLINESS

Untidiness, congestion and storage of various odds and ends under almirahs, in verandahs, corridors, enclosed space under the stairs, other small cabins, store rooms, record rooms, etc. is one of the greatest sources of fire and fire spread. It is, therefore of utmost importance that special care is paid to these aspects. In an effort to give a clean look to wards, offices, laboratories and so on, cleaning staff often use odd corners for dumping various kind of rubbish and it is mostly at these places that the fires originate. All waste material i.e. gunny bags, packing cases, straw, cotton, waste paper, oily rags etc. should be cleared away from the main buildings and disposed off or destroyed by burning at a safe place at the end of each day's work. However, if some packing material is likely to be required for further use it should be kept in separate store rooms/sheds away from the main buildings or stacked in the open and suitably covered by tarpaulin/ tin sheets for protection from the weather. The storage of such material in any part of the main building should not be allowed under any circumstance.

CHECKING

- (a) The various fire prevention measures listed above should be kept in view and checked at the time of normal inspections of the office by the Officer In charge.
- (b) For all offices, laboratories, stores, outpatient wards etc. and premises which function only during certain hours, it will be very useful if their closing is supervised by a responsible official of the place concerned. The following should be checked before closing:-
- (i) All lights have been switched off, where possible from the main switch.
 - (ii) All open fires have been completely extinguished.
 - (iii) All electric appliances have been switched off and plugs removed from sockets.
 - (iv) All ashtrays/containers have been cleared and no lighted cigarettes /biris are lying about.

- (v) All doors windows and ventilators etc. are securely closed.
- (vi) There is no waste material lying about in the rooms.

PART-II: FIRE FIGHTING ARRANGEMENTS

The importance of first-aid fire fighting need not be stressed. Most fires have small beginnings and at this stage can be easily dealt with by the aid of first-aid fire fighting equipment by well trained and well-disciplined staff. If not tackled at this stage, fires can cause enormous loss and become difficult to control, even with the best fire fighting resources. It is, therefore, very important that adequate first aid fire fighting equipment is provided to cover different risks and the staff is fully trained in its use.

FIRST-AID FIRE FIGHTING EQUIPMENT

For the purpose of first aid fire fighting the fires that are likely to occur in the offices can be broadly divided into the following three categories:-

- (a) Class-A Fires:- Fires involving ordinary combustible material such as wood, paper, textiles etc. where the cooling effect of water is essential for extinguishing the fire.
- (b) Class B Fires: - Fires inflammable liquids like oil, petrol, spirit, solvents, paints etc. where a blanketing effect is essential.
- (c) Class C Fires:- Fires involving electrical equipments where the electrical non-conducting of the extinguisher media is of first importance and the fire involves delicate machinery e.g. motor vehicles, machinery run by electric power, electric motors, transformers and generators etc.

The first –aid equipment to be provided for different parts of the building will depend on the nature of risk in each part. The following type of extinguishing media is considered suitable for different risks explained above.

- (a) Class A Fires: - Fire appliances expelling water e.g. water tanks, water buckets, water type extinguishers of sufficient litre capacity and Stirrup pumps.
- (b) Class B Fires:- Mechanical foam Extinguishers and sand buckets
- (c) Class C Fires:- CO2 Fire Extinguisher, Dry Chemical Powder Extinguisher.

In rooms or places where more than one class of fire risk is encountered, the required number of portable appliances will be determined by providing a combination of appliances or the risks to be covered. No hard and fast rule can be laid down regarding the scale and location of the premises. The guiding principle is that it should be easily accessible to all staff and they should not have travel a long distance in search of it.

The requirement and location of first aid fire fighting appliances in the premises may be worked out in consultation with nearest Fire Station from time to time.

The first aid fire fighting is very useful in controlling the fires in their incipient stages and at this stage, time is of utmost importance. Therefore, the first aid fire fighting equipment has to be maintained periodically so that it is always in a fit condition for immediate use. A responsible officer should be detailed to do the regular checking and maintenance. Any assistance required in this regard can be provided by the local fire brigade.

TRAINING STAFF IN FIRE FIGHTING

All members of the staff working in Offices/Schools/Hostels should fully understand the Fire prevention Measures explained in Part I and should know the location and the correct use of first and aid fire fighting equipment. If desired a series of short courses for different categories of staff can be arranged by the Chief Fire officer/Officer-in-Charge Fire Brigade.

FIRE ALARM ARRANGEMENTS

It is very important that in case of fire all members of the staff working in different parts of the office are immediately warned so that they can save themselves and other as well as assist in fighting the fire. There should be some arrangements to warn even the off duty staff who are available in the vicinity of the office. Normally fire alarm arrangements consist of blowing of sirens or fire gongs suitably located. However, in the case of hospitals the uses of these general means of alarm have to be avoided as they likely to cause panic and confusion amongst the patients. To avoid this, visual low sounding alarms or red lights can be fitted in the staff rooms of different wards and staff quarters. This question may be examined by the Superintendent of each Hospital and clear orders issued regarding the sounding of alarms and informing various members of the staff.

Immediately action should be taken to inform the Fire Brigade in case of any fire however small it may be. It will be very useful if small notices are hung up or placed near each telephone with the caption "IN CASE OF FIRE RING FIRE BRIGADE TELEPHONE NUMBER 101".

EVACUATION PLAN FOR PERSONNEL

One of the major problems in case of any serious fire in premises will be that of the evacuation of the personnel (especially in Hospitals, of patients who are unable to move by themselves). It will, therefore, be very useful if an evacuation plan is worked out and periodically rehearsed by the staff under the supervision of some responsible officer.

The following action is recommended to be taken by different persons immediately after the fire is discovered:-

- * The person discovering the fire: - should immediately attempt to extinguish the fire with help of first-aid fire fighting equipment provided in the area and summon help from the neighboring staff members.
 - * The person next arriving on the scene: - should help to put out the fire, raise the fire alarm, inform the duty officer and close all doors and windows to prevent outside air from getting into the building/room.
 - * The officer in charge of the affected area/ward etc:- should inform the Duty Officer, Fire Brigade and take control of the fire fighting operations till relieved by the senior officer.
 - * The Officer-in-charge of the neighbouring area: - Control the personnel etc. in their care, be on the look out for the fire spread in their area, close all doors and windows, take any action for evacuation of personnel as directed by the Officer-in-charge the fighting operations.
 - * Other members of Staff: - All other members of the staff should assemble at a central place in the open and help in fire fighting or evacuation of the patient as detailed by their senior officers. No one should crowd at the scene of fire unless detailed for specific duty.
 - * Officer-in-Charge Fire Fighting Operations: - The senior most officer present will take charge of the various operations required for fire fighting, evacuation etc. and it is very useful that all action be taken under his directions. He will hand over the charge to the next senior officer as soon as he is available. After arrival of the fire brigade, the fire fighting work will be mainly taken over by them but there should be close co-ordination between the senior most officer and the in charge of the Fire Brigade so that evacuation etc. can be planned and necessary assistance made available to the fire brigade for rescue.
 - Cordon Party: - At the time of fires it is the general tendency of the staff and members of the public to rush to the scene of the fire and be of some assistance. This is normally done with good intentions, to be useful in emergencies, but generally this has quite the reverse effect. It is therefore, of most importance that the staff should be trained to assemble at a central place away from the scene of the fire and should come into action only when specifically ordered. Some responsible officer and members of the staff/Police can be usefully employed in cordoning the area of occurrence and allowing only those persons who are required for fire fighting or evacuation etc.
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