

APPENDIX XXI.

SECTION A—ORDINARY FIRE RULES FOR GOVERNMENT BUILDINGS.

Non - Residential.

CHAPTER I.

1. *Classification of buildings.*—Chemical fire extinguishers and water or sand in buckets are first-aid appliances, to be used for tackling a fire at the outset to enable it to be put out immediately or at least to keep it under control until the arrival of the Fire Brigade. The type and scale of fire fighting appliances to be provided in a building will depend on the types of fires that are likely to be encountered in the building and this in turn depends to a large extent on the contents of the buildings. Government buildings can be broadly classified into two categories.

A. *Ordinary buildings.*—Where the hazard is caused by furniture, records, stores etc., stored in the building, fires encountered in such buildings usually involve paper, wood, cloth etc., all of which can be extinguished by application of water. The scale of fire fighting appliances for such buildings, will, however, depend upon the quantity of combustible materials in the buildings. On this basis ordinary buildings can be further sub-divided into two types.—

(i) Ordinary buildings with low fire hazard, e.g., offices.

(ii) Ordinary buildings with high fire hazard e.g., Record rooms, store rooms and godowns.

B. *Buildings involving special risk on account of storage of oil or chemical, or use of electrical equipment.*—The type of fires likely to occur in such buildings cannot be extinguished by application of water. Special types of fire extinguishers or dry sand will have to be used for fires in such buildings.

2. *Scale of fire fighting appliances.*—(i) *Ordinary buildings with low fire hazard.*—One 10 litre water bucket for every 100 square metre floor area or part thereof and one 9 litre soda Acid Extinguisher for every 6 buckets or part thereof with a minimum of 1 Extinguisher and two buckets per compartment of the building. The appliances shall be so distributed over the entire floor area that a person shall not have to travel more than 90 metres from any point to reach the nearest appliances. In special cases, approved by the local Fire Officer, buckets may be dispensed with, provided the supply of extinguishers is doubled.

(ii) *Ordinary buildings with high fire hazard.*—One 10 litre water bucket for every 100 square metre of floor area or part thereof and one 9 litre soda Acid Extinguisher for every 6 buckets or part thereof with a minimum of 2 extinguishers and 4 buckets per compartment of the buildings. The appliances shall not have to travel more than 15 metres from any point to reach the nearest appliances. In special cases, approved by the local Fire Officer, buckets may be dispensed with, provided the supply of extinguishers is doubled.

(iii) *Building involving special risk.*—Where oils or chemicals are stored or electrical equipment is used, the number and type of fire appliances necessary for such buildings should be ascertained in consultation with the local fire officer to meet the special hazards involved in the buildings.

NOTE.—(a) In calculating the floor area, open verandahs, passages, terraces etc., where no combustible material is stored may be excluded. In the case of storied buildings the floor area of each floor shall be calculated separately for arriving at the scale of fire fighting appliances required for each floor.

(b) A list of suitable chemical fire extinguishers with the names of firms where they can be purchased should be obtained from the concerned Divisional Fire Officer.

3. Telephones—Where there is a non-automatic exchange telephone room a receiver will be fixed in a glass case outside the exchange room. Where there is an automatic exchange the watchman should be trained to dial the fire station number. In case of fire the watchmen detecting the fire will break open the glass case take the receiver and call Fire. The telephone exchange will at once communicate to the nearest fire brigade station and inform them of the locality in danger. There will also be placed in a convenient place nearby a crowbar with which the watchman can force upon the door of any room inside which there is a fire in order to put it out.

CHAPTER II.

PRECAUTIONS AGAINST FIRE.

(1) The erection of temporary structures made of combustible materials within 10 metres of a permanent Government Office building is prohibited. Prior permission of the Fire Service Department should be obtained for the erection of any temporary structure in the compound of a Government building, provided that in the case of temporary sheds made of combustible materials erected by the Public Works Department or its Contractors for storing building materials or for any other purpose connected with their construction activities, the Executive Engineer may authorise the construction without prior permission of the Fire Service Department subject to the condition that the prescribed minimum safety distance of 10 metres from such shed to the nearest building is maintained.

The Executive Engineer may also authorise the erection of temporary structures by Public Works Department for the inaugural functions and ceremonial occasions without prior permission of the Fire Service Department.

(2) Galvanized iron buckets with water or sand and chemical fire extinguishers should be kept in easily accessible places in every building for use during fire. They should be located as far as possible at the top and bottom of stair cases or at the commencement of junctions of important corridors in each floor. The number of buckets and fire extinguishers to be provided should be as per scale separately fixed and the head of each office should ensure that his equipment which will already have been provided in most offices, is in good working condition. The Divisional Fire Officer may be consulted when required in connection with this initial supply. For buildings for which an adequate supply of water is not available within a convenient distance, water should be provided in covered tanks sufficiently large to fill the buckets ten times.

(3) When portable fire engines are provided, the engine, its hoses, other appurtenances and accessories should be complete and in working order. The hoses should be of sufficient length to reach top of the buildings. Certain important buildings such as the Secretariat buildings in Madras, are provided with hydrants and hoses and these are fixed in glass cases at convenient places. They should be periodically examined and kept complete and in working order.

4. All attenders and peon should be given a practice drill at least once a month in the use of fire appliances and the head of each office concerned should make arrangements for the proper conduct of these drills. Where a telephone exists, attenders and peons should be instructed in its use for the purpose of obtaining assistance.

5 The head of each office should see that the following precautions are carried out:—

(a) That before closing the office for the night the manager or head clerk or under his written authority a clerk named by him, visits each room and sees that all lights are put out; that in offices in which electric fans and lights are provided the switches are turned off; and that all waste paper has been removed, and that in hill stations where fire is kept in fire places to keep the room warm all fire is effectively extinguished.

(b) That none but safety matches are used in offices.

(c) That kerosene oil or any easily inflammable material is always stored in an out-building or godown.

(d) That the sealing of papers is always done under the direct supervision of a responsible clerk who should see that due care is taken.

(e) That no naked lights are used in any office. All candles or wicks must be protected by glass.

(f) That fire places for the preparation of pastes or glues are not allowed in or near any buildings.

(g) That waste paper is not allowed to accumulate in large quantities in any office. One or more receptacles is provided outside that building for waste paper and is sufficiently distant from the main building. Every evening the waste paper of the day is collected and put into one of the receptacles.

(h) That fire buckets are kept always full of sand or water or in some cases it may be found suitable to keep half the number of buckets filled with water and half with sand.

(i) That old furniture is not left lying about but disposed of at once.

(j) That smoking in record rooms is strictly prohibited.

(k) That dried leaves and other litter is removed from the top of terraces at intervals.

(l) That all restrictions and rules regarding lighting issued by the local, municipal or fire service authorities are strictly followed.

(m) That in hill stations where there are fire-places for warming officers, fire-guards of metal gauge or netting are provided in front of all fire places.

6. One bell gong or more according to the size of the buildings should be fixed in each building which should be sounded for giving fire-alarm. When this is sounded, it is the duty of the men listed for fire-fighting to rush up to the place of fire for fighting

CHAPTER III.

ON THE OUTBREAK OF FIRE.

1. On the outbreak of fire, electric current should be switched off at the main
2. Fire caused by ignited oil should be smothered at once by means of earth or sand kept in receptacles placed in suitable positions for the purpose; and water should on no account be used. If chemical extinguishers of the foam-type are available they can be used.
3. Immediately a fire is detected, the alarm must be given as explained in paragraph 6 of Chapter II and intimation also given to the nearest fire brigade and to the nearest police station by phone or otherwise as described in paragraph 3 of Chapter I.
4. Immediately on the alarm being raised, every man should proceed to the post to which he is told off and make such effective efforts as he can to put out the fire, pending the arrival of the fire brigade. If buildings are equipped with fire-hoses and hydrants connected to the overhead tanks, they should be used to the best advantage, as it will be possible to put out major fires by a timely use of these appliances.
5. All movements should be carried out with silence and rapidity and special care must be taken to see that there is no crowding in passages and staircases.
6. As a draught of air will tend to increase the fire, all doors and windows which it is not necessary to use for ingress or egress, should be closed.
7. All inflammable materials near the fire should be collected and carried to a place of safety.

CHAPTER IV.

GENERAL INSTRUCTIONS.

1. The rules in chapter I to III are applicable for ordinary Government non-residential buildings. These rules should be pointed out to the occupants.
2. As regards the appliances to be provided for the fire protection the Divisional Fire Officer having jurisdiction over the district will advise the head of the office of the number of fire buckets and chemical extinguishers required according to the scale fixed taking into consideration the cost of the building and the superficial area of each floor. The responsibility of seeing that equipment is according to scale and is kept in working trim is that of head of the office.
3. In the case of important buildings where there is insufficient means of access to the roof, the Executive Engineer in consultation with the Divisional Fire Officer should consider the possibility of providing ladders of suitable length for gaining access to any part of the roof.

4. The initial supply of fire buckets and fire extinguishers together with other appurtenances such as stands, buckets, etc., as well as all renewals of, and repairs, to the fire buckets and fire extinguishers shall be made by the heads of the offices concerned—such as works being treated as assigned to the departments concerned. If any in case, professional skill or assistance is considered necessary, the Divisional Fire Officers shall be consulted.

5. When a building is occupied by more than one department the 'department for the purpose of this rule, shall be the Revenue Department if it is one of the occupants and if not the State Government department occupying the major portion of the building to be decided in each case, by the Superintending Engineer concerned. If, in such cases a department of the Union Government happens to be one of the occupants, the cost of the fire appliances supplied or of the repairs thereto in respect of the portion of the building occupied by such department shall be recovered from that department.

6. A building should be the unit for purposes of fire protection. In cases where a building (whether owned by Government or hired) is used partly as an office and partly as a residence for a Government Officer the department to which the office belongs shall be responsible for the provisions of fire protection appliances for the entire building.

7. The supply of buckets and tanks, etc., to buildings rented as offices will be arranged for by the heads of offices, occupying the buildings.

8. Responsibility for fire protection for buildings not in charge of Public Works Department is that of the head of the office occupying it.

9. The main principle underlying the rules is that the head of the office should see that his office building is protected. On that principle, it is for him to supply the buckets and other appliances, for him to get the rules translated, printed and hung up, and for him to make good (with the assistance of the Divisional Fire officer having Jurisdiction over the district where necessary) any other defects.

CHAPTER V.

PRACTICE DRILL.

(1) The head of office should fix an officer who will be responsible for the training of the men to take part in putting out fires during day and night and conducting periodical drills. The Officer thus chosen for training the office staff and for conducting periodical fire drills, as may be got trained at the nearest fire station in the various aspects of his duties with reference to G. O. Ms. No. 1356 (Home) dated 16th April 1952. The practice must be as realistic as possible and should include re-laying of stand and water from a nearby source by forming a chain of all staff available.

(2) For day time the services of the several attenders and peons on duty should be utilized but for night, special watchmen should be engaged.

(3) Fire practices in the use of these appliances should be given by the officer appointed once a week until all the attenders peons and night watchmen have had sufficient practice in the use of the various appliances.

(4) After they have had sufficient practices, periodical practice drills at intervals of one month should be conducted. Such practice drills should include the use of chemical fire extinguishers at least once in six months.

(5) A stock of refills for chemical fire extinguishers should always be kept. New refills should be loaded after each practice drill to ensure that the extinguishers are serviceable.

(6) A suitable day in the first week of every quarter should be selected for fire drill but the hour should not be fixed nor intimated. On the day selected alarm should be given by the officer in charge of the arrangements at different parts of the building each time and the practice drill with appliances gone through under the guidance of the officer in as orderly a manner as possible. This should be witnessed by the head of the office or his assistant deputed for the purpose. Similar drill should be gone through during night time during the same week but on a different day.

(7) A register should be kept of all such exercises and of the defects noticed with any of the appliances. This register should be inspected by the head of the office on the same day or the day following and he should take action to set right the defects.

(8) A register should be kept showing the issue of the refills for the chemical fire extinguishers after each practice.

(9) Where special hydrants are fixed inside the building and fire-hoses are kept in glass cases, all the hydrants should be tested with the hoses on the drill day to ensure that they function all right and the men are fully acquainted with their use. On the morning of the practice, the glass cases should be kept open. After the practice is over the hoses should be cleaned, aired and kept in the proper places and the glass cases closed.

CHAPTER VI.

NIGHT WATCHMAN

(1) The watchmen will be on duty from 6 p. m. to 6 a. m. every day. They will go round as soon as they come on duty to see that all doors have been locked. They will take turns (where there are more than one watchman on duty) in going round the offices and record the same at the tell tale clock (where these are provided) every half an hour, patrolling only the verandahs and corridors round the office rooms. They will carry a whistle and a stout bamboo 1.5 metre long.

(2) Where there is a head watchman or superintendent, he will visit the watchmen at uncertain hours during the night to see that they are doing their duty. During such visits he will carry on his person a set of duplicate keys of all the offices sealed in a bag. If there is only one watchman he will have these duplicates with him.

(3) Action to be taken in case of a fire:—Should a watchman on his rounds observe any outbreak of fire, he will at once whistle for the other watchman, and sound the fire alarm bell. He will act in accordance with paragraph 3 of Chapter I. The Telephone exchange will at once communicate to the nearest fire station and inform them of the locality in danger. Where there are no telephones, information should be communicated to the nearest police station.

(4) If the fire is inside any one of the rooms, which cannot be readily opened, the watchman and the head watchmen or superintendents if available on the spot will immediately force open the door by means of crowbar (which will be kept in the custody of the watchman at an approved location) and try to put out the fire with the chemical fire extinguisher available. In the meantime the other watchman will get the fire buckets and pumps into operation. They will also whistle and call the watchmen of the neighbouring offices, if any.

CHAPTER VII

Temporary sheds constructed of combustible materials:—A. Scale of fire Fighting appliances :—(i) One 9 litre soda acid extinguisher for every 50 square metres of floor area or part thereof, provided that this equipment need not be installed in temporary sheds made of combustible materials erected by the Public Works Department or its contractions on work site in connection with their building activities.

(ii) One 10 litre fire bucket of water for every 10 square metres of floor area or part thereof.

(iii) One fire rake for every 20 square metres of floor area or part thereof.

(iv) One ceiling hook for every 20 square metres of floor area or part thereof.

(v) A static supply of atleast 500 litres of water for every 50 square metres of floor area of part thereof.

B. Other precautions to be taken.—(i) Temporary sheds made of combustible materials should be separated from each other by an open space of atleast 20 metres and from the nearest pucca building by an open space of atleast 10 metres so that these gaps may serve as fire breaks.

(ii) The electrical wirings in the sheds should be protected with suitable conduit piping so as to prevent sparks due to any short circuit from worn out wiring igniting the thatch and other easily combustible materials around.

(iii) The entire area of the sheds should not be cramped with furniture etc., leaving only the minimum space for passage. Over crowding of staff in the sheds should be avoided and more moving space within the sheds be allowed.

(iv) In the pandals put up for inaugural functions, meetings and ceremonial occasions, there shall be one exit for every 200 persons and the exist shall not be less than 1.5 metre wide. The lay out of furniture shall be such that there shall be gangways to the exit. A 10 litre water bucket filled with sand or water for every 100 square metres of floor area shall be kept.