

FIRE PREVENTION MEASURES AND  
FIGHTING CENTRAL OFFICE FIRES

1. GENERAL

1.01 This section provides some general fire preventive measures to be observed in all telephone building or telephone company occupied buildings and instructions concerning fire fighting methods within those buildings.

2. FIRE PREVENTION MEASURES

2.01 Recent figures indicate that smoking was the greatest single contributing cause to accidental fires that occurred on Telephone Company premises. As an aid to prevention of fires that might occur in connection with employees smoking, the following measures shall apply:

a. Smoking shall be prohibited in operating rooms, battery rooms, cable vaults, garages dispensing gasoline, storage rooms containing inflammable materials, elevators and any other quarters such as combined equipment and operating rooms that may be designated by the appropriate supervisor.

b. Only metal or other non-combustible ash trays, smoking stands or sand urns shall be used in quarters where smoking is permitted or at entrances to quarters where smoking is prohibited.

c. In employees lounge quarters, the placing of ash trays on chairs or davenport should be discouraged because of the possible hazard that may result from upsetting ash trays, and the danger from live cigarettes falling from the ash trays onto the upholstery. Smoking stands placed adjacent to this type of furniture will aid in eliminating the placing of ash trays on furniture.

d. Only "safety" type matches shall be used on Company premises. Refer to Section H41.250 regarding the storage of a supply of matches.

2.02 Although fires in accumulated trash and rubbish are one of the more common types of fires, they can be eliminated or prevented to a great extent by good housekeeping. Accumulations of waste paper or rubbish should be kept at a minimum and contained in approved types of receptacles within rooms or storage areas especially provided for this purpose. Waste paper may only be kept in non-combustible containers such as metal waste baskets or cans with solid sides with the bottoms raised from the floor and kept within a room of non-combustible construction properly isolated from the rest of the building by a 6" brick or tile wall. The room should be equipped with a fire door of the underwriters' approval type having self-closing devices and fusible links. Two or more soda acid or water type fire extinguishers should be kept in this area, depending upon the quantity of inflammable material usually present.

2.03 Storage of Combustible Material - Storage of paints, paint removers, thinners, oils, gasoline, films, matches and explosives is covered by Section H42.250. In addition, the following shall govern the storage of other combustible materials:

a. Packing Materials - In general the storage of large quantities of combustible packing material shall be avoided. Excelsior shall not be used for packing materials and shall not be stored on the premises.

b. Empty packing boxes shall not be allowed to accumulate. Only a sufficient number needed for the next return shipment of material shall be retained.

c. Oily waste, rags or dust mops shall be kept in self-closing metal cans with riveted or crimped (not soldered) joints.

Used waste and oily rags should be disposed of promptly.

d. Other types of inflammable refuse shall be kept in approved receptacles of heavy galvanized iron with tight fitting covers overlapping 1", with feet or supports raising the bottom off the floor.

e. Storage of any combustible material should be limited to those quantities needed for a particular job that will be used quickly. All such material shall be stored so as not to contact steam pipes or hot pipes and must be 18" from any smoke pipe and not near any fuel or gas jets.

2.04 Stages of Stocks and Supplies - Metal lockers, closets and shelving is preferable for storage of supplies, however, where wooden lockers, shelving or closets have been furnished, they should not be discarded except that no combustible supplies shall be kept in wooden lockers or supply closets. All supplies and stocks shall be kept in neat and orderly arrangement. Aisles, doorways, fire escapes, areas around or access to fire protection equipment must not be blocked by storage of supplies and materials.

2.05 Decorations - In general, only non-combustible decorative materials should be used in telephone offices and buildings. Cotton should never be used as decorative material. When the use of some inflammable materials as decorations is unavoidable, they should be carefully secured to prevent it from contacting lamps or other heat producing articles. Lights shall not be wrapped or covered by any inflammable material. Lamp shades shall be of non-combustible material only. Use of paper streamers, dry leaves, grasses, grains, corn stalks and other highly combustible materials as decorations should as a general rule be prohibited. If their use is justified by any unusual circumstances, the hazard should be recognized and extra precautions taken such as providing additional fire extinguishers and the establishment of temporary non-smoking areas.

2.06 The use of Christmas trees or evergreen wreaths and decorations within telephone buildings should be recognized as hazardous and proper fire preventive measures should be taken. Christmas trees should be placed in the type of holder or stand wherein the base of the tree can be kept immersed in water. This will aid in preventing the tree from drying out and will serve to reduce the fire hazard.

2.07 Smoking should be discouraged and if practicable prohibited in the immediate vicinity of Christmas trees or similar type decorations. Additional fire extinguishers should be placed in the decorated areas and the employees familiarized with the method of operating of the extinguishers.

2.08 Only ornamental electric lights of the types "Listed and Approved" by the Underwriters Laboratories shall be used. All electrical connections between the ornamental lights and the building wiring shall conform to the National Electrical Code. Decorative lighting systems shall be turned off when employees are not in the room.

2.09 It is the responsibility of the Plant Department Supervisor to determine that all decorations within or on the telephone building have been placed in conformity with the foregoing requirements.

2.10 Other preventative measures in the operation and maintenance of buildings to be observed are:

a. Openings, masonry cracks in basement walls, and openings around entrance pipes or conduits should be sealed against the entrance of gas. Other sections of these practices describe methods for testing for the presence of gas and precautions to be observed if gas is detected.

b. Cable ducts and cable openings in cable vaults shall be sealed as provided in Outside Plant Construction practices.

c. Cable vaults shall not be used as storage areas. Open flames and combustible materials are not to be used in cable vaults.

d. Floor drains not regularly in use should have the traps filled with lubrication oil (S.A.E. 30) to avoid unsealing of the trap by evaporation of the water. Consideration should be given to removing or permanently sealing with cement all floor drains not in use.

### 3. FIRE FIGHTING METHODS

3.01 The Plant Department is primarily responsible for the training of all employees in the use of fire fighting equipment, particularly those traffic employees in central office buildings where Plant employees are not in 24 hour attendance. The Plant Department should provide the Traffic Department with a list of the appropriate Plant personnel to be called in event of a fire during unattended hours.

3.02 Plant Practice, Part 9, Section 800 provides a formal training course to be used for training of all employees in the use of fire protective equipment. In lieu of the formal training or in addition to it, it is suggested that a demonstration of the operation of the various types of extinguishers be arranged at the time the extinguishers are to be renewed or recharged. At the same time, the use of the asbestos gloves and protective tarpaulins may be illustrated. Reference should be made to the above section for instructions on use of fire protective apparatus.

3.03 While the training of employees in the use of fire fighting apparatus is essential, personal safety and the avoidance of injury or loss of life when engaged in fighting fires is of primary importance. Orderly exit of all personnel not needed in the fighting of the fire should be stressed. This should include local instructions relating to the location of emergency exits, the closing of fire doors or shutters and the application of audible alarms.

3.04 It should be emphasized that the Fire Department should be called promptly

in the event of a fire unless it is immediately obvious that the fire can be controlled without their assistance.

### 3.05 Consultation With City Fire Authorities -

a. In order that fire authorities may be more helpful in fighting central office fires with the least possible amount of damage to the equipment, it is essential that they be acquainted with our methods and the necessity of safeguarding the equipment from damage by water.

b. The supervisory forces in charge of the central office shall become acquainted with the local fire authorities in their immediate vicinity to a degree that will permit discussing the general problem of coping with a central office equipment fire.

c. Each year, preferably during October, the supervisor in charge of the central office shall arrange for the local fire authorities to visit the central office, on which occasion the supervisor shall carefully and fully explain to them the reaction on our service that would result from damage to equipment by water outside of the immediate fire zone.

d. Also, at this time and on each subsequent visit the supervisor shall acquaint the local fire authorities with the location of the various central office fire stations, the main gas and electric service cut-off points and other protector equipment such as tarpaulins, stand pipes, fire hose lines, fire pumps and types of extinguishers which are provided and are to be used for fire fighting and protective purposes in central offices.

### 3.06 Responsibilities in Case of Fire

a. In order to effectively direct the operations of combating a fire, the fire fighting personnel together with

their responsibilities must be clearly established, so that the fire fighting operations may be carried on in a quick and orderly manner. Supervisors shall be responsible for proper training of employees in fire prevention and fire fighting methods provided for in these and other practices.

b. In the event of a fire, the Plant employee in charge of the office involved shall immediately assume full authority as "Director" of all fire fighting operations and continue this authority until relieved by a higher ranking supervisor.

c. In order that central office Plant employees may be quickly assembled in the event of a central office fire, the fire alarm bell system, if available, shall be operated.

d. In the event of the fire alarm being sounded for a central office fire, or if no alarm is provided, upon advice, all Plant employees shall immediately assemble at the scene of the fire, fire station or at the local test desk for instructions.

e. The city fire department when called will upon their arrival assume full authority for directing fire fighting operations, thereby relieving the Plant forces who shall thereafter direct their efforts toward safeguarding the equipment from damage by fire and water.

f. The Plant employee in charge of a building which is involved in a fire shall be responsible for:

1. Reporting the fire immediately to the fire department, except for incipient fires that can, in the opinion of the man in charge, be extinguished with the equipment on hand.

2. The discoverer of a fire shall, in addition to attacking it at once, with whatever appears to be the most efficient appliance available, immediately summon the Plant central office force or supervisor.

3. Requesting the local power and light company to immediately assign a man to service the high tension disconnect switches where primary electric service is terminated in transformer vaults within the buildings.

4. The closing of all fire barriers for the protection of the building, in case of fires in adjacent or surrounding buildings.

5. Directing, when necessary, the exit from the building of all employees in a quiet and orderly fashion.

6. Closing the main gas cut-off valve on the street side of the meter and opening the main power and light switches at the service panel switchboard when, in his judgment, this action is necessary, or at the request of the city fire authorities.

7. Covering the equipment with tarpaulins or other protection, where, in his judgment, this action seems necessary.

8. Reporting the fire to his immediate supervisor.

9. Keeping the General Plant Manager advised (through the lines of organization) at all times as to the status of a fire, either in the Telephone Building or in buildings adjacent thereto.

- g. The calling of the city fire department will result in no harm if the fire is extinguished before they reach the scene while on the other hand their assistance is most urgently needed, if the fire has not been put out in the meantime. City fire authorities are fully in accord with this procedure.

- h. Extreme care shall be exercised to insure that fire fighting appliances are delivered to the scene of the fire before being brought into play.

- i. Additional units of fire fighting equipment shall be brought immediately to the scene of the fire and held ready for use if necessary.

j. Tarpaulins and other protective covers which are available shall be used to the fullest extent in safeguarding the equipment or service outside the immediate fire zone.

k. A complete first aid kit shall be immediately brought to the scene of the fire in order that accidental burns may be promptly treated.

### 3.07 Procedure after a fire

a. After a fire, immediate steps shall be taken to turn on the main light and gas service, if it had been turned off during the fire and it is known the building end of the light or gas service is free of trouble. Also, proceed to ventilate the fire zone and remove any water, sand, chemical, debris, etc., from the building.

b. An immediate survey shall be made of the damage caused by the fire and any discharge fuses, which may have been removed shall be replaced as rapidly as may be safely done. All appropriate action shall be taken at once to restore the equipment to service.

c. Immediately following a fire, the Plant employee in charge of the building or office shall make a full and complete report to the General Plant Manager through the lines of organization. If the intermediate supervisors cannot be reached in the order of organization the report shall finally be made direct to the General Plant Manager.

d. It is of extreme importance to refill or replace at once all fire fighting appliances which had been operated, including fuses on fire doors, and fire windows, and to thoroughly dry out and rerack all standpipe hose, in order to restore the full complement of fire fighting and protective equipment as quickly as possible.

### 4. RECHARGING SCHEDULE - FIRE EXTINGUISHERS

4.01 Soda acid and foam type extinguishers shall be recharged annually and the date of recharge entered on the tag which is attached to each unit. All extinguishers in each district shall be recharged as of the date shown in the following schedule which has been arranged to spread orders on the Western Electric Company for recharging material.

#### 4.02 Schedules:

<u>Date</u>	<u>Area</u>	<u>District</u>
April 1	Minn.	St. Paul - Dwtm.
April 1	Minn.	St. Paul - Suburban
April 1	Minn.	Rochester
April 1	Minn.	Redwood Falls
June 1	Minn.	St. Cloud
June 1	Minn.	Detroit Lakes
Aug. 1	Minn.	Duluth
Sept. 1	Minn.	Minneapolis-North
Sept. 1	Minn.	Minneapolis-Central
Sept. 1	Minn.	Minneapolis-South
April 1	Iowa	Des Moines
June 1	Iowa	Waterloo
June 1	Iowa	Mason City
July 1	Iowa	Sioux City
July 1	Iowa	Spencer
Aug. 1	Iowa	Davenport
Aug. 1	Iowa	Cedar Rapids
Sept. 1	Iowa	Council Bluffs
April 1	So.Dak.	Sioux Falls
May 1	Nebr.	Omaha - Dwtm.
May 1	Nebr.	Omaha - Suburban
June 1	Nebr.	Grand Island
Aug. 1	So.Dak.	Western
Sept. 1	Nebr.	Fremont
Sept. 1	Nebr.	No. Platte
May 1	No.Dak.	Bismarck
June 1	No.Dak.	Minot
July 1	No.Dak.	Fargo
Sept. 1	No.Dak.	Grand Forks
April 1	So.Dak.	Aberdeen
April 1	So.Dak.	Huron

4.03 Orders for recharging material shall be forwarded approximately two

weeks prior to the date shown in the schedule in order that the extinguishers can be recharged on the specified dates.

#### 5. WEIGHING SCHEDULE

5.01 The Plant Department shall establish a definite schedule for weighing

carbon dioxide extinguishers and the gas cartridges in water type extinguishers according to the stipulation in the Bell System Practice covering each type. These should be weighed at least annually and recorded on the tag on each extinguisher.