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## EXTRAORDINARY

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**PART IV-B**

**Rules and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Gujarat Acts**

**URBAN DEVELOPMENT AND URBAN HOUSING DEPARTMENT**

**NOTIFICATION**

Sachivalaya, Gandhinagar, 23rd October, 2026

**GUJARAT FIRE PREVENTION AND LIFE SAFETY MEASURES ACT, 2013.**

**No. GH/V/199 of 2026/UDUHD/TGP/e-file/18/2022/7201/L-1 Branch:-** WHEREAS the Gujarat Fire Prevention and Life Safety Measures Regulations, 2023 (hereinafter referred to as "the said Regulations") notified vide notification No.: GH/V/233 of 2024/ UDUHD/TGP/e-file/18/2022/7201/L-1, dated 11th December 2023 was sanctioned by Urban Development and Urban Housing Department, Gandhinagar, under the provisions of the sub-section (2) of section 18 Gujarat Fire Prevention and Life Safety Measures Act, 2013;

AND WHEREAS, the Government of Gujarat is of the opinion that it is necessary, in the public interest to amend the Gujarat Fire Prevention and Life Safety Measures Regulations, 2023;

NOW, THEREFORE, in exercise of the powers conferred by section 58 and read with sub-section (2) of section 18 Gujarat Fire Prevention and Life Safety Measures Act, 2013, the Government of Gujarat hereby amend the Gujarat Fire Prevention and Life Safety Measures Regulations, 2023, as per ANNEXURE attached herewith.

It shall come in to force from the date of this notification in the *Official Gazette.*

**ANNEXURE**

**1.** In the said Regulations, in regulation 4.1, for sub-regulation (v), the following sub-regulation shall be substituted, namely :- "hazardous chemical" means materials as defined in the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996 notified under the Environment (Protection) Act, 1986.

**2.** In the said Regulations, after regulation 4.1(ee), the following new regulation shall be added as Regulation 4.1 (ff) to Regulation 4.1 (uu), namely:-

**(ff)** **Automatic Fire Detection and Alarm System**:- A system comprising components and sub-systems required for automatically detecting smoke, heat or fire initiating an alarm and other actions as appropriate. This system also includes manually operated electronic fire alarm (MOEFA) system.

NOTE - MOEFA system includes all or some of the components such as manual call stations (initiating an alarm for fire and other actions as required), talk-back system and public address system.

**(gg)** **Down-comer** :- An arrangement of firefighting within the building by means of down-comer pipe connected to terrace tank through terrace pump, gate valve and non-return valve and having mains not less than 100 mm internal diameter with landing valves on each floor/landing. It is also fitted with inlet connections at ground level for charging with water by pumping from fire service appliances and air release valve at roof level to release trapped air inside.

**(hh)** **Dry Riser** :- An arrangement of firefighting within the building by means of vertical rising mains not less than 100 mm internal diameter with landing valves on each floor/landing which is normally dry but is capable of being charged with water usually by pumping from fire service appliances.

**(ii)** **Emergency Lighting** :- Lighting provided for use when the supply to the normal lighting fails.

**(jj)** **Emergency Lighting System** :- A complete but discrete emergency lighting installation also fed from the standby power source to the emergency lighting lamp(s), for example, self-contained emergency luminaire or a circuit from central battery (with or without monitoring system) connected through wiring to several escape lighting luminaries.

**(kk)** **Escape Lighting** :- That part of the emergency lighting which is provided to ensure that the escape route is illuminated at all material times, for example, at all times when persons are on the premises, or at times the main lighting is not available, either for the whole building or for the means of egress.

**(ll)** **Fire Barrier (or Fire Resisting Barrier)** :- A fire barrier is a vertically or horizontally aligned member such as a wall or a fire curtain, or a floor. These may be with discontinuities created by openings with a specified fire resistance rating, where such members are designed and constructed with a specified fire resistance rating to limit the spread of fire that also restricts the movement of smoke.

**(mm)** **Fire Load** :- Calorific energy, of the whole contents contained in a space, including the facings of the walls, partitions, floors and ceilings.

**(nn)** **Fire Load Density** :- Fire load divided by floor area.

**(oo)** **Fire Suppression Systems**:-

**a)** **Gas based systems** -Systems that use gaseous agents as fire suppression media, such as, all agents alternate to Halon gases, listed and approved for use by relevant Indian Standards; other methods/types of gas-based systems where their protection is equal to or better than what is suggested above for the type of application subject to the acceptance of Authorities concerned may also fall under such systems.

**b)** **Water based systems** -Systems that use mainly water as firefighting media such as hydrant system, sprinkler system, water spray system, foam system and water mist system.

**(pp)** **High Rise Building**: -A building 15 m or above in height (irrespective of its occupancy).

**(qq)** **Mixed Occupancy**:- A multiple occupancy where the occupancies are intermingled.

**(rr)** **Multiple Occupancy** :- A building or structure in which two or more classes of occupancy exist.

**(ss)** **Occupancy or Use Group** :- The principal occupancy for which a building or a part of a building is used or intended to be used; for the purpose of classification of a building according to the occupancy, an occupancy shall be deemed to include subsidiary occupancies which are contingent upon it.

**(tt)** **Site (Plot)** :-A parcel (piece) of land enclosed by definite boundaries.

**(uu)** **Water Based Systems**

**Hydrant System**:- A distribution system having network of piping installed underground/above- ground around and/or through inside of a building with internal and/or external hydrants fitted with landing valves at regular intervals according to the occupancy. The distribution system is connected to water supply system for firefighting.

**Automatic Sprinkler System**:-. A system of water pipes fitted with sprinkler heads at suitable intervals and heights and designed to actuate automatically, control and extinguish a fire by the discharge of water.

Automatic Water Spray Systems. A special fixed pipe system connected to a reliable source of fire protection water supply and equipped with water spray nozzles for specific water discharge and distribution over the surface or area to be protected. The piping system is connected to the water supply through an automatically actuated deluge valve which initiates flow of water. Automatic actuation is achieved by operation of automatic detecting equipment installed along with water spray nozzles. There are two types of systems namely high velocity and medium velocity systems.

**Water Mist Systems**:- A distribution system connected to a pumping and water supply system that is equipped with nozzles capable of delivering water mist to the part/entire enclosure or area, intended to control, suppress, or extinguish fire and is capable of meeting the specified performance requirements.

**Foam Protection System**:- Firefighting systems where foam is made by mechanically mixing air with a solution consisting of fresh water to which a foaming agent (liquid concentrate) has been added. Firefighting foam is a stable aggregation of small bubbles of density lower than oil or water, and shows tenacious qualities for covering horizontal surfaces. There are three types of foam applications that is, low, medium and high expansion foams depending upon the application.

**Wet Riser**:- An arrangement for firefighting within the building by means of vertical rising mains not less than 100 mm nominal diameter with landing valves on each floor/landing for firefighting purposes and permanently charged with water from a pressurized supply.

**3.** In the said Regulations, for regulation 4.2, the following new regulation shall be substituted, namely:-

"**4.2.** The words and expressions not defined in this section shall have the meaning as defined in the Act, Rules, CGDCR 2017, IS 8757:1999(Glossary of terms associated with fire safety) and IS7673:2004(Fire Fighting Equipment-Glossary of Terms) as amended from time to time."

**4.** In the said Regulations, after regulation 4.4, the following new regulation shall be added as Regulation 4.5, namely:-

" **4.5- Classification of Buildings Based on Type of Occupancy:-** General Classification of buildings, whether existing or hereafter erected shall be classified according to use or the character of occupancy in one of the following groups in which Fire Fighting Installation detailed technical aspects water storage tank capacity requirement, Travel distances of Fire Extinguishers, Fire Exit, Spacing requirements of Fire Hydrant, Fire Hose reel hose, Fire sprinklers and Staircases that are required to minimize danger to life and save property from fire are as follows :-

| S. N. | Groups | Type of buildings |
|---|---|---|
| 1 | A | Residential |
| 2 | B | Educational |
| 3 | C | Institutional |
| 4 | D | Assembly |
| 5 | E | Business |

| S. N. | Groups | Type of buildings |
|---|---|---|
| 6 | F | Mercantile |
| 7 | G | Industrial |
| 8 | H | Storage |
| 9 | J | Hazardous |
| 10 | K | Mixed |

**a. Group A- Residential Buildings**

This group shall include any building in which sleeping accommodation is provided for normal residential purposes with or without cooking or dining or both facilities, except any building classified under Group C. Buildings and structures under Group A shall be further sub divided as follows:

| Sr. No. | Subdivisions | Type of Buildings |
|---|---|---|
| 1. | A-3 | Dormitories (Dharamshala), Guest Houses, Hostel |
| 2. | A-4 | Apartment houses (Studio apartments/Flats/Services apartments) |
| 3. | A-5 | Hotels/Resorts/Motels |
| 4. | A-6 | Starred hotels |

**b. Group B- Educational Buildings**

This group shall include any building used for school, college, other training institutions involving assembly for instruction, education or recreation for not less than 20 students. Buildings and structures under Group B shall be further subdivided as follows:

| S. No. | Subdivisions | Type of Buildings |
|---|---|---|
| 1. | B-1 | Schools |
| 2. | B-2 | All other Educational and Training Institutions |

**c. Group C - Institutional Buildings**

This group shall include any building or part thereof, which is used for purposes, such as medical or other treatment or care of persons suffering from physical or mental illness, disease or infirmity; care of infants, convalescents or aged persons and for penal or correctional detention in which the liberty of the inmates is restricted. Institutional buildings ordinarily provide sleeping accommodation for the occupants. Buildings and structures under Group C shall be further subdivided as follows:

| S. N. | Subdivisions | Type of Buildings |
|---|---|---|
| 1. | C-1 | Hospitals/ Sanatorium/ Nursing homes |
| 2. | C-2 | Custodial institutions (Old-age homes, orphanages, convalescent homes) |
| 3. | C-3 | Penal and mental institutions, Jails |

**d. Group D - Assembly Buildings**

This group shall include any building or part of a building, where not less than 50 persons congregate or gather for amusement, recreation, social, religious, patriotic, civil, travel and similar purposes, for example, theatres; motion picture houses; assembly halls; auditoria; exhibition halls; museums; skating rinks; gymnasiums; restaurants; places of worship; dance halls; club rooms; passenger stations and terminals of air, surface and marine public transportation services and stadia. Buildings under Group D shall be further subdivided as follows:

| S. N. | Sub divisions | Type of Buildings |
|---|---|---|
| 1. | D-1 | Building shaving a theatrical or motion picture or any other stage and fixed seats more than1000 persons |

| S. N. | Sub divisions | Type of Buildings |
|---|---|---|
| 2. | D-2 | Buildings having a theatrical or motion picture or any other stage and fixed seats upto1000 persons |
| 3. | D-3 | Buildings without a permanent stage having accommodation for 300 or more persons but no permanent seating arrangement (Marriage Hall, dance hall, night clubs, bars, lectures halls, Museum Hall, Archaeological Monuments, Sports Parlours etc.) |
| 4. | D-4 | Buildings without a permanent stage havingaccommodationforlessthan300 persons with no permanent seating arrangement (Marriage Hall, dance hall, night clubs, bars, lectures halls, Museum Hall, Archaeological Monuments, Sports Parlours etc.) |
| 5. | D-5 | All other structures including temporary structures designed for Assembly of people not covered by Subdivisions D-1 to D-4, at ground level for people 50 and above. (grand stands, stadia, amusement park structures, reviewing stands and circus tents, arenas, external swimming pools, tennis and similar type of courts, Marriage garden, Airport, Gymnasium, stadium) |
| 6. | D-6 | Buildings having mixed occupancies of assembly and mercantile (for example, shopping malls providing facilities such as shopping, cinema theatres, multiplexes and restaurants/ food courts) |
| 7. | D-7 | All type of roof top restaurants |
| 8. | D-8 | Under ground and elevated mass rapid transit system (Metro Stations and Railway stations) |

**e. Group E- Business Buildings**

This group shall include any building or part thereof which is used for transaction of business for keeping of accounts and records and similar purposes, professional establishments, service facilities, etc. City halls, town halls, courthouses and libraries shall be classified in this group as the principal function of these is transaction of public business and keeping of books and records. Buildings under Group E shall be further subdivided as follows:

| S. N. | Subdivisions | Type of Buildings |
|---|---|---|
| 1. | E-1 | Offices, banks, professional establishments, like offices of architects, engineers, doctors, lawyers, post offices and police stations |
| 2. | E-2 | Laboratories, outpatient clinics, research establishments, libraries and Test houses |
| 3. | E-3 | Electronic data processing centers, computer installations, information Technology parks and call centers |
| 4. | E-4 | Telephone exchanges |
| 5. | E-5 | Broadcasting stations, T.V. stations and air traffic control towers. |

**f. Group F- Mercantile Buildings-**

This group shall include any building or part thereof, which is used as shops, stores, market, for display and sale of merchandise, either wholesale or retail.

Mercantile buildings shall be further sub divided as follows:

| S.N. | Subdivisions | Type of Buildings |
|---|---|---|
| 1. | F-1 | Shops, stores, department stores, markets(any with covered area upto 500m2) |
| 2. | F-2 | Shops, stores, department stores, markets (any with covered area more than 500m2) |
| 3. | F-3 | Underground shopping centers. |

**g. Group G- Industrial Buildings:**

These shall include any building or part of a building or structure, in which products or materials of all kinds and properties are fabricated, assembled, manufactured or processed, for example, assembly plants, industrial laboratories, dry cleaning plants, power plants, generating units, pumping stations, fumigation chambers, laundries, buildings or structures in gas plants, refineries, dairies and saw-mills, etc.

Buildings under Group G are further subdivided as follows:

a) Subdivision G-I Buildings used for low hazard industries;

b) Subdivision G-II Buildings used for moderate hazard industries; and

c) Subdivision G-III Buildings used for high hazard industries.

A broad classification of industrial occupancies based on 'fire hazard only' into low, moderate, and high hazard classes is given at Annexure F, for guidance. Any occupancy not covered in Annexure F, should be classified in the most appropriate class depending on the degree of hazard by the Regional Fire Officer or Chief Fire Officer or Nominated Fire Officer.

NOTE — This Annexure F is only based on 'fire hazard'. Other classification of industries based on chemical hazard, pollution, etc., are not addressed in this regulation.

Where different degrees of hazard of occupancy exist in different parts of a building, the most hazardous of those should govern the classification for the purpose of this regulation, except in cases where hazardous areas are segregated or protected as specified in this regulation.

- **a) Subdivision G-I/Low Hazard /I-1** — This subdivision includes any building in which the contents are of such comparative low combustibility and the industrial processes or operations conducted therein are of such a nature that there is hardly any possibility for any self-propagating fire to occur and the only consequent danger to life and property may arise from panic, fumes or smoke, or fire from some external source;

- **b) Subdivision G-II/ Moderate Hazard /I-2**— This subdivision includes any building in which the contents or industrial processes or operations conducted therein are liable to give rise to a fire which will burn with moderate rapidity or result in other hazardous situation and may give off a considerable volume of smoke, but from which neither toxic fumes nor explosions are to be feared in the event of fire; and

- **c) Subdivision G-III/ High Hazard /I-3—** This subdivision includes any building in which the contents or industrial processes or operations conducted therein are liable to give rise to a fire which will burn with extreme rapidity or result in other hazardous situation or from which poisonous fumes or explosions are to be feared in the event of a fire

**h. Group H - Storage Buildings:**

These shall include any building or part of a building used primarily for the storage or sheltering (including servicing, processing or repairs incidental to storage) of goods, ware or merchandise (except those that involve highly combustible or explosive products or materials), vehicles or animals, for example, warehouses, cold storages, freight depots, transit sheds, storehouses, truck and marine terminals, garages, hangars, grain elevators, barns and stables. Storage properties are characterized by the presence of relatively small number of persons in proportion to the area. Any new use which increases the number of occupants to a figure comparable with other classes of occupancy shall change the classification of the building to that of the new use, for example, hangars used for assembly purposes, warehouses used for office purposes, garage buildings used for manufacturing.

**j. Group J- Hazardous Buildings:**

These shall include any building or part thereof which is used for the storage, handling, manufacture or processing of highly combustible or explosive materials or products which are liable to burn with extreme rapidity and/or which may produce poisonous fumes or explosions for storage, handling, manufacturing or processing which involve highly corrosive, toxic or noxious alkalis, acids or other liquids or chemicals producing flame, fumes and explosive, poisonous, irritant or corrosive gases; and for the storage,

handling or processing of any material producing explosive mixtures of dust which result in the division of matter into fine particles subject to spontaneous ignition. Examples of buildings in this class are those buildings which are used for,

a) storage, under pressure of more than 0.1 N/mm2 and in quantities exceeding 70 m3, of acetylene, hydrogen, illuminating and natural gases, ammonia, chlorine, phosgene, sulphur dioxide, carbon dioxide, methyloxide and all gases subject to explosion, fume or toxic hazard, cryogenic gases, etc;

b) storage and handling of hazardous and highly flammable liquids, liquefiable gases like LPG, rocket propellants, etc;

c) storage and handling of hazardous and highly flammable or explosive materials (other than liquids); and

d) manufacture of artificial flowers, synthetic leather, ammunition, explosives and fireworks.

**5.** In the said Regulations, for regulation 9.1, the following new regulation shall be substituted, namely:-

"**9.1.** The details of Form Code of checklist, which is a part of the application form, specifying mandatory requirement for fire protection measures in the building/ premises based on building occupancies and categories, for Fire Safety Plan Approval (FSPA), Fire Safety Certificate Approval (FSCA) and Fire Safety Certificate Renewal (FSCR) are as mentioned in the TABLE-1 and for Fire Safety Certificate Renewal of the fire safety certificate issued prior to coming into force of these regulations (FSCRe) are as mentioned in TABLE-2.

Refer Regulation 4.5 for understanding the categorization of occupancy sub-type which is mentioned within brackets in Column 2 of the said TABLE 1. Irrespective of what is mentioned in FOURTH SECHEDULE of the amended Rules, 2021, for the purpose of FSCRe, the classification of buildings/ premises for appointment of FSOs for renewal of FSCRe, the grade of FSO shall be as mentioned in column 8 &6 of TABLE 1& 2 below, respectively."

**6.** In the said Regulations, for regulation 9.2, the following new regulation shall be substituted, namely:-

"The Checklists for various building categories are as per ANNEXURE 7.1 to 7.258 of these regulations. The checklists are available on the web portal https://gujfiresafetycop.in. For convenience of citizens and users, commonly used nomenclature may have been used in the Checklists on the web portal."

**7.** In the said Regulations, in regulation no. 9, for table-1, the following table-1 shall be substituted, namely :-

| Occupancy Main Type | Occupancy Sub-Type | Sr. No. | Building Categories | Form Code (FSPA) | Form Code (FSCA) | Form Code (FSCR) | FSO Category |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Residential & Lodging | Dormitories, Flats, Hostels & Apartment Houses etc. (A-3) & (A-4) | 1 | 15 m and above but not exceeding 35 m in height | **C1R1-P** | **C1R1-C** | **C1R1-R** | **G, A, S** |
| | | 2 | Above 35 m but not exceeding 45 m in height | **C1R2-P** | **C1R2-C** | **C1R2-R** | **A, S** |
| | | 3 | Above 45 m but not exceeding 60 m in height | **C1R3-P** | **C1R3-C** | **C1R3-R** | **A, S** |
| | | 4 | Above 60 m but not exceeding 100m in height | **C1R4-P** | **C1R4-C** | **C1R4-R** | **S** |
| | | 5 | Above 100 m in height | **C1R4.1-P** | **C1R4.1-C** | **C1R4.1-R** | **S** |

| Occupancy Main Type | Occupancy Sub-Type | Sr. No. | Building Categories | Form Code (FSPA) | Form Code (FSCA) | Form Code (FSCR) | FSO Category |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Hotels & Guest Houses etc. (Below 5 star) (A-5) | 6 | Less than 15 m in height Built up area exceeding 500 m2 but not more than 1000 m2 on any of the floor | **C1R5-P** | **C1R5-C** | **C1R5-R** | **G, A, S** |
| | | 7 | Less than 15 m in height Built up area exceeding 1000 m2 on any of the floor | **C1R6-P** | **C1R6-C** | **C1R6-R** | **A, S** |
| | | 8 | 15 m and above but not exceeding 30 m in height | **C1R7-P** | **C1R7-C** | **C1R7-R** | **A, S** |
| | | 9 | Above 30 m but not exceeding 100m in height | **C1R8-P** | **C1R8-C** | **C1R8-R** | **S** |
| | | 10 | Above 100 m in height | **C1R8.1-P** | **C1R8.1-C** | **C1R8.1-R** | **S** |
| | Hotels 5 Star and Above (A-6) | 11 | 5 Star and above hotels, resorts etc. | **C1R9-P** | **C1R9-C** | **C1R9-R** | **S** |
| Educational Institute (Non-Residential part) | Schools (Non-Residential) (B-1) | 12 | More than 9m but less than 15m in height or built up area more than 500 m2 on any one or more floors | **C2ED1-P** | **C2ED1-C** | **C2ED1-R** | **G, A, S** |
| | Other Educational and Training Institutions (Non-Residential) (B-2) | 13 | 15 m and above but not exceeding 24 m in height | **C2ED2-P** | **C2ED2-C** | **C2ED2-R** | **A, S** |
| | | 14 | Above 24 m but not exceeding 30 m in height | **C2ED3-P** | **C2ED3-C** | **C2ED3-R** | **S** |
| | | 15 | Above 30 m in height but not exceeding 100 m in height | **C2ED3.1-P** | **C2ED3.1-C** | **C2ED3.1-R** | **S** |
| | | 16 | Above 100m in height | **C2ED3.2-P** | **C2ED3.2-C** | **C2ED3.2-R** | **S** |
| Institutional (Hospital, Correctional Facility, | Hospitals, Sanatoria and Nursing Homes (C-1) | 17 | Less than 15 m in height (upto ground plus one storey with beds) | **C3I1-P** | **C3I1-C** | **C3I1-R** | **G, A, S** |

| Occupancy Main Type | Occupancy Sub-Type | Sr. No. | Building Categories | Form Code (FSPA) | Form Code (FSCA) | Form Code (FSCR) | FSO Category |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Care Centers etc.) | | 18 | Less than 15 m in height (Ground plus two or more storey with beds) | **C3I2-P** | **C3I2-C** | **C3I2-R** | **G, A, S** |
| | | 19 | Less than 15 min height with plot area more than 1000 m2 | **C3I3-P** | **C3I3-C** | **C3I3-R** | **G, A, S** |
| | | 20 | 15 m and above but not exceeding 24 m in height | **C3I4-P** | **C3I4-C** | **C3I4-R** | **A, S** |
| | | 21 | Above 24 m but not exceeding 45 m in height | **C3I5-P** | **C3I5-C** | **C3I5-R** | **S** |
| | | 22 | Above 45 m in height but not exceeding 100 m in height | **C3I5.1-P** | **C3I5.1-C** | **C3I5.1-R** | **S** |
| | | 23 | Above 100 m in height | **C3I5.2-P** | **C3I5.2-C** | **C3I5.2-R** | **S** |
| | Custodial (C-2), Penal & Mental (C-3) | 24 | Less than 10 m in height (up to 300 persons) | **C3I6-P** | **C3I6-C** | **C3I6-R** | **G, A, S** |
| | | 25 | Less than 10 m in height (more than 300 persons) | **C3I7-P** | **C3I7-C** | **C3I7-R** | **G, A, S** |
| | | 26 | 10 m and above but not exceeding 15 m in height | **C3I8-P** | **C3I8-C** | **C3I8-R** | **A, S** |
| | | 27 | 15 m and above but not exceeding 24 m in height | **C3I9-P** | **C3I9-C** | **C3I9-R** | **A, S** |
| | | 28 | Above 24 m but not exceeding 30m in height | **C3I10-P** | **C3I10-C** | **C3I10-R** | **S** |
| | | 29 | Above 30 m in height but not exceeding 100 m in height | **C3I10.1-P** | **C3I10.1-C** | **C3I10.1-R** | **S** |
| | | 30 | Above 100 m in height | **C3I10.2-P** | **C3I10.2-C** | **C3I10.2-R** | **S** |

| Occupancy Main Type | Occupancy Sub-Type | Sr. No. | Building Categories | Form Code (FSPA) | Form Code (FSCA) | Form Code (FSCR) | FSO Category |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Assembly (Permanent Structures like - Cinema Halls, Party Plot, Stadium, Shopping Malls, Stations etc.) | Cinema, Multiplexes, Concert Halls, Studios (with audience facility), Auditoriums, Theatres, Party Plots (indoor), Marriage Halls, Community Centre, Banquet Halls, Court Rooms, Lecture Halls, Town Halls, Religious Structure, Museum, Heritage Monument, Airport Terminal Buildings, Enclosed Railway Stations, Enclosed Bus Depots, High Speed Rail Stations, Inter-modal Hubs, Stadium, Sports Complex, Amusement Park, Recreational Center etc. (D-1 to D-5) | 31 | Less than 10 m in height (up to 300 persons) | **C4A1-P** | **C4A1-C** | **C4A1-R** | **G, A, S** |
| | | 32 | Less than 10 m in height (more than 300 persons) | **C4A2-P** | **C4A2-C** | **C4A2-R** | **A, S** |
| | | 33 | Above 10 m but not exceeding 15 m in height | **C4A3-P** | **C4A3-C** | **C4A3-R** | **G, A, S** |
| | | 34 | Above 15 m but not exceeding 24 m in height | **C4A4-P** | **C4A4-C** | **C4A4-R** | **A, S** |
| | | 35 | Above 24 m but not exceeding 30 m in height | **C4A5-P** | **C4A5-C** | **C4A5-R** | **S** |
| | | 36 | Above 30 m in height but not exceeding 100 m in height | **C4A5.1-P** | **C4A5.1-C** | **C4A5.1-R** | **S** |
| | | 37 | Above 100 m in height | **C4A5.2-P** | **C4A5.2-C** | **C4A5.2-R** | **S** |
| | Shopping Malls (D-6) | 38 | Shopping Malls | **C4A6-P** | **C4A6-C** | **C4A6-R** | **S** |
| | Metro & Mass Transport Systems (D-7) | 39 | Underground & Elevated Mass Rapid Transit system | **C4A7-P** | **C4A7-C** | **C4A7-R** | **S** |
| Business & Offices | Business (E-1 to E-5) - These buildings include Offices, banks, professional establishments (E-1), outpatient clinics, research establishments, libraries and test houses (E-2), Electronic data processing centres, computer installations, IT parks (E-3), Telephone exchanges (E-4), Broadcasting stations, T.V. stations and ATC towers (E-5) | 40 | Above 15 m but not exceeding 24 m in height | **C5B1-P** | **C5B1-C** | **C5B1-R** | **G, A, S** |
| | | 41 | Above 24 m but not exceeding 30 m in height | **C5B2-P** | **C5B2-C** | **C5B2-R** | **A, S** |
| | | 42 | Above 30 m but not exceeding 100 m in height | **C5B3-P** | **C5B3-C** | **C5B3-R** | **S** |
| | | 43 | Above 100 m in height | **C5B3.1-P** | **C5B3.1-C** | **C5B3.1-R** | **S** |

| Occupancy Main Type | Occupancy Sub-Type | Sr. No. | Building Categories | Form Code (FSPA) | Form Code (FSCA) | Form Code (FSCR) | FSO Category |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Mercantile & Shops | Mercantile Buildings including Super Store, Super Market, Department Store, Wholesale Market buildings etc. - these include Shops, stores, markets having Built up area < 500 m2 (F-1) and Built up area > 500 m2 (F-2) | 44 | Less than 15 m in height and Ground storey + one, having total Built up area > 500 $m^2$ | **C6M1-P** | **C6M1-C** | **C6M1-R** | **G, A, S** |
| | | 45 | Above 15 m but not exceeding 24 m in height | **C6M2-P** | **C6M2-C** | **C6M2-R** | **A, S** |
| | | 46 | Above 24 m but not exceeding 30 m in height | **C6M3-P** | **C6M3-C** | **C6M3-R** | **A, S** |
| | | 47 | Above 30 m in height but not exceeding 100 m in height | **C6M3.1-P** | **C6M3.1-C** | **C6M3.1-R** | **S** |
| | | 48 | Above 100 m in height | **C6M3.2-P** | **C6M3.2-C** | **C6M3.2-R** | **S** |
| | Underground Shopping Complex (F-3) | 49 | Underground Shopping Centre | **C6M4-P** | **C6M4-C** | **C6M4-R** | **S** |
| Industrial Building | Low Hazard (G1) | 50 | Built up area more than 500 m2 (for building height above 15 m) | **C7ID1 - P** | **C7ID1 - C** | **C7ID1 - R** | **G, A, S** |
| | Moderate Hazard (G2) | 51 | Built up area more than 500m2 and up to 1000m2 (for height more than 15 m) | **C7ID2 - P** | **C7ID2 - C** | **C7ID2 - R** | **A, S** |
| | | 52 | Built up area more than 1000 m2 | **C7ID3 - P** | **C7ID3 - C** | **C7ID3 - R** | **S** |
| | High Hazard (G3) | 53 | Built up area up to 50 m2 | **C7ID4 - P** | **C7ID4 - C** | **C7ID4 - R** | **A, S** |
| | | 54 | Built up area more than 50 m2 and up to 150 m2 | **C7ID5 - P** | **C7ID5 - C** | **C7ID5 - R** | **A, S** |
| | | 55 | Built up area more than 150 m2 and up to 300 m2 | **C7ID6 - P** | **C7ID6 - C** | **C7ID6 - R** | **A, S** |
| | | 56 | Built up area more than 300 m2 and up to 500 m2 | **C7ID7 - P** | **C7ID7 - C** | **C7ID7 - R** | **S** |

| Occupancy Main Type | Occupancy Sub-Type | Sr. No. | Building Categories | Form Code (FSPA) | Form Code (FSCA) | Form Code (FSCR) | FSO Category |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | 57 | Built up area more than 500 m2 | **C7ID8 - P** | **C7ID8 - C** | **C7ID8 - R** | **S** |
| Storage, Warehouses, Transport Terminal & Parking | Storage, Warehouses & Parking (H) | 58 | Below 15 m in height covered area > 250 m2 Ground floor only | **C8S1-P** | **C8S1-C** | **C8S1-R** | **G, A, S** |
| | | 59 | Below 15 m in height covered area > 250 m2 Ground plus one floor | **C8S2-P** | **C8S2-C** | **C8S2-R** | **A, S** |
| | | 60 | Below 15 m in height covered area > 250 m2 Ground plus more than one floor | **C8S3-P** | **C8S3-C** | **C8S3-R** | **S** |
| | | 61 | Above 15 m in height | **C8S3.1-P** | **C8S3.1-C** | **C8S3.1-R** | **S** |
| | | 62 | Multi-level Car Parking | **C8S4-P** | **C8S4-C** | **C8S4-R** | **S** |
| Hazardous or Flammable Material Storage &Handling | Hazardous or Flammable Material Storage & Handling (J) | 63 | Up to 15 m in height Single Storey building | **C9H1-P** | **C9H1-C** | **C9H1-R** | **S** |
| | | 64 | Up to 15 m in height more than one floor building | **C9H2-P** | **C9H2-C** | **C9H2-R** | **S** |
| | | 65 | Above 15 m in height | **C9H2.1-P** | **C9H2.1-C** | **C9H2.1-R** | **S** |
| Mixed Use Occupancies | Commercial Complexes | 66 | Buildings above 9 m but not exceeding15 m in height | **C10MX1-P** | **C10MX1-C** | **C10MX1-R** | **G, A, S** |
| | | 67 | Above 15 m but not exceeding 24 m in height | **C10MX2-P** | **C10MX2-C** | **C10MX2-R** | **A, S** |
| | | 68 | Above 24 m but not exceeding 30 m in height | **C10MX3-P** | **C10MX3-C** | **C10MX3-R** | **A, S** |
| | | 69 | Above 30 m but not exceeding 100 m in height | **C10MX4-P** | **C10MX4-C** | **C10MX4-R** | **S** |
| | | 70 | Above 100 m in height | **C10MX4.1-P** | **C10MX4.1-C** | **C10MX4.1-R** | **S** |

| Occupancy Main Type | Occupancy Sub-Type | Sr. No. | Building Categories | Form Code (FSPA) | Form Code (FSCA) | Form Code (FSCR) | FSO Category |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Basement | Basement (In case if basement is not covered in any of the other categories and standalone basement is constructed | 71 | Buildings with two basements or more, or with one basement of area more than 500 m² | **C11BS1-P** | **C11BS1-P** | **C11BS1-R** | **A,S** |

**8.** In the said Regulations, for regulation 15.1, the following new regulation shall be substituted, namely:-

"**15.1.** The provisions related to construction, electrical installations, lifts, exit requirements, fire access staircase, doorways, corridors and passageways, internal/external staircases, cellar, ramps, ramps for fire tender movement, loft, control of development on terrace, basement and cellar, emergency escape lighting, lightning/electrical protection, smoke and fire venting, ventilation, service ducts/shafts, air conditioning, compartmentation, substation, boiler and boiler rooms, refuge area, terrace drainage, materials for interior decoration, fire check floor/fire cut-off floor, glass façade, margins, open spaces and other allied building planning requirements shall be governed in accordance with the provisions of CGDCR-2017, as amended from time to time and shall be verified by the appropriate authority.

All fire tender access should be free of encumbrance and shall be motorable. The approach road and open spaces shall be of hard surface capable of taking the weight of Fire engine."

**9.** In the said Regulations, **regulations 15.2, 15.3 and 15.4** shall be omitted .

**10.** In the said Regulations, for regulation 15.5.1, the following new regulation shall be substituted, namely:-

"General Exit Requirements:

a) Lifts and escalators shall not normally be considered as exits.

b) Every exit, exit access or exit discharge shall be continuously maintained free of all obstructions or impediments for full use in the case of fire or other emergency.

c) Exits shall be clearly visible and the route to reach the exits shall be clearly marked and signs posted to guide the occupants of the floor concerned. Signs shall be illuminated and wired to an independent electrical circuit on an alternative Source of supply. The color of the exit signs shall be green.

d) The floors of area covered for the means of exit shall be illuminated to values not less than 1 ft candle (10 lux) at floor level. In auditoriums, theatres, concert halls and such other places of assembly, the illumination of floor exit/ access may be reduced during period of performances to value not less than 1/5 ft candle (2 lux)

e) Fire doors with 2-hour fire resistance shall be provided at appropriate places along the escape route and particularly at the entrance to lift lobby and stairwell where a funnel or flue effect may be created, inducing an upward spread of fire and smoke.

f) All exits shall provide continuous means of egress to the exterior of a building or to an exterior space leading to a street.

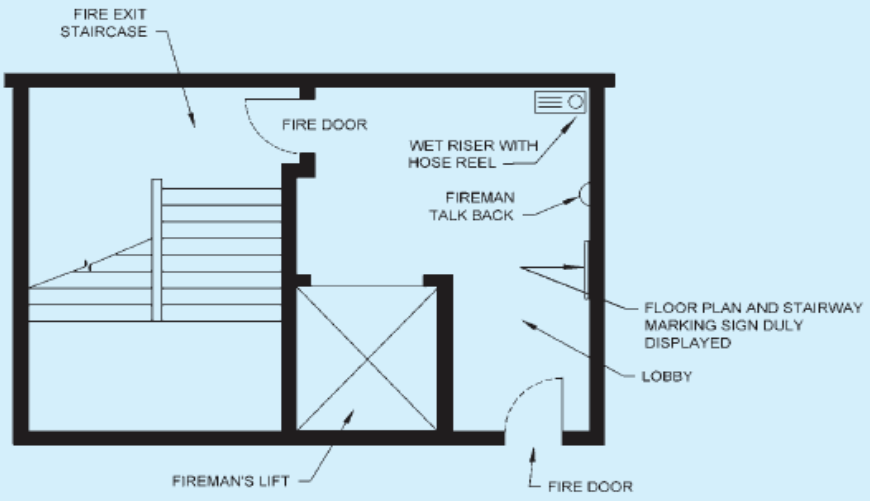
g) Exits shall be arranged that they may be reached without passing through another occupied unit.

**11.** In the said Regulations, **regulations 15.5.3, 15.5.4 and 15.6.1** shall be omitted.

**12.** In the said Regulations, for regulation 15.6.2, the following new regulation shall be substituted, namely:-

"**15.6.2.** Firefighting shaft (Fire tower) shall be provided for the building having height more than 60 m and or if building does not have staircase with natural or cross ventilation in such cases the shaft shall be provided with provisions of smoke control and pressurization. The Firefighting shaft shall **have** protected area of 120 min fire resistance rating comprising protected lobby, staircase and fireman's lift, connected directly to exit discharge or through exit passageway with 120 min fire resistant wall at the level of exit discharge to exit discharge. These shall also serve the purpose of exit requirement/ strategy for the occupants. The respective floors shall be

approachable from fire-fighting shaft enabling the fire fighters to access the floor and also enabling the fire fighters to assist in evacuation through fireman's lift. The firefighting shaft shall be equipped with 120 min fire doors. The firefighting shaft shall be equipped with firemen talk back, wet riser and landing valve in its lobby, to fight fire by fire fighters (see Fig. below for a typical firefighting shaft).




(LAYOUT TO BE PLANNED AS PER PROJECT BASIS MEETING ALL THE REQUIRED DETAILS)

NOTES

**1** Where such lobbies and staircase in the firefighting shaft are naturally ventilated/cross-ventilated, the shaft may not be enclosed and fire door need not be provided.

**2** For all enclosed firefighting shaft, the shaft's lobby should have floor plan duly displayed for the information of fire fighters.

**13.** In the said Regulations, **regulations 15.7.1 and 15.7.2** shall be omitted.

**14.** In the said Regulations, for regulation 15.7.3, the following new regulation shall be substituted, namely:-

"**15.7.3**. The doors of rooms shall open outward and flush to the wall to permit smooth flow of traffic in the corridor. Overhead or sliding doors shall not be installed.

**15.** In the said Regulations, **regulations 15.7.4, 15.8.1, 15.8.2, 15.8.3, 15.8.4, 15.8.6, 15.8.7, 15.9.3, 15.9.6, 15.9.7, 15.9.8, 15.9.9, 15.9.10, 15.9.11, 15.9.12, 15.9.13 and 15.9.16** shall be omitted.

**16.** In the said Regulations, for regulation 15.10.1, the following new regulation shall be substituted, namely:-

"**15.10.1** In a building unit, the cellar may be permitted on the following conditions:

a) No stairs to be constructed under these regulations shall consist of any wooden material.

b) The materials of the construction and fixtures of the cellar should be of fire resisting nature and in no case; wood shall be used as structural part of the cellar or any fixtures thereof. The extent of ventilation shall be the same as required by the particular occupancy for which the basement is used. Any deficiency must be made well by resort to a mechanical system, viz. blowers, exhaust fans, air conditioning system, according to the relevant Indian standards.

**17.** In the said Regulations, **regulations 15.10.2, 15.11, 15.13 and 15.14** shall be omitted.

**18.** In the said Regulations, for regulation 15.15.11, the following new regulation shall be substituted, namely:-

"**15.15.11**. Electrical services:

a) Separate circuits for firefighting pumps, lifts, staircases, corridor lighting and blowers for pressurizing system shall be provided directly from the main switch gear panel and these circuits shall be laid in separate conduit pipes, so that fire in one circuit will not affect the others. Such circuits shall be protected at origin by an automatic circuit breaker with its no- volt coil removed. Master switches controlling essential service circuits shall be clearly labelled.

b) An independent and well-ventilated electrical service room shall be provided on the ground level or first basement with direct access from outside or from the corridor for the purpose of termination of electric supply from the licensees' service and alternative supply cables. The doors provided for the service room shall have fire resistance of not less than 2 hours.

Note: If service room is located at the first basement, it should have automatic fire extinguishing system.

**19.** In the said Regulations, for regulation 15.15.12, the following new regulation shall be substituted, namely:-

"**15.15.12**. Emergency power supply shall be as per relevant Indian standard and as defined in these regulations.

**20.** In the said Regulations, **regulations 15.16, 15.17 and 15.18.3** shall be omitted.

**21.** In the said Regulations, for regulation 15.18.5, the following new regulation shall be substituted, namely:-

"**15.18.5**. The provisions for ventilation shall conform to requirements given in the CGDCR.

**22.** In the said Regulations, **regulations 15.20, 15.21.2, 15.21.5, 15.21.6, 15.21.9, 15.21.10 and 15.22** shall be omitted.

**23.** In the said Regulations, for regulation 15.23, the following new regulation shall be substituted, namely:-

"**15.23**. Transformer - No transformer shall be allowed inside the building. Dry type transformer may be allowed in the first basement.

**24.** In the said Regulations, **regulations 15.24, 15.26.3, 15.26.4, 15.26.5 and 15.26.10** shall be omitted.

**25.** In the said Regulations, for regulation 15.27, the following new regulation shall be substituted, namely:-

"**15.27**. Refuge area:

a) Refuge area shall be provided on the external walls/ periphery of the floor preferably on a cantilever projection, open to air at least on one side, protected with suitable railings and shall have direct access to fire ladder.

b) For floors above 25 m and up to 39m-One refuge area on the floor immediately above 25 m.

c) For floors above 39 m -One refuge area on the floor immediately above 39 m and so on after every 15 m.

Note:- Residential flats in multistoried buildings with balcony need not be provided with refuge area, however flats without balcony shall be provided with refuge area as given above."

**26.** In the said Regulations, **regulation 15.28.1** shall be omitted.

**27.** In the said Regulations, for regulation 15.28.3, the following new regulation shall be substituted, namely:-

"**15.28.3**. The basement shall be provided with natural ventilations and more than one basement shall have mechanical extractors for smoke venting shall be designed to permit 12 changes per hour in case of fire or distress call. For normal operations, air changes schedule shall be as per GDCR.

**28.** In the said Regulations, **regulations 15.28.5, 15.28.6, 15.28.7, 15.29, 15.30, 15.31, 15.32.1, 15.32.5, 15.33.1, 15.33.2, 15.33.3, 15.33.6, 15.33.7, 15.33.8 and 15.33.10** shall be omitted.

**29.** In the said Regulations, CHAPTER V-SPECIAL PROVISIONS RELATING TO FIRE PREVENTION AND LIFE SAFETYMEASURES FOR SPECIAL BUILDINGS shall be omitted.

**30.** In the said Regulations, for regulation 26, the following new regulation shall be substituted, namely:-

"**26. Fire Protection Measures**:

26.1 The fire safety provisions applicable to high-rise buildings shall be as specified in these regulations & in Annexures A to G and Table 5. The provisions of this Chapter shall be in addition to, and not in substitution of, the provisions contained in other parts of these regulations.

26.2 Fire Vehicle access shall be provided for all buildings and shall be free from any encumbrance and shall be motorable.

26.3 Requirement of hydrants, wet riser, sprinkler system and special fire protection system have been specified in the table 5 and checklists. In case of buildings or premises specified in Third Schedule of the Gujarat Fire Prevention & Life Safety Measures Rules 2014 & subsequent amendments but not specifically mentioned in Table-1 of the regulation No. 9.1, Director or the Regional Fire Officer or the Chief Fire Officer may direct to provide these requirements as per the closest building category with such additional equipment and / or specific fire protection systems which they deem necessary.

26.4 Fire Extinguishers/Fixed Firefighting Installations

26.4.1 All buildings depending upon the occupancy use and height shall be protected by fire extinguishers, hose reels, wet riser, down-comer, yard hydrants, automatic sprinkler installation, deluge system, high/medium velocity water spray, foam, water mist systems, gaseous or dry powder system, manual/automatic fire alarm system, etc, in accordance with the provisions of various clauses given below, as applicable:

26.4.2 These fire extinguishing equipment and their installation shall be in accordance with relevant Indian standard. The extinguishers shall be mounted at a convenient height to enable its quick access and efficient use by all in the event of a fire incidence. The requirements of fire extinguishers/yard hydrant systems/wet riser/down-comer installation and capacity of water storage tanks and fire pumps, etc, shall be as specified in Table 5 of this regulation. The requirements regarding size of mains/risers shall be as given in Table 4. The typical arrangements of down-comer and wet riser installations are shown in Fig. 3. The wet riser shall be designed for zonal distribution ensuring that unduly high pressures are not developed in risers and hose- pipes.

26.4.3 First-aid firefighting appliances shall be provided and installed in accordance relevant Indian standard. The firefighting equipment and accessories to be installed in buildings for use in firefighting shall also be in accordance with the relevant Indian standard and shall be maintained periodically so as to ensure their perfect serviceability at all times.

26.4.4 Valves in fixed firefighting installations shall have supervisory switch with its signaling to fire alarm panel or to have chain(s), pad lock(s), label and tamper-proof security tag(s) with serial number to prevent tampering/unauthorized operation. These valves shall be kept in their intended ‘open’ position.

26.4.5 In addition to wet riser or down-comer, first- aid hose reels shall be installed in buildings (where required under Table 5 this regulation) on all the floors, in accordance with relevant Indian standard. The first-aid hose reel shall be connected directly to the riser/down-comer main and diameter of the hose reel shall not be less than 19 mm.

26.4.6 Wet risers shall be interconnected at terrace level to form a ring and cut-off shall be provided for each connection to enable repair/ maintenance without affecting rest of the system.

26.4.7 Pressure at the hydraulically remote hydrant and at the highest hydrant shall not be less than 3.5 bar. The pressure at the hydrants shall however not exceed 7.0 bar, considering the safety of operators. It may be planned to provide orifice plates for landing valves to control pressure to desired limit especially at lower levels; this could also be achieved through other suitable means of pressure reducing devices such as pressure-controlled hydrant valves.

26.4.8 Hydrants for firefighting and hose reels shall be located in the lobby in firefighting shaft. Those hydrants planned to be provided near fire exit staircase on the floor shall be within 5 m from exit door in exit access. Such hydrant cabinet may finish with doors to meet interior finishes with requirement of glass panel to provide visibility to the installations inside and inscribed with the word: ‘FIRE HOSE CABINET’ of letter size 75 mm in height and 12 mm in width. Such door of the fire hose cabinet need not be fire resistant rated. The location of such cabinets shall be shown on floor plan and duly displayed in the landing of the respective fire exit staircase.

26.4.9 Static Water Storage Tanks and Pump House

26.4.9.1 Static water storage tanks

26.4.9.1.1 A satisfactory supply of water for the purpose of firefighting shall always be available in the form of underground/terrace level static storage tank with capacity specified for each building with arrangements or replenishment.

26.4.9.1.2 Water for the hydrant services shall be stored in an easily accessible surface/underground lined reservoir or above ground tanks of steel, concrete or masonry. The effective capacity of the reservoir above the top of the pump casing (flooded suction) for various types of occupancies shall be as indicated in Table 5 of this regulation.

26.4.9.1.3 Water for firefighting shall be stored in two or more interconnected compartments of equal size to facilitate cleaning and maintenance of the tanks without interrupting the water availability for firefighting.

26.4.9.1.4 To prevent stagnation of water in the static water storage tank, the suction tank of the domestic water supply shall be fed only through an overflow arrangement from the fire water storage tanks to maintain the level therein at the minimum specified capacity.

26.4.9.1.5 Alternatively, domestic and fire water can be stored in two interconnected compartments as mentioned above. The suction inlet(s) for the domestic water pumps shall be so located at an elevation that minimum water requirements for firefighting as stated in Table 5 of this regulation will be always available for fire pumps.

26.4.9.1.6 The static storage water supply required for the above-mentioned purpose shall entirely be accessible to the fire engines of the local fire service. Suitable number of manholes shall be provided for inspection, repairs, insertion of suction hose, etc. As an alternative to the arrangement of manholes to allow access from the top, suitable arrangement to enable efficient access to the tank by the firemen from the adjoining fire pump room having direct access from the ground level, shall be made. The underground fire water storage tank(s) shall not be more than 7 m in depth from the level having fire brigade draw-out connection, while the draw-out connection shall not be more than 5 m away from the tank wall.

26.4.9.1.7 The static water storage tank shall be provided with a fire brigade collecting head with 4 number 63 mm diameter (2 number 63 mm diameter for pump with capacity 1 400 litre/min) instantaneous male inlets arranged in a valve box at a suitable point at street level. The same shall be connected to the static tank by a suitable fixed galvanized iron pipe not less than 150 mm in diameter to discharge water into the tank when required at the rate of 2 250 litre/min, if tank is in the basement or not approachable for the fire engines.

26.4.9.1.8 Each of the static water storage tanks shall also be provided with a fire brigade draw out collecting head with 63 mm diameter instantaneous male draw out arranged in a valve box at a suitable point at street level. This draw out shall be connected to galvanized iron pipe of 100 mm diameter with foot valve arrangement in the tank.

26.4.9.2 Firefighting pump house

The requirements shall be as given below:

26.4.9.2.1 It is preferable to install the pump house at ground level. Pump house shall be situated so as to be directly accessible from the surrounding ground level.

26.4.9.2.2 Pump house shall be installed not lower than the second basement. When installed in the basement, staircase with direct accessibility (or through enclosed passageway with 120 min fire rating) from the ground, shall be provided. Access to the pump room shall not require to negotiate through other occupancies within the basement.

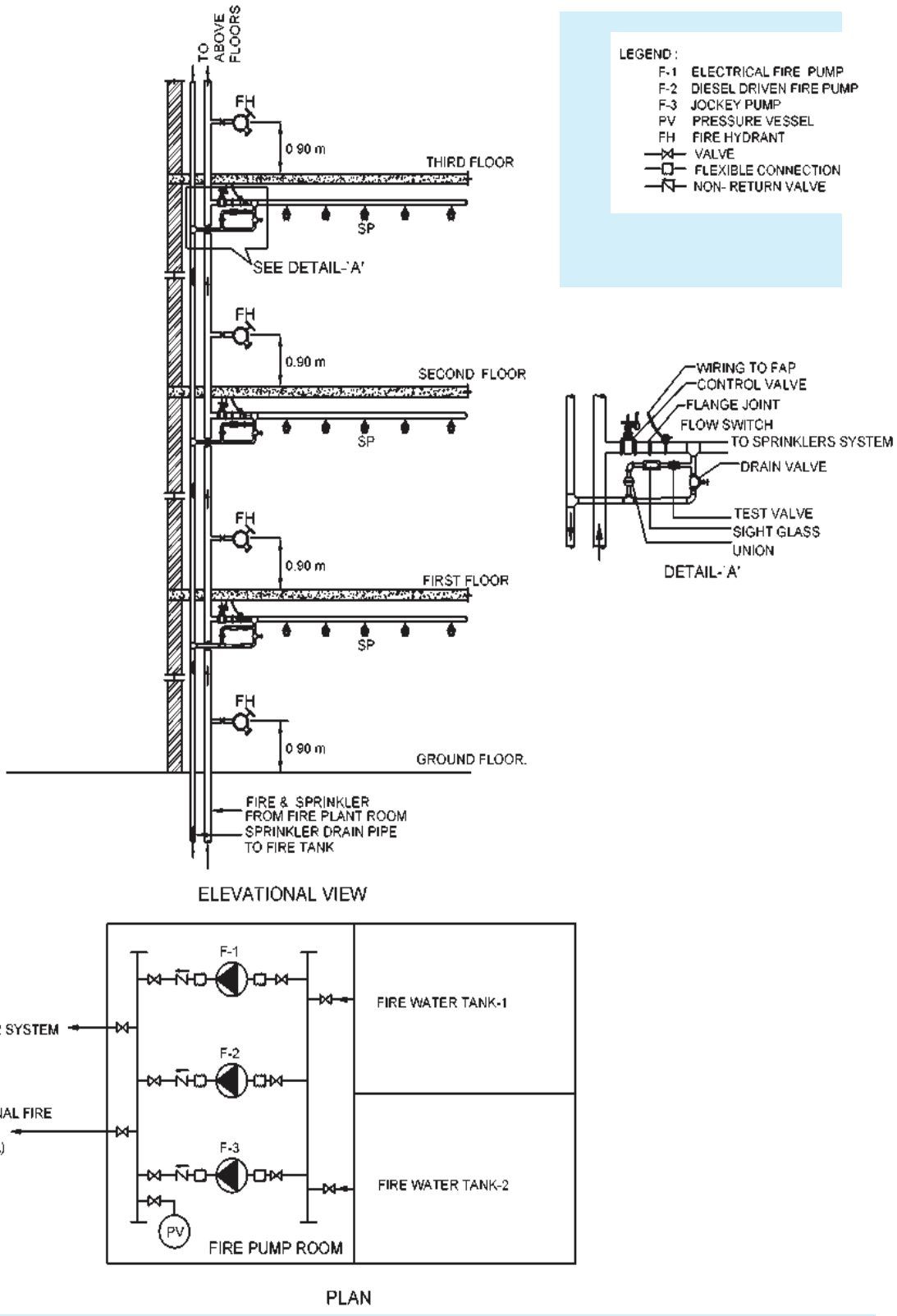



Fig 1: Typical system of Pumping with One Electric, One Diesel Fire Pump

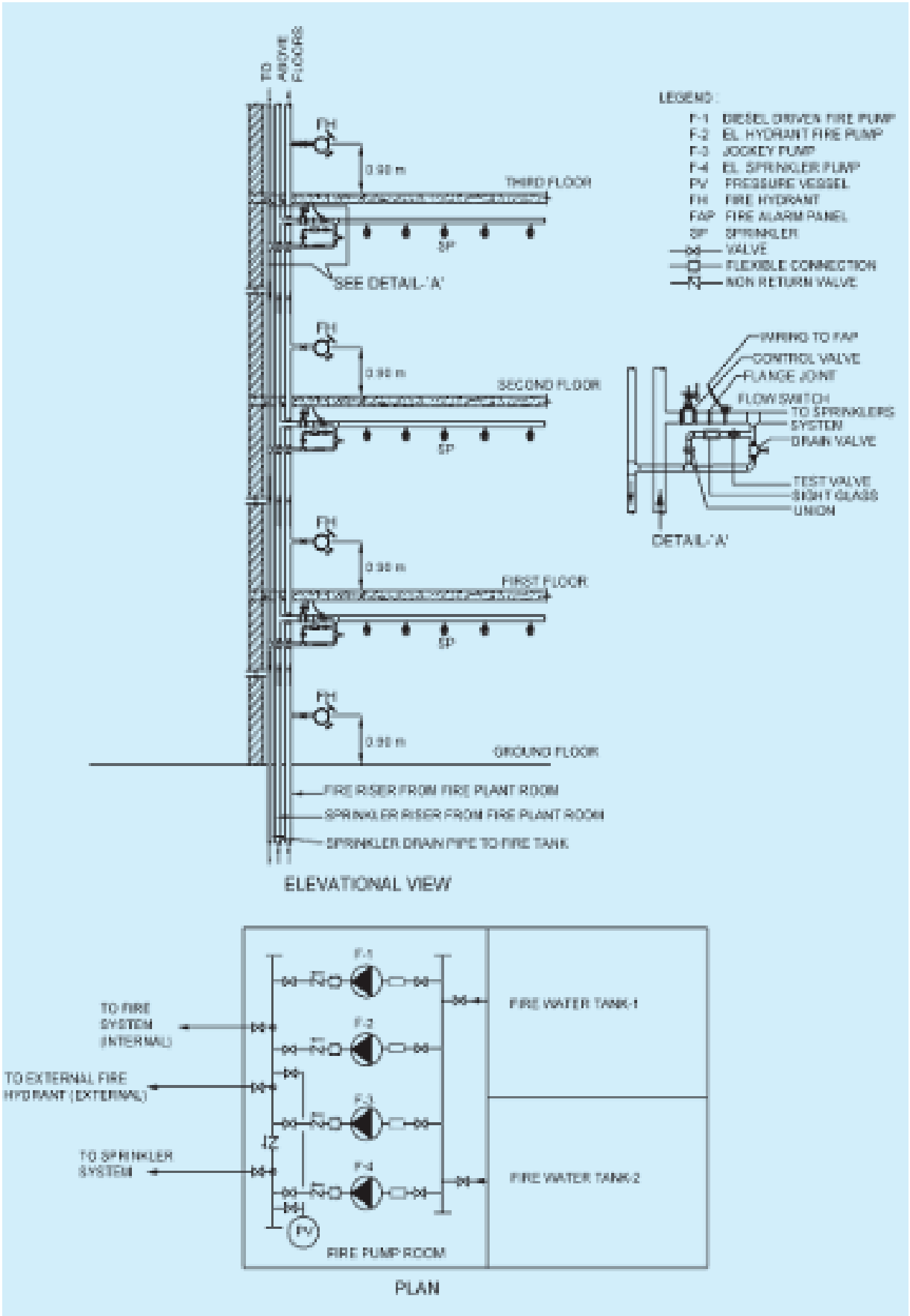



Fig 2: Typical system of Pumping with Two Electric, One Diesel Fire Pump

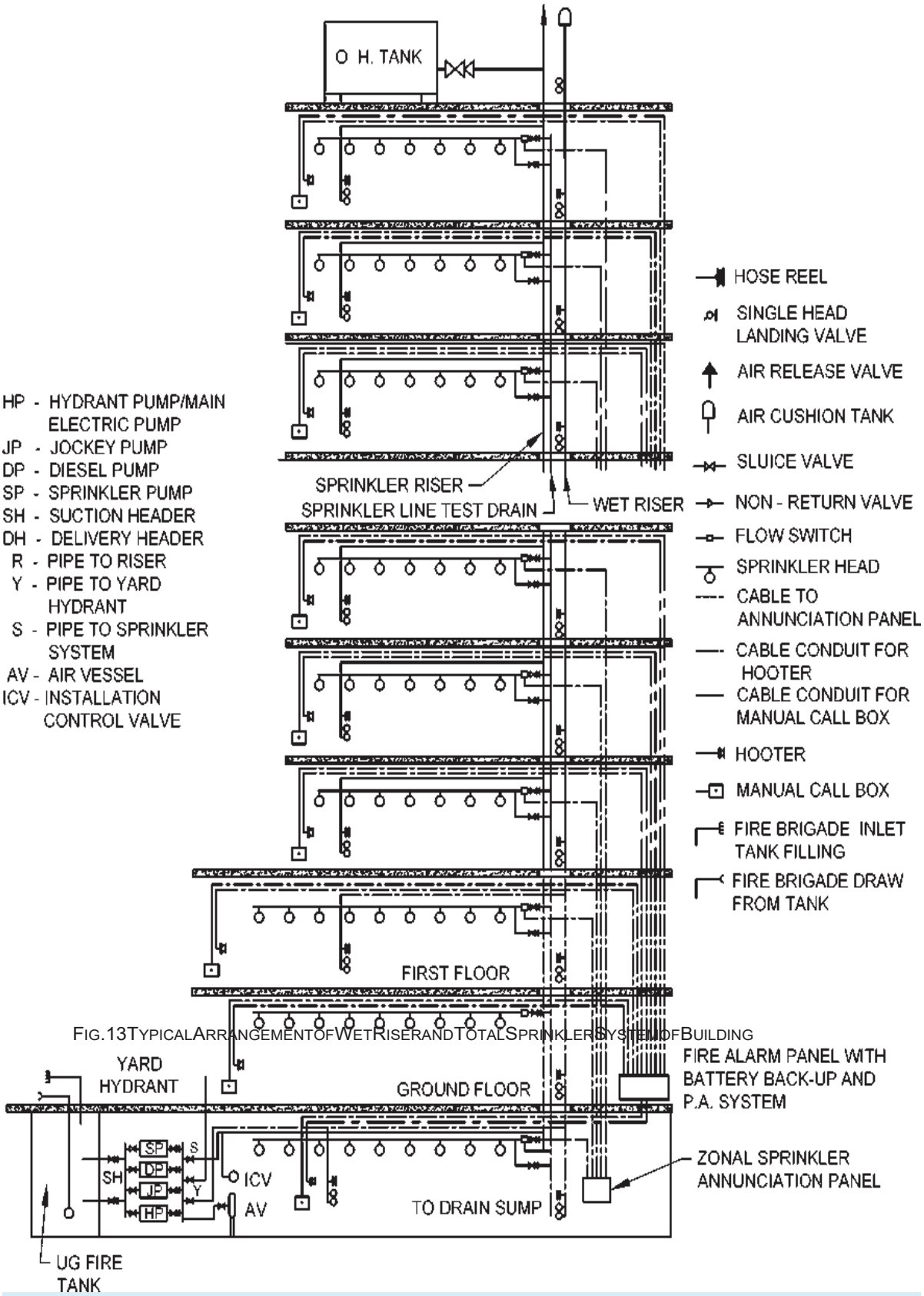



FIG. 13 TYPICAL ARRANGEMENT OF WET RISER AND TOTAL SPRINKLER SYSTEM OF BUILDING

Fig. 3: Typical Arrangement of Wet Riser and Total Sprinkler System of Building.

| Table 4 - Size of Mains | | | |
|---|---|---|---|
| **Sl No.** | **Size of the Mains mm** | **Type of Building** | **Remarks** |
| 1) | 100 mm with single outlet landing valves | **a)** Residential building (A):<br>**b)** Educational buildings (B)<br>**c)** Institutional buildings (C)<br>**d)** Assembly buildings (D)<br>**e)** Business buildings (E)<br>**f)** Mercantile buildings (F)<br>**g)** Industrial buildings (G) | Up to 45 m height<br>—<br>Up to 30 m height<br>Up to 30 m height<br>Up to 45 m height<br>Up to 30 m height<br>Up to 15 m height |
| 2) | 150 mm with single outlet landing valves | **a)** Hotels<br>**b)** Starred hotels<br>**c)** Institutional buildings (C)<br>**d)** Business buildings (E)<br>**e)** Industrial buildings (G)<br>**f)** Storage buildings (H)<br>**g)** Hazardous buildings (J) | Above 45 m height<br>—<br>Above 30 m height<br>Above 45 m height<br>Up to 15 m height<br>Up to 15 m height<br>Up to 15 m height |

Note: Size of mains for Group D & F occupancies above 30m height, shall be provided based on hydraulic calculations and it shall comply with provisions of National Fire Protection Association.

For Group G, H & J occupancy, size of mains shall be provided based on hydraulic calculations (as defined in Table 5) and it shall comply with provisions of National Fire Protection Association.

For Group B & C-1 occupancies, size of mains for building height above 45 m shall be provided based on hydraulic calculations and it shall comply with provisions of National Fire Protection association.

For Group A and E occupancies, size of mains for building height above 45 m shall be provided based on hydraulic calculations and it shall comply with provisions of National Fire Protection association.

26.4.9.2.3 Pump house shall be separated by fire walls all around and doors shall be protected by fire doors (120 min rating).

26.4.9.2.4 Pump house shall be well ventilated and due care shall be taken to avoid water stagnation.

26.4.9.2.5 No other utility equipment shall be installed inside fire pump room.

26.4.9.2.6 Insertions like flexible couplings, bellows, etc, in the suction and delivery piping shall be suitably planned and installed.

26.4.9.2.7 Installation of negative suction arrangement and submersible pumps shall not be allowed.

26.4.9.2.8 Pump house shall be sufficiently large to accommodate all pumps, and their accessories like PRVs, installation control valve, valves, diesel tank and electrical panel.

26.4.9.2.9 Battery of diesel engine operated fire pump shall have separate charger from emergency power supply circuit.

26.4.9.2.10 Exhaust pipe of diesel engine shall be insulated as per best engineering practice and taken to a safe location at ground level, considering the back pressure.

26.4.9.2.11 Fire pumps shall be provided as per the relevant Indian standard with soft starter or variable frequency drive starter.

26.4.9.3 Automatic Sprinkler Installation

The requirements shall be as given below

26.4.9.3.1 Automatic sprinklers shall be installed wherever required as defined in Table 5 throughout the building in accordance with relevant Indian standard (IS 15105).

26.4.9.3.2 If selective sprinklering is adopted, there is a real danger of a fire starting in one of the unsprinklered area gathering momentum spreading to other areas and reaching the sprinklered areas as a fully developed fire. In such an event, the sprinklers can be rendered useless or ineffective.

26.4.9.3.3 Automatic sprinklers shall be installed in false ceiling voids exceeding 800 mm in height.

26.4.9.3.4 Installation of sprinklers may be excluded in any area to be used for substation and DG set.

26.4.9.3.5 In areas having height 17 m or above such as in atria, sprinkler installations may be rendered ineffective and hence may be avoided.

26.4.9.3.6 Pressure in sprinkler system shall not exceed 12 bar or else high-pressure sprinkler to be installed for above 12 bar operations.

26.4.9.3.7 The maximum floor area on any one floor to be protected by sprinklers supplied by any one sprinkler system riser from an installation control valve shall be based on system protection area limitations considering maximum floor area on any one floor to be 9000 m2 for all occupancies except industrial and hazardous occupancies, where Authorities shall be consulted for advice based on type and nature of risk

26.4.9.3.8 Sprinkler installation control valves, shall be installed inside the fire pump room.

26.4.9.3.9 For industrial buildings, such installation control valves may be installed outside the building and Authorities shall be consulted in situations where it is not possible to locate them inside the buildings. It is advisable to provide electrically operated siren for each valve outside the buildings in addition to water gongs in such case.

26.4.9.3.10 The sprinkler flow switches provided shall be monitored by fire alarm panel.

26.4.9.3.11 It is essential to make provisions for avoiding water from sprinkler/ hydrant operation entering lifts and electrical rooms.

26.4.9.3.12 Ramps at all levels shall be protected with sprinklers

26.4.9.4 Firefighting equipment shall be suitably located and clearly marked by luminous signs.

26.5 The fixed firefighting installations and systems shall be maintained in accordance with relevant Indian standard

26.6 The Fire protection systems shall be designed, installed and maintained as per the relevant Indian Standards and amendments issued from time to time. A list of Indian standards is as follow:

| Sr. No. | IS Standard | Detailed Nomenclature / Title |
|---|---|---|
| 1 | IS 8757 | Glossary of terms associated with fire safety (First Revision) |
| 2 | IS 7673 | Glossary of terms for fire fighting equipment (First Revision) |

| Sr. No. | IS Standard | Detailed Nomenclature / Title |
|---|---|---|
| 3 | IS 8758 | Code of practice for fire precautionary measures in construction of temporary structures and pandals (Second Revision) |
| 4 | IS 9668 | Code of practice for provision and maintenance of water supplies for fire fighting |
| 5 | IS 3844 | Code of practice for installation and maintenance of internal fire hydrants and hose reels on premises (First Revision) |
| 6 | IS 12349 | Fire protection — Safety sign |
| 7 | IS 12407 | Graphic symbols for fire protection plans |
| 8 | IS 2189 | Code of practice for selection, installation and maintenance of automatic fire detection and alarm system (Second Revision) |
| 9 | IS 1941 (Part 1) | Functional requirements for electric motor sirens: Part 1 — AC, 3-Phase, 50 Hz, 415 volts type (Second Revision) |
| 10 | IS 15325 | Design and installation of fixed automatic high and medium velocity water spray system — Code of practice |
| 11 | IS 15519 | Water mist fire protection systems — System design, installation and commissioning — Code of Practice |
| 12 | IS 15528 | Gaseous fire extinguishing systems — Carbon dioxide, total flooding and local application (sub-floor and in-cabinet), high and low floor pressure (refrigerated) systems |
| 13 | IS 2190 | Code of practice for selection, installation and maintenance of portable first-aid fire extinguishers (Fourth Revision) |
| 14 | IS 12835 (Part 1) | Design and installation of fixed foam fire extinguishing system — Code of practice: Part 1 — Low expansion foam |
| 15 | IS 13039 | External hydrant systems — Provision and maintenance — Code of practice |
| 16 | IS 15683 | Portable fire extinguishers - Performance and construction |
| 17 | IS 884 | First-Aid Hose Reel for Fire Fighting |
| 18 | IS 15301 | Installation and Maintenance of Fire Fighting Pumps - Code of Practice |
| 19 | IS 5290 | Landing valves |
| 20 | IS 2726 | Code of practice for fire safety of industrial buildings: Cotton ginning and pressing (including cotton seed delintering) factories (First Revision) |
| 21 | IS 3034 | Code of practice for fire safety of industrial buildings: Electrical generating and distributing stations (Second Revision) |
| 22 | IS 3058 | Code of practice for fire safety of industrial buildings: Viscose rayon yarn and/or staple fibre plants (First Revision) |
| 23 | IS 3079 | Code of practice for fire safety of industrial buildings: Cotton textile mills (First Revision) |
| 24 | IS 3594 | Code of practice for fire safety of industrial buildings: General storage and warehousing including cold storage (First Revision) |
| 25 | IS 3595 | Code of practice for fire safety of industrial buildings: Coal pulverizers and associated equipment (First Revision) |
| 26 | IS 3836 | Code of practice for fire safety of industrial buildings: Jute mills (Second Revision) |
| 27 | IS 4209 | Code of safety for chemical laboratories (Second Revision) |
| 28 | IS 4226 | Code of practice for fire safety of industrial buildings: Aluminium/Magnesium powder factories (First Revision) |

| Sr. No. | IS Standard | Detailed Nomenclature / Title |
|---|---|---|
| 29 | IS 4886 | Code of practice for fire safety of industrial buildings: Tea factories (First Revision) |
| 30 | IS 6329 | Code of practice for fire safety of industrial buildings: Saw mills and wood works (First Revision) |
| 31 | IS 9109 | Code of practice for fire safety of industrial buildings: Paint and Varnish factories |
| 32 | IS 11457 (Part 1) | Code of practice for fire safety of chemical industries: Part 1 — Rubber and plastic |

**31.** In the said Regulations, **regulation 29** shall be omitted.

**32.** In the said Regulations, for regulation 31.4, the following new regulation shall be substituted, namely:-

**"31.4** In case of Indian Standard/ BIS code refereed in this regulation, the revised or latest Indian standard/ BIS code for the relevant subject matter shall be followed.

**33.** In the said Regulations, **regulation 32.2** shall be omitted.

**34.** In the said Regulations, for regulation 5.3 and 10, the Annexure 8- – **APPLICATION FEES FOR FSPA, FSCA AND FSCR** shall be substituted with following table, namely:-

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **Residential & Lodging** | Dormitories, Flats, Hostels & Apartment Houses etc. | Flats, Apartment Blocks, Residential Towers, Dormitories, Chawls, Military or Non-military Barracks, PG Accommodation, Hostels of School/ University/ Training Institutes and similar accommodations etc. | 15m and above but not exceeding 35m in height | 1000 | 10 | 1000 | C1R1 |
| | | | Above 35 m but not exceeding 45 m in height | 2500 | 12 | 2500 | C1R2 |
| | | | Above 45 m but not exceeding 60 m in height | 5000 | 15 | 5000 | C1R3 |
| | | | Above 60 m in height but not exceeding 100 m | 7000 | 20 | 7000 | C1R4 |
| | | | Above 100 m in height | 9000 | 30 | 9000 | C1R4.1 |
| | Hotels & Guest Houses etc. (Below5star) | Hotels (Below5star), Motels, Guest Houses, Dharamshala, Resorts and Similar lodging structures and Buildings | Less than15m in height Built up area exceeding 500 $m^2$ but not more than 1000 m2 on any of the floor | 1500 | 15 | 1500 | C1R5 |
| | | | Less than 15m in height Built up area exceeding 1000 $m^2$ on any of the floor | 2500 | 20 | 2500 | C1R6 |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | 15m and above but not exceeding 30m in height | 1000 | 10 | 1000 | C1R7 |
| | | | Above 30 m in Height but not exceeding 100 m in height | 5000 | 30 | 5000 | C1R8 |
| | | | Above 100 m in height | 7000 | 40 | 7000 | C1R8.1 |
| | Hotels (5star or above) | 5 Star and above Hotels and Resorts | All 5 Star and Above Hotels and Resorts | 7000 | 50 | 7000 | C1R9 |
| **Educational Institute (Non-Residential part)** | Schools (Non-Residential) | Primary/Secondary School (Non-Residential), Gurukul (Non-Residential) and similar buildings (residential blocks of such institutions shall be covered under separate appropriate category) | More than 9 m (but less than 15 m) in height irrespective of built up area or Built up area more than 500 $m^2$ on any One or more floors | 1000 | 7 | 1000 | C2ED1 |
| | | | 15 m and above but not exceeding 24 m in height | 2500 | 10 | 2500 | C2ED2 |
| | | | Above 24 m but not exceeding 30 m in height | 5000 | 10 | 5000 | C2ED3 |
| | | | Above 30 m in height but not exceeding 100 m in height | 7000 | 20 | 7000 | C2ED3.1 |
| | | | Above 100 m in height | 9000 | 25 | 9000 | C2ED3.2 |
| | Other Educational and Training Institutions (Non-Residential) | College Building (Non- Residential), University Building Blocks (Non-Residential part) Technical Institutes (Non-Residential part), Polytechnic, ITI etc. (residential blocks | More than 9 m (but less than 15 m) in height irrespective of Built up area or Built up area more than 500 $m^2$ on anyone or more floors | 1000 | 7 | 1000 | C2ED1 |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | of such institutions shall be covered under separate appropriate category) | 15 m and above but not exceeding 24 m in height | 2500 | 10 | 2500 | C2ED2 |
| | | | Above 24 m but notexceeding30 m in height | 5000 | 10 | 5000 | C2ED3 |
| | | | Above 30 m in height but not exceeding 100 m in height | 7000 | 20 | 7000 | C2ED3.1 |
| | | | Above 100 m in height | 9000 | 25 | 9000 | C2ED3.2 |
| **Institutional (Hospital, Correctional Facility, Care Centers etc.)** | Hospitals, Sanatoria & Nursing Homes etc. | Hospital, Nursing Homes, Sanatoria, Wellness Centers, Trauma Centres, Children and Other Specialty Hospitals, ICU Centres etc. (except pure OPD clinics, psychiatric clinics and hospitals etc. which fall under separate categories) | Less than15m in height (ground plus one storey with beds or Built up area more than 500$m^2$ on any one or more floors) | 1000 | 7 | 1000 | C3I1 |
| | | | Less than 15 m in height (Ground plus two or more storey with beds or Built up area more than 500 $m^2$ on anyone or more floors) | 1500 | 8 | 1500 | C3I2 |
| | | | 15 m and above but less than 24 m in height | 2500 | 10 | 2500 | C3I4 |
| | | | Above 24 m and not exceeding 45 m in height | 5000 | 15 | 5000 | C3I5 |
| | | | Above 45 m in height but not exceeding 100 m in height | 7000 | 20 | 7000 | C3I5.1 |
| | | | Above 100 m in height | 9000 | 25 | 9000 | C3I5.2 |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Custodial | Old-Age Homes, Senior Citizen Residences, Orphanages, Convalescent Homes, Correctional Homes etc. | Lessthan10min height and having capacity up to 300 persons | 1000 | 7 | 1000 | C3I6 |
| | | | Lessthan10min height and having capacity more than 300 persons | 1000 | 7 | 1000 | C3I7 |
| | | | 10 m and above but not exceeding 15 m in height | 2500 | 8 | 2500 | C3I8 |
| | | | 15 m and above but not exceeding 24 m in height | 3000 | 10 | 3000 | C3I9 |
| | | | Above 24 m but not exceeding 30 m in height | 5000 | 15 | 5000 | C3I10 |
| | | | Above 30 m in height but not exceeding 100 m in height | 7000 | 20 | 7000 | C3I10.1 |
| | | | Above 100 m in height | 9000 | 25 | 9000 | C3I10.2 |
| | Penal & Mental Facilities etc. | Prisons, Jails, Detention Homes, Juvenile Homes, Mental Hospital, Psychiatric Hospitals etc. | Lessthan10min height and having capacity upto 300 persons | 1000 | 7 | 1000 | C3I6 |
| | | | Lessthan10min height and having capacity more than 300 persons | 1000 | 7 | 1000 | C3I7 |
| | | | 10 m and above but not exceeding 15 m in height | 2500 | 8 | 2500 | C3I8 |
| | | | 15 m and above but not exceeding 24 m in height | 3000 | 10 | 3000 | C3I9 |
| | | | 24 m and above but not exceeding 30 m in height | 5000 | 15 | 5000 | C3I10 |
| | | | Above 30 m in height but not exceeding 100 m in height | 5000 | 15 | 5000 | C3I10 |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | Above 100 m in height | 7000 | 20 | 7000 | C3I10.1 |
| Assembly (Permanent Structures like - Cinema Halls, Party Plot, Stadium, shopping malls, Stations etc.) | Cinema, Multiplexes, Concer Halls, Studios (with audience facility), Auditoriums, Theatres etc. | Cinema, Multiplexes, Concert Halls, Studios (with audience facility), Auditoriums, Theatres, Court Rooms, Lecture Halls, Town Halls etc. | Less than 10m in height (From 50 up to 300 persons) | 1000 | 8 | 1000 | C4A1 |
| | | | Less than 10m in height (more than 300 persons) | 1500 | 9 | 1500 | C4A2 |
| | | | Above 10 m but not exceeding15 m in height, irrespective of capacity | 2500 | 12 | 2500 | C4A3 |
| | | | Above 15 m but not exceeding24 m in height, irrespective of capacity | 3000 | 15 | 3000 | C4A4 |
| | | | Above 24 m but not exceeding 30 m in height irrespective of capacity | 5000 | 20 | 5000 | C4A5 |
| | | | Above 30 m in height but not exceeding 100 m | 7000 | 20 | 7000 | C4A5.1 |
| | | | Above 100 m in height | 9000 | 25 | 9000 | C4A5.2 |
| | Party Plots (indoor), Marriage Halls, Community Centre, Banquet Halls, Court Rooms, Lecture Halls, Town Halls etc. | Party Plots(indoor), Marriage Halls, Community Centre, Banquet Halls, Court Rooms, Lecture Halls, Town Halls etc. | Less than10m in height (from 50 up to 300 persons | 1000 | 8 | 1000 | C4A1 |
| | | | Less than10m in height (more than 300 persons) | 1500 | 9 | 1500 | C4A2 |
| | | | Above 10 m but not exceeding15 m in height, irrespective of capacity | 2500 | 12 | 2500 | C4A3 |
| | | | Above 15m but not exceeding 24 m in height, irrespective of capacity | 3000 | 15 | 3000 | C4A4 |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | Above 24 m but notexceeding30 m in height irrespective of capacity | 5000 | 20 | 5000 | C4A5 |
| | | | Above 30 m in height but not exceeding 100 m | 7000 | 20 | 7000 | C4A5.1 |
| | | | Above 100 m in height | 9000 | 25 | 9000 | C4A5.2 |
| | Religious Structure, Museum, Heritage Monument | Religious Structure, Museum, Heritage Monument | Less than 10m in height (from 50 upto300 persons) | 1000 | 8 | 1000 | C4A1 |
| | | | Less than 10m in height (more than 300 persons) | 1500 | 9 | 1500 | C4A2 |
| | | | Above 10 m but not exceeding 15 m in height, irrespective of capacity | 2500 | 12 | 2500 | C4A3 |
| | | | Above 15 m but not exceeding 24 m in height, irrespective of capacity | 3000 | 15 | 3000 | C4A4 |
| | | | Above 24 m but not exceeding 30 m in height irrespective of capacity | 5000 | 20 | 5000 | C4A5 |
| | | | Above 30 m in height but not exceeding 100 m | 7000 | 20 | 7000 | C4A5.1 |
| | | | Above 100 m in height | 9000 | 25 | 9000 | C4A5.2 |
| | Airport Terminal Buildings, Enclosed Railway Stations, Enclosed Bus | Airport Terminal Buildings, Enclosed Railway Stations, Enclosed Bus Depots, Rapid Mass Transit Terminus, Multi- | Less than10m in height (from 50 up to 300 persons) | 1000 | 8 | 1000 | C4A1 |
| | | | Less than10m in height (more than 300 persons) | 1500 | 9 | 1500 | C4A2 |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Depots, High Speed Rail Stations, Inter-modal Hubs etc. | modal Transport Hub, Maglev or High-Speed Rail Stations, Inter-modal Hubs etc. | Above 10 m but not exceeding 15 m in height, irrespective of capacity | 2500 | 12 | 2500 | C4A3 |
| | | | Above 15 m but not exceeding 24 m in height, irrespective of capacity | 3000 | 15 | 3000 | C4A4 |
| | | | Above 24 m but not exceeding 30 m in height irrespective of capacity | 5000 | 20 | 5000 | C4A5 |
| | | | Above 30 m in height but not exceeding 100 m | 7000 | 20 | 7000 | C4A5.1 |
| | | | Above 100 m in height | 9000 | 25 | 9000 | C4A5.2 |
| | Stadium, Sports Complex, amusement Park, Recreational Center etc. | Stadium, Sports Complex, Amusement Park, Recreational Center etc. | Less than 10m in height (from 50 up to 300 persons) | 1000 | 8 | 1000 | C4A1 |
| | | | Less than 10m in height (more than 300 persons) | 1500 | 9 | 1500 | C4A2 |
| | | | Above 10 m but not exceeding 15 m in height, irrespective of capacity | 2500 | 12 | 2500 | C4A3 |
| | | | Above 15 m but not exceeding 24 m in height, irrespective of capacity | 3000 | 15 | 3000 | C4A4 |
| | | | Above 24 m but not exceeding 30 m in height irrespective of capacity | 5000 | 20 | 5000 | C4A5 |
| | | | Above 30 m in height but not exceeding 100 m | 7000 | 20 | 7000 | C4A5.1 |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | Above 100 m in height | 9000 | 25 | 9000 | C4A5.2 |
| | Shopping Malls etc. | Shopping Malls, Shopping cum Entertainment Complex etc. | Irrespective of Area or Height | 5000 | 25 | 5000 | C4A6 |
| | Metro & Mass Transport Systems | Train/ Metro/ Hyper loop/ Maglev Transport Systems (Underground & Elevated) | Irrespective of Area or Height | 7000 | 25 | 7000 | C4A7 |
| Business & Offices | Offices including Banks, Professional Establishments, Public Offices, Police Stations etc. | Offices including Banks, Professional Establishments, Public Offices, Police Stations etc. | Above 15 m but not exceeding 24 m in height or Built up area more than 500 $m^2$ on any one or more floors | 1000 | 10 | 1000 | C5B1 |
| | | | Above 24 m but not exceeding 30 m in height | 2500 | 15 | 2500 | C5B2 |
| | | | Above 30m in height but not exceeding 100 m | 5000 | 20 | 5000 | C5B3 |
| | | | Above 100 m in height | 7000 | 25 | 7000 | C5B3.1 |
| | Outpatient (OPD) Clinics, Research Establishments, | Outpatient (OPD) Clinics, Research Establishments, Libraries, Laboratories and | Above 15 m but not exceeding 24 m in height or Built up area more | 1000 | 10 | 1000 | C5B1 |
| | Libraries, Laboratories and Test Houses | Test Houses | than 500 $m^2$ on any one or more floors | | | | |
| | | | Above 24 m but not exceeding 30 m in height | 2500 | 15 | 2500 | C5B2 |
| | | | Above 30m in height but not exceeding 100 m | 5000 | 20 | 5000 | C5B3 |
| | | | Above 100 m in height | 7000 | 25 | 7000 | C5B3.1 |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Electronic Data Centres, Computer Installations, IT parks, Call Centers etc. | Electronic Data Processing Centres, Stock Exchanges, IT Parks, Call Centres, etc. | Above 15 m but not exceeding 24 m in height or Built up area more than 500 $m^2$ on any one or more floors | 1000 | 10 | 1000 | C5B1 |
| | | | Above 24 m but not exceeding 30 m in height | 2500 | 15 | 2500 | C5B2 |
| | | | Above 30m in height but not exceeding 100 m | 5000 | 20 | 5000 | C5B3 |
| | | | Above 100 m in height | 7000 | 25 | 7000 | C5B3.1 |
| | Telephone Exchanges etc. | Telephone Exchanges & similar buildings etc. | Above 15 m but not exceeding24 m in height or Built up area more than 500 $m^2$ on any one or more floors | 1000 | 10 | 1000 | C5B1 |
| | | | Above 24 m but not exceeding30 m in height | 2500 | 15 | 2500 | C5B2 |
| | | | Above 30 min height but not exceeding 100 m | 5000 | 20 | 5000 | C5B3 |
| | | | Above 100 m in height | 7000 | 25 | 7000 | C5B3.1 |
| | Broadcasting Stations, TV Stations, Air Traffic Control | Broadcasting Stations, TV Stations, Air Traffic Control etc. and similar buildings | Above 15 m but notexceeding24 m in height or Built up area more than 500 $m^2$ on any one or more floors | 1000 | 10 | 1000 | C5B1 |
| | | | Above 24 m but not exceeding30 m in height | 2500 | 15 | 2500 | C5B2 |
| | | | Above 30m in height but not exceeding 100 m | 5000 | 20 | 5000 | C5B3 |
| | | | Above 100 m in height | 7000 | 25 | 7000 | C5B3.1 |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Mercantile & Shops | Mercantile Buildings including Super Store, Super Market, Department Store, Wholesale Market buildings etc. | Super Store, Super Market, Department Store, Wholesale Market buildings, Large Shopping Complexes (other than shopping malls and large shopping cum entertainment cum eating complexes) etc. | Less than 15 min height (but having either Ground storey + one, having total built up area > 500 $m^2$) | 1000 | 10 | 1000 | C6M1 |
| | | | Above 15 m but not exceeding 24 m in height | 2500 | 12 | 2500 | C6M2 |
| | | | Above 24 m but not exceeding 30 m in height | 5000 | 15 | 5000 | C6M3 |
| | | | Above 30 m in height but not exceeding 100 m | 7000 | 20 | 7000 | C6M3.1 |
| | | | Above 100 m | 9000 | 25 | 9000 | C6M3.2 |
| | Underground Shopping Complex | Underground shopping centres & similar buildings, etc. | Irrespective of area and number of floors | 5000 | 15 | 5000 | C6M4 |
| Industrial Building | Low Hazard (G1) | Refer Annexure F | Built up area more than 500 m2 (for building height above 15 m) | 1000 | 10 | 1000 | C7ID1 |
| | Moderate Hazard (G2) | Refer Annexure F | Built up area more than 500m2 and up to 1000m2 (for height more than 15 m) | 2500 | 12 | 2500 | C7ID2 |
| | | | Built up area more than 1000 m2 | 5000 | 12 | 5000 | C7ID3 |
| | High Hazard (G3) | Refer Annexure F | Built up area up to 50 m2 | 2500 | 12 | 2500 | C7ID4 |
| | | | Built up area more than 50 m2 and up to 150 m2 | 5000 | 12 | 5000 | C7ID5 |
| | | | Built up area more than 150 m2 and up to 300 m2 | 7000 | 15 | 7000 | C7ID6 |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | Built up area more than 300 m2 and up to 500 m2 | 10000 | 15 | 10000 | C7ID7 |
| | | | Built up area more than 500 m2 | 12000 | 15 | 12000 | C7ID8 |
| Storage, Warehouses, Transport Terminal &Parking | Storage, Transport terminal, Warehousing etc. | Godown, Warehouse, Store house, Depot, Cold Storage, Freight Depots, Transit Sheds, Truck Terminals, Marine Terminals, Barns, etc. | Covered area > 250 sq mtrs (for buildings less than 15 mtrs in height and having Ground floor only) | 2500 | 10 | 2500 | C8S1 |
| | | | Covered area > 250 sq mtrs (for buildings less than 15 mtrs in height and having Ground + 1 floor only) | 2500 | 15 | 2500 | C8S2 |
| | | | Covered area > 250 sq mtrs (for buildings less than 15 mtrs in height and having more than Ground +1 floors) | 5000 | 20 | 5000 | C8S3 |
| | | | Above 15 m in height (If permitted under CGDCR 2017 or subsequent amendments) | 7000 | 25 | 7000 | C8S3.1 |
| | Multi-level vehicle parking | Multi-level vehicle parking & similar buildings | All types of Multi-level Vehicle Parking | 5000 | 20 | 5000 | C8S4 |
| Hazardous or Flammable Material Storage & Handling | Hazardous or flammable material Storage and Handling | LPG Cylinder Storage, Hazardous Gas Storage, Flammable Liquid Store, Fireworks warehouse, Explosive Store/Warehouse, Ammunition Depots, | Single Storey building | 5000 | 20 | 5000 | C9H1 |
| | | | More than one Floor building (but should be less than 15 mtrs) | 7000 | 30 | 7000 | C9H2 |
| | | | | | | | |

| Occupancy/ Main Category Type | Occupancy Sub-Type | Common Names/ Terms Used/ Description | Sub-Category for which Fire Safety Certificate is mandatorily required | Application fee for | | | Checklist Form Code |
|---|---|---|---|---|---|---|---|
| | | | | FSPA (in Rs) | FSCA (Rs/$m^2$of Built Up Area) | FSCR (in Rs) | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | Petrol Pump, Gas Station, Storage & Handling of Materials such as Acetylene, Hydrogen, Chlorine, Phosgene, Methyl Oxide, Rocket propellants and similar materials | Above 15 m in height (If permitted under CGDCR 2017 or subsequent amendments) | 9000 | 40 | 9000 | C9H2.1 |
| Mixed Use Occupancies | Mixed Use (Buildings having more than one type of occupancy like-residential, commercial, business or mercantile) | Commercial Centres (Business cum Mercantile), Residential cum Commercial building, Residential cum Business buildings etc. | Buildings above 9 m in height (or above Ground plus two floors)or Built up area more than 500 $m^2$ on any one or more floors | 2500 | 10 | 2500 | C10MX1 |
| | | | Above 15 m but not exceeding24 m in height | 2500 | 10 | 2500 | C10MX2 |
| | | | Above 24 m but not exceeding30 m in height | 5000 | 20 | 5000 | C10MX3 |
| | | | Above 30 m but less than 100 m in height | 5000 | 20 | 5000 | C10MX4 |
| | | | Above 100 m in height | 7000 | 25 | 7000 | C10MX 4.1 |
| Temporary Structures | Tents, Circus, Events, Exhibitions, Religious Gatherings, Political and Social Gatherings, Trade Show, Camps, Shelters etc. | Tents, Circus, Events, Exhibitions, Religious Gatherings, Political and Social Gatherings, Trade Show, Camps, Shelters etc. | | NA | 2,000 (lumpsum) | NA | Annex 10, GFP&L SM-2023 |
| Basement | Basement (In case if basement is not covered in any of the other categories and standalone basement is constructed ) | Basement (In case if basement is not covered in any of the other categories and standalone basement is constructed ) | Buildings with two basements or more, or with one basement of area more than 500 $m^2$ | 2500 | 10 | 2500 | **C11BS1** |

**Table 5 – Fire Protection systems**

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| **RESIDENTIAL BUILDINGS (A)** | | | | | | | | | | | | | |
| | **Dormitories (A-3) and Apartment Houses (A-4)** | | | | | | | | | | | | |
| 1 | 15 m and above but not exceeding 35 m in height | R | R | NR | R | NR | NR | R (see Note 6) | NR | NR | 25000 | NR | 900 |
| 2 | Above 35 m but not exceeding 45 m in height | R | R | R | NR | R | R (see Note 3 and Note 7) | R | NR | 75000 | 5000 | See note 8 | NR |
| 3 | Above 45 m in height but not exceeding 60 m in height | R | R | R | NR | R | R | R | NR | 150000 | 10000 | See note 9 | NR |
| 4 | Above 60 m to 100 M | R | R | R | NR | R | R | R | R | 200000 | 10000 | See Note 10 & Note 11 | NR |
| 5 | Above 100 m** See note no 26 | All Fire protection system shall be installed in accordance with fire protection systems defined above for Above 60 m to 100 m category. Additionally, refer Note 27. | | | | | | | | | | | |
| | **Hotels (A-5)** | | | | | | | | | | | | |
| 1 | Less than 15 m in height | | | | | | | | | | | | |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | (a) Built up area not exceeding 500 m2 on any of the floor | R | R | NR | NR | NR | R<br>See Note 3 | R | NR | NR | 5000<br>(5000)<br>See Note 4 | NR | 900<br>(900)<br>See Note 4 |
| | (b) Built up area exceeding 500 m2 but not more 1000 m2 on any of the floor | R | R | R<br>(see Note 5) | R | NR | R<br>see Note 3 | R | R | 10000 for every 500 m2 Built up area subject to minimum of 50000 (see Note 5) | 10000<br>(5000)<br>see Note 4 | (See Note 14 in case of provision of wet riser | 900<br>(900)<br>see Note 4 |
| | (c) Built up area exceeding 1000 m2 on any of the floor | R | R | R<br>(see Note 15) | NR | R | R | R | R | 100000<br>(see Note 15) | 10000<br>(see Note 4) | (See Note 15 and Note 14) | NR |
| 2 | 15 m and above but not exceeding 30 m | R | R | R | NR | R | R | R | R | 150000 | 20000 | (See Note 09) | NR |
| 3 | Above 30 m in height up to 100 M - | R | R | R | NR | R | R | R | R | 200000 | 20000 | (See Note 09) | NR |
| 4 | Above 100 m<br>See note 27 | All Fire protection system shall be installed in accordance with fire protection systems defined above for Above 100 m category. Additionally, refer Note 27. | | | | | | | | | | | |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 5 | **Hotels (A-6)** | R | R | R | NR | R | R | R | R | 250000 | 20000 | (See Note 10) | NR |
| | **EDUCATIONAL BUILDINGS (B)** | | | | | | | | | | | | |
| 1 | Less than 15 m in height | | | | | | | | | | | | |
| | (i) Ground plus one or more storeys | R | R | NR | NR | NR | R (see Note 3) | NR | NR | NR | 10000 (5000) (see Note 4) | NR | 900 (900) (see Note 4) |
| 2 | 15 m and above but note exceeding 24 m in height | R | R | NR | R | NR | R see Note 3 | R | NR | NR | 25000 | NR | 900 |
| 3 | Above 24 m but not exceeding 30 m in height | R | R | NR | R | R | R see Note 3 | R | NR | 50000 | (5000) (see Note 4) | See Note 12 | NR |
| 4 | Above 30 in heights See note 22 | All Fire protection system shall be installed in accordance with fire protection systems defined above for Above 24 mtr not exceeding 30 m in height. Additionally, refer Note 27 | | | | | | | | | | | |
| | **INSTITUTIONAL BUILDINGS (C)** | | | | | | | | | | | | |
| | **Hospitals, Sanatoria and Nursing Homes (C-1)** | | | | | | | | | | | | |
| 1 | Less than 15 m in height with plot area up to 1000 m2 | | | | | | | | | | | | |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | (i) UP to ground plus one storey with no beds | R | NR | NR | NR | NR | R (see Note 3) | NR | NR | NR | (5000) (see Note 4) | NR | (900) (see Note 4) |
| | (ii) UP to ground plus one storey with beds | R | R | NR | NR | NR | R (see Note 3) | R | NR | NR | (5000) (see Note 4) | NR | (900) (see Note 4) |
| | (iii) Ground plus two or more storeys with no beds | R | R | NR | R | NR | R (see Note 3) | R | R | NR | 10000 (5000) (see Note 4) | NR | 900 (900) (see Note 4) |
| | (iv) Ground plus two or more storeys with beds | R | R | R | NR | NR | R | R (see Note 1) | R | 75000 | 10000 | (See Note 12) | NR |
| 2 | 15 m and above but not exceeding 24 m in height | R | R | R | NR | R | R | R | R | 150000 | 20000 | (See Note 08) | NR |
| 3 | Above 24 m and not exceeding 45 m in height | R | R | R | NR | R | R | R | R | 200000 | 20000 | (See Note 10) | NR |
| 4 | Above 45 m See note 25 | All Fire protection system shall be installed in accordance with fire protection systems defined above for above 45 mtr. Additionally, refer Note 27. | | | | | | | | | | | |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | **Custodial (C-2), and Penal and Mental (C3)** | | | | | | | | | | | | |
| 1 | Less than 10 m in height | | | | | | | | | | | | |
| | (i) Up to 300 Person | R | R | NR | NR | NR | R (see Note 3) | R | NR | NR | 10000 (5000) (see Note 4) | NR | 900 (900) (see Note 4) |
| | (ii) More than 300 Person | R | R | NR | R | NR | R (see Note 3) | R | NR | NR | 15000 (5000) (see Note 4) | NR | 900 (900) (See Note 4) |
| 2 | 10 m and above but not exceeding 15 m in height | R | R | R | NR | R | R (see Note 3) | R | R | 100000 | 5000 (5000) (see Note 4) | (See Note 8) | 900 (900) (see Note 4) |
| 3 | 15 m and above but not exceeding 24 m in height | R | R | R | NR | R | R | R | R | 150000 | 10000 | (See Note 8) | NR |
| 4 | Above 24 m but not exceeding 30 m in height | R | R | R | NR | R | R | R | R | 200000 | 20000 | See note 9 | NR |
| | Above 30 m in height | All Fire protection system shall be installed in accordance with fire protection systems defined above for above 24 m but not exceeding 30 m in height. Additionally, refer Note 27. | | | | | | | | | | | |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | **ASSEMBLY BUILDINGS (D) See Note 14** | | | | | | | | | | | | |
| | **Buildings (D-1 to D-5)** | | | | | | | | | | | | |
| 1 | Less than 10 m in height | | | | | | | | | | | | |
| | (i) Up to 300 Person | R | R | NR | R | NR | R (see Note 3) | R | NR | NR | 20000 (5000) (See Note 4) | NR | 900 (900) (see Note 4) |
| 2 | Above 10 m but not exceeding 15 m in height | R | R | R | NR | NR | R See note 3 | R See note 1 | R | 100000 | 5000 5000 See note 4 | See note 08 | 900 900 See note 4 |
| 3 | Above 15 m but not exceeding 24 m in height | R | R | R | NR | R | R | R | R | 150000 | 10000 | See note 08 | NR |
| 4 | Above 24 m but not exceeding 30 m in height | R | R | R | NR | R | R | R | R | 200000 | 20000 | See note 09 | NR |
| | Above 30 m in height | All Fire protection system shall be installed in accordance with fire protection systems defined above for above 24 m but not exceeding 30 m in height. Additionally, refer Note 27. | | | | | | | | | | | |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 5 | D-6 | R | R | R | NR | R | R | R | R | 200000 | 20000 | See note 11 | NR |
| 6 | D-7 | For Details refer Annexure E | | | | | | | | | | | |
| | BUSINESS BUILDINGS € | | | | | | | | | | | | |
| 1 | Less than 10 m in height | R | R | NR | R | NR | R<br>See note 03 | R | NR | NR | 10000<br>(5000)<br>(see Note 4) | NR | 900<br>(900)<br>(see Note 4) |
| 2 | Above 10 m but not exceeding 15 m in height | R | R | R | NR | NR | R<br>(see Note 3) | R | R | 50000 | 5000<br>(5000)<br>(see Note 4) | see Note 12 | 900<br>(900)<br>(see Note 4) |
| 3 | Above 15 m and up to 24 m in height | R | R | R | NR | R | R | R | R | 100000 | 10000 | see Note 08 | NR |
| 4 | Above 24 m and up to 30 m in height | R | R | R | NR | R | R | R | R | 150000 | 20000 | see Note 09 | NR |
| 5 | Above 30 m and up to 100 in height | R | R | R | NR | R | R | R | R | 150000 | 20000 | see Note 10 | NR |
| 6 | **Above 100 m**<br>See note 26 | All Fire protection system shall be installed in accordance with fire protection systems defined above for Above 100 m. Additionally, refer Note 27. | | | | | | | | | | | |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | **MERCANTILE BUILDINGS (F) See 14** | | | | | | | | | | | | |
| | **F-1 AND F-2 (see Note 16)** | | | | | | | | | | | | |
| 1 | Less than 15 m in height | | | | | | | | | | | | |
| | (i) Ground plus one storeys, with total built up area not exceeding 500 m2 | R | R | NR | NR | NR | R See note 3 | NR | NR | NR | 5000 (5000) (see Note 4) | NR | 900 (900) (see Note 4) |
| | (ii) Ground plus one storeys and total built up area exceeding 500 m2 | R | R | NR | R | NR | R See note 3 | R | NR | NR | 25000 (5000) (see Note 4) | NR | 900 (900) (see Note 4) |
| | (iii) More than groud plus one | R | R | NR | R | NR | R See note 4 | | NR | NR | 25000 (5000) (see Note 4) | NR | 900 (900) (see Note 4) |
| 2 | Above 15 m but not exceeding 24 m in height | R | R | R | NR | R | R | R | R | 100000 | 10000 | See note 08 | NR |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 3 | Above 24 m but not exceeding 30 m in height | R | R | R | NR | R | R | R | R | 200000 | 20000 | See note 09 | NR |
| | Above 30 m in height | All Fire protection system shall be installed in accordance with fire protection systems defined above for above 24 m but not exceeding 30 m in height. Additionally, refer Note 27. | | | | | | | | | | | |
| 4 | **Underground Shopping complex (F-3)** | R | R | R | NR | R | R | R | R | 150000 | 10000 | See note 09 | NR |
| | **INDUSTRIAL BUILDINGS (G)** | | | | | | | | | | | | |
| 1 | **Low Hazard (G-1) (See Note 29, 29(a), 32)** | | | | | | | | | | | | |
| | Built up area up to 100 m2 | R | NR | NR | NR | NR | R (see Note 3) | NR | NR | NR | 5000 (See Note 4) | NR | 450 (See Note 4) |
| | Built up area more than 100 m2 and up to 500 m2 | R | R | NR | R (Note 6) | NR | R (see Note 3) | NR | NR | NR | 20000 (5000) (See Note 4) | NR | 450 (450) (See Note 4) |
| | Built up area more than 500 m2 (for building height up to 15 m) | R | R | NR | R | NR | R (see Note 3) | R | NR | NR | 20000 (5000) (See Note 4) | NR | 450 (450) (See Note 4) |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | Built up area more than 500 m2 (for building height above 15 m) | R | R | R | NR | R | R (see Note 3) | R | R | 75000 | 5000 (See Note 4) | (See Note 12) | NR |
| 2 | **Moderate Hazard (G2) (See Note 29, 29 (a), 32)** | | | | | | | | | | | | |
| | Built up area up to 100m2 | R | R | NR | NR | NR | R | NR | NR | NR | 10 000 | NR | 450 |
| | Built up area more than 100m2 and up to 500m2 | R | R | NR | NR | NR | R | NR | NR | NR | 20 000 | NR | 900 |
| | Built up area more than 500m2 and up to 1000m2 (for height up to 15 m) | R | R | NR | R | NR | R | R | R | NR | 50 000 | NR | 900 |
| | Built up area more than 500m2 and up to 1000m2 (for height more than 15 m) | R | R | R | NR | R | R | R | R | 100 000 | 10 000 | (see Note 8) | NR |
| | Built up area more than 1000 m2 | R | R | R | NR | R | R | R | R | 150 000 | 20 000 | (see Note 7) | NR |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 3 | **High Hazard (G3) (See Note 30 & 30 (a))** | | | | | | | | | | | | |
| | Built up area up to 50 m2 | R | R | NR | NR | NR | R | NR | NR | NR | 10 000 | NR | 900 |
| | Built up area more than 50 m2 and up to 150 m2 | R | R | NR | NR | NR | R | R | R | NR | 25 000 | NR | 900 |
| | Built up area more than 150 m2 and up to 300 m2 | R | R | R | NR | NR | R | R | R | 50 000 | 10 000 | (see Note 8) | NR |
| | Built up area more than 300 m2 and up to 500 m2 | R | R | R | NR | R | R | R | R | 100 000 | 20 000 | (see Note 6) | NR |
| | Built up area more than 500 m2 | R | R | R | NR | R | R | R | R | 150 000 | 20 000 | (see Note 7) | NR |
| | **STORAGE BUILDINGS (H)** | | | | | | | | | | | | |
| 1 | Below 15 m in height and covered area less than 250 m2 | R | R | NR | NR | NR | R | NR | NR | 25000 | NR | NR | 900 |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 2 | Below 15 m in height and covered area more than 250 m2 | | | | | | | | | | | | |
| | (i) Ground floor only | R | R | R | NR | R | R | R | R | 50000 | | (see Note 12) | |
| | (ii) Ground plus one floor | R | R | R | NR | R | R | R | R | 75000 | | (see Note 08) | |
| | (iii) More than ground plus one floor | R | R | R | NR | R | R | R | R | 100000 | | (see Note 08) | |
| 3 | Above 15 m in height | All Fire protection system shall be installed in accordance with fire protection systems defined above for below 15 mtr in height. Additionally, refer Note 27. | | | | | | | | | | | |
| 4 | Multi-Level car parking (MLCP) - Up to 45 m to be permitted. | R | R | R | NR | R | R | R | NR | 150000 | 10000 | See note 09 | 900 |
| | | | | | | | | | | | | | |
| | **HAZARDOUS BUILDINGS (J) (see note 20)** | | | | | | | | | | | | |
| 1 | UP to 15 m in height | | | | | | | | | | | | |
| | (i) Single storey building | R | R | R | NR | R | R | R | R | Minimum 240 min fire fighting requirements | NR | see Note 16 | NR |

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | (ii) More than one floor building but not exceeding 15 m | R | R | R | NR | R | R | R | R | Minimum 240 min fire fighting requirements | 50000 | see Note 16 | 900 |
| | Above 15 mtr in height | All Fire protection system shall be installed in accordance with fire protection systems defined above for below 15 mtr in height. Additionally, refer Note 27. | | | | | | | | | | | |
| | **MIXED USE OCCUPANCY (K)** | | | | | | | | | | | | |
| 1 | **Mixed Use Occupancy** | In case of mixed occupancy, in so far as fire protection is concerned, all the occupancies/the entire building shall be governed by the most restrictive provisions of the GFP&LSM Regulations 2023 and subsequent amendments, among those applicable for individual occupancies. | | | | | | | | | | | |
| | **BASEMENT** | | | | | | | | | | | | |
| | Buildings with two basements or more, or with one basement of area more than 500 m² | R | R | R | R | R | R | R | R | R (See Note 31) | NR | R (See Note 31) | NR |
| | | All Fire protection system shall be installed as defined in relevant Indian standard. | | | | | | | | | | | |

1) MOEFA System shall also include talk-back system and public address system for the occupancies given in the table for (d) (1) (iii) under A-5, (a) (1) (iv) and (a) (2) under C-1,and (a) (2) under D-1 to D-5,in all buildings 15 m and above in height, except for A-3 and A-4 occupancies where these shall be provided for buildings of height 24 m and above. These shall also be provided in car parking areas more than 300 m2 and in multi-Level car parking irrespective of their areas.

2) Automatic detection and alarm system is not required to be provided in car parking area. Such detection system shall however be required in other areas of car parking such as electrical rooms, cabins and other areas.

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |

3) Required to be provided if basement area exceeds 200 m2..

4) Additional value given in parenthesis shall be added if basement area exceeds 200 m2

5) Required to be provided for buildings with more than two storeys (Ground + One).

6) Required to be provided for building with height above 15 m and above.

7) Sprinklers shall be fed water from both underground static water storage tank and terrace tank.

8) Provide required number of sets of pumps each consisting of one electric and one diesel pump (stand by) of capacity 2 280 litre/min and one electric pump of capacity 180 litre/min (see Fig. 11) (see also notes 17 and 18).

09) Provide required number of sets of pumps each consisting of two electric and one diesel pump (stand by) of capacity 2 280 litre/min and two electric pump of capacity 180 litre/min (see Fig. 12) (see also notes 17 and 18).

10) Provide required number of sets of pumps each consisting of two electric and one diesel pump (stand by) of capacity 2 850 litre/min and two electric pump of capacity 180 litre/min (see Fig. 12) (see also notes 17 and 18).

11) Lower levels in high rise buildings 60 m or above in height are likely to experience high pressure and therefore, it is recommended to consider multi-stage, multi-outlet pumps (creating pressure zones) or variable frequency drive pumps or any other equivalent arrangement.

12) Provide required number of sets of pumps each consisting of one electric and one diesel pump (stand by) of capacity 1 620 litre/min and one electric pump of capacity 180 litre/min (see Fig. 11) (see also Notes 22 and 23

13) Required to be provided for buildings with more than one storey.

14) Buildings above 30 m in height may be permitted for Group D and Group F occupancies, provided it complies or is in consonance with the parameters laid down from time to time by National Fire Protection Association (USA) in respect of such occupancies.

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |

15) Buildings above 15 m in height may be permitted for Group j occupancies, provided it complies or is in consonance with the parameters laid down from time to time by National Fire Protection Association (USA) in respect of such occupancies. However, buildings above 45 m in height shall not be permitted for multi-level car parking (MLCP) occupancy.

16) Pump capacity shall be based on the covered area of the building.

17) One set of pumps shall be provided for each 100 hydrants or part thereof, with a maximum of two sets. In case of more than one pump set installation, both pump sets shall be interconnected at their delivery headers.

18) Alternative to provisions of additional set of pumps, the objective can be met by providing additional diesel pump of the same capacity and doubling the water tank capacity as required for one set of pumps.

19) As per the requirement of local authority dry riser may be used in hilly areas, industrial areas or as required.

20) Sprinkler shall be fed water from both underground static water storage tank and terrace tank when both are prescribed in table.

21) Entire building (s) i.e., Common areas as well as Liveable area within shall be protected as per the relevant Indian standard for automatic sprinkler system

22) Only the building meant for educational purpose for higher secondary education and above and like may be permitted above 30 m, provided it complies or is in consonance with the parameters laid down from time to time by National Fire Protection Association (USA) in respect of such occupancies

23) Consider Fire protection for only for amenities/facilities such as parking, or any other relevant setup.

24) Building above 45 m in height may be permitted for Group C-1 occupancies, provided it complies or, is in consonance with the parameters laid down from time to time by the National Fire protection Association (U.S.A) in respect of such occupancy

25) All critical unit shall be placed below 30 m.

26) Refer the case to STC committee for further review and recommendation.

| Sr. No. | Type of Building Occupancy | Type of Installation | | | | | | | | Water Supply (litre) | | Pump Capacity (litre/min) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fire Extinguisher | First Aid Hose Reel | Wet Riser | Down Comer | Yard Hydrant | Automatic Sprinkler System | Manually Operated Electronic Fire Alarm Systems (see Note 1) | Automatic Detection and Alarm System (see Note 2) | Under-ground Static Water Storage Tank Combined Capacity for Wet Riser, Yard Hydrant and Sprinklers per Set of Pumps | Terrace Tank over Respective Tower Terrace | Pump Near Underground Static Water Storage Tank (Fire Pump) with minimum Pressure of 3.5 kg/cm² at Remotest Location | At the Terrace Tank Level with minimum Pressure of 3.5 kg/cm² |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |

27) Based on hydraulic calculations, Fire pump set and water storage capacity to be provided as per the compliance of National Fire Protection Association and other recommendations.

28) Electrical MV main distribution panel and lift panels shall be provided with CO2/inert gas flooding system for all panel compartments with a cylinder located beside the panel.

29) Buildings/Plants above 15 m in height are not permitted for factories/industries mentioned in G-1 & G-2 category but where nature of process within the Plants demand heights beyond 15 m (for example, where there are tall machinery, vessels, columns, reactors, etc are involved) increase in heights can be allowed. Non-industrial occupancies within the complex but beyond operational area such as offices and the like shall comply with respective provisions in these regulations according to the occupancy.

29(a) Entire occupancy shall be protected by hydrant, sprinkler, water spray, water mist, clean agent, foam system, fire and gas detection & alarm systems, etc. as applicable in accordance with the current versions of IS 13039, IS 15105, IS 15325, IS 15519, IS 12385, IS 15693, IS 2189, IS 15908, etc. in all respects that include design and installation of pumps, pipelines, etc.

30) Buildings/Plants above 15 m in height are not permitted for factories/industries mentioned in G-3 but where nature of process within the Plants demand heights beyond 15 m (for example, where there are tall machinery, vessels, columns, reactors, etc are involved) increase in heights can be allowed. Non-industrial occupancies within the complex but beyond operational area such as offices and the like shall comply with respective provisions in these regulations according to the occupancy.

30(a) Entire occupancy shall be protected by hydrant, sprinkler, water spray, water mist, clean agent, foam system, fire and gas detection & alarm systems, etc. as applicable in accordance with the current versions of IS 13039, IS 15105, IS 15325, IS 15519, IS 12385, IS 15693, IS 2189, IS 15908, etc. in all respects that include design and installation of pumps, pipelines, etc.

Further, In case of high hazard industries-A and high hazard industries-B like Petrochemical industries, Refineries and the like, compliance with the requirements of other agencies like Oil Industry Safety Directorate (OISD), Petroleum and Explosives Safety Organization (PESO), Petroleum and Natural Gas Regulatory Board (PNGRB), Oil Mines Regulations (OMR), Central Electricity Authority (CEA) shall be necessary in addition to those defined table above. The higher degree of protection provisions to be adopted.

31) Provide required pump sets based on the requirements as specified in IS 13039 and IS 3844.

32) For Buildings/Plants in G-1 & G-2 category, shared/common fire-fighting infrastructure such as fire hydrants, water tanks, etc can be considered provided the most restrictive provisions of the GFP&LSM Regulations 2023 and subsequent amendments, among those applicable for individual occupancies of G-1 & G-2.

**35.** In the said Regulations, **regulation 9.2, the Annexure 7 – CHECKLISTS TO BE ATTACHED WITH APPLICATION FORMS, shall be substituted with following table** namely:-

**ANNEXURE7**

**CHECKLISTS TO BE ATTACHED WITH APPLICATION FORMS**

*(see regulation No.9.2)*

| | Checklists to be attached with application for- | ANNEXURE Nos. |
|---|---|---|
| **A** | Fire Safety Plan Approval (FSPA) | 7.1 to 7.71 |
| **B** | Fire Safety Certificate Approval (FSCA) | 7.72 to 7.142 |
| **C** | Fire Safety Certificate Renewal (FSCR) | 7.143 to7.213 |
| **D** | Fire Safety Certificate Renewal (FSCRe) for existing buildings/premises having FSCA issued before this Regulation | *7.214 to 7.258* |

**NOTE**

1. Total of 258 checklists each for different category of occupancies of the building / premises is uploaded on the web portal*https://gujfiresafetycop.in*.
2. Contents of checklist in the web portal https*://gujfiresafetycop.in* shall be treated as final.
3. Item No. A, B and C of each of the 258 checklists being same hence not repeated in all the checklists.

**36.** In the said Regulations, **regulation 8.5, the Annexure 11 – CHECKLIST FOR MOCK FIRE AND EMERGENCY DRILL shall be substituted with following Annexure** namely:-

**ANNEXURE11**

*(See Regulation 8.5)*

**CHECKLIST FOR MOCK FIRE AND EMERGENCY DRILL**

| **Mock Fire and Emergency Drill Activities** | | | | | **Timeline** |
|---|---|---|---|---|---|
| **Sr. No.** | **Description** | **Details cum Compliance** | **FSO Remarks (if any)** | **Instructions for FSO** | |
| **A. Mock Fire and Emergency Drill Preparation** | | | | | **T1(Atleast5 minutes)** |
| **A1** | **Building details** | | | | To be taken from FSCoP system |
| A1.1 | Name of the premise/ building | | | | |
| A1.2 | Address of the premise/ building | | | | |
| A1.3 | Building Category | | | | |
| A1.4 | Name of Owner/Occupier | | | | |
| A2 | Name of FSO designated for the premises/ building | Mr./Ms./ Mrs. | | | |
| A3 | Drill Date | DD.MM.YYYY | | | To be taken from clock of mobile network or system time and date |
| A4 | Drill/ Building Location | | | | Should be Geo tagged also by system |

| Mock Fire and Emergency Drill Activities | | | | | Timeline |
|---|---|---|---|---|---|
| **Sr. No.** | **Description** | **Details cum Compliance** | **FSO Remarks (if any)** | **Instructions for FSO** | |
| A5 | Drill Scenario (brief description) | atleast200 words | | Describe the scenario of fire accident. For example, a situation of electrical short circuit and sub sequent fire or accidental fire due to oil spill and so on - including type of fire and its potential spread and so on. | |
| A6 | Name of Drill Initiator | Mr./Ms./ Mrs. | | Drill initiator is a person who will see the fire accident and call to the concerns for further actions and initiate the drill | |
| A7 | Names of Drill Observers | | | Drill observers will observe the various activities of drill and drill observer can be FSO, Fire officer from local/ private fire brigade, fire officer of same premises, member of premises/ area, fire professional, etc.) | |
| A7.1 | Name of observer for drill- 1 | Mr./Ms./ Mrs. | | To observe activities for Firefighting / rescue / casualty shifting / head count/fire staff activities/ ambulance activity/action by security & safety dept. etc. | |
| A7.1.1 | Contact Details | mobile number | | | |
| A7.2 | Name of observer for drill- 2 | Mr./Ms./ Mrs. | | To observe activities for public movement and evacuation activities | |
| A7.2.1 | Contact Details | mobile number | | | |
| A7.3 | Name of observer for drill-3 | Mr./Ms./ Mrs. | | To observe activities for public movement and evacuation activities | |
| A7.3.1 | Contact Details | mobile number | | | |
| A8 | Is opening meeting organized to discuss on basic planning about fire drill with key persons of premises/ building? | **Yes/No** | | Opening meeting shall be organized by FSO to communicate effectively about fire drill and evacuation procedure to key members of premises/ building so, proper planning can be done for safe and effective drill. | Upload the meeting photograph from phone camera only with geo location and date-time stamping |

| Mock Fire and Emergency Drill Activities | | | | | Timeline |
|---|---|---|---|---|---|
| **Sr. No.** | **Description** | **Details cum Compliance** | **FSO Remarks (if any)** | **Instructions for FSO** | |
| A9 | Is there a proper signage for identification of exits, stairs, floor number and lifts apart from emergency lights, floor plan placed at relevant locations? | **Yes/No** | | Identify at each location required | |
| A10 | Is organization chart for fire drill and evacuation assignment designating employees and their assignments prepared and posted in a conspicuous places at each floor in premise/ building? | **Yes/No** | | Identify at each location required | Upload the photo of organization chart from phone camera only with geo location and date-time stamping |
| A11 | Is latest approved Fire Safety Plan available with premise/ building and distributed to all tenants/employees/owners of premises? | **Yes/No** | | Identify at each location required | Upload the photo of cover page with date of latest Fire safety plan from phone camera only with geo location and date- time stamping |
| A12 | Are personal fire instruction cards provided to occupants of The premises/ building and were they found with persons who participated in drill? | **Yes/No** | | Identify at each location required | Upload the photo of Fire instruction card to be taken from phone camera only with geo location and date-time stamping |
| A13 | Is there any special arrangement done for persons with physical disabilities at premise/building? Also, updated list of such persons available with command centre? | **Yes/No** | | Identify at each location required | |
| A14 | Is fire warden identification provided with arm band,etc.? | **Yes/No** | | Identify at each location required | Upload the photo of Fire warden with identification to be taken from phone camera only with geo location and date- time stamping |

| Mock Fire and Emergency Drill Activities | | | | | Timeline |
|---|---|---|---|---|---|
| **Sr. No.** | **Description** | **Details cum Compliance** | **FSO Remarks (if any)** | **Instructions for FSO** | |
| **A15** | **Is Assembly point available at premise/ building?** | **Yes/No** | | Identify at each location required | Upload the photo of public gathering at assembly point to be taken from phone camera only with geo location and date-time stamping |
| | If yes, location of assembly point and name | | | | |
| A16 | Mock call to be made by the Drill initiator | **Yes/No** | | Actual drill to start now. | |
| **B. Drill Activation and Participant Mobilization** | | | | | T2 (atleast 45 minutes) |
| B1 | **Are fire extinguishers used in drill and observed effective working?** | **Yes/No** | | | Upload the photo of fire extinguisher operated by drill participants to be taken from phone camera only with geo location and date-time stamping |
| B1.1 | Tag number of fire extinguishers which were operated in drill | Text box | Text box | | |
| B2 | **Are fire hydrant points used in drill and observed effective working?** | **Yes/No/Not Applicable** | Textbox | | Upload the photo of fire hydrant point operated to be taken from phone camera only with geo location and date-time stamping |
| B2.1 | Tag number of fire hydrant(s) which were used in drill | Text box | Text box | | |
| B3 | **Are fire pumps operated and found working effectively?** | **Yes/No/Not Applicable** | Textbox | | Upload the photo of fire main header pressure gauge with pressure to be taken from phone camera only with geo location and date-time stamping |

| Mock Fire and Emergency Drill Activities | | | | | Timeline |
|---|---|---|---|---|---|
| **Sr. No.** | **Description** | **Details cum Compliance** | **FSO Remarks (if any)** | **Instructions for FSO** | |
| B3.1 | Observed main header pressure of pumps | _____number kg/cm2 | Textbox | | |
| B4 | **Is fire water tank/ sump/ reservoir fully filled with water?** | **Yes/No** | | | |
| B4.1 | Availability(in ltrs)of fire water tank/sump / reservoir | _____ltrs | | Mention available level of water in different types of tanks/sumps/reservoir (underground, over ground or terrace) separately in "remarks" if more than one type of tank/sump is there | |
| B5 | **Is basic fire fighting, rescue and evacuation training imparted to occupants before starting of drill?** | **Yes/No** | | | Upload the photo of training attendance sheet with sign of participants to be taken from phone camera only with geo location and date-time stamping |
| B6 | Are surrounding roads to the buildings or premises observed free from obstruction during drill and participants made aware about such surrounding details? | **Yes/No** | | | |
| B7 | **Is sprinkler system operated and observed working effectively? (if applicable)** | **Yes/No/Not Applicable** | | | |
| B7.1 | Is sprinkler head practically operated by fire torch? | **Yes/No** | | | |
| B7.2 | Location of sprinkler head(s)operated | | | | |
| B7.3 | Was sprinkler head replaced after its operation? | **Yes/No** | | Same technical specification sprinkler head shall be used for replacement immediately. | |
| B7.4 | Is sprinkler head's performance/ pressure observed in effective condition? | **Yes/No** | | | Upload the photo of sprinkler operation to be taken from phone camera only with geo location and date-time stamping |

| Mock Fire and Emergency Drill Activities | | | | | Timeline |
|---|---|---|---|---|---|
| **Sr. No.** | **Description** | **Details cum Compliance** | **FSO Remarks (if any)** | **Instructions for FSO** | |
| B7.5 | Is sprinkler pump operated and found effective working? | **Yes/No/Not Applicable** | | | |
| B8 | Is fire alarm and detection system operated and observed working? (if applicable) | **Yes/No/Not Applicable** | | | |
| B8.1 | Is fire detector automatically operated by fire torch or manual call point operated? | **Yes/No** | | | |
| B8.2 | Is fire detector or manual call point re-set done after its operation? | **Yes/No** | | | |
| B9 | Is there any error observed in panel of fire alarm and detection system? | **Yes/No** | | | |
| B10 | Is mock evacuation done in effective and safe manner during drill? | **Yes/No** | | | |
| B11 | Have all respective emergency response members(as per latest approved Fire Safety Plan) responded/ participated in the drill? | **Yes/No** | | Emergency Response members include: Fire Safety Director, Deputy Fire Safety Director, Fire Warden, Deputy Fire Warden, Building Evacuation Supervisor, Fire Party etc.. | |
| **C. Head Count and Debriefing** | | | | | T3(Atleast10 Minutes) |
| C1 | Assemble participants at the assembly point and do head count of the drill participants | number | | | |
| C2 | Is closing meeting organized to discuss on fire drill overall performance and observation/ finding with key persons of premise/ area? | **Yes/No** | | Closing meeting shall be organized by FSO to conclude the drill exercise and communicate the observation/ findings to key persons of premises/ building. Participants to be also be informed regarding other emergency situations (like earthquake, electrocution and preventive and protective and post-event measures) | Upload the meeting photograph to be taken from phone camera only with geo location and date-time stamping |

| Mock Fire and Emergency Drill Activities | | | | | Timeline |
|---|---|---|---|---|---|
| **Sr. No.** | **Description** | **Details cum Compliance** | **FSO Remarks (if any)** | **Instructions for FSO** | |
| **D. Concluding Remarks** | | | | | T4 (Atleast5 Minutes) |
| **Observations and Recommendations** | | | | | |
| **D1** | **Observations(if any)** | | | | |
| | | | | | Copy to be sent to concerned CFO / RFO and applicant / occupier/owner |
| | | | | | |
| | | | | | |
| **D2** | **Recommendations(if any)** | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **D3 Attachments** | | | | | |
| D3.1 | Video of fire drill training(4-5minutes video clip, shot by) | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **E. Mock Fire and Emergency Drill Completion (Timer ends and total mock drill time to be captured in report)** | | | | | T5 (End) |
| E1 | According to you, was the drill successfully completed? | Yes/ No | | (In case of "No") Please enter details of non-successful completion of drill. | |
| **Complete the Drill** | | | | | |
| **Next Fire Drill due Date** | | | | | |
| | **DD.MM.YYYY**<br>(To be displayed as the FSO Clicks submits and to be also notified and reflected to owner/occupier through SMS also, apart from being reflected in their account) | | | | Should be system determined. Every six months - with a window of 30 days - 15 days prior and15 days after due date. Both Building owner/occupier and FSOs should get advance notifications via SMS as well as mail and through app etc. |
| End and Report Generation | | | | | |

**37.** In the said Regulations, **regulation 8.5, the Annexure 12–INSPECTION CHECKLIST FOR FSO, shall be substituted with following Annexure** namely:-

**ANNEXRE 12**

*(See Regulation 8.5)*

**INSPECTION CHECKLIST FOR FSO**

| Sr. No. | Description | Details cum Compliance | FSO Inspection Remarks (if any) | Instructions for FSO |
|---|---|---|---|---|
| **IN1. Fire Inspection Preparation** | | | | |
| IN1.1 | Name of FSO designated for the premises/ building | Mr./Ms./ Mrs. | | |
| IN1.2 | Fire Inspection Date | DD.MM.YYYY | | |
| IN1.3 | Names of Persons who joined with FSO for inspection | | | Persons can be - fire officer of same premises, habitants of building/premises etc, but should not be outsiders |
| IN1.4 | Name of person-1 | Mr./Ms./ Mrs. | | |
| | Contact Details | Mobile number | | |
| IN1.5 | Nameofperson-2 | Mr./Ms./ Mrs. | | |
| | Contact Details | Mobile number | | |
| **IN2. FirePrevention** | | | | |
| IN2.1 | Are surrounding roads of the buildings or premise observed free from obstruction during inspection and occupier made aware about such surrounding details and their significance for fire and emergency operation? | Yes/No | | If "no" then, write in remarks about basic details about such obstruction with exact location and nature of obstruction and the owner/occupier should be instructed to remove the obstruction |
| IN2.2 | Is there any noticeable new construction or expansion of existing construction at building/ premises? | Yes/No | | If "Yes" then, write in remarks about the basic details of new construction, like - location/ dimensions/type of use etc. |
| IN2.3 | Are HVWS / N2 system/ other system(s) for transformers, heating and cooling units etc. working effectively in auto operation condition? | Yes/No/Not Applicable | | Write observation in remarks if any deficiency is found in the systems. Observations like -<br>For HVWS: Water leak in pipelines, deluge valve in manual mode, valves in close conditions, any part found damaged or missing from the system etc..<br>For N2 system: Hydro test due date over for N2 cylinders, any valve in closed condition, N2 cylinder having low weight, any part found damaged or missing from the system, system in manual mode etc.. |

| Sr. No. | Description | Details cum Compliance | FSO Inspection Remarks (if any) | Instructions for FSO |
|---|---|---|---|---|
| IN2.4 | Are Electrical MV main distribution panel (s) and lift panel(s) provided with CO2/inert gas flooding or equivalent fire protection system and working in auto operation condition? | Yes/No/Not applicable | | Enter details in case non-compliance is there |
| IN2.5 | If a generator is there in the premise, is the generator in good operational health? | Yes/No/Not Applicable | | Please check other parameters like- Is fuel level in the generator close to100%andiscoolingwaterlevel in radiator filled with 100 % or healthy levels, engine oil in the engine filled till appropriate level? And is battery is good heal than dif wet type, filled with fullwater? Are emergency inter-connection operations functioning properly? If they are not in proper functional condition, write in remarks about non-compliance of particular point. It is not allowed and filled immediately if level law |
| IN2.6 | Are the ventilation systems, including mechanical ventilation system, AHUs etc. working effectively? | Yes/No/Not applicable | | If "no", then write in remarks about non-compliance of particular point and ensure that necessary repairs/corrections are carried out |
| IN2.7 | Whether a connecting cable from lightning arrestor to ground level earth pit is found healthy (check physical condition layout of cable)or not? Also, Is Lightning arrestor earth pit's periodic inspection did or not (check record)? | Yes/No/Not applicable | | If "no", then write in remarks about non-compliance and ensure that necessary repairs/corrections are carried out |
| **IN3. LifeSafety** | | | | |
| IN3.1 | Are proper signage there for identification of exits, stairs, floor number and lifts apart from emergency lights, floor plan placed at relevant locations and adequate illumination with alternate power supply provided for safe movement of persons towards and through the exits(as applicable as per Fire Safety Certificate)? | Yes/No | | See emergency evacuation floor plan and drawing for actual declared signages in approval opy of fire safety certificate issued by CFO/RFO. If compliance not there, then, write in remarks about location details with missing of signages and immediate compliance should be ensured |
| IN3.2 | Is any exit or staircase or passage (lobby)location observed different at location as mentioned in original drawings at building/ premise? | Yes/No | | See building GA/ floor plan drawing for actual declared EXIT/staircase/passage(lobby)in approval copy of fire safety |

| Sr. No. | Description | Details cum Compliance | FSO Inspection Remarks (if any) | Instructions for FSO |
|---|---|---|---|---|
| | | | | certificate issued by CFO/RFO. If "yes" than, write in remarks about location details which has changes. Instruct for immediate compliance if non-compliance is there |
| IN3.3 | Is any exit, exit door, egress path or stair case or passage(lobby)location found temporarily or permanently closed or obstructed at building/ premises? | Yes/No | | If "yes" than, write in remarks about location details which has changes and details of temporarily or permanently closed or obstructed stairs, doors, egress paths etc.. Instruct for immediate compliance to be passed if non-compliance is there |
| IN3.4 | Are basement(s), if any as per the FSCA, provided with obstruction free approach, has adequate ventilations, sprinklers etc. and no changes have been made in overall fire-safety requirements since the issue of Fire Safety Certificate or last renewal? | Yes/No/ Not applicable | | Enter details in case non-compliance is there |
| **IN4. Fire Protection** | | | | |
| IN4.1 | Are the fire extinguishers, fire alarms and other fire equipment, as applicable, in place in building/premise as declared (quantity and technical specifications, capacity) in the Fire Safety Certificate Approval and they are all in good working condition? | Yes/No | | Check for hydro testing of fire protection equipment wherever applicable, take note of condition of hydrant points, valves, hose reels, pipes, nozzles, fire pumps, voice evacuation system, intercom, fire detectors, MCP system, visual warning systems, auto operation wherever required. Note pressure gauge of fire hydrant system and see if it is appropriate. Hydro test has tobe done once in 5 years for Co2type and once in 3 years for DCP/Foam/ Water type extinguishers. Any issues related to main fire line valve closing, electrical motor problem, diesel engine problem, jockey pump issues, pipeline leakage or choking, water sump empty, pump house suction or delivery valve failure in closed condition etc. should be mentioned in remarks if "no" option is selected |
| IN4.2 | Test sample fire equipment and write their tag numbers or serial numbers with other details | | | Write the tag number of fire pump, fire hydrant / hose reel / monitor, extinguishers, etc. in remarks |

| Sr. No. | Description | Details cum Compliance | FSO Inspection Remarks (if any) | Instructions for FSO |
|---|---|---|---|---|
| IN4.3 | Are all delivery lines, suction line and main header valve of hydrant and sprinkler system in open and working condition? (if applicable) (Except valves of sprinkler testing line and bypass line/circular line at fire pump house) | Yes/No | | If appropriate lines are found closed, they should be opened and the owner/occupier be instructed to keep them open. Write the tag number of valve with reason of closing, if found closed, in remarks |
| IN4.4 | Is sprinkler system, if any as per Fire Safety Certificate, in the building/ premise in healthy condition and pressure gauge showing proper readings? | Yes/No /Not Applicable | | Immediate attention needs to be paid if sprinkler systems have faults. Also check alarm valve/ deluge valve installed in sprinkler system and whether it is kept in auto mode. Check missing sprinkler heads if any and inspect sprinkler pump condition also. Details to be noted in remarks column |
| **IN5. Other Inspection Points** | | | | |
| IN5.1 | Are all electrical points, equipment in good condition, regularly serviced and does the building complies with various requirements of electrical safety as mentioned in GFP&LSM, regulations 2023 and as required by the Central Electricity Authority regulations and their amendments? | Yes/No/Not Applicable | | If "no" then, write in remarks about non-compliance of particular points and direct the owner/occupiers for immediate action. Inspection and service record of the electrical equipment to be checked along the self-certification as required by the Central Electricity Authority regulations. Electrical panels to be checked and should not be found exposed and in hazardous condition |
| IN5.2 | Is organization chart for emergency response and evacuation assignment designating employees and their assignments prepared and posted in a conspicuous place at each floor in premise/ building? | | | If it is not there, FSO to help the owner occupier to get it prepared and keep a sample handy with him or her and provide it to owner occupier in editable soft copy |
| IN5.3 | Is latest approved Fire Safety Plan available with premise/ building and distributed to all tenants/ employees/owners of premises? | | | If it is not there, FSO to help the owner occupier to get it prepared and keep a sample handy with him or her and provide it to owner occupier in editable soft copy |
| IN5.4 | Are building staff / residents, selected as sample, found to be given firefighting training, as per conditions of the Fire Safety Certificate? Were they found conversant in the basic fire safety drills including operation of fire safety instruments like fire extinguishers? | Yes/No | | Basic fire safety training record to be checked and owner/ occupier should be guided how to maintain it. If no such training given till date, one to be organized and details to be entered in remarks |

| Sr. No. | Description | Details cum Compliance | FSO Inspection Remarks (if any) | Instructions for FSO |
|---|---|---|---|---|
| IN5.5 | Was a closing meeting organized to discuss on fire inspection's overall compliance status details, observations and recommendations with key persons of building/ premise? | Yes/No | | Participants to be also be informed regarding other emergency situations (like earthquake, electrocution and preventive and protective and post-event measures) and be given basic demonstration of equipment like fire extinguishers, operation of alarms, valves and so on |
| IN5.6 | Concluding remarks and recommendations | | | |
| **IN6. Attachment(if any)** | | | | |
| | | | | |
| **IN7. Inspection Completion** | | | | |
| **Next Inspection due Date:** | | | | |

**37**. In the said Regulations, **after Annexure 15, the following New Annexure shall be added** namely:-

**ANNEXURE A - ADDITIONAL REQUIREMENTS FOR HIGH RISE BUILDINGS**

**A-1 FIRE PROTECTION**

a) For residential occupancies above 120 m in height and other occupancies above 60 m in height, the sprinklers shall be fed from the main and an alternate/standby riser with suitable isolation valves. The entire sprinkler system shall be designed in accordance with relevant Indian Standard

b) Where the height of the building exceeds 150 m to 175 m, fire water static storage and pumps shall be required to be provided at 160 m to 180 m and thereafter at intermediate floors at higher levels enabling efficient and functional firefighting installations. The static fire water storage tanks located at such levels shall have capacity at minimum half of the storage of underground static water storage tank prescribed in Table 5. Such tanks shall be supplemented with water supplies through one working and one standby pump of capacity 2 850 litre/min with two risers at alternate locations feeding to such fire water static storage tanks. The fire pump's requirement and capacity shall also be derived for occupancy type as per Table 5. substituting the diesel pump with electrical pump. The fire pump room at such level shall have dedicated connectivity through passageway (with 120 min integrity) from the firefighting shaft. Such fire pump room shall have 120 min fire resisting wall and provided with adequate ventilation with talk-back connectivity to the main fire pump room and Fire Command Centre.

c) For high rise buildings, seismic bracings shall be considered for firefighting installations depending on seismic vulnerability of the region and the type of occupancy.

**A-2 HELIPAD**

a) For high rise buildings above 200 m in height, provision for helipad is recommended for specific requirements like landing of fire equipment, and support facilities or other emergencies.

**A-3 Buildings of Height more than 100 meters (From ground level to top floor ceiling height):**

The Fire protection measures shall be provided as defined in Table 5 and as recommended by State Technical Committee (STC) formed under notification NO. GH/V/46 OF 2021/TPS-142020-1100-L.

In addition to the Fire protection measures defined in this chapter, provisions defined in Table 5 shall be applicable wherever mentioned in the said table to ensure compliance as per National Fire Protection Association and other recommendations.

**ANNEXURE B - ATRIUM**

**B-1 ATRIUM REQUIREMENTS**

a) Smoke detectors shall be provided on the underside of each floor protruding into the atrium, at the atrium roof and adjacent to each return air intake from the atrium. Within atrium space, beam type or aspirating type smoke detectors shall be used to ensure detection of smoke, considering factors such as stratification of smoke.

b) Where the ceiling of the atrium is more than 17 m above the floor, water-based protection (automatic sprinklers) at the ceiling of atrium is not required.

c) Hydrants shall be available at the floor of the atrium and also at the adjoining upper spaces/floors of the atrium. Sprinklers are required to be installed for coverage of glass areas of retail, tenant and other areas adjoining the exit access corridor and atrium. Sprinklers shall be at a distance of 450 mm to 600 mm enabling cooling of such glass and limiting the extent of fire and smoke to the atrium (see Fig.4) This provision does not allow similar sprinkler installation arrangement to offset fire compartmentation requirements, in which case fire barrier is required as per relevant provisions of this Part.

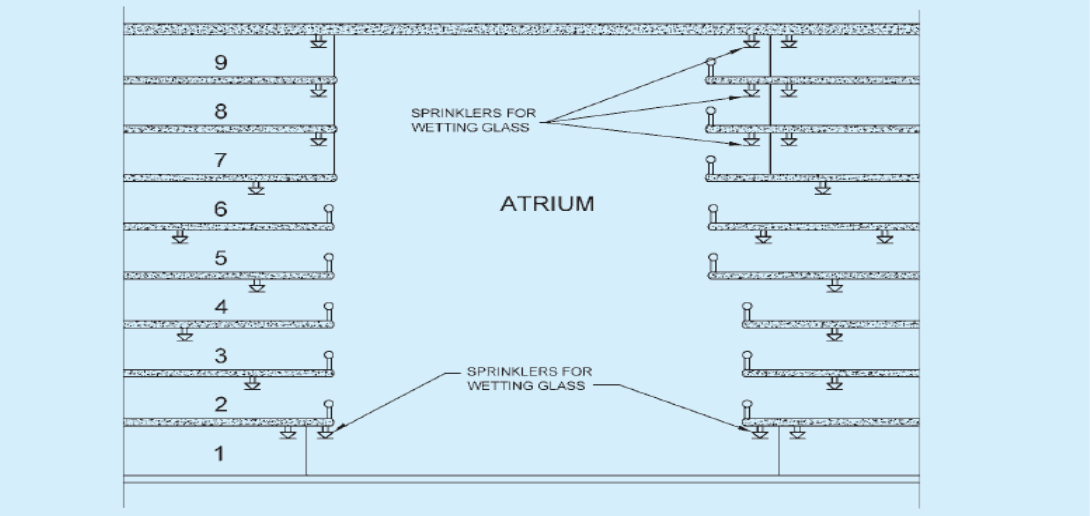



Fig 4: Sprinkler Protection of Glass for Floor open to Atrium

d) Atrium in business occupancy shall be planned with 6 air changes per hour (ACPH) while atrium in hotels and assembly occupancy shall be planned with 8 ACPH smoke extraction system. Such air changes shall be planned in atrium for a height of 15 m from the top.

e) Smoke exhaust fans shall be capable of operating effectively at 250°C for 120 min.

f) Makeup air supply points shall be located beneath the smoke layer and on the lower levels connected by the atrium.

g) Makeup air shall be provided by fans, openings to outside to allow infiltration, or the combination thereof.

h) It is recommended that makeup air be designed at 85 percent to 95 percent of the exhaust flow rate, not including the leakage through these small paths.

i) The makeup air shall not cause door-opening force to exceed allowable limits.

j) The makeup air velocity shall not exceed 1.02 m/s where the makeup air could come into contact with the plume unless a higher makeup air velocity is supported by engineering analysis.

k) Atrium smoke management system fans shall be provided with emergency power.

l) If so required by the Authority, an engineering analysis should be performed which demonstrates that the smoke system for the atrium is designed to keep the smoke layer interface 1 800 mm above the highest occupied floor level of exit access, open to the atrium, for a period equal to 1.5 times the calculated egress time or 20 min, whichever is greater.

## ANNEXURE C - COMMERCIAL KITCHENS

### C-1 TERMS ASSOCIATED WITH COOKING OPERATIONS

a) Types of restaurants/food preparation facilities — Buffet restaurants, cafeterias, coffee shops, entertainment facilities (nightclubs, dinner theatres), and ethnic, fast food, specialty and traditional restaurants, corporate canteens, casinos, educational facilities, schools and universities, hospitals, care homes, mental homes and prisons.

b) Ventilation/grease extraction equipment — Exhaust hoods, grease removal devices, exhaust ductwork, exhaust fans, dampers and other ancillary components or systems that are involved in the capture, containment, and control of grease-laden cooking effluent.

c) Cooking appliances — Ranges, deep fat fryers, microwave ovens, griddles, grills, pressurized fryers, potato chip fryers, woks, broilers, doughnut fryers, barbecue/smokers, ovens, Tandoors, steam kettles, appliances initializing grease and cooking oils, etc.

### C-2 FIRE PROTECTION SYSTEMS

a) A kitchen fire suppression system needs to be installed whenever cooking appliances are using LPG/PNG/oil/electricity and/or dry fuel like wood or charcoal for cooking and/or can ignite the exhaust or fat for cooking and/or can ignite the ventilation system. Cooking equipment that produces grease-laden vapours and that might be a source of ignition of grease in the hood, grease removal device, or duct shall be protected by fire-suppression equipment.

b) The initial fire hazard is the cooking appliance itself. However, once the exhaust ventilation system is involved in fire due to propagation from the appliances, the exhaust system becomes the more severe hazard due to the potential of fire propagation outside the cooking space.

c) The requirement for kitchen fire suppression systems shall be directly linked to measurements that actually represent the risk. Some other contributory factors could be but not necessarily — connected load (kW), area occupied by kitchen equipment, volume of cooking oil and other flammables, inter distances between equipment, cooking media, etc.

d) Grease laden hoods can be ignited by heat penetrating the outside of the kitchen hood. Any penetration to the outside of a hood, shall be either welded or fitted with an approved sealing device so as not to allow cooking grease and oil to migrate to the outer portion of the hood.

e) If sprinkler protection is specified for a building, it needs careful consideration of the likely consequences if certain portion of the building is omitted from the scope of protection, for example, no water should get on the cooking appliances (especially the fryer). Removing this protection from a high hazard area logically requires this area to be protected by a more suitable solution, dedicated to this special hazard.

### C-3 FIRE SEPARATION REQUIREMENTS

a) If the commercial kitchen/cooking is situated in a building that is not sprinkler protected, the floor area of the kitchen/cooking shall not exceed 50 m2.

**C-4 LIFE SAFETY AND EGRESS**: requirements shall be governed by the provision of CGDCR 2017 or latest edition.

### C-5 FIRE SAFETY REQUIREMENTS

C-5.1 General

a) The following equipment must always be kept in working condition:

1. Cooking equipment,
2. Hoods,
3. Exhaust ducts (if provided),
4. Fans,
5. Fire extinguishing systems,

6. Fire detection and alarm system, and

7. Gas leakage detectors (if gas is used as fuel).

8. An automatic fixed suppression system shall be installed to protect all cooking equipment producing grease laden vapors and that might be a source of ignition of grease in the hood, grease removal device.

9. Fire-suppression equipment shall be provided for the protection of grease removal devices, hood exhaust plenums, and exhaust duct systems.

10. All fire suppression systems and components installed shall be in accordance with relevant Indian and/or International Standards.

C-5.2 Protection of Cooking Equipment (General)

a) Cooking equipment shall be protected with the following:

   1. Automatic wet chemical fire suppression system for the protection of hoods (OR) other equivalent approved systems like water mist applications for kitchen fires.

   2. Automatic sprinkler system for non- cooking areas (not in the vicinity of cooking areas or inside hoods).

   3. Exhaust ducts shall be protected by automatic high temperature sprinklers designed as per relevant Indian standard.

b) Due diligence shall be exercised before considering protection with sprinkler/water mist installation particularly for the protection of fryers. No sprinklers shall be provided within 3 m of cooking equipment and kitchen hoods. Area sensitive to sprinklers shall be protected with wet chemical suppression systems or other approved systems for the type of protection. Water mist systems, if approved for use for the type of application (that is, commercial cooking equipment) by fire tests, may also be considered.

c) Kitchen hoods independent suppression systems shall discharge wet chemicals to all areas of a kitchen range extract hood that is potentially coated in grease. The system shall also discharge over deep fat cooking pans or other potential fire source. The system shall be activated by heat detectors located above the appliances/within hoods and in the entrance to exhaust duct. Additional detectors behind equipment in the duct may be necessary. These may be of fusible link type. Extinguishing systems shall also incorporate manually actuating devices which shall be located in easily accessible locations in the means of egress.

   1. The operational sequence shall be as follows: On detection of fire in the hood and upon actuation of fire suppression system, any power or gas supplies serving the kitchen equipment must be cut-off and isolated automatically.

   2. Pressure regulating stations shall be designed and installed at critical locations for excess flow shut off valves.

   3. Seismic shut off valve at the main distribution point shall also be provided.

   4. The exhaust fan shall not stop and continue operating, even after activation of the system. The supply fan shall switch off.

   5. Gas leakage detectors shall be provided in all kitchens that link to a gas solenoid valve for emergency shut off. Suitable gas detection system (based on type of gas used LPG or PNG) integrated with fire detection and alarm system must be provided in addition to heat/multi-criteria detectors and sprinklers.

   6. Manually operating devices shall immediately activate fire suppression system, which in turn shall shut off other systems like fuel supply/power supply, etc. Manual system shall operate mechanically and not rely on electrical power for activation, unless this is from an emergency power source as described in this Code.

7. In the event of the kitchen hood system being activated, an alarm should be sounded. The system must also be interfaced with the fire detection and alarm system.

8. Fire extinguishers in the vicinity of cooking area and the hoods shall be suitable for the type of fire.

C-5.3 Cooking Equipment Exhaust Ventilation

a) Hoods/ducts containing automatic fire suppression systems are protected areas; therefore, these hoods are not considered obstructions to overhead sprinkler systems and shall not require floor coverage underneath thereof.

b) Sprinkler installation shall comply with various provisions contained in relevant Indian standard. The temperature rating of sprinklers shall be so selected that it is 30°C above the anticipated maximum temperature within cooking/kitchen areas. Sprinklers provided inside the exhaust ducts shall be of 141°C temperature.

c) Provision of cleaning of the kitchen exhaust every six months to ensure that the carbon soot accumulated in the exhaust duct is cleaned to avoid the chances of outbreak of fire shall be made.

d) Independent exhaust ducts shall be provided for equipment using dry fuel like wood/ charcoal which produce spark and are likely to ignite the grease which might have accumulated in the common duct. Alternatively, approved spark arrestors may be provided before the duct from equipment using dry fuel meets the main duct. These spark arrestors shall be so provided that these are easily accessible and removable for cleaning.

C-5.4 Cooking Equipment

a) Cooking equipment (such as deep fat fryers, rangers, griddles, and broilers) that may be a source of ignition shall be provided in accordance with the provision of G-5.2(a).

b) The operation of any sprinkler within the kitchen or cooking area shall automatically shut off all sources of fuel and heat to all equipment requiring protection. Any gas appliance not requiring protection but located under ventilating equipment shall also be shut off. All shutdown devices shall be of the type that requires manual resetting prior to fuel or power being restored.

c) An approved indicating valve (flow indicating switch) shall be installed in the water supply line feeding to the sprinklers protecting the cooking and extraction ventilating system.

d) A system test connection shall be provided to verify proper operation of equipment specified in item G-5.2(d)(4).

e) Sprinklers shall be inspected at least twice in a year and cleaned, if found coated with grease and other particles during their use and thus their thermal sensing elements desensitized.

f) Any penetrations to the outside of a hood, be either welded or fit with a sealing device (certified by national/international approval bodies) to not allow cooking grease, oil to migrate to the outer portion of the hood. The fitment arrangements shall be of approved type. Gaskets for the panels shall be certified to withstand a temperature of 815.6°C (1 500°F). Grease strip shall be readily available for efficient and regular cleaning of concrete or paved floors of kitchen and restaurant and also the drainage areas.

g) The hood or that portion of a primary collection means designed for collecting cooking vapours and residues shall be constructed of and be supported by steel not less than 1.09 mm (No. 18 MSG) in thickness or stainless steel not less than 0.94 mm (No. 20 MSG) in thickness or other approved material of equivalent strength and fire and corrosion resistance.

h) All seams, joint, and penetrations of the hood enclosure that direct and capture grease-laden vapours and exhaust gases shall have a liquid tight continuous external weld to the hood’s lower outermost perimeter.

i) Grease filters shall be of steel rigid construction that will not distort or crush under normal operation handling and cleaning conditions. They shall be so arranged that all exhaust air passes through the grease filters. Filters shall be easily accessible and removable for periodic cleaning.

j) Grease filters shall be installed at an angle not less than 45° from the horizontal.

k) Grease filters shall be equipped with a grease drip tray beneath their lower edges and shall have a suitable minimum depth needed to collect grease. The grease drip trays shall be pitched to drain into an enclosed metal container having a capacity not exceeding 3.8 litre.

l) The exhaust ducts shall be constructed of and supported by carbon steel not less than 1.37 mm (No. 16 MSG) in thickness or stainless steel not less than 1.09 mm (No. 18 MSG) in thickness.

C-5.5 Rooftop Terminations — Exhaust Systems

a) The exhaust system shall terminate either outside the building with a fan or duct or through the roof or to the roof from outside with minimum 3 m of horizontal clearance from the outlet to the adjacent buildings, property lines and air intakes.

b) There shall be a minimum of 1.5 m of horizontal clearance from the outlet (fan housing) to any combustible structure.

c) There shall be a vertical separation of 1.0 m below any exhaust outlets for air intakes within 3.0 m of the exhaust outlet.

**ANNEXURE D - CAR PARKING FACILITIES**

D-1 The provisions given in D-2 to D-4 shall apply to parking structures of the closed or open type, within buildings above or below grade.

D-2 GENERAL

a) In addition to fire protection requirements as per Table 5, appropriate fire detection and suppressions systems shall be provided for the protection of hydraulic oil tank and pumps located below ground level for operation of car lifts.

D-3 OPEN PARKING STRUCTURES (INCLUDING MULTI-LEVEL PARKING AND STILT PARKING)

a) All stilt parking is required to be provided with sprinkler system where such buildings are required to be sprinklered.

b) Open car parking (open to sky) within building complex having fire hydrant system shall also need to be protected with yard hydrant installation system in accordance with relevant Indian standards.

D-4 ENCLOSED PARKING STRUCTURES

a) Those car parking structures which are enclosed on all sides and on top, not falling within the definition of open car parking as defined in CGDCR 2017 and subsequent amendment and also those situated in the basements shall be known as enclosed car parking structures.

b) All sprinklers in car parking shall be standard response type with minimum K-Factor of 80, area coverage of 9 m2 and designed as per relevant Indian standard.

c) For basement car parking, compartmentation can be achieved, with fire barrier or with water curtain nozzle (K-23) or with combination thereof. Automatic deluge system comprising deluge valve, piping, nozzles, etc shall be used to zone the compartment in case of water curtain system. In case of water curtain, existing water storage shall be supplemented by water demand for water curtain nozzles for 60 min considering the largest compartment's perimeter out of all compartments of carparking in any of the basements.

d) The water supply for the water curtain nozzles shall be through independent electric pump of adequate capacity (flow and head) with piping/riser for the water supply to the nozzles.

e) The water curtain shall be operated by the actuation of flow switch actuating sprinkler system.

f) All fire exit doors from the car parking to exits shall be painted green and shall display exit signage.

## ANNEXURE E - METRO STATIONS

### E-1 APPLICATION AND SCOPE

The provisions of this annex relate to the buildings constructed as part of the metro stations/metro rail systems.

### E-2 FIRE PROTECTION FACILITIES

The following requirements shall apply to all open and enclosed metro stations above grade.Fire protection facilities for underground stations shall be designed and installed based on engineering design as per relevant Indian standards.

E-2.1 Details of Protection and Facilities Required

E-2.1.1 Pumping Arrangements

a) Each station shall be provided with two pumps having a minimum discharge of 1 620 litre/min with different prime movers. It is possible to provide two electrically driven pumps, if assured back-up power is available for driving the pumps. Jockey pump having a capacity of 180 litre/min shall also be provided to take care of minor system leakages. Electrical wiring for the pumps shall be routed from outside the station buildings in any case (see also E-2.1.9).

E-2.1.2 Extinguishers

a) Water CO2 type, CO2/ABC types, shall be provided in each platform and distributed in such a way that extinguisher is available within a travel distance of 30 m from any point.

b) Water CO2 type, CO2/ABC types, shall be provided in each concourse for every 300 m2 floor area and distributed in such a way that extinguisher is available within a travel distance of 30 m from any point.

c) At least one extinguisher shall be provided for each equipment room and other enclosures for every 300 m2 floor area.

E-2.1.3 Small Bore Hose Reels

a) One hose reel shall be provided for every 1 000 m2 floor area of station platform or part thereof subject to a travel distance of 45 m to the nearest hose reel.

b) One hose reel shall be provided for every 1 000 m2 floor area concourse or part thereof subject to a travel distance of 45 m to the nearest hose reel.

c) If equipment rooms are covered with hose reels for concourse and platform, it is acceptable.

E-2.1.4 Fire Alarm System

a) Provisions of detection system shall be purely based on judgement in metro stations. Detectors are required to be provided only in areas where there are false ceiling(s), false floor(s) and areas for equipment rooms. Wherever there are false ceilings, the detectors shall be provided both above and below false ceiling giving due consideration to depth of false ceiling/flooring. However, in concourse, the detectors below false ceiling may not be effective due to heights/cross ventilation and therefore may not be provided. In other areas, because of high heights and cross-ventilations, detectors will not be effective and hence they can be dispensed. A conventional detection system shall suffice at a normal station.

b) Manual call station(s) shall be provided at central location(s) on each platform (near emergency plunger) and at least two on the concourse, on each sidewall. When the concourse is in two halves, at least one manual call station shall be provided on each side.

E-2.1.5 Clean Agent Suppression System

a) Main panels like HT, LT and main power distribution, DG change over and main supply panels for the station shall be protected with the above system. Suitable detection mechanism shall be provided for triggering the system automatically.

E-2.1.6 Provision of Hydrants and Wet Risers

a) Minimum two hydrants shall be provided at each platform with hose box containing two lengths of hose pipes 15 m each with a nozzle (coverage about 45 m). Location of hydrants shall be staggered for better coverage. The hydrants shall cover the entire length of the platform when two hose pipes are coupled to the landing valves and used. If not fully covered, additional hydrant(s) shall be provided.

b) Minimum two hydrants shall be provided for each concourse with hose box containing two lengths of hose pipes 15 m each with a nozzle subject to travel distance of 30 m to reach the nearest hydrant. Commercial areas, if any, shall also be covered with the provision of hydrants as stated above. If equipment rooms and other areas are covered within 30 m of the hydrants, the same are acceptable.

c) Hydrants shall be provided at each entry to the station at ground and upper levels near staircase. At least one hydrant for parking area shall be provided subject to a travel distance of 30 m to the nearest hydrant.

E-2.1.7 Automatic Sprinkler System

a) Sprinklers are required to be provided only in the commercial areas and any combustible storage area within the station (see also E-2.1.9).

E-2.1.8 Water Requirement

a) For stand-alone metro stations, exclusive water requirement for the fire protection system for the installed pumping capacity as stated in E-2.1.1 shall be at least 50 000 litre.

b) However, when commercial areas are present within metro stations, firefighting facilities shall need augmentation as in E-2.1.9.

E-2.1.9 In case of other type of occupancy like commercial areas inside metro stations and combustible storage area, if any within the station, the pumping/ water requirements shall be provided as per the Table 6.

Water capacity stated in the Table 6 shall be stored in two equal and interconnected compartments. Size of the main header shall not be less than 150 mm in all cases.

Entire fire protection system shall be designed and installed as per the relevant Indian Standards.

Table 6 Water Capacity
(*ClauseE*-2.1.9)

| Sl. No. | Area Occupied by Commercial Occupancies $m^2$ | Hydrant Pump Capacity Litre/min | Sprinkler Pump Capacity Litre/min | Jockey Pumps Litre/min | Common Standby Pump Litre/min | Water Capacity Litre |
|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| i) | Up to and including 300 | 2280 (Common pump) | | 180 | 2280 | 75000 |
| ii) | More than 300 and up to 1 000 | 2 850 (Common pump) | | 180 | 2850 | 100 000 |
| iii) | More than 1 000 | 2 850 | 2 850 | 180 each | 2 850 | 200 000 |

**ANNEXURE F - BROAD CLASSIFICATION OF INDUSTRIAL OCCUPANCIES INTO DIFFERENT DEGREE OF FIRE HAZARD**

| G1-Low Hazard | G2-Moderate Hazard | G3-High Hazard |
|---|---|---|
| Abrasive Manufacturing Premises | Aluminium Factories | **SUB-CATEGORY (A)** |
| Aerated Water Factories | Atta and Cereal Grinding units | Aircraft Hangers units |
| Agarbatti Manufacturing | Auto Components (excluding plastics and foam components manufacturing) | Aluminium/Magnesium Powder Plants |
| Areca nut slicing and/or Betel nut Factories | Bakeries and Biscuit Factories | Auto Components (including Plastics and Foam Components) |
| Analytical and/or Quality Control Laboratories | Beedi Factories | Auto Mobiles and other Motor Vehicles powered by Lithium or Lithium-Ion Batteries manufacturing |
| Athletic Equipment manufacturing | Bobbin Factories | Battery Charging/Battery Service Stations |
| Asbestos Steam Packing and Lagging Manufacturing | Bookbinders, Envelopes and Paper bag Manufacturing | Battery Manufacturing |
| Auto mobiles and other motor vehicles | Cable manufacturing | Bituminized Paper and/or Hessian Cloth/Tar Felt Manufacturing |
| Breweries | Camphor Boiling facilities. | Chemical Store (water reactive) |
| Brick Works | Candle Works | Cotton Waste Factories |
| Canning Factories | Carbon Paper/Typewriter Ribbon Manufacturing | Celluloid Goods Manufacturing |
| Cardamom Factories | Cardboard Box Manufacturing | Chemical Manufacturing using raw materials having flash points below 23 °C |
| Cement Factories and/or Asbestos Products or Concrete Manufacturing | Carpenters, Wood wool and Furniture Manufacturing | Cigarette Filter Manufacturing |
| Ceramic Factories and Crockery and Stoneware Manufacturing Pipe | Carpet and Durries Factories | Diesel Generator Room |
| Clay Works | Cashew nut Factories | Fire-works Manufacturing |
| Clock and Watch Manufacturing | Chemical Manufacturing using raw materials having flash points above 23 °C | Foam Plastics Manufacturing and/or Converting Plants |
| Coffee Curing Roasting and grinding Premises | Chemical Store (non-water reactive) | Godowns and Warehouses (storing combustible/flammable goods) |
| Condensed Milk Factories, Milk Pasteurizing Plant and Dairies | Cinema Films and T.V. Production Studios | Grass, Hay, Fodder and Bhoosa (chaff) Pressing Factories |
| Confectionery Manufacturing | Cigar and Cigarette Factories | Hydrogenation rooms (involving Flammable Hydrogen) |
| Cooling Towers | Coal and/or Coke and/or Charcoal Ball and Briquettes Manufacturing | Industrial Gas Manufacturing (other |
| Electric Generating Houses (Hydroelectric) | Coir Factories | |
| Incandescent and Fluorescent and | Coir Carpets, Rugs, Tobacco, | |

| G1-Low Hazard | G2-Moderate Hazard | G3-High Hazard |
|---|---|---|
| TV Picture Tube Manufacturing | Hides and Skin Presses | than Inert/Halogenated Hydrocarbon Gases) |
| Electro-plating Works | Cold storage premises | Jute mills and jute presses |
| Engineering Workshops | Cold Freezer Room | Linoleum Factories |
| Fruits and Vegetables Dehydrating and Drying Factories | Collieries | Lithium Ion Battery Manufacturing |
| Fruit Products and Condiment Factories | Conveyors | Plants |
| Garages | Cork products manufacturing | LPG Bottling Plants (Mini) |
| Glass and Glass Fibre Manufacturing | Cotton Seed Cleaning or De-linting Factories | Man-made Fibres (Acrylic fibres/yarn manufacturing) |
| Godowns and Warehouses storing non-combustible goods only | Distilleries | Match Factories |
| Green houses | Dry Cleaning, Dyeing an Laundries | Metal or Tin Printers (where more than 50 percent of floor area is occupied as Engineering Workshop; this may be taken as Ordinary Hazard Risk) |
| Gold Thread/Gilding Factories | Duplicating/Stencil Paper Manufacturing | Oil Mills |
| Gum and/or Glue and Gelatine Manufacturing | Electric substations/Distribution stations | Oil Extraction Plants |
| Ice, Ice Candy, and Ice-cream Manufacturing | Electric Generating stations (other than Underground power houses) | Oil Fire Boiler Room/ Oil Quenching |
| Ink (excluding Printing Ink) Factories | Electric Lamps Manufacturing | Tank |
| Mica Products Manufacturing | Electrical Appliances | Oil Terminals/Depots handling |
| Multiple block apartment buildings | Manufacturing | flammable liquids having flash point of 23 °C and below |
| Open Large Atriums | Electrical/Motor Control Centre | Oil Transformer Room |
| Pottery Works | (MCC) Panel Rooms | Paints and Varnish Factories |
| Poultry Farms | Electronic Products | Paint Booths |
| QA/QC Laboratories | Manufacturing | Paint/Varnish Storage |
| Salt Crushing Factories and Refineries | Enamelware Factories | Paper and Cardboard Mills having raw material yards |
| Stables | Filter and Wax paper | Piers, Wharfs and Jetties Handling |
| Sugar Candy Manufacturing | Manufacturing | Extra Hazardous Materials |
| Tanneries/Leather Goods | Flour Mills | Printing Ink Manufacturing. |
| | Food Processing establishments | |
| | Garment Makers | |

| G1-Low Hazard | G2-Moderate Hazard | G3-High Hazard |
|---|---|---|
| Manufacturers<br>Umbrella Assembling Factories<br>Vermicelli Factories<br>Water Treatment/Filtration Plants and Water Pump Houses<br>Zinc/Copper Factories | Ghee Factories (other than vegetable)<br>Godowns and Warehouses (other than those under light and high hazard A categories)<br>Grain and/or Seeds Disintegrating and/or Crushing Factories<br>Grease Manufacturing<br>Hosiery, Lace, Embroidery and Thread Factories<br>Incandescent Gas Mantle Manufacturing<br>Indoor Dry Transformer Room<br>Industrial Gas Manufacturing (Inert/halogenated hydrocarbon gases)<br>Kitchen with any type of fuel (Live cooking)<br>MRI/scanning room<br>Man-made Yarn/Fibre Manufacturing (other than acrylic fibres/yarn Manufacturing)<br>Manure and Fertilizer Works (Blending, Mixing, and granulating)<br>Mattress and Pillow Making<br>Mineral Oil Blending and Processing | Rosin Lamp black and Turpentine Factories<br>Saw Mills<br>Spray painting facilities<br>Server room<br>Surgical Cotton Manufacturing<br>Tanker Loading/Unloading Bay<br>Tarpaulin and Canvas Proofing Factories<br>Turpentine and Rosin Distilleries<br>Tyre Retreading and Resoling Factories<br>Tunnel Protection<br>UPS Room with batteries<br>Battery Room with Lithium-ion Batteries<br>**SUB-CATEGORY (B)**<br>Ammonia and Urea Synthesis Plants<br>Benzene/ Xylene/ Toluene Tanks<br>CNG Compressing and Bottling Plants<br>Coal based methane plants<br>LPG bullets<br>Explosive Factories<br>Oil Storage (above ground)<br>Outdoor Oil Transformer Room |

| G1-Low Hazard | G2-Moderate Hazard | G3-High Hazard |
|---|---|---|
| | Multiple block business buildings<br>Multiple block star hotel<br>Buildings<br>Musical Instruments<br>Manufacturing<br>Network/electrical room<br>Oil and Leather Cloth Factories<br>Oil Terminals/Depots other than those categorized under High hazard A<br>Open storage of flammable liquids in drums, cans, etc<br>Operation Theatre Rooms<br>Optical Goods facilities<br>Oxygen Plants<br>Paper and Cardboard Mills without raw Material Yards<br>Pharmaceuticals<br>Piers, Wharves, Jetties and Dockyards other than those categorized under High hazard A<br>Plastic Goods Manufacturing<br>Plywood/Wood Factories Veneering Factories<br>Printing Press Premises<br>Pulverising and Crushing Mills<br>Rice Mills<br>Rope Works<br>Rubber Goods Manufacturing<br>Rubber Tyres and Tubes Manufacturing | NOTE - In case of complexes having separate plants having varying degrees of hazard, authority having jurisdiction should be consulted to decide on level of protection to be provided. |

| G1-Low Hazard | G2-Moderate Hazard | G3-High Hazard |
|---|---|---|
| | Semiconductors Manufacturing<br>Sulphur Storage<br>Sugar Factories and Refineries<br>Shellac Factories<br>Silk Filatures<br>Soaps and Glycerin Factories<br>Solar Cells and Modules manufacturing<br>Sponge Iron Steel Plants (Gas Based)<br>Starch Factories<br>Tea Factories<br>Textile Mills<br>Tobacco (Chewing) and Pan-Masala Making facilities<br>Tobacco Grinding and Crushing<br>Tobacco Redrying Factories<br>UPS Room without batteries<br>Woollen Mills | |

By order and in the name of the Governor of Gujarat,

**HITESH PATEL,**

Deputy Secretary to Government.

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Government Central Press, Gandhinagar.

Signature Not Verified
Signed by : BHOLUSINGH G THAKUR
Senior Manager
Government Central Press, Gandhinagar
Date : 2026.10.28 20:04:02 IST