Delhi Fire Service

Frequently asked Questions (Industrial Building)

Q-1	Which industries are covered by the Delhi Fire Service Act & Rules ?
Ans	Low and moderate hazard Industries, having total covered area of 250 m^2 or more, are covered under Rule-27 of Delhi Fire Service Rules-2010.
Q.2	What is the minimum width of ROW for industrial plot ?
Ans	9.0 meter for low-rise and 12 meter for high-rise buildings.
Q.3	What is the minimum width of main gate?
Ans	4.5 meter
Q.4	What should be the width of internal road of an industrial unit?
Ans.	Buildings, having the height 15 meter or more, 6.0 meter wide road with 9.0 meter turning circle is required all around the building.
Q5.	What is the minimum requirement of staircase in industrial building and what is the minimum width of staircase?
Ans.	As per the clause 6.7.3.1 of NBC Part – IV minimum two exits are required for every floor or section including basement used for industrial purpose or uses incidental thereto. And the minimum width of staircase shall be 1.5 meter in accordance with clause 4.9.6 of NBC Part-IV. The arrangement of staircases shall be in accordance with clause 4.5 of NBC Part-IV.
Q.6	What is the minimum requirement of travel distance & dead end?
Ans.	As per the clause 4.5.1 of NBC Part-IV the travel distance for industrial occupancy is 45 meter. ***Note: for fully sprinklered building the travel distance may be increased by 50 percent of the above.*** The travel distance to an exit from the dead end of a corridor shall not exceed half of the above cited travel distance (45 m)
Q.7	How the basement shall be made safe from life & fire safety point of view?
Ans.	Staircases, serving from basement to ground, shall be segregated to prevent the means of escape from heat and smoke.
Q.8	How many staircases shall be continuous to terrace?
Ans.	As per clause 4.9.10 (e) main and external staircases shall be continuous from ground to terrace level.
Q.9	How the ramps shall be provided in the industrial building?
Ans.	Ramps shall comply with all the applicable requirements for stairways regarding enclosures, capacity and limiting dimensions.

Q.10	What is the requirement of fire check doors?
Ans.	FCDs are recommended for the purpose of compartmentation so that the fire/smoke remain confined to the area where fire incident has occurred and does not spread to the remaining part of the building.
Q.11	What is the recommended rating of the fire check door for industrial building?
Ans.	2 hours fire rated for type 2 construction.
Q.12.	What is the requirement of pressurization?
Ans.	The pressurization of staircases shall be adopted for high rise buildings and building having mixed occupancy/multiplexes having covered area more than 500 m^2. Whereas the pressurization of lift lobby/well shall be adopted for high rise buildings only. This shall be provided in accordance with clause 4.10 & clause C 1.5 of NBC Part-IV.
Q.13.	What is the minimum width of corridor?
Ans.	The exit corridors and passageway shall be of width not less than the aggregate required width of exit doorways leading from them in the direction of travel to the exterior. (Clause 4.8 of NBC-IV)
Q.14	What is the minimum width & height of door ?
Ans.	No exit doorway shall be less than 1000 mm in width except assembly building where door width shall be not less than 2000 mm. Doorways shall not be less than 2000 mm in height.
Q.15	What is the minimum size of compartment ?
Ans.	For high rise building all floors shall be compartmented with area not exceeding 750 m^2 by a separation wall with 2 hr. fire rating, for floors with sprinklers the area may be increased by 50 percent.
Q.16	What is the fire rating of fire resistive wall?
Ans.	2 hours for type 2 construction.
Q.17	Where is the water curtain required?
Ans.	It is recommended where physical separation wall is not feasible to be provided in order to meet the requirement of compartmentation.
Q.18	How the smoke management system shall be installed?
Ans.	The smoke management system shall be provided as per the ‘Sectio-3, Building Services – HVAC’ of NBC Part-8. In case of high rise building the ventilation system for basements shall be provided in accordance with clause C-1.6 of NBC-IV. If the building is naturally ventilated then mechanical ventilation system is not required.

Q.19	How the numbers of fire extinguishers shall be decided?
Ans.	Required in all industrial building and these shall be provided as per IS 2190/1992.
Q.20	Where the First Aid Hose Reel is required?
Ans.	It is required in all industrial buildings, having area more than 100 m^2 and it shall be provided in accordance with IS: 884/1998.
Q.21	Where the Detection & Alarm system is required?
Ans.	Required in low & moderate hazard industries, having area more than 500 m^2.

Q.22	Where the Manually Operated Electrical Fire Alarm (MOEFA) is required?
Ans.	Required in moderate hazard industries, having area more than 500 m^2.
Q.23	Where the Public Address System is required?
Ans.	Required in high-rise buildings only.
Q.24	Where the Automatic Sprinkler system is required?
Ans.	Required to be installed on all floors of moderate hazard industries and on all floors of low hazard industries, having area more than 500 m^2. It is also required to be installed in basements, having area more than 200 m^2.
Q.25	Where the Internal Hydrants are required?
Ans.	- For low hazard industries having area more than 100 m^2, down comer is required. - For low & moderate hazard industries, having area more than 500 m^2, wet riser & down comer are required. ***<u>Note: - The internal hydrants shall be provided in the building as per IS 3844-1989.</u>***
Q.26.	What will be the Size of Riser for industrial building as per NBC Part-IV?
Ans.	100 mm
Q.27	How the Numbers of Hydrants shall be decided?
Ans.	As per IS 3844-1989.
Q.28	Where are the Yard Hydrants required?
Ans.	Industrial buildings, having built-up area more than 500 m^2, shall be provided with yard hydrants in accordance with IS: 13039/1991.

Q.29	What shall be the Pumping arrangement in industrial buildings?
Ans.	- For low hazard industries, having built-up area more than 100 m^2 and up-to 500 m^2 one terrace pump of 450 LPM capacity is required. If the basement exceeds the area 200 m^2 than a terrace pump of 450 LPM capacity shall be provided for low hazard industry having area up-to 100 m^2. - For low hazard industries, having built-up area more than 500 m^2, one electric and one diesel pump of 2280 LPM capacity, one electric pump of 180 LPM capacity and one terrace pump of 450 LPM capacity shall be provided. - For moderate hazard industries, having built-up area up-to 100 m^2, one terrace pump of 450 LPM capacity shall be provided. - For moderate hazard industries, having built-up area more than 100 m^2 and up-to 500 m^2, one terrace pump of 900 LPM capacity shall be provided. - For moderate hazard industries, having built-up area more than 500 m^2, one electric and one diesel pump of 2280 LPM capacity, one electric pump of 180 LPM capacity and one terrace pump of 900 LPM capacity shall be provided.
Q.30	What is the minimum capacity of Underground/overhead water storage tank for firefighting in industrial buildings?
Ans.	- For low hazard industries, having built-up area more than 100 m^2 and up-to 500 m^2 one overhead fire water tank of 5,000 liters capacity is required. If the basement exceeds the area 200 m^2 than additional value of 5,000 liters capacity shall also be added. For low hazard industry having built-up area up-to 100 m^2, if the basement exceeds 200 m^2 area, then overhead water tank of 5,000 liters capacity shall be provided. - For low hazard industries, having built-up area more than 500 m^2, one underground fire water tank of 1,00,000 liters capacity and overhead fire water tank of 10,000 liters capacity shall be provided. - For moderate hazard industries, having built-up area up-to 500 m^2, one terrace tank of 10,000 liters capacity shall be provided. - For moderate hazard industries, having built-up area more than 500 m^2 and up-to 1,000 m^2, one underground fire water tank of 75,000 liters capacity and one overhead tank of 20,000 liters capacity shall be provided. - For moderate hazard industries, having built-up area more than 1,000 m^2, one underground fire water tank of 1,00,000 liters capacity and one terrace tank of 20,000 liters capacity shall be provided.
Q.31	What is the rate of replenishment of water is required for the fire water tanks?

Ans.	The rate of replenishment shall be 1000 liter per Minute.
Q.32	What is the requirement of Exit signage?
Ans.	All 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. It shall be in accordance with clause 4.2.7 of the NBC-IV& IS-9457/1980.
Q.33	What are the provisions for Fireman lift?
Ans.	For high-rise buildings, the provisions for fireman lift shall be adhered to in accordance with Clause C-1.5 of NBC Part-IV.
Q.34	Why is the Standby power supply required?
Ans.	Emergency lighting, exit signs, staircase lighting circuit, lifts and fire pump shall be powered from an additional source of power supply like generator/ battery backup/ inverter and shall be automatic in action.
Q.35	Where is the Refuge Area required?
Ans.	For buildings more than 24 meter in height.
Q.36	Where is the Fire Control Room required?
Ans.	For buildings, 15 meter in height or above.
Q.37	For what the Special fire protection system is required and what is the special risk?
Ans.	It is provided for special risk area such as transformer, electrical panels, petroleum product etc.
Q.38	What are the parameters of the building based upon which the fire safety guidelines are issued?
Ans.	The basic parameters are the type of occupancy, height of the building and the floor area of the building.
Q.39	How various industrial occupancies are classified in to different degree of hazard.
Ans.	The classification of various industrial occupancies are as per Annexure 'B' of NBC part IV.
Q.40	What are the low hazard industrial occupancies?
Ans.	The list is as under:

Abrasive manufacturing premises, Aerated water factories, Agarbatti manufacturing premises, Analytical and/or Q.C. Laboratories, Arecanut slicing and/or Betelnut factories, Asbestos steam packing and lagging manufacturers, Battery charging and service stations, Battery manufacturing, Breweries, Brickwork, Canning factories, Cardamom factories, Cement factories and/or asbestos or concrete products, manufacturing premises, Ceramic factories, crockery, stoneware, pipe manufacturing, Clay works, Clock and watch manufacturing, Clubs, Coffee curing, roasting and grinding factories, Condensed milk factories, milk pasturising plants and dairies, Confectionery manufacturing, Electric lamps (incandescent and fluorescent) and T.V. tube manufacturing, Electroplating works, Engineering workshops, Fruits and vegetables dehydrating and drying factories, Fruits products and condiment factories, Glass and glass fibre manufacturing, Godowns and warehouses (non-combustible goods), Gold thread/gilding factories, Gum and/or glue and gelatine manufacturing, Ice candy and ice-cream and ice factories, Ink (excluding printing ink) factories, Mica products manufacturing.

Question-41. What are the Moderate hazard industrial occupancies?

Answer- The list is as under:

Aluminium factories, Atta and cereal grinding, Bakeries and biscuit factories, Beedi factories, Bobbin factories, Book-binders, envelopes and paper bag manufacturing, Cable manufacturing, Camphor boiling, Candle works, Carbon paper/typewriter ribbon makers, Card board box manufacturing, Carpenters, wood wool anti furniture makers, Carpet and durries factories, Cashew nut factories, Chemical manufacturers (us-hg raw materials having F.P > 23°C), Cigar and cigarette factories, Coir factories, Cold storage premises, Computer installations, Cork products manufacturing (coir, carpets, rugs and tobacco) (hides and skin presses), Dry cleaning, dyeing and laundries, Electric sub-stations/distribution stations, Electrical generating stations except underground powerhouses, Enamelware factories, Filler and wax paper manufacturing, Flour mills, Garment makers, Ghee factories (other than vegetable), Godown and warehouses (other than non-combustible goods), Grains and seed disintegrating or crushing, Grease manufacturing, Hosiery, lace, embroidery and thread, Hospitals including 'X' -ray and other diagnostic clinics (institutional buildings), Incandescent gas mantle manufacturers, Industrial gas manufacturing (only halogenated, hydrocarbons inert gases), Man-made yarn/fiber (except acrylic fiber/yarn), Manure and fertilizer works (blending, mixing and granulating only), Mercantile occupancies (departmental stores, shopping complex, etc), Mineral oil blending and processing, archives, record rooms, Oil and leather cloth factories, Open storage of flammable liquids (in drums, cans, etc), Oxygen plants, Paper and cardboard mills (except raw material yard), Piers, wharves, dockyards, Plastic goods manufacturing, Ply wood/wood veneering factories, Printing press premises, Pulverizing and crushing mills, Residential apartments, hotels, cafes, restaurants, Rice mills, Rope works, Rubber goods manufacturing, Rubber Tyres and tubes manufacturing, Shellac factories, Silk filatures, Soaps and glycerin factories,

Spray painting, Starch factories, Tea factories (including blending packing of tea), Telephone exchanges, garages, Textile mills, Tobacco chewing and pan masala making, Tobacco re-drying factories, Woolen mills.

Question-42. What are the High hazard industrial occupancies?

Answer- The list is as under:

Aluminum/magnesium powder plants, Bituminized paper/hessian cloth/tar felt manufacturing, Bulk storage of flammable liquids (tank farm, etc), Celluloid goods making, Chemical manufacturers (where raw materials have a F.P. < 23°C), Cigarette filter manufacturing, Cinema films and T.V. production studios, Coal, coke and charcoal ball and briquettes making, Collieries, steel plants, Cotton seeds cleaning and delinting factories, Cotton waste factories, Distilleries, Duplicate/stencil paper making, Fireworks manufacture, Foamed plastic and/or converting plants, Godown of warehouses (combustible/hazardous goods) (H), Grass, hay, fodder and BHOOSA (chaff), Hazardous occupancy buildings (J) Industrial gas manufacturing (except halogenated, hydrocarbon gases/inert gases), Industrial units (G-3 occupancies), Jute mills and jute presses, Linoleum factories, Man-made fibers (only acrylic fiber/yarn making), Match factories, Mattress and pillow makings (foam plastics), Metal or tin printers (if more than 50 percent is engineering, shift to ordinary hazard), Oil mills, Oil extraction plants, Oil terminals/depots, Paints/Varnish factories, Paper and cardboard mills (only raw material yard), Pressing factories, Printing ink making, Resin, lamp black and turpentine manufacture, Saw mills, Surgical cotton manufacturing, Tarpaulin and canvas proofing factories, Turpentine and resin distilleries, Tyre retreading and resolving factories, Underground shopping complexes (F-3).

Ammonia and urea synthesis plants, Explosive factories, LPG bottling plants, Petrochemical plants, Petroleum refineries.

NOTE — In case of complexes having segregated plants with varying degrees of hazards, the competent authority having jurisdictions shall be consulted to decide the level of protections to be provided.

Question-43. Does Delhi Fire Service issue part NOC/recommendations for a specific floor/occupancy in a building?

Answer- Yes, if the floor/occupancy is separated from the other floors/occupancies of the building as per provisions of NBC-2005.

Question-44. What are the Fire Protection requirement of industrial occupancies?

Answer- The table is as under:

Low Hazard (G-1)	Extinguishers	Hose reel	Dry Riser	Wet riser	Down Comer	Yard hydrant	Automatic sprinkler syste	MOEFA(MCP)	Detection syste	Underground tank	Overhead tank	Pump at ground level	Terrace pump

							m						
Built up area up to 100 m^2	**R**	**NR**	**NR**	**NR**	**NR**	**NR**	**R (in basement, if area exceeds 200 m^2)**	**NR**	**NR**	**NR**	**5000 (in basement, if area exceeds 200 m^2)**	**NR**	**450(in basement, if area exceeds 200 m^2)**
Built up area more than 100m^2 and upto 500m^2	**R**	**R**	**NR**	**NR**	**R**	**NR**	**R (in basement, if area exceeds 200 m^2)**	**NR**	**NR**	**NR**	**5000 (5000) (in basement, if area exceeds 200 m^2)**	**NR**	**450**
Built up more than 500m^2	**R**	**R**	**NR**	**R**	**R (if height is more than 15 meter)**	**R**	**R**	**NR**	**R**	**1,00,000**	**10,000**	**01 E+01 D pump of 2280 LPM + 01 Jockey of 180 LPM**	**450**
Moderate Hazard (G-2)													
Built up area up to 100 m^2	**R**	**R**	**NR**	**NR**	**NR**	**NR**	**R**	**NR**	**NR**	**NR**	**10,000**	**NR**	**450**
Built up area more than100 m^2 and up to 500 m^2	**R**	**R**	**NR**	**NR**	**NR**	**NR**	**R**	**NR**	**NR**	**NR**	**10,000**	**NR**	**900**
Built up area more than500 m^2 and up to 1000 m^2	**R**	**R**	**NR**	**R**	**R (if height is more than 15 meter)**	**R**	**R**	**R**	**R**	**75000**	**20,000**	**01 E+01 D pump of 2280 LPM + 01 Jockey of 180 LPM**	**900**
Built up area	**R**	**R**	**NR**	**R**	**R (if heig**	**R**	**R**	**R**	**R**	**1,00,000**	**20,00**	**01 E+01**	**900**

more than500 m^2 and up to 1000 m^2					**ht is more than 15 meter)**						**0**	**D pump of 2280 LPM + 01 Jockey of 180 LPM**	
High Hazard (G-3)													
Built up area up to 50 m^2	**R**	**R**	**NR**	**NR**	**NR**	**NR**	**R**	**NR**	**NR**	**NR**	**5,000**	**NR**	**450**
Built up area more than50 m^2 and up to 150 m^2	**R**	**R**	**NR**	**NR**	**NR**	**NR**	**R**	**NR**	**R**	**NR**	**5,000**	**NR**	**450**
Built up area more than150 m^2 and up to 300 m^2	**R**	**R**	**NR**	**R**	**NR**	**NR**	**R**	**NR**	**R**	**25,000**	**10,000**	**01 E+01 D pump of 1620 LPM + 01 Jockey of 180 LPM**	**450**
Built up area more than300 m^2 and up to 500 m^2	**R**	**R**	**NR**	**R**	**NR**	**R**	**R**	**R**	**R**	**50,000**	**20,000**	**01 E+01 D pump of 1620 LPM + 01 Jockey of 180 LPM**	**900**
Built up area more than500 m^2	**R**	**R**	**NR**	**R**	**R (if height is more than 15 meter)**	**R**	**R**	**R**	**R**	**1,00,000**	**20,000**	**01 E+01 D pump of 2280 LPM + 01 Jockey of 180 LPM**	**900**
R--means required to be provided, NR-- means not required to be provided, E-electric pump, D diesel pump													

Question-45. What additional information shall be provided on the plans for obtaining fire safety guidelines ?

Answer- The additional information are as under:

1. Access to fire appliances/vehicles with details of vehicular turning circle and clear motorable accessway around the building;

2. Size (width) of main and alternative staircases along with balcony approach, corridor, ventilated lobby approach;

3. Location and details of lift enclosures;

4. Location and size of fire lift;

5. Smoke stop lobby /door, where provided;

6. Refuse chutes, refuse chamber, service duct, etc;

7. Vehicular parking spaces;

8. Refuse area, if any;

9. *Details of building services* — Air-conditioning system with position of fire dampers, mechanical ventilation system, electrical services, boilers, gas pipes, etc;

10. Details of exits including provision of ramps, etc, for hospitals and special risks;

11. Location of generator, transformer and switchgear room;

12. Smoke exhauster system, if any;

13. Details of fire alarm system network;

14. Location of centralized control, connecting all fire alarm systems, built-in-fire protection arrangements and public address system, etc;

15. Location and dimensions of static water storage tank and pump room along with fire service inlets for mobile pump and water storage tank;

16. Location and details of fixed fire protection installations, such as, sprinklers, wet risers, hose-reels, drenchers, etc; and

17. Location and details of first-aid firefighting equipment/installations.

Question-46. What is the time frame for disposal of my building plans by Delhi Fire Service?

Answer- if all the conditions are fulfilled then the building plans will be approved within 21 days under rule 34 of Delhi Fire Service Rule 2010.

Question - 47 What if I got approved my building plans in low hazard industry and due to some reasons I want to change the production, which falls under moderate or high hazard category?

Answer - The fire safety guidelines shall be reviewed as per the trade use and modified guidelines shall be issued for the new category.

Delhi Fire Service

Key words:

Automatic Fire Detection and Alarm System: — Fire alarm system comprising components for automatically detecting a fire, initiating an alarm of fire and initiating other actions as appropriate. The system may also include manual fire alarm call points.

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.

Building : Any structure for whatsoever purpose and of whatsoever materials constructed and every part thereof whether used as human habitation or not and includes foundation, plinth, walls, floors, roofs, chimneys, plumbing and building services, fixed platforms, *VERANDAH,* balcony, cornice or projection, part of a building or anything affixed thereto or any wall enclosing or intended to enclose any land or space and signs and outdoor display structures. Tents, *SHAMIANAHS,* tarpaulin shelters, etc, erected for temporary and ceremonial occasions with the permission of the Authority shall not be considered as building.

Building, Height of — The vertical distance measured in the case of flat roofs, from the average level of the ground around and contiguous to the building or as decided by the Authority to the terrace of the last livable floor of the building adjacent to the external wall; and in the case of pitched roofs, up to the point where the external surface of the outer wall intersects the finished surface of the sloping root and in the case of gables facing the road, the mid-point between the eaves level and the ridge. Architectural features serving no other function except that of decoration, shall be excluded for the purpose of measuring heights.

Combustible Material: The material which either bums itself or adds heat to a fire, when tested for non-combustibility in accordance with accepted standards.

Covered Area: Ground area covered by the building immediately above the plinth level. The area covered by the garden, rockery, well and well structures, plant nursery, waterpool, swimming pool (if uncovered), platform round a tree, tank, fountain, bench, *CHABUTARA* with open top and unenclosed on sides by walls and the like; drainage culvert, conduit, catch-pit, gully pit, chamber, gutter and the like; compound wall, gate, unstoreyed porch and portico, slide, swing, uncovered staircases, ramp areas covered by *CHHAJ.JA* and the like; and watchman's booth, pumphouse, garbage shaft, electric cabin or sub-stations, and such other utility structures meant for the services of the building under consideration etc .in the open spaces is excluded from covered area. Mainly covered area equals to the plot area minus the area due for open spaces in the plot.

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.

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.

Emergency Lighting: Lighting provided for use when the supply to the normal lighting fails.

Emergency Lighting System : A complete but discrete emergency lighting installation from the standby power source to the emergency lighting lamp(s), for example, self-contained emergency luminaire or a circuit from central battery generator connected through wiring to several escape luminaries.

Escape Lighting : That part of 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 escape routes.

Fire Door / Fire Check Door— A fire-resistive door approved for openings in fire separation.

Fire Exit : Away out leading to an escape route having panic bar hardware provided on the door.

Fire Lift : The lift installed to enable fire services personnel to reach different floors with minimum delay, having such features as required in accordance with this Part.

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

Fire Load Density : Fire load divided by floor area.

Fire Resistance Rating : The time that a material or construction will withstand the standard fire exposure as determined by fire test done in accordance with the standard methods of fire tests of materials/structures.

Fire Resistance : Fire resistance is a property of an element of building construction and is the measure of its ability to satisfy for a stated period some or all of the following criteria:

a) Resistance to collapse,

b) Resistance to penetration of flame and hot gases, and

c) Resistance to temperature rise on the unexposed face up to a maximum of 180°C and/or average temperature of 150°C.

Fire Separation : The distance in meters measured from the external wall of the building concerned to the external wall of any other building on the site, or from other site, or from the opposite side of street or other public space for the purpose of preventing the spread of fire.

Fire Separating Wall : The wall provides complete separation of one building from another or part of a building from another or part of a building from another part of the same building to prevent any communication of fire or heat transmission to wall itself which may cause or assist in the combustion of materials on the side opposite to that portion which may be on fire.

Fire Stop : A fire resistant material, or construction, having a fire resistance rating of not less than the fire separating elements, installed in concealed spaces or between structural elements of a building to prevent the spread/propagation of fire and smoke through walls, ceilings and like as per the laid down criteria.

Fire Tower: An enclosed staircase which can only be approached from the various floors through landings or lobbies separated from both the floor areas and the staircase by fire-resisting doors, and open to the outer air.

Fire Resisting Wall: A fire resistance rated wall, having protected openings, which restricts the spread of fire and extends continuously from the foundation to at least 1 m above the roof.

Floor Area Ratio (FAR): The quotient obtained by dividing the total covered area (plinth area) on all floors by the area of the plot.

High Rise Building : For the purpose of this Part, all buildings 15 m or above in height shall be considered as high rise buildings.

Horizontal Exit : An arrangement which allows alternative egress from a floor area to another floor at or near the same level in an adjoining building or an adjoining part of the same building with adequate fire separation.

Means of Egress/ escape: A continuous and unobstructed way of travel from any point in a building or structure to a place of comparative safety.

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.

Plinth Area: The built-up covered area measured at the floor level of the basement or of any storey.

Pressurization : The establishment of a pressure difference across a barrier to protect a stairway, lobby, escape route or room of a building from smoke penetration.

Pressurization Level : The pressure difference between the pressurized space and the area served by the pressurized escape route, expressed in pascals (Pa).

Roof Exits: A means of escape on to the roof of a building, where the roof has access to it from the ground. The exit shall have adequate cut-off within the building from staircase below.

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

Stack Pressure: Pressure difference caused by a temperature difference creating an air movement within a duct, chimney or enclosure.

Travel Distance : The distance to be travelled from any point in a building to a protected escape route, external escape route or final exit.

Ventilation : Supply of outside air into, or the removal of inside air from an enclosed space to maintain desired air changes.

Venting Fire/ smoke management : The process of inducing heat and smoke to leave a building as quickly as possible by such paths that lateral spread of fire and heat is checked, firefighting operations are facilitated and minimum fire damage is caused.

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.