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अग्नि सुरक्षा से सम्बद्ध पारिभाषिक शब्दावली

*(पहला पुनरीक्षण)*

*Indian Standard*

**GLOSSARY OF TERMS ASSOCIATED  
WITH FIRE SAFETY**

*(First Revision)*

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**BUREAU OF INDIAN STANDARDS**  
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Fire Safety Sectional Committee, CED 36

## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Fire Safety Sectional Committee had been approved by the Civil Engineering Division Council.

A series of Indian Standards covering fire safety aspects of buildings and different fire fighting equipments and appliances have been published and these include a large number of terms relating to fire engineering, fire safety and fire technology. The use of some of the terms and the need to eliminate any ambiguity and misunderstanding in their interpretation has necessiated the preparation of standard on glossary of terms associated with fire safety. A separate standard IS 7673:1975 'Glossary of terms for fire fighting equipments' has been published giving definitions of terms associated with fire fighting equipments. This standard was published in 1978 and taken up for revision to update the definitions based on the experience gained during these years. In this revision, besides, the modification of the existing definitions, new terms have also been included.

In the formulation of this standard due weightage has been given to international co-ordination among standards and practices prevailing in different countries in addition to relating it to the practices in the field in this country.

The composition of the technical committee responsible for the formulation of this standard is given at Annex A.

*Indian Standard*  
**GLOSSARY OF TERMS ASSOCIATED  
WITH FIRE SAFETY**  
*(First Revision)*

**1 SCOPE**

This standard covers definitions of general and safety terms relating to the phenomenon of fire, fire as related to building materials and structures and method of tests connected therewith and means of escape.

**2 TERMINOLOGY**

**2.1 Accelerant** — Substance used to initiate and develop fire, for example, flammable liquids.

**2.2 Air-Conditioning** — The process of treating air so as to control simultaneously its temperature, humidity, purity and distribution to meet the requirements of the conditioned space.

**2.3 Alternative Escape Route** — Sufficiently separated by either direction and space, or by fire resisting construction, to ensure that one is still available should the other be affected by fire.

**2.4 Ambient Temperature** — The temperature of the surroundings.

**2.5 Anoxia** — Severe lack of oxygen in the blood or the brain.

**2.6 Arson** — Fire originated by malicious intent.

**2.7 Asphyxiation** — The suspension of respiration and animation, as the result of the inhalation of substances such as carbon dioxide, methane, nitrogen, etc, when present in atmosphere to an extent sufficient materially to decrease its normal oxygen content.

**2.8 Auto-Door Release** — A device when fitted to self-closing door allows to remain the door under normal conditions but on the actuation of the alarm, releases the door which returns to the closed position.

**2.9 Auto-Ignition Temperature** — Minimum temperature at which a material will ignite by itself in air and sustain combustion without initiation by an external spark or flame under specified test condition.

**2.10 Back Draught** — An explosion, of greater or lesser degree, caused by the inrush of fresh air from any source or cause, into a burning building, where combustion has been taking place in a shortage of air.

**2.11 Balusters** — Plain moulded or turned posts for use of staircases, terraces and balconies (short pillars used as support to handrail of staircases).

**2.12 Balustrades** — Assemblages of balusters or other ornamental treatment for forming a safeguard at the sides and the heads of stair flights and landing and also to terraces, balconies, etc.

**2.13 Beam, Fire-Resisting** — A structural member with or without any additional protection, capable of satisfying one of the criteria of fire resistance namely, resistance to collapse.

**2.14 Blast Effect** — Damage caused by shock waves from an explosion.

**2.15 BLEVE (Boiling Liquid Expanding Vapour Explosion)** — An explosion caused by rapid expansion of flammable gas stored in a container resulting in sudden release of huge quantities of atomised burning liquid which appear as a fire ball up in the radiating intense heat alaround.

**2.16 Boil Over** — In a flammable liquid storage tank, it is the discharge with exceptional violence of part of the contents of burning tank.

**2.17 Boiling Point** — Minimum temperature at which the vapour pressure of the liquid is equal to atmospheric pressure.

**2.18 Brand** — A freely burning fragment of substance which may fall or become airborne either by wind or by convection currents.

**2.19 Burn** — Injury or damage caused by flame/heat to living beings.

**2.20 Burn Back** — Flames going back over an area previously extinguished, may be due to incomplete cover or fire extinguishing media foam degradation.

**2.21 Burning Behaviour** — All the physical and/or chemical changes that take place when a material, product and/or structure burns or is exposed to fire.

**2.22 Burn, to** — To consume or be consumed by rapid oxidation with the production of heat, usually with incandescence or flame, or both.

**2.23 Calorific Potential/Heat of Combustion** — Calorific energy which could be released by the complete combustion of a unit mass of a material.

**2.24 Cavity Wall** — Built in two thicknesses, separated by an air space, the two thicknesses being

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connected by occasional ties of metal or brick. Also known as Hollow Wall.

**2.25 Ceiling (Suspended, Fire-Resisting)** — A ceiling assembly capable of contributing, wholly or in part to the overall fire resistance of the floor above and/or its supporting members.

**2.26 Charring** — The formation of a light, friable, mainly carbonaceous constituent residual on wood or other organic matter resulting from incomplete combustion and/or devolatilization following exposure to heat.

**2.27 Chimney Effect (Flue Effect)** — The upward thrust of convection currents of hot gases through vertical openings.

**2.28 Co-efficient of Thermal Expansion** — The proportional increase in length, volume of superficial area of a body per degree rise in temperature.

**2.29 Column of Stanchion (Fire-Resisting)** — A structural member with or without any additional protection, capable of satisfying one of the criteria of fire resistance namely, resistance to collapse.

**2.30 Combustion** — Exothermic reaction of a combustible substance with an oxidiser, usually accompanied by flames, and/or glowing and/or emission of smoke.

**2.31 Combustible** — Capable of burning.

**2.32 Compartmentation** — The divisions of a building into fire tight compartments by fire-resisting elements of building construction in order to contain a fire within the compartment of origin for a specific period of time.

**2.33 Compartment Floor** — A fire-resisting floor used in dividing a building vertically into separate compartments.

**2.34 Compartment Wall** — A fire-resisting wall used in dividing a building horizontally into separate compartmentation.

**2.35 Conductive Floor** — Floors which are rendered electrically conductive by integral or applied floor-finish for preventing static sparks.

**2.36 Conflagration** — A fire which involves not only the building in which it originates, but also other buildings and property over a considerable area adjacent to it.

**2.37 Containment** — Restricting the spread of fire to surrounding structures or areas.

**2.38 Contaminant, Dangerous** — A substance not normally found in a pure state and the presence of which even in small quantity may be dangerous owing to it acting as a catalyst or by itself entering into a potentially dangerous reaction.

**2.39 Cooling** — A process of fire extinguishment or control by reduction of temperature.

**2.40 Corridor, Protected** — A corridor forming whole or part of the horizontal component of a protected escape route.

**2.41 Cryogenic Gases** — Substances in a gaseous state which can not be liquefied by pressure alone and are therefore cooled to a low temperature for storage and temperature in the liquid state.

**2.42 Damper (Fire-Resisting)** — A movable closure within a duct, which on operation is intended to prevent the passage of fire or smoke or gases and which together with its frame will be capable of satisfying the criteria of fire resistance with respect to collapse and flame penetration.

**2.43 Damper, Smoke** — Movable device for smoke control, open or closed in its normal position, which is automatically or manually actuated.

**2.44 Dead End** — An area from which escape is possible in one direction only.

**2.45 Deflagration** — Explosion propagating at subsonic velocity.

**2.46 Detonation** — Detonation of explosion propagating at supersonic velocity and characterized by a shock wave.

**2.47 Discharge Rate** — The rate at which a single file of persons can pass through one unit of exit width (generally accepted as 40 persons per minute).

**2.48 Discharge Value** — The maximum number of persons who can effect egress through a given number of units of exit width in a given period of time having regard, in multi-storey buildings, to the capacity of the staircase(s).

**2.49 Door, Fire-Check/Fire Door** — Door to prevent or restrict the spread of hot gases and smoke. It must hold-back fire for 20 minutes (integrity) and must not collapse within 30 minutes (stability). Used an entrance doors to flats and maisonettes sharing a common access area, doors between small garages and houses, doors to habitable rooms and kitchens in buildings of three storeys or more.

**2.50 Door, Fire-Resisting** — A door which, together with its frame, is capable of satisfying the criteria of fire resistance with respect to collapse, flame penetration and excessive temperature rise. Such a door may be automatic or self-closing.

**2.51 Draught** — Current of air accelerating towards a fire supplying air for combustion.

**2.52 Drenchers** — A device to give protection to the roofs, windows and door openings of a building by interposing a curtain of water between the protected building and a fire.

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**2.53 Duct, Fire-Resisting** — A duct which conveys liquid, gas of services through building, and which is capable of satisfying the criteria of fire resistance with respect to collapse, flame the penetration and rise of temperature beyond any prescribed value.

**2.54 Dust Explosion** — Rapid oxidation type of explosion in a suspension of combustible dust in air.

**2.55 Dust-Tight Enclosure** — A type of enclosure for electrical equipment located in dusty atmospheres, which prevent ingress of dust within its interior.

**2.56 Egress** — A route of travel from any point inside a building to a point outside the building.

**2.57 Emergency Lighting** — A provision for lighting in designated parts of premises, for use when normal light fails.

**2.58 Escape Chute** — Open slide like escape used for emergency evacuation.

**2.59 Escape Hatch** — An emergency means of providing escape from a room or part of a building in the form of a removable or breakable panel in a wall or floor.

**2.60 Escape Route** — A route forcing part of the means of escape from any point in a building to a final exit.

**2.61 Escape Route, External** — An escape route external to a building, having an adequate degree of fire protection by way of a roof, staircase, balcony, walkway or external court, and terminating at a final exit.

**2.62 Escape Route, Protected** — An escape route having an adequate degree of fire protection.

**2.63 Evacuation Drill** — Rehearsal of the evacuation procedure involving participation of the occupants of the premises.

**2.64 Evacuation Procedure** — A predetermined plan of action designed to achieve the safe evacuation of the occupants of a building to a place of safety.

**2.65 Evacuation Time** — The time taken for all occupants of a building or part of a building, on receipt of an evacuation signal, to reach a final exit.

**2.66 Exit, Final** — The terminal point of an escape route beyond which persons are no longer in danger from fire.

**2.67 Exit, Fire** — A way out leading to an escape route.

**2.68 Exit, Horizontal** — 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.

**2.69 Exit Sign** — Sign which clearly indicates the exit.

**2.70 Exit Width, Unit of** — The minimum width required for a single file of persons to pass through an exit of 500 mm width.

**2.71 Explosion (Decomposition Type)** — Instantaneous decomposition of certain endothermic compounds with evolution of hot gases and extremely rapid rise of surrounding air pressure.

**2.72 Explosion (Pressure Release Type)** — Rupturing of pressure containers due to abnormally high pressure.

**2.73 Explosion (Rapid Oxidation Type)** — An extremely rapid oxidation reaction with evolution of light, heat and dynamic energy capable of causing structural or other physical damage.

**2.74 Explosion Suppression** — Appliance containing an explosion suppressant which can be expelled by the action of internal pressure. This pressure may be stored pressure or may be obtained by a chemical reaction such as the activation of an explosive or pyrotechnical device.

**2.75 Explosion Vent** — An opening in a vessel or building, usually covered by a fragile diaphragm, or a hinged or springloaded flap, which in the event of an explosion in the vessel or building allows gaseous products to escape. This venting process is also known as 'explosion relief'.

**2.76 Exposure Hazard** — The risk of fire spreading from a building structure, or other property to an adjacent separate building or structure, or to another part of the same building or structure, by radiated heat across the intervening space. Factors determining the exposure hazard include the width of the intervening space, the heights of the buildings and their construction, types of windows, doors etc.

**2.77 Fire**

- 1) Process of combustion characterized by the emission of heat accompanied by smoke or flame or both.
- 2) Combustion spreading uncontrolled in time and space.

**2.78 Fire Ball** — A spherical mass of flame, which may occur if a large quantity of flammable vapour suddenly ignites in the air as it occurs following BLEVE.

**2.79 Fire Break** — An open space separating buildings, stored products or other combustible materials being itself free of combustible material and designed to restrict spread of fire.

**2.80 Fire Classification** — Standardized system of classifying fires in terms of the nature of fuel. These are:

- Class A — Fire involving solid materials, usually of an organic nature,

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in which combustion normally takes place with the formation of glowing embers.

- Class B — Fires involving liquids or liquefiable solids.
- Class C — Fires involving gases.
- Class D — Fires involving metals.

**2.81 Fire Hazards** — Characteristics of materials, building construction and occupancy which affect the initiation, development and spread of fire.

**2.82 Fire Lift** — A lift designated to have additional protection that enables it to be used under the direct control of the fire brigade in fighting a fire.

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

**2.84 Fire Load Density** — Fire load divided by floor area.

**2.85 Fire Point** — The lowest temperature at which a liquid gives off sufficient flammable vapour in air to produce sustained combustion after the removal of the ignition source.

**2.86 Fire Prevention** — The concept of elimination of all probable causes of fire outbreak.

**2.87 Fire Propagation Index** — A comparative measure of the contribution to the growth of fire of a combustible.

**2.88 Fire Protection** — Design features, systems, equipment, buildings or other structures to reduce danger to persons and property by detecting, extinguishing or containing fires.

**2.89 Fire Resistance (Criteria of)** — 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 flame penetration, and (c) resistance to excessive temperature rise on unexposed face.

**2.90 Fire Resistive Construction** — The type of construction in which the structural members including wall, partition, columns, floors and roofs are designed to withstand resistance to fire for a specified period.

**2.91 Fire Retardant (Flame Retardant)** — A substance or treatment applied to combustible material to increase its ignition temperature decrease its tendency to propagate flame across its surface and increase its resistance to pyrolysis and destruction by heat.

**2.92 Fire Stop** — A physical barrier designed to restrict the spread of fire in cavities within and between elements of building construction.

**2.93 Fire Vent** — An opening in the enclosing walls or roof of a building, intended for releasing heat and smoke in the event of fire and automatically or manually opened or both.

**2.94 Flame** — A zone of oxidation of gas usually characterized by the liberation of heat and the emission of light.

**2.95 Flame Arrestors** — A device fitted to prevent the passage of flames.

**2.96 Flame-Proof Enclosure** — An enclosure for electrical machinery or apparatus that will withstand, when covers or other access doors are properly secured, in internal explosion of the flammable gas or vapour which may enter or which may originate inside the enclosure without suffering damage and without communicating the internal flame (or explosion) to the external flammable gas or vapour.

**2.97 Flammable** — A combustible material which ignites very easily and either burns very intensely or has a rapid flame spread.

**2.98 Flammability** — Degree of ease with which a material catches fire and its intensity.

**2.99 Flash (Fire)** — A flame of very short duration.

**2.100 Flashover** — A stage in the development of a contained fire at which all the combustibles in the enclosures flash into fire simultaneously.

**2.101 Flash Point** — The minimum temperature at which a liquid gives off sufficient vapour to produce a flammable vapour-air mixture at the lower limit of flammability.

**2.102 Floor Fire-Resisting** — A floor, with or without a ceiling beneath, which, when exposed to fire conditions from below, is capable of satisfying for a stated period of time the criteria of fire resistance with respect to collapse, flame penetration and excessive temperature rise.

**2.103 Flue Effect** — The upward thrust of convection currents of hot gases through vertical openings.

**2.104 Fuel** — A substance that will produce energy as heat (in useful amounts), it may be gaseous, liquid or solid.

**2.105 Glazing, Fire-Resisting** — Glazing capable of satisfying for a stated period of time the criteria of fire resistance with respect to collapse and flame penetration.

**2.106 Height and Area Limitation** — Maximum limitations in respect of height and floor areas of building to : (a) prevent excessive area subject to a single fire, (b) assure opportunity to occupants to evacuate safely, and (c) assure manageable fire service.

- 2.107 High Hazard** — These are contents that are liable to burn with extreme rapidity or from which poisonous fumes or explosions are to be feared in the event of a fire.
- 2.108 Housekeeping** — State of maintenance and cleanliness of an occupancy, affecting the frequency and growth of fires.
- 2.109 Hot Work** — Work involving flames or temperatures likely to be sufficiently high to cause ignition of flammable gas.
- 2.110 Hyperbolic Chambers** — Enclosures within which air pressure is much higher than under normal atmospheric conditions.
- 2.111 Ignitability** — Degree of ease with which a material can be ignited.
- 2.112 Ignition Temperature** — The lowest temperature of a substance at which sustained combustion can be initiated.
- 2.113 Incendiarism** — Intentional and culpable generation of fire.
- 2.114 Inerting** — Filling an enclosed space with an inert gas to prevent formation of explosive vapour-air mixture.
- 2.115 Inhibition** — A process of fire extinguishment by the use of an agent which interrupts the chemical reactions in the flame.
- 2.116 Landing** — A level space at the top or bottom of a staircase and/or at each floor level.
- 2.117 Lighting Arrestor** — A device for the protection of apparatus from damage by a lightning discharge or other accidental electrical surge.
- 2.118 Lightning Conductor** — A metal strip connected to earth at its lower end, and its upper end terminated in one or more sharp points where it is attached to the highest part of a building. By electrostatic induction it will tend to neutralize a charged cloud in its neighbourhood and the discharge will pass directly to earth through the conductor.
- 2.119 Lightning Emergency** — A provision of lighting in designated parts of premises, for use when the normal lighting fails.
- 2.120 Lining Material** — Any material used for lining walls, ceiling or floors of building for insulation, decoration or other purposes.
- 2.121 Linking Balcony** — An arrangement which provides access to an adjacent protected area, *via* a balcony.
- 2.122 Lobby, Fire-Fighting Access** — A protected lobby and permanently ventilated of specified dimensions, suitable for use as a means of access for fire-fighting purposes.
- 2.123 Lobby, Permanently Ventilated** — A protected lobby provided with ventilation which is permanently open.
- 2.124 Lobby, Protected** — A lobby forming part or whole of the horizontal component of a protected escape route.
- 2.125 Lobby Ventilation** — A protected lobby provided with means of ventilation to the open air for use when required.
- 2.126 Low Hazard** — These are contents of such low combustibility that no self-propagating fire can occur in these.
- 2.127 Lower Limit of Flammability** — The lowest percentage concentration by volume of flammable vapour (gas) mixed with air which will burn with a flame.
- 2.128 Means of Escape** — Structural means whereby a safe route or routes are provided for persons to travel from any point in a building to a place of safety by their own unaided efforts.
- 2.129 Mezzanine** — A part-floor in between two other floors of a building.
- 2.130 Moderate Hazard** — These are contents that are liable to burn with moderate rapidity and to give off considerable volume of smoke but from which neither poisonous fumes nor explosions are to be feared in the event of a fire.
- 2.131 Mushroom Effect** — A horizontal spread of hot gases at ceiling or roof level due to the vertical restriction of convection currents.
- 2.132 Naked Lights** — Open flames or fires, exposed incandescent material, or any other unconfined source of ignition.
- 2.133 Non-combustible** — Not capable of undergoing combustion under normal atmospheric pressure and oxygen concentration.
- 2.134 Occupancy** — Purpose for which a building, or part of a building is used, or intended to be used.
- 2.135 Occupation Density** — Number of persons per square metre of the usable floor area of a room for a given activity. Used to calculate in particular the number and the width of the exits of a room or space.
- 2.136 Occupant Load Factor** — A factor used in calculating the population density when planning means of escape from a building or part of a building.
- 2.137 Partition, Fire-Resisting** — A partition either load-bearing or non-load-bearing capable of satisfying the criteria of fire resistance with respect to collapse, flame penetration and excessive temperature rise.

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**2.138 Party Wall** — Generally called a separating wall now. A wall common to two buildings or two pieces of land.

**2.139 Petrochemicals** — In a genuine sense are those flammable chemicals which are derived (in whole or part) from petroleum or natural gas constituents.

**2.140 Place of Safety** — A place in which persons are not in danger from fire.

**2.141 Population Density** — The number of persons in a given area for whom means of escape shall be provided as determined by the functional use(s) of the building or floor.

**2.142 Pressurization** — A method of keeping escape route in high-rise buildings clear of smoke by increasing the air pressure in staircases and lobbies.

**2.143 Products of Combustion** — Total gaseous, particulate and aerosol effluents from a fire or pyrolysis.

**2.144 Protected Area** — Area giving an adequate degree of fire resisting enclosure from other areas and from which there is alternative means of escape.

**2.145 Purging** — Freeing an enclosed space from flammable or toxic vapours/gases by blowing air or inert gas.

**2.146 Pyrolysis** — Irreversible chemical decomposition of a material due to an increase in temperature without oxidation.

**2.147 Radiation (Heat)** — Transfer of heat through a gas or vacuum other than by heating of the intervening space.

**2.148 Ramp**

- 1) An inclined plane taking the place of steps.
- 2) The curved portion connecting the horizontal part of a handrail or moulding to a raking or inclined part of the same.

**2.149 Reactivity, Air** — Property possessed by certain chemicals of causing dangerous reactions when exposed to air.

**2.150 Reactivity, Water** — Property possessed by certain chemicals of causing dangerous reactions when coming into contact with water.

**2.151 Refuge Area** — Area above ground level to which occupants can gain access from a room or building and await rescue.

**2.152 Roof (External Fire Exposure, Resistance, Etc)** — The ability of a roof deck and covering to resist both penetration by external fire and flame spread over the external surfaces.

**2.153 Roof Screen or Roof Curtain Boards** — A vertical screen or substantial non-combustible material

fitted internally to the roof of a building to divide the roof into bays so that smoke and hot gases from a fire are contained within the bay of origin if used in conjunction with automatic fire vents, their early actuation is effected.

**2.154 Roof Venting** — A system of vents which will open automatically in the event of a fire and allow the escape of smoke and hot gases.

**2.155 Room Access** — A room which forms the only escape route from an inner room.

**2.156 Secondary Fire** — A fire which has started some distance from the seat of the original fire but is due to the latter.

**2.157 Self-Extinguishing** — Incapable of undergoing sustained combustion after removal of the external source of heat.

**2.158 Self-Heating** — An exothermic reaction occurring without the application of external heat.

**2.159 Shaft, Fire-Resisting** — A space bounded by fire-resisting elements of building construction and intended for the passage of persons, services or things.

**2.160 Shutter, Fire-Resisting** — Shutter which, together with its frame; is capable of satisfying the criteria of fire resistance with respect to collapse and flame penetration.

**2.161 Sleeping Risk** — A form of occupancy or a part of a building in which bedroom or dormitory accommodation predominates, such as in hotels, boarding schools, hospitals and similar establishments.

**2.162 Smoke** — Visible suspension in atmosphere of solid and/or liquid particles resulting from combustion or pyrolysis.

**2.163 Smoke Density** — The proportion of solid matter present in the smoke, measured on various arbitrary scales.

**2.164 Smoke Exhaust** — An opening, or a fire-resisting shaft or duct provided in a building to act as an outlet, usually from a basement, for smoke and hot gases produced by an outbreak of fire.

**2.165 Smoke Shaft** — Shaft provided to remove smoke in the event of fire.

**2.166 Smoke Vent** — Opening in the enclosing walls or roof of a building, intended to release heat and smoke in the event of fire, automatically and/or manually opened.

**2.167 Smothering** — A process of fire extinguishment by the limitation or reduction of oxygen.

**2.168 Smouldering** — Slow combustion of material without visible light and generally evidenced by smoke and an increase in temperature.



- 2.169 Soot** — Finely divided particles, mainly carbon, produced and deposited during the incomplete combustion of organic material.
- 2.170 Spark, Electric** — Instantaneous electrical discharge between bodies at different electrical potentials accompanied by heat and light.
- 2.171 Spark, Fire** — A small incandescent particle.
- 2.172 Spontaneous Combustion** — A biological or chemical reaction which produces its own heat resulting in combustion.
- 2.173 Spontaneous Heating** — A kind of heating internally developed by a body due to bacteriological and/or chemical reaction without drawing off heat from its surroundings.
- 2.174 Stack Pressure** — Pressure difference caused by a temperature difference creating an air movement within a duct, chimney or enclosure.
- 2.175 Staircase, Enclosed** — A staircase physically separated, for example, by walls, partitions, screens, etc, from the floors of a building through which it passes, and which does not form part of a protected escape route.
- 2.176 Staircase, Fire-Fighting** — A staircase, designated for use by the fire services in obtaining access into a building for fire fighting purposes and provided with fire fighting access lobbies.
- 2.177 Staircase, Open** — A staircase not separated in any way from the floors through which it passes.
- 2.178 Staircase, Protected** — A staircase, protected from the remainder of a building by fire-resisting construction, accessible only through self-closing, fire-resisting doors, and forming the vertical component of a protected escape route.
- 2.179 Stairway Lobby Approach** — Protected stairway separated from the accommodation space in a building by protected lobbies.
- 2.180 Starvation** — A process of fire extinguishment by the limitation or reduction of fuel.
- 2.181 Static Electricity** — Electricity, generated as a result of friction between two non-conducting substances.
- 2.182 Stop Over** — An overflow of the contents of the tanks less violent than boil over when the oil is within 3 metres of the top of the tank.
- 2.183 Structural Fire Protection** — Structural features in the layout and/or construction of a building intended to reduce the effects of a fire.
- 2.184 Surface Spread of Flame Classification** — The division into classes of combustible building materials according to the rate at which flame spread over their surfaces.
- 2.185 Thermocouple** — A junction of wires of dissimilar metals used for measuring temperature.
- 2.186 Thermostat** — An automatic control device responsive to changes of temperature.
- 2.187 Time-Temperature Curve** — A graph that shows the increase in temperature of a fire as a function of time, beginning with ignition and ending with burnout or extinguishment.
- 2.188 Tinder** — Material which can be ignited by an ordinary lighted match, and materials such as wood, cardboard, paper, textiles, etc.
- 2.189 Toxicity** — The nature and extent of adverse effects of a substance on a living organism.
- 2.190 Travel Distance** — The distance to be travelled from any point in a building to a protected escape route, or final exit.
- 2.191 Trunking, Fire-Resisting** — Trunking, not its part of the structure, which conveys liquid, gas or services through a building and is capable, for a stated period of time of satisfying the criteria of fire-resistance with respect to collapse and flame penetration.
- 2.192 Ultimate Load** — The maximum load which a structure is designed to withstand.
- 2.193 Upper Limit of Flammability** — The highest percentage concentration by volume of flammable vapour (gas) mixed with air above which no combustion can occur.
- 2.194 Vent, Emergency** — Opening fitted with easily rupturable shutter or diaphragm fitted on equipment ducts or buildings to relieve pressure of explosions.
- 2.195 Venting, Fire** — The process of inducing heat and smoke to leave a building as quickly as possible by such paths so that lateral spread is checked, fire fighting operations are facilitated and a minimum fire damage is caused.
- 2.196 Vent, Smoke (Roof)** — Automatic or manually closing openings on the roof of a building to vent smoke and hot gases of a fire.
- 2.197 Vertical Opening** — Any aperture through floors in buildings, such as lifts, ducting, stairs, services. These openings can act as channels for the vertical spread of fire and smoke.
- 2.198 Vertical Spread** — The upward propagation of fire.
- 2.199 Vestibule** — Small lobby or enclosed space between the outer doors and the interior of a building.
- 2.200 Volatility** — The tendency of a liquid to vaporize.
- 2.201 Wall, Fire-Resisting** — A wall, either load-bearing or non-load-bearing, capable of satisfying the criteria of fire resistance with respect to collapse, flame penetration and excessive temperature rise.

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**ANNEX A**  
*(Foreword)*

**COMMITTEE COMPOSITION**

V 9

**Fire Safety Sectional Committee, CED 36**

<i>Chairman</i>	<i>Representing</i>
SHRI J. N. VAKIL	Tariff Advisory Committee, Ahmedabad
<i>Members</i>	
ASSISTANT SECURITY COMMISSIONER	Ministry of Railways, New Delhi
DR A. K. BHALLA DR K. S. UPPAL ( <i>Alternate</i> )	Ministry of Defence (CEESO), New Delhi
CHIEF FIRE OFFICER	Municipal Corporation of Mumbai (Mumbai Fire Brigade)
CHIEF FIRE OFFICER	Bhabha Atomic Research Centre, Mumbai
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SHRI S. K. DHERI SHRI R. C. SHARMA ( <i>Alternate</i> )	Delhi Fire Service, Government of Delhi, New Delhi
SHRI S. M. DESAI	In personal capacity (B-4/5 A.G. Khan Road, Municipal Officers Society, Worli, Mumbai)
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