GLOSSARY

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A

Accessibility — Ability of fire apparatus to get close enough to a building to conduct emergency operations.

Air-Pressure Sprinkler System — Sprinkler system in which air pressure is used to force water from a storage tank into the system.

Alarm — Any signal indicating the need for emergency fire service response.

Alarm Check Valve — The valve in an automatic sprinkler system that activates the alarm signal when water is flowing in the system.

Alarm Circuit — Electrical circuit connecting two points in an alarm system; for example, from the signal device to the fire station, from the central alarm center to all fire stations, or from the sending device to the audible alarm services.

Alarm-Initiating Device — Mechanical or electrical device that activates an alarm system. There are three basic types of alarm-initiating devices: manual, products-of-combustion detectors, and extinguishing system activation.

American National Standards Institute (ANSI) — Voluntary standards-setting organization that examines and certifies existing standards and creates new standards.

American Society for Testing and Materials (ASTM) — Voluntary standards-setting organization that sets standards for systems, materials, and services.

Area of Origin — Localized area where a fire originated.

Arson — Willful and malicious burning of one's own property or that of another.

Assembly — Manufactured parts fitted together to make a complete machine, structure, or unit.

Astragal — Molding that covers the narrow opening between adjacent double doors in the closed position.

Authority Having Jurisdiction (AHJ) — Term used in codes and standards to identify the legal entity responsible for approving or requiring equipment, procedures, or installations.

Automatic Alarm — (1) Alarm actuated by heat, smoke, flame-sensing devices, or the water flow in a sprinkler system conveyed to local alarm bells and/or the fire station. (2) Alarm boxes that automatically transmit a coded signal to the fire station to give the location of the alarm box.

Automatic Sprinkler System — System of water pipes, discharge nozzles, and control valves designed to activate during fires by automatically discharging enough water to control or extinguish a fire. Also called sprinkler system.

Available Fire Flow — Actual amount of water available from a given hydrant; determined by testing.

B

Backdraft — Instantaneous explosion or rapid burning of superheated gases that occurs when oxygen is introduced into an oxygen-deficient confined space. It may occur because of inadequate or improper ventilation procedures.

Balloon-Frame Construction — Type of structural framing used in some single-story and multistory buildings wherein the studs are continuous from the foundation to the roof. There may be no firestops between the studs.

Brick-Joisted — Brick or masonry wall structure with wooden floors and roof. Commonly known as ordinary construction.

Brick Veneer — Single layer of bricks applied to the inside or outside surface of a wall for esthetic and/or insulation purposes.

British Thermal Unit (Btu) — Amount of heat energy required to raise the temperature of one pound of water one degree Fahrenheit. One Btu = 1.055 kiloJoule (kJ).

Building — Relatively permanent walled and roofed structure that stands alone and separate from other structures.

Building Code — List of rules, usually adopted by city ordinance, to regulate the safe construction of buildings. Several building codes are widely adopted in the United States, including the Standard Building Code, the Uniform Building Code, the Basic/National Building Code, and the International Building Code.

Building Survey — Portion of the preincident planning (PIP) process during which the company travels to a building and gathers the necessary information to develop a preincident plan for the building.

C

Circuit — Complete path of an electrical current.

Circuit Breaker — Device that interrupts the flow of electricity in a circuit when it becomes overloaded.

Cistern — Water storage receptacle that is usually underground and may be supplied by a well or rainwater runoff.

Class A Fire — Fires involving ordinary combustibles such as wood, paper, cloth, and so on.

Class B Fire — Fires of flammable and combustible liquids and gases such as gasoline, kerosene, and propane.

Class C Fire — Fires involving energized electrical equipment.

Class D Fire — Fires of combustible metals such as magnesium, sodium, and titanium.

Cockloft — Concealed space between the top floor and the roof of a structure.

Code — A document with mandatory provisions written in the form necessary for adoption and enforcement as law.

Combination System — Water supply system that is a combination of both gravity and direct pumping systems. It is the most common type of municipal water supply system.

Combustible Liquid — Liquid having a flashpoint at or above 100°F (37.8°C) and below 200°F (93.3°C).

Combustion — Self-sustaining process of rapid oxidation of a fuel, which produces heat and light.

Common Hazard — Condition likely to be found in almost all occupancies and generally not associated with a specific occupancy or activity.

Compressed Gas — Gas that, at normal temperature, exists solely as a gas when pressurized in a container.

Compressed Gas Association (CGA) — Association that writes standards relating to compressed gases.

Compressed Natural Gas (CNG) — Natural gas that is stored in a vessel at pressures of 2,400 to 3,600 psi (16 800 kPa to 25 200 kPa).

Concealed Space — Area between walls or partitions, ceilings and roofs, and floors and basement ceilings through which fire may spread undetected; also soffits and other enclosed vertical or horizontal shafts through which fire may spread.

Conductor — Substance that transmits electrical or thermal energy.

Construction Classification — Rating given to a particular building based on construction materials and methods and its ability to resist the effects of a fire.

Contents — Furnishings, merchandise, and any machinery or equipment not part of the building structure.

Convection — Transfer of heat by the movement of fluids or gases, usually in an upward direction.

Cooling — Reduction of heat by the quenching action or heat absorption of the extinguishing agent.

Crawl Space — Area between ground and floor, ceiling and floor, or ceiling and roof, the dimensions of which are such that a person cannot stand up; often used for duct work, water pipes, and similar structural adjuncts.

Cryogens — Gases that are cooled to a very low temperature, usually below -150°F (-101°C), to change to a liquid. Also called refrigerated liquids.

D

Dead Load — Weight of the structure, structural members, building components, and any other feature that is constant and immobile.

Deflagration	Chemical reaction producing vigorous heat and sparks or flame and moving through the material (as black or smokeless powder) at less than the speed of sound. A major difference among explosives is the speed of the reaction; can also refer to intense burning; a characteristic of Class B explosives.
Deluge Sprinkler System	Fire protection sprinkler system in which the sprinkler heads are always open. When heat from a fire activates the fire detecting device, the deluge valve opens and water flows to, and is discharged from, all the sprinklers on the piping system. Also called open-head system.
Differential Dry-Pipe Valve	Valve in a dry-pipe sprinkler system in which air pressure is used to hold the valve closed and thus hold the water back.
Direct Pumping System	Water supply system supplied directly by a system of pumps rather than elevated storage tanks.
Draft Curtains	Dividers hung from the ceiling in large open areas that are designed to minimize the mushrooming effect of heat and smoke. Also called curtain boards and draft stop.
Draft Stop	See Draft Curtains.
Dry-Barrel Hydrant	Fire hydrant that has its opening valve at the water main rather than in the barrel of the hydrant. When operating properly, there is no water in the barrel of the hydrant when it is not in use. These hydrants are used in areas where freezing could occur.
Dry Chemical	Any one of a number of powdery extinguishing agents used to extinguish fires. The most common include sodium or potassium bicarbonate, monoammonium phosphate, or potassium chloride.
Dry Hydrant	Permanently installed pipe that has pumper suction connections installed at static water sources to speed drafting operations.
Dry-Pipe Sprinkler System	Fire protection sprinkler system that has air instead of water under pressure in its piping. Dry systems often are installed in areas subject to freezing.
Dry Powder	Extinguishing agent suitable for use on combustible metal fires.

Dry Standpipe System — Standpipe system that has closed water supply valves or that lacks a fixed water supply.

Duct — Channel or enclosure, usually of sheet metal, used to move heating and cooling air through a building.

E

Egress — Place or means of exiting a structure.

Electrical Systems — Those wiring systems designed to distribute electricity throughout a building or vehicle.

Electric Arc — Sustained, visible discharge of electricity across a gap or between electrodes.

Elevated Storage — Water storage reservoir located above the level of the water supply system to take advantage of head pressure.

Emergency Lighting System — (1) System of interior and exterior low-power incandescent and/or fluorescent lights that are designed to assist passengers in locating and using aircraft emergency exits but that are not bright enough to assist aircraft rescue and firefighting personnel in carrying out search and rescue operations. (2) Battery-operated floodlights in a building that are designed to activate when normal power supply is interrupted.

Exit Access — Portion of a means of egress that leads to the exit. Hallways, corridors, and aisles are examples of exit access.

Exit Capacity — According to code requirements, the maximum number of people who can discharge through a particular exit.

Exit Discharge — That portion of a means of egress that is between the exit and a public way.

Exit Stairs — Stairs that are used as part of a means of egress. The stairs may be part of either the exit access or the exit discharge when conforming to requirements in NFPA 101, *Life Safety Code*®.

Explosives — Materials capable of burning or bursting suddenly and violently.

Extinguisher — Portable firefighting appliance designed for use on specific types of fuel and classes of fire.

Extinguishing Agent — Any substance used for the purpose of controlling or extinguishing a fire.

F

Feed Main — Pipe connecting the sprinkler system riser to the cross mains. The cross mains directly service a number of branch lines on which the sprinklers are installed.

Fire — Rapid oxidation of combustible materials accompanied by a release of energy in the form of heat and light.

Fire Alarm System — (1) System of alerting devices that takes a signal from fire detection or extinguishing equipment and alerts building occupants or proper authorities of a fire condition. (2) System used to dispatch fire department personnel and apparatus to emergency incidents.

Fire Behavior — Manner in which fuel ignites, flames develop, and heat and fire spread; sometimes used to refer to the characteristics of a particular fire.

Fire Damper — Device that automatically interrupts air flow through all or part of an air-handling system, thereby restricting the passage of heat and the spread of fire.

Fire Department Connection (FDC) — Point at which the fire department can connect into a sprinkler or standpipe system to boost the water flow in the system. This connection consists of a clappered siamese with two or more 2-1/2-inch (65 mm) intakes or one large-diameter (4-inch [100 mm] or larger) intake. Also called fire department sprinkler connection.

Fire Department Sprinkler Connection — See Fire Department Connection.

Fire Detection Devices — Devices and connections installed in a building to detect heat, smoke, or flame.

Fire Detection System — System of detection devices, wiring, and supervisory equipment used for detecting fire or products of combustion and then signaling that these elements are present.

Fire Door — Rated assembly designed to automatically close and cover a doorway in a firewall during a fire.

Fire Escape	Means of escaping from a building in case of fire; usually an interior or exterior stairway or slide independently supported and made of fire-resistive material.
Fire Extinguisher	Portable firefighting device designed to combat incipient fires.
Fire Flow	Quantity of water available for firefighting in a given area. It is calculated in addition to the normal water consumption in the area.
Fire Gases	Those gases produced as combustion occurs.
Fire Hazard	Any material, condition, or act that contributes to the start of a fire or that increases the extent or severity of fire.
Fire Hydrant	Upright metal casting that is connected to a water supply system and is equipped with one or more valved outlets to which a hoseline or pumper may be connected to supply water for firefighting operations. Also called hydrant.
Fire Load	The amount of combustible materials in a given area in pounds per square foot.
Fire Partition	Fire barrier that extends from one floor to the bottom of the floor above or to the underside of a fire-rated ceiling assembly. A fire partition provides a lower level of protection than a firewall.
Fire Prevention	Part of the science of fire protection that deals with preventing the outbreak of fire by eliminating fire hazards through inspection, code enforcement, education, and investigation programs.
Fire Prevention Bureau	Division of the fire department responsible for conducting fire prevention programs of inspection, code enforcement, education, and investigation.
Fire Prevention Code	Law enacted for the purpose of enforcing fire prevention and safety regulations.
Fireproof	Resistance to fire. The term fireproof is a misnomer because it means that something will not burn. All material, other than water, will burn at some point. Other terms, such as fire resistive or fire resistant, should be used to indicate the degree of resistance to fire.

Fire Pump	Water pump used in private fire protection to provide water supply to installed fire protection systems.
Fire-Resistance Rating	Amount of time a material or assembly of materials will resist a typical fire as measured on a standard time-temperature curve.
Fire Resistive	Ability of a structure or a material to provide a predetermined degree of fire resistance; usually according to building and fire prevention codes and given in hour ratings.
Fire Tetrahedron	Model of the four elements required to have a fire. The four sides represent fuel, heat, oxygen, and chemical chain reaction.
Fire Triangle	Plane geometric figure that represents the three elements--oxygen, heat, and fuel--of fire.
Firewall	(1) Rated separation wall, usually extending from the foundation up to and through the roof of a building, to limit the spread of a fire. (2) Bulkhead separating an aircraft engine from the aircraft fuselage or wing.
Fixed-Temperature Device	Fire alarm initiating device that activates at a predetermined temperature.
Flame	Burning gas or vapor of a fire that is visible as light of various colors.
Flame Detector	Also called light detectors; these are used in some fire detection systems. There are two basic types: those that detect light in the ultraviolet wave spectrum (UV detectors) and those that detect light in the infrared wave spectrum (IR detectors).
Flame Impingement	Points at which flames contact the surface of a container or other structure.
Flame Spread	Movement of a flame away from the ignition source.
Flammable	Capable of burning and producing flames.
Flammable Gases	Gases that will burn.

Flammable Liquid — Any liquid having a flashpoint below 100°F (37.8°C) and having a vapor pressure not exceeding 40 psi absolute (276 kPa).

Flammable Materials — Substances that ignite easily and burn rapidly.

Flashover — Stage of a fire at which all surfaces and objects within a space have been heated to their ignition temperature, and flame breaks out almost at once over the surface of all objects in the space.

Flashpoint — Minimum temperature at which a liquid gives off enough vapors to form an ignitable mixture with air near the liquid's surface.

Flow Test — Tests conducted to establish the capabilities of water supply systems. The objective of a flow test is to establish quantity (gallons or liters per minute) and pressures available at a specific location on a particular water supply system.

Flush Hydrant — Hydrant installed in a pit below ground level, such as near the runway area of airports or other locations, where aboveground hydrants would be unsuitable.

Free-Burning Stage — Second stage of burning. The fire burns rapidly using up oxygen and building up heat that accumulates in upper areas at temperatures that may exceed 1,300°F (704°C).

Fuel — Flammable and combustible substances available for a fire to consume.

Fused Head — Automatic sprinkler head that has operated due to exposure to heat.

Fusible Link — Connecting link device that fuses or melts when exposed to heat. Used in sprinkler heads, fire doors, dampers, and ventilators.

G

Gas — Compressible substance, with no specific volume, that tends to assume the shape of a container. Molecules move about most rapidly in this state.

Grounding — Reducing the difference in electrical potential between an object and the ground by the use of various conductors.

H

Halogenated Agents — Chemical compounds (halogenated hydrocarbons) that contain carbon plus one or more elements from the halogen series. Halon 1301 and Halon 1211 are used most commonly as extinguishing agents for Class B and Class C fires. Also called halogenated hydrocarbons.

Halogenated Hydrocarbons — See Halogenated Agents.

Halogens — Name given to the family of elements that includes fluorine, chlorine, bromine, and iodine.

Halon — Halogenated agent; extinguishes fire by inhibiting the chemical reaction between fuel and oxygen.

Hazardous Chemical — Defined by the Occupational Safety and Health Administration (OSHA) as any chemical that is a physical hazard or a health hazard to employees.

Hazardous Material — Any material that poses an unreasonable risk to the health and safety of persons and/or the environment if it is not properly controlled during handling, storage, manufacture, processing, packaging, use, disposal, or transportation.

Hazardous Substance — Any substance designated under the Clean Water Act and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as posing a threat to waterways and the environment when released. (U.S. Environmental Protection Agency.)

Hazardous Wastes — Discarded materials regulated by the U.S. Environmental Protection Agency because of public health and safety concerns. Regulatory authority is granted under the Resource Conservation and Recovery Act. (U.S. Environmental Protection Agency.)

Heat — Form of energy that is proportional to molecular movement. To signify its intensity, it is measured in degrees of temperature.

Heat Actuating Devices (HAD) — Thermostatically controlled detection devices used to activate fire equipment, alarms, or appliances.

Heating, Ventilating, and Air Conditioning (HVAC) System — Heating, ventilating, and air conditioning system within a building and the equipment necessary to make it function; usually a single, integrated unit with a complex system of ducts throughout the building. Also called air-handling system.

Heat Transfer — Flow of heat from a hot substance to a cold substance. This may be accomplished by convection, conduction, or radiation.

Heavy Timber Construction — Type of construction where the load-bearing structure is composed of large wooden beams and trusses.

High-Rack Storage — Warehousing storage of materials on high, open racks that may be as high as 100 feet (30 m).

Highrise Building — Any building that requires firefighting on levels above the reach of the department's equipment. Various building and fire codes also will have written definitions of what is to be considered a highrise.

Hydrostatic Test — Testing method used to check the integrity of pressure vessels.

I

Ignition — Beginning of flame propagation or burning; the start of a fire.

Ignition Source — Method (either wanted or unwanted) that provides a means for the initiation of self-sustained combustion.

Ignition Temperature — Minimum temperature to which a fuel in air must be heated in order to start self-sustained combustion independent of the heating source.

Impounded Water Supply — Generally used to describe an open, standing, manmade reservoir but can be used to describe any type of standing, static water supply.

Incendiary — Fire believed to have been set deliberately; an incendiary agent such as a bomb.

Incipient Phase — First phase of the burning process where the substance being oxidized is producing some heat, but the heat has not spread to other substances nearby. During this phase, the oxygen content of the air has not been reduced significantly.

Indicating Valve — Water main valve that visually shows the open or closed status of the valve.

Inspection — Formal examination of an occupancy and its associated uses or processes to determine its compliance with the fire and life safety codes and standards.

Insurance Services Office (ISO) — Formed January 1971; a national insurance organization licensed as a fire rating organization; an advisory organization to other property-liability insurance companies. Also called rating bureau.

Ionization Detector — Type of smoke detector that uses a small amount of radioactive material to make the air within a sensing chamber conduct electricity.

L

Light Detector — See Flame Detector.

Liquefied Compressed Gases — Gases that under the charging pressure are partially liquid at 70°F (21°C). Also called liquefied gas.

Liquefied Gas — See Liquefied Compressed Gases.

Liquefied Petroleum Gas (LPG) — Any of several petroleum products, such as propane or butane, stored under pressure as a liquid.

Liquid — Incompressible substance that assumes the shape of its container. The molecules flow freely, but substantial cohesion prevents them from expanding as a gas would.

Listed — Usually refers to a device that has been tested by the Underwriters Laboratories (UL) Inc. , or Factory Mutual (FM) System and certified as having met minimum criteria for the device tested.

Live Load — Loads within a building that are movable. Merchandise, stock, furnishings, occupants, firefighters, and the water used for fire suppression are examples of live loads.

Load-Bearing Frame Members — Vertical portions of the frame that provide direct support to attached members.

Load-Bearing Wall — Wall that is used for structural support.

Local Alarm System — Combination of alarm components designed to detect a fire and transmit an alarm on the immediate premises.

Loop System — Water main arranged in a complete circuit so that water will be supplied to a given point from more than one direction. Also called circle system, circulating system, or belt system.

M

Manuals and Guides — Documents that provide explanations or advice. Not suitable for adoption or enforcement.

Masonry — Bricks, blocks, stones, and unreinforced and reinforced concrete products.

Means of Egress — Safe and continuous path of travel from any point in a structure leading to a public way. The means of egress is composed of three parts: the exit access, the exit, and the exit discharge.

Model Code — A code developed by an organization with a special interest in the subject that can be adopted by any jurisdiction.

Multipurpose Fire Extinguisher — Portable fire extinguisher that is rated for Class A, Class B, and Class C fires. Also known as ABC extinguisher.

N

National Electrical Code® (NEC) — NFPA 70, *National Electrical Code®*, is the standard for electrical activity that contains basic minimum provisions considered necessary to safeguard persons and buildings. It was prepared by the NFPA National Electrical Code Committee.

National Fire Codes (NFC) — Series of volumes published by the NFPA containing the current standards prepared by various committees and adopted by the Association.

National Fire Protection Association (NFPA) — Nonprofit educational and technical association devoted to protecting life and property from fire by developing fire protection standards and educating the public.

NFPA 704 Labeling System — Identifies hazardous materials in fixed facilities. The placard is divided into sections that identify the degree of hazard according to health, flammability, and reactivity as well as special hazards.

NFPA 704 Placard — Color-coded, symbol-specific placard affixed to a structure to inform of fire hazards, life hazards, special hazards, and reactivity potential.

Nonbearing Wall — Usually an interior wall that supports only its weight; can be removed without compromising the structural integrity of the building. Also called nonload-bearing wall.

Noncombustible — Incapable of combustion under normal circumstances.

Nonflammable — Incapable of combustion under normal circumstances; normally used when referring to liquids or gases.

Nonflammable Gases — Compressed gases not classified as flammable.

Nonliquefied Gases — Gas, other than a gas in a solution, that under the charging pressure is entirely gaseous at 70°F (21°C).

O

Occupancy — Classification of use to which owners or tenants put buildings or portions of buildings; regulated by the various building and fire codes. Also called occupancy classification.

Occupancy Classification — See Occupancy.

Occupant Load — Total number of people who may occupy a building or portion of a building at any given time.

Open-Head System — See Deluge Sprinkler System.

Ordinance — Law set forth by a governmental agency, usually at the local municipal level.

Orifice — Opening through which water is discharged.

OS&Y Valve — Outside screw and yoke valve; a type of control valve for a sprinkler system in which the position of the center screw indicates whether the valve is open or closed.

Outside Sprinkler — System with open heads, automatically or manually operated, to protect a structure or window openings against a severe exposure hazard.

Outside Standpipe Standpipe riser on the exterior of a building and equipped with a fire department siamese connection.

Oxidation Chemical reaction in which oxygen combines with other substances. Fire, explosions, and rusting are examples of oxidation.

Oxidizer Substance that yields oxygen readily and may stimulate the combustion of organic and inorganic matter.

P

Panic Hardware Locking assembly designed for panic exiting that unlocks from the inside when a release mechanism is pushed. Also called exit device.

Partition Interior wall that separates a space into rooms.

Party Wall Wall common to two buildings.

Pendant Sprinkler Automatic sprinkler head designed for placement and operation with the head pointing downward from the piping.

Photoelectric Detector Type of smoke detector that uses a small light source, either an incandescent bulb or a light-emitting diode (LED), that shines its light into a dark sensing chamber.

Pipe Chase Concealed vertical channel in which pipes and other utility conduits are housed. Pipe chases that are not properly protected can be major contributors to the vertical spread of smoke and fire in a building.

Placard Diamond-shaped sign that is affixed to each side of a vehicle transporting hazardous materials. The placard indicates the primary class of the material and, in some cases, the exact material being transported; required on containers that are 640 cubic feet (18 m^3) or larger.

Plan View Drawing containing the two-dimensional view of a building as seen from directly above the area.

Plans Review Process of reviewing building plans and specifications to determine the safety characteristics of the proposed building. This is generally done before permission is granted to begin construction.

Platform Frame Construction	Type of framing in which each floor is built as a separate platform, and the studs are not continuous beyond each floor. Also called western frame construction.
Point of Origin	Exact location at which a particular fire started.
Poke-Through	Opening in a floor, ceiling, or wall through which ducting, plumbing, or electrical conduits pass. If these openings are not properly caulked or sealed, they can contribute significantly to the spread of smoke and fire in a building.
Post Indicator Valve (PIV)	Valve that provides a visual means for indicating "open" or "shut" position; found on the supply main of installed fire protection systems.
Post Indicator Valve Assembly (PIVA)	Similar to a PIV except that the valve used is of the butterfly type, while the PIV and the WPIV use a gate valve.
Pre-Action System	Type of automatic sprinkler system in which thermostatic devices charge the system with water before individual sprinkler heads are activated.
Predischarge Alarm	Alarm that sounds before a total flooding fire extinguishing system is about to discharge. This gives occupants the opportunity to leave the area.
Prefire Inspection	See Preincident Planning.
Prefire Planning	See Preincident Planning.
Preincident Inspection	See Preincident Planning.
Preincident Plan	Document containing set procedures for possible incidents at a given location developed during preincident planning.
Preincident Planning	Act of preparing to handle an incident at a particular location or a particular type of incident before an incident occurs. Also called prefire planning, preplanning, prefire inspection, or preincident inspection.
Preplanning	See Preincident Planning.

Pressure-Reducing Valve — Valve installed at standpipe connections that is designed to reduce the amount of water pressure at that discharge to a specific pressure, usually 100 psi (700 kPa).

Primary Feeder — Large pipes (mains), with relatively widespread spacing, that convey large quantities of water to various points of the system for local distribution to the smaller mains.

Private Hydrant — Hydrant provided on private property or on private water systems to protect private property. Also called yard hydrant.

Proprietary System — Fire protection system owned and operated by the property owner.

Public Way — Parcel of land, such as a street or sidewalk, that essentially is open to the outside and is used by the public for moving from one location to another.

Pull Box — Manual fire alarm activator.

R

Radiation — Transfer of heat energy through light by electromagnetic waves. Also called radiated heat.

Radioactive Material — Material whose atomic nucleus spontaneously decays or disintegrates, emitting radiation.

Rated Assembly — Refers to doors, walls, roofs, and other structural features that may, because of the occupancy, be required by code to have a minimum fire-resistance rating from an independent testing agency.

Rate-Of-Rise Alarm System — One of the systems installed to detect fire by an abnormal rate of heat increase; operates when a normal amount of air in a pneumatic tube or chamber expands rapidly when heated and exerts pressure on a diaphragm.

Recommended Practice — A document that provides recommendations and advice. Not suitable for enforcement. Includes instructions from manufacturer.

Riser — (1) Vertical part of a stair step. (2) Vertical water pipe used to carry water for aboveground fire protection systems such as a standpipe riser or sprinkler riser.

S

Safety Can — Flammable liquid container that has been approved by a suitable testing agency.

Sidewall Sprinkler — Sprinkler that extends from the side of a pipe and is used in small rooms where the branch line runs along a wall. It has a special deflector that creates a fan-shaped pattern of water. Also called wall sprinkler.

Spontaneous Combustion — See Spontaneous Ignition.

Spontaneous Heating — Heating resulting from chemical or bacterial action in combustible materials that may lead to spontaneous ignition.

Spontaneous Ignition — Combustion of a material initiated by an internal chemical or biological reaction producing enough heat to cause the material to ignite. Also called spontaneous combustion.

Sprinkler — Waterflow device in a sprinkler system. The sprinkler consists of a threaded nipple that connects to the water pipe, a discharge orifice, a heat-actuated plug that drops out when a certain temperature is reached, and a deflector that creates a stream pattern that is suitable for fire control. Also called sprinkler head.

Sprinkler Connection — See Fire Department Connection.

Sprinkler Head — See Sprinkler.

Sprinkler Riser — Vertical pipe used to carry water to the sprinkler system.

Sprinkler System — See Automatic Sprinkler System.

Standard — A document that contains mediatory language and technical details on how to perform some design, construction, installation, or process required in the code.

Standpipe System — Wet or dry system of pipes in a large single-story or multistory building with fire hose outlets connected to them. The system is used to provide for quick deployment of hoselines during firefighting operations.

Supervisory Circuit — Electronic circuit within a fire protection system that monitors the system's readiness and transmits a signal when there is a problem with the system.

T

Temperature — Measurement of the intensity of heat.

Tetrahedron — (1) Four-sided solid geometric figure that resembles a pyramid; used to represent the flaming mode of combustion consisting of fuel, heat, oxygen, and the uninhibited chain reaction. (2) Hollow four-sided object mounted on a central pivot; used to indicate wind direction at some airports.

Total Flooding System — Fixed, special agent fire suppression system that is designed to flood an entire area with agent to extinguish a fire. Halon and carbon dioxide are the two most common agents used for this purpose.

Transmission of Heat — Law of heat flow: conduction, convection, and radiation.

Trouble Signal — Signal given by a fixed fire protection alerting system when a power failure or other system malfunction occurs.

Type I Construction — Type I construction has structural members, including walls, columns, beams, floors, and roofs, that are made of noncombustible or limited combustible materials. Known in some codes as fire-resistive construction.

Type II Construction — Similar to Type I except that the degree of fire resistance is lower. Also known as noncombustible or noncombustible/ limited combustible construction.

Type III Construction — It features exterior walls and structural members that are noncombustible or limited combustible materials. Interior structural members, including walls, columns, beams, floors, and roofs, are completely or partially constructed of wood. Commonly referred to as ordinary construction.

Type IV Construction — Heavy timber construction featuring exterior and interior walls and their associated structural members that are of noncombustible or limited combustible materials.

Type V Construction — It has exterior walls, bearing walls, floors, roofs, and supports that are made completely or partially of wood or other approved materials of smaller dimensions than those used for Type IV construction. Also called wood-frame construction.

U

UBC — Abbreviation for Uniform Building Code.

Underwriters Laboratories, Inc. (UL) — Independent fire research and testing laboratory.

Unprotected Openings — Openings in floors, walls, or partitions that are not protected against the passage of smoke, flame, and heat; generally used to refer to such openings in firewalls.

Upright Sprinkler — Sprinkler that sits on top of the piping and sprays water against a solid deflector that breaks up the spray into a hemispherical pattern that is redirected toward the floor.

V

Valve — Mechanical device with a passageway that controls the flow of a liquid or gas.

W

Wall Post Indicator Valve (WPIV) — Similar to a PIV but mounted on the wall of the protected structure.

Wall Sprinkler — See Sidewall Sprinkler.

Water Distribution System — System designed to supply water for residential, commercial, industrial, and/or fire protection purposes. This water supply is delivered through a network of piping and pressure-developing equipment.

Waterflow Detector — Detector that recognizes movement of water within the sprinkler or standpipe system. Once movement is noted, the waterflow detector gives a local alarm and/or may transmit the alarm.

Water Motor Gong — Audible alarm on an automatic sprinkler system that is powered by water flowing through the system.

Wet-Barrel Hydrant	Fire hydrant that has water all the way up to the discharge outlets. The hydrant may have separate valves for each discharge, or one valve for all the discharges. This type of hydrant is used only in areas where there is no danger of freezing weather conditions.
Wet-Pipe Sprinkler System	Automatic sprinkler system in which the pipes are constantly filled with water under pressure.
Wet Standpipe System	Standpipe system that has water supply valves open and maintains water in the system at all times.