

FPST 1213 Definitions

A

Abbreviation – a shortened form of a word or phrase: Dr. or Mrs.

Acronym – an abbreviation formed from the initial letters of other words and pronounced as a word: NASA, OSHA

Accident - That occurrence in a sequence of events which usually produces unintended injury, death, or property damage.

ANSI – American National Standards Institute

AIHA - American Industrial Hygiene Association

ACGIH - American Conference of Governmental Industrial Hygienists

ASSP - American Society of Safety Engineers

ASTM - American Society of Testing and Materials

AHJ - Authority Having Jurisdiction, entity that has the legal backing to enforce code

Authority - the power or right to give orders, make decisions, and enforce obedience.

B

Backdraft - A deflagration resulting from the sudden introduction of air into a confined space containing oxygen-deficient products of incomplete combustion.

BTU - The quantity of heat required to raise the temperature of one pound of water 1F at the pressure of 1 atmosphere and temperature of 60F

BLEVE - Boiling Liquid Expanding Vapor Explosion

Building Departments - Experts in electrical, plumbing, structural and mechanical (HVAC) systems

C

Combustible - Capable of undergoing combustion.

Combustion - A chemical process of oxidation that occurs at a rate that is fast enough to produce heat and usually light, in the form of either a glow or flames.

Combustible Liquid - Any liquid that has a closed-cup flash point at or above 100°F

Conduction - Heat transfer to another body or within a body by direct contact.

Convection - Heat transfer by circulation within a medium such as a gas or a liquid.

Capabilities - the power or ability to do something.

Code - Legal documents that govern activities at various levels of government

Curtain wall - Exists when a building is constructed using a structural frame for its main structural support. Separates interior environment from exterior to simply enclose the building

Corrosive - tending to cause corrosion.

Class A Fire – involves ordinary combustibles, such as wood, cloth, paper, rubber, and many plastics. These fires can be extinguished by cooling, smothering, insulating or inhibiting the chemical chain reaction

Class B Fire – involves flammable or combustible liquids and gases, including greases and similar fuels, which can be extinguished by oxygen exclusion, smothering, insulating, and inhibiting the chemical chain reaction

Class C Fire – involves energized electrical equipment, which requires the use of a nonconductive agent for protection of the operator. If the electricity is eliminated, these fires become Class A or Class B and may be extinguished appropriately

Class D Fire – involves combustible metals, such as magnesium, potassium, sodium, titanium, and zirconium, which require the use of an agent that absorbs heat and does not react with the burning metal

Class K Fire - involves cooking oils and fats. Class K-rated agents work by forming a barrier over the product, thus smothering and cooling the fire

D

Deflagration - Propagation of a combustion zone at a velocity that is less than the speed of sound in the unreacted medium.

Detonation - Propagation of a combustion zone at a velocity greater than the speed of sound in the unreacted medium

decay stage - When all fuel is consumed, the fire will go out

Daisy chains - Connecting two or more extension cords or power strips together to gain additional outlets and/or length

E

Explosion - The bursting or rupture of an enclosure or a container due to the development of internal pressure from a deflagration.

Escape – get out from certain area, room, or building

Endothermic - absorbs energy

Exothermic - produces energy

Exit Access - Portion of a means of egress that leads to an exit

Evaporation - the process of turning from liquid into vapor.

F

Fatalities - an occurrence of death by accident, in war, or from disease.

Flammable - A combustible that is capable of easily being ignited and rapidly consumed by fire.

Flammable aerosols - A flammable aerosol is an aerosol that contains a component that is classified as flammable, whether it is liquid, gas or solid

Flammable gases: A flammable gas is a gas that burns in the presence of an oxidant when provided with a source of ignition.

Flammable Liquid - Any liquid that has a closed-cup flash point that is below 100°F

Flammable solids - Flammable solids are any materials in the solid phase of matter that can readily undergo combustion in the presence of a source of ignition under standard circumstances

Flash Point - The minimum temperature of a liquid at which sufficient vapor is given off to form an ignitable mixture with the air, near the surface of the liquid or within the vessel used

Fire Point - The lowest temperature at which a liquid will ignite to achieve sustained burning

Flashover - A stage in the development of a contained fire in which all exposed surfaces reach ignition temperature more or less simultaneously and fire spreads rapidly throughout the space.

Fully Developed - Heat produced at maximum rate

FM GLOBAL - Free-Be

Fire Walls - Erected to limit maximum spread of fire. Act as an absolute barrier to a fire under conditions of a total burnout on either side. Assigned different fire-resistance ratings

Fire Alarm Control Unit – Alarm panel

Fire Departments - Experts in sprinklers, standpipes, detection and alarm systems and life safety codes

G

H

Hazard - A condition or set of conditions that have the potential to produce injury, illness, and/or property damage.

- Requires exposure and a sequence of events or stimuli before damage can occur.

Hot work - Any operation that requires the use of tools or machines that may produce a source of ignition

Hazardous Material - Hazardous chemical means any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified

I

Inspection - careful examination or scrutiny.

IFSTA – International Fire Service Training Academy

Injury - Any kind of damage to the body resulting from a single exposure to some type of energy or force

- Example: physical trauma suffered in an automobile accident \ Laceration from a knife

Illness - Damage to the body resulting from repeated exposures to some type of energy or force

- Examples: Cancer \ Hearing loss \ Carpal tunnel syndrome

incipient stage - radiant heat warms adjacent fuel and continues the process of pyrolysis

Initiating Devices - Anything that “senses” the fire

Initialism – an abbreviation consisting of initial letters pronounced separately: EPA, NRC

Immersion Coating - Dipping or coating systems. Have flammable liquids that are heated and agitated. Must provide ventilation and local exhaust equipment to control buildup of vapors

Inhalation - the action of inhaling or breathing in

Ingestion - the process of taking food, drink, or another substance into the body by swallowing or absorbing it.

Injection - an instance of injecting or being injected

J

K

L

Lower Flammable (Explosive) Level - That concentration of a combustible material in air below which ignition will not occur.

M

Mitigation - Developing methodologies that reduce the damage caused by the event.

- Examples: Construction codes in earthquake zones \ Emergency response plans

MSHA - Mine Safety and Health Administration

Means of Egress - A continuous and unobstructed path of vertical and horizontal egress or exit travel from any occupied point in a building or structure to a public way.

N

Near Miss - An unplanned event that did not result in injury, illness, or damage – but had the potential to do so.

NFPA - National Fire Protection Association

NICET - National Society for Certification in Engineering Technology

Notification Appliances - Anything that delivers information

O

Oxidation - Reaction with oxygen either in the form of the element or in the form of one of its compounds.

OSHA - Occupational Safety and Health Administration

Occupants - a person who resides or is present in a house, vehicle, seat, place, etc., at a given time.

Occupant Load - Total number of people for which the means of egress of a building or portions thereof is designed.

Oxidizing gases - Oxidizing gas means any gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does.

Organic peroxides - An organic peroxide is any organic (carbon-containing) compound having two oxygen atoms joined together (-O-O-). This chemical group is called a "peroxy" group. Organic peroxides can be severe fire and explosion hazards.

P

Prevention - Developing ways to eliminate the occurrence of the unplanned event.

- Examples: National Electrical Code (NFPA 70) \ Traffic laws \ OSHA regulation

Prosecution - the institution and conducting of legal proceedings against someone in respect of a criminal charge

Permit - A document that grants permission for a property owner to do something

Pyrolysis - Decomposing a solid by heating

Parapet Wall - Exterior wall portion that extends above the roof

Partition Wall - Fire barriers but are not fire walls. Used to separate occupancies and in corridors

Party Wall - Lies on a lot line between two buildings and is common to both buildings

Powder Coating - Suspension of electrically charged combustible powders

Pyrophoric liquids - Pyrophoric chemicals are liquids, solids, and gases that will ignite spontaneously in air at or below 130 °F

Photoelectric - characterized by or involving the emission of electrons from a surface by the action of light.

PPE - Personal protective equipment, commonly referred to as "PPE", is equipment worn to minimize exposure to hazards that cause serious workplace injuries and illnesses.

Q

R

Risk - Risk refers to the probability that a hazard will be activated and produce injury or property damage

- Two components: Probability or likelihood of the hazard being activated \ Severity of the resultant accident

Regulation - a rule or directive made and maintained by an authority.

Radiation - Transfer of heat in the form of an invisible energy wave. Heat radiated to a nearby structure can ignite it. Radiated heat passing through a window can ignite an object. Effected by distance from heat source

roll over - As flames near the ceiling, the layer of hot gases becomes more clearly defined and increase in volume. The fire has moved beyond its incipient phase and hot gases begin to ignite

S

Safety - An ever-changing condition in which one attempts to minimize the risk of injury, illness, or property damage from the hazards to which one may be exposed.

Safe - Free from the risk of harm. (Webster's)

SFPE - Society of Fire Protection Engineers

Sanction - a threatened penalty for disobeying a law or rule.

Specific Gravity - Weight of a substance compared to the weight of an equal volume of water at a given temperature

Static Discharge - A static discharge, which may be created by friction, may constitute an ignition source if easily ignited substances such as alcohols or oils are present.

Self-reactive substances and mixtures - A thermally unstable liquid or solid substance liable to undergo a strongly exothermic decomposition even without participation of oxygen (air). This definition excludes substances or mixtures classified under the GHS as explosive, organic peroxides or as oxidizing.

Self-heating substances and mixtures - A self-heating substance or mixture is a solid or liquid substance or mixture, other than a pyrophoric liquid or solid, which, by reaction with air and without energy supply, is liable to self-heat; this substance or mixture differs from a pyrophoric liquid or solid in that it will ignite only when in large amounts (kilograms) and after long periods of time (hours or days).

T

Toxicity - the quality of being toxic or poisonous.

U

Upper Flammable (Explosive) Level - That concentration of a combustible material in air above which ignition will not occur.

V

Vaporization - Transformation of a liquid to a vapor or gaseous state. Must overcoming atmospheric pressure of 14.7 psi, Liquids must be vaporized in order to burn

Ventilation - the provision of fresh air to a room, building, etc.

W

X

Y

Z