

Fire protection methods essay

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Fire Protection Methods Introduction: When the primitive man first learned to make fire and use it for his own needs, he saw it as the greatest of all gifts to mankind.

Even today it is vital for human life. In the end of the 18th century, the French chemist Antonie Lavoiser conducted a number of experiments to understand the nature of fire. A fire is basically a chemical reaction during which heat and light are emitted.

Three factors are necessary for the fire to take place.-the fuel, oxygen or air and the heat to raise the temperature of the fuel to the ignition temperature. The duty of the Fire Marshal is to extinguish the fire.

To do that, he needs to remove one or more of these agents. In principle, fire protection is as simple as that, but from the practical point of view, it is no ordinary task that can be accomplished easily. Each fire incident is a special incident, which requires the skilled application of the theoretical knowledge acquired during the process of professional training. Fire Protection Methods: The indigenous fire extinguisher, a bucket of water, is still used in extinguishing fires. The objective is to flood the fire with water. Jets of water are used to knock down the flames of a fire, and sprays are used to absorb heat and drive back smoke and gases.

The red color fire extinguishers that you find hung on conspicuous places in offices; factories, etc. are meant for small and localized fires. They are not effective against gasoline, oil and electrical fires. Foam extinguishers are used to extinguish such fires. Water should never be used to extinguish electrical and oil fires. In case of electrical fires, it can cause electrocution. In

case of oil fires, oil being lighter than water will always float on the surface and may spread the fire over large areas.

For putting out such fires, carbon-dioxide fire extinguishers are used. The carbon-dioxide cuts off the oxygen supply and thus fire is extinguished.

Duties and Responsibilities of a Fire Marshal: The modern materialistic civilization and the resultant products have given rise to many types of peculiar fire hazards.

The cause and origin of a fire are many and at times, they are quite complex. The area is increasingly related to science and engineering of fire behavior. A Fire Marshal needs to possess a wide range of fire protection skills.

In fire fighting operations you are always saving two lives-the one whom you are going to rescue and your own life. Perfect technical training is required. Theory and practice of the fire prevention and modern fire protection methods assume importance here.

A fireman must possess license for heavy motor vehicle as well. The training generally is for the duration of six months and the covers the following fire protection methods. " Aircraft Fire & Rescue, Air conditioning and Refrigeration, Breathing Apparatus, Building Construction and Structural protection, Physics & chemistry of Combustion, Discipline , Electricity, Explosives, Fire extinguishers, Fire Services Administration, First Aid & Ambulance Aid, Fixed Fire fighting installation, Foam & Foam making equipment, Fire hazards in Special Risk Area and Fire Protection, Fire Service Communication, Fire Prevention and Inspection Procedure, Gas Fires, Hose & Hose Fittings, Hydrant and water Relay, hydraulics, Internal combustion
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Engines, Investigation of Fires, Ladders, Pumps Plan Reading, Practical Fireman ship, Rescue Drills, Resuscitation, Rural and Forest Fires, Salvage, Ship Fires, Small Gears, Special Services, Storage of Hazardous Goods, Squad drill and P . T., water Tender, maintenance of equipment and appliances , Fire Prevention and Fire protection , Fire Protection Survey, Literate, Practical Drill with Hose, Hydrant , Pump, Foam, foam making equipments, Ladders, Small Gears, Hose Fitting, Salvage equipments, and Rescue Techniques.

“(Station Officer’s, n. d.)The training is exclusive and exhaustive that makes a Fire Marshal a different type of human- being as compared to a Police Official. The National Fire Protection Association was established 1896 and incorporated in 1930 under the laws of the Commonwealth of Massachusetts. NFPA’s vision is: “ NFPA is the premier source worldwide for the development and dissemination of knowledge about fire and life safety.

” (National Fire, 2007)Mission of Life for a Fire Marshall: He is a public servant in the real sense. He is called upon to perform his duty under perilous circumstances. He has to take quick, split-second decisions. The objective of his duty when a fire is raging is to protect everything and all beings, but young children, older adults and people with disabilities get priority.

The life of a Fire Marshal is not that simple as that of throwing buckets of water on the burning flames. The giant factories and the high rise buildings have added new dimensions to his problems. The use of AFFF in overhead suppression systems in aircraft hangers was unthinkable a few decades ago.

Now it is common in case of big fires in high rise building. " The technique of targeting the foam at an area in front of the hazard (aircraft) being protected and pushing the foam across the floor, was shown to be the most effective. Non-air aspirated foam was shown to be as effective as air aspirated foam.

The location of the fire detector with respect to the fire and obstructions had an effect on detection time."(Hill, 1999) Thus, the Fire Marshal has to work in a war-like situation. Once a close friend of mine asked, " Dear friend, can you extinguish any type of fire?" " With my thirty years of experience in fire protection methods, I can confidently say, yes," I said. But my friend had the last laugh. He said," Fire Fighters brag not that you are great and brave, I have known someone walking for life with his heart afire!"

-----Works Cited" National Fire Protection Association.

" Wikipedia, The Free Encyclopedia. 18 Apr 2007. Wikimedia Foundation, Inc. 23 Apr 2007 . Hill, S.

A; J. LScheffey; F. Walker; F. W. Williams; Naval Research Lab Washington DC. Tests of Alternative Fire Protection Method for USAF Hangars. 08 FEB 1999. Storming Media, LLC.

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