

Class Does Matter

Recently, while reviewing a written Fire Prevention Plan for a client, I noticed that their list of information about fire extinguishers did not mention whether the fire extinguishers matched the class of potential fire(s) for the site. This oversight is fairly common, but it could bring disastrous results. Fires are categorized into classes. The fire extinguishers that you have on hand must be rated to extinguish the particular class or classes of fires that could occur at your site or facility.

Would you knowingly put water on something that has an electrical current? Of course not, but if you are not careful about what fire extinguisher you grab, you could do just that. In recognition of National Fire Prevention Month, we are going to give you some safety tips in the coming weeks on fire safety and prevention. We will start it off with a quick study of the classes of fires, examples of each, and the control method that works well for each class of fire.

Class A: Ordinary Combustibles. Examples: paper, wood, cloth, and plastics. Control Method: Cool it! (remove heat). Often accomplished with water. This is the method commonly seen when you watch firefighters putting out fires.

Class B: Flammable Liquids. Examples: Oil(s), gasoline, paint related materials and solvents.
Control Methods: Remove the oxygen; break the chemical reaction (*see note below*); reduce heat. What not to use here? Water - it is ineffective on most flammable liquids, and can actually spread the fire.

Class C: Electrical Equipment. Example: Energized electrical equipment. Control method: Remove the fuel (de-energize or unplug electricity) or use a non-conductive material to extinguish it. Again, you do not use water on electrical equipment fires.

Class D: Flammable/Combustible Metals. Example: Magnesium, Sodium and other combustible metals. Control Method: smother with non-flammable material; break the chemical reaction; allow to burn itself out. Do not use water!

Class K: Restaurant Greases/cooking oils. Control Method: specialized hood systems that cool down the grease/oil and smother it. A pot of cooking oil placed on a stove burner at high heat can overheat and the

vapors could ignite. These types of fires are very fast spreading and most destructive. Another example of when NOT to use water.

Fire extinguishers are rated by an independent testing laboratory - Underwriter's Laboratory, which is where they receive their UL listed rating. They are rated by their ability to control the class of fire. The most common type of extinguishers are either rated A, ABC or BC. That means they can control either classes A; A, B, and C; or just B and C. There are some extinguishers rated just A for use on your ordinary combustibles. But you can see from our list that you don't want to grab an extinguisher and start squirting it before verifying that you are putting the correct extinguishing agent on the the correct class of fire. Or you might end up putting water from an extinguisher rated A on flammable liquids, electrical current or combustible metals.

When it comes to fire extinguishers - the class of fire matters because you must use the correctly rated extinguisher to successfully put out the fire.

Next week, we will continue our study of fire extinguishers with "*Size Doesn't Matter*".

*Chemical Chain Reactions - this was discussed in our Fall issue of the Safety Newsletter. If you missed yours, let us know, we can send you a copy!