Weekly Safety Meeting

INDUSTRIAL FIRE PROTECTION

No industry needs to be reminded of the catastrophic consequences resulting from in-plant fires. However, such fires are in many cases avoidable. Hindsight too often has revealed flaws in what was other wise considered to be an effective fire protection system.

Fire results from the ignition of a substance in a supply of oxygen The substance involved vaporizes when ignited. If a sufficient degree of vaporization results, such that the ratio of oxygen to vapor reaches a certain level, burning will continue even after the ignition source is removed. Each material has a minimum temperature at which it will burn of its own accord. This is called its "ignition temperature. This temperature is affected by variables such as the size and shape of the place where it occurs; the amount of oxygen present, the type of ignition source, etc. Different materials vaporize at different temperatures - some require the addition of heat to vaporize, while others will vaporize at room temperature. These latter substances are referred to as flammable materials~ (E.G. gasoline) and require special handling.

The three requirements for fire are: Oxygen Fuel and an Ignition Source. The elimination of any one of the three will control or prevent fire. Oxygen is the most difficult of the three to eliminate, since it is part of the surrounding air. It is, however, possible to limit the amount of oxygen, for example by storing oil rags in closed metal cans. The heat and rate of vaporization may cause the spontaneous ignition of the clothes but a closed container prevents replenishment of the oxygen and so the flames will be smothered. There are many ways of limiting the potential fuel for fires...

1. **GOOD HOUSEKEEPING** is among the most important. Trash should never be allowed to accumulate in the workplace since it can provide a ready fuel source for welding sparks, cigarettes etc.

   Dispose of all flammable wastes quickly and efficiently. Flammable scrap wiping rags or rubbish go in metal containers provided. Gasoline, kerosene, oil, or other flammable liquids go in special containers provided - never pour down drains or sewers.

2. **ALWAYS OBEY SMOKING REGULATIONS.** These are made for the protection of you and of others. Usually the "no smoking" sign indicates that there are flammable materials or conditions in the area. You cannot see the vapors but lighting a match could involve you in a fire.

3. **KNOW WHERE AND HOW TO TURN IN A FIRE ALARM.** Know where the fire extinguishers are kept in your area and know what type fire they are meant for. Know the fire exit you should use in an emergency. Help emergency fire brigades, but do not get in their way.

4. **CHANGE YOUR CLOTHES RIGHT AWAY IF THEY GET SOAKED WITH 01L, KEROSENE; NAPTHA OR OTHER FLAMMABLE LIQUIDS.** Not only will changing prevent skin troubles, but it will prevent a bad burn if the retained vapor catches on fire.