

# TEAM SAFETY

## THE FIRE TRIANGLE

Let's talk about what makes a fire and what we can do to prevent one. Fire can be compared to a triangle. Three sides are necessary to make a triangle and three ingredients are necessary to cause a fire. These are heat, air, and fuel. If any one of these three sides is missing, there can be no fire.

### HEAT

Heat, the first side of the fire triangle, can come from many sources. It can be generated by sparks from welding operations, discarded cigarette butts, electrical shorts, frayed wiring, friction from power tools, and hot exhaust pipes.

### FUEL

Fuel, the second side of the fire triangle, may be liquid, such as gasoline or solvents; a solid, such as paper or wood scraps; or a gas, such as propane.

### AIR

Air, the third side of the fire triangle, contains oxygen which is necessary to sustain a fire. This is one side of the triangle we can't do much about. Air is usually present. Heat, fuel, and air must be in the proper proportion for fire to occur. It is possible to have these three ingredients without causing a fire. For example, there may not be enough heat or air to ignite the fuel and cause it to burn.

## ELIMINATING THE TRIANGLE

Let's talk about what we can do to prevent the fire triangle from forming. Remember that if you remove any one of the three ingredients, you will prevent or extinguish the fire. We can help prevent fires by doing the following:

1. Maintaining a neat and clean work area, thus preventing an accumulation of rubbish.
2. Putting oily or paint-soaked rags in covered metal containers.
3. Observing all "No Smoking" signs
4. Keeping all combustible materials away from furnaces or other sources of ignition.
5. Reporting any fire hazards we, personally, cannot eliminate. This includes electrical hazards, which are the source of many fires.
6. Arranging cold weather heating devices so that tarps won't blow into them.

## WHEN YOU KNOW THE ANGLES

When you know the angles, it's easier to prevent and control fires. Remember the fire triangle: heat, air, and fuel. When you find these three ingredients present, take heed. A fire could be in the making.

