

FIRE PROTECTION

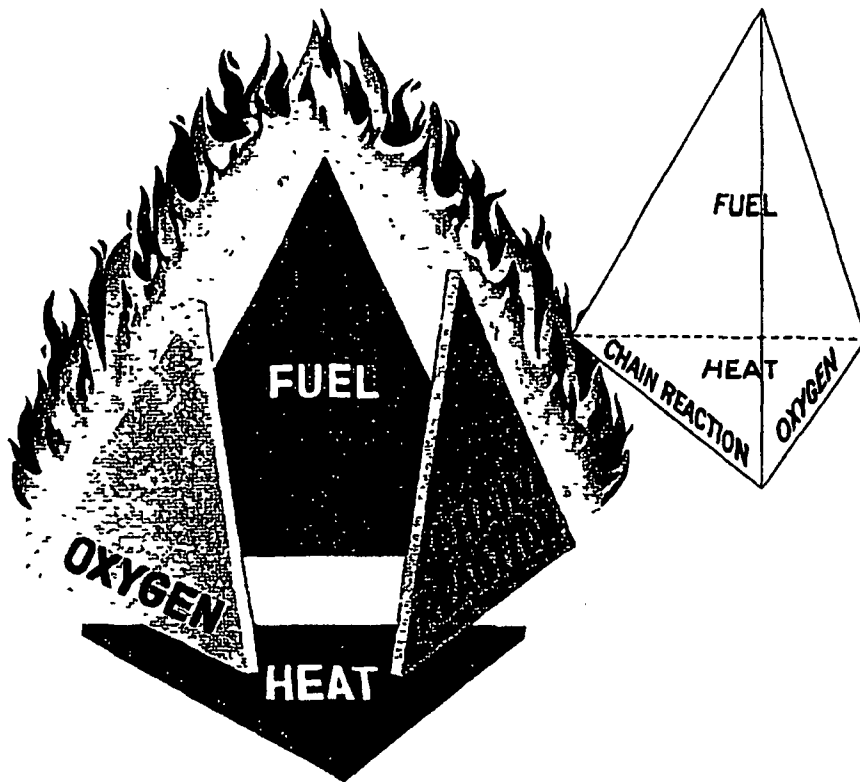


Fig 33-10 The "Fire Pyramid" of today illustrates a fourth important way that a fire can be extinguished inhibit the flame chain reaction Simple isometric view is at right. Relative position on diagrams is unimportant as all factors are interdependent.

the blanket is maintained long enough for the combustible material to cool below its self-ignition temperature and if no ignition sources are present

Carbon dioxide and vaporizing liquid are of limited value on fires involving wood, paper, or materials that furnish much of their own oxygen supply when burning, because the blanket usually cannot be maintained long enough for all smoldering ignition sources to be extinguished

In the field of fire prevention, the principal of separating oxygen from the fuel supply is applied when an inert gas is used to purge operations involving flammable vapors, dusts, and other combustible materials

under confined conditions when a source of ignition may exist

Interrupting the reaction

Recent studies in fire chemistry have resulted in certain revisions and expansions in the theories of fire extinguishment In analyzing the anatomy of a fire, the original fuel molecules appear to combine with oxygen in a series of successive intermediate stages, called branched-chain reactions, in arriving at the final end products of combustion It is these intermediate stages which are responsible for the evolution of flames

As molecules fragmentize in these