

FIRE FIGHTERS GUIDANCE NOTE # 6-6

ISSUE: FLASHOVER

Flashover occurs when flammable gases are created under the right combustion conditions and the room temperature exceeds the ignition point of the gases. Flashover can produce fast moving flames with temperatures in excess of 1100 degrees Fahrenheit.

Rollover is often confused with flashover. Rollover is far less dangerous condition than flashover because the resulting incomplete combustion produces slower moving flames. Flashes of flame that can be seen at the ceiling level or at the top of an open doorway or window are indications of rollover.

If no action is taken, rollover will proceed to flashover.

Pre-flashover signs include:

- the room gets hot very quickly;
- a rapid inversion of the smoke layer from the ceiling to the floor (i.e. the smoke suddenly drops to floor level engulfing firefighters);
- roll-over in some cases; and
- temperatures at waist height that are hot enough to melt a visor.

To prevent injuries the following precautions should be followed:

- get down as low as possible;
- get out as quickly as you can using any, safe exit (e.g. doors, windows); and
- when the smoke drops immediately discharge water at the ceiling to cool the gases (Note: this action may result in steam burns but is preferable to burns from a flashover).

The best way to prevent flashover is by creating adequate vertical or horizontal ventilation.