

New Refrigerators – a Fire Hazard?

By Richard van Leeuwen

So you bought your sweetie a new refrigerator! I'll bet you didn't think of it as a potential fire hazard. Refrigerators used to be so safe, that for years I didn't see any that caused a fire until recently after they went through a design change. They used to have the cooling coils on the rear of the enclosure, where they would catch dust bunnies and the envelope that slipped down from the top that one could never find. Possibly to reduce costs, refrigerators now come with smaller cooling coils tucked underneath, with a small fan to blow the air to cool them.

But what happens when the fan stops? The designers put a small temperature sensitive switch underneath to turn off the compressor. Now the refrigerator no longer cools very well as it cycles on the temperature switch. Eventually, the switch sticks as the contacts become pitted (as they all will eventually) and the compressor runs continuously and overheats.

If you think that there is not much to burn in a refrigerator, think again. The insulation, which used to be non-combustible fibreglass, is now Styrofoam, a plastic which degrades into a hydrocarbon and burns very well. Most kitchens have cabinets close to, or even surrounding the refrigerator, so a nasty fire at the refrigerator develops into a disastrous kitchen fire.

After the fire, investigators will have a difficult time determining the cause because kitchen fires often result in a totally destroyed house. The many appliances and alternate causes in a kitchen will leave many alternate theories as to the cause, difficult to discount.

I have investigated two refrigerator fires in the last two years which I have attributed to this cause. In one case, the damage was very severe. Not a nice aftermath for the unsuspecting owners. Let's hope that refrigerator manufacturers will soon make a safer product.

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