

“KEEPING PACE” - #65

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DRYER VENT TRAP:



This is an exemplar, or identical, vent trap to the one which was being used by the insured when a fire occurred. This device simply allows the hot air from the electric dryer to escape into the house, while the moisture in the air drops into the plastic bucket.

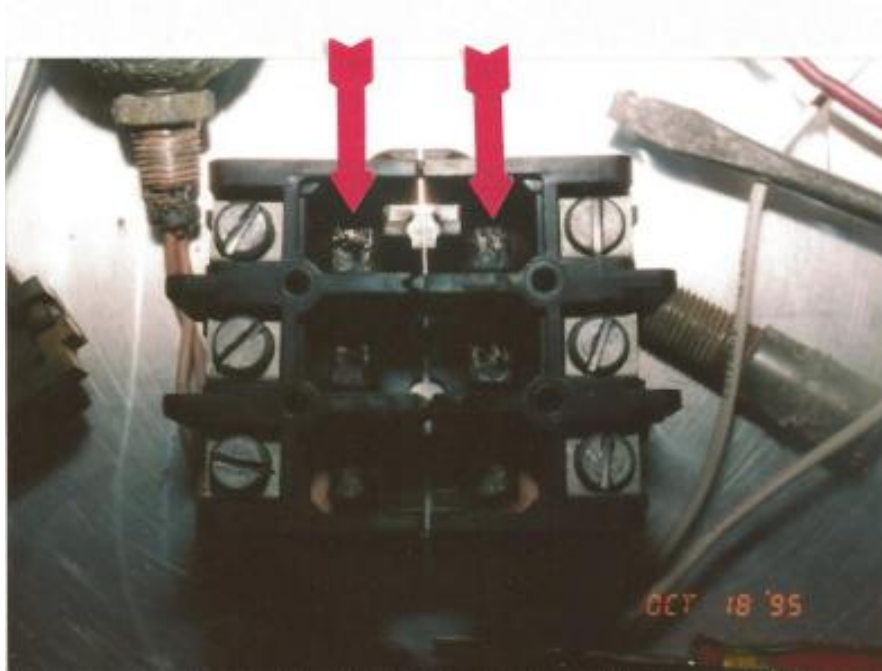
Unfortunately, the insured had placed a wicker hamper next to this device for a year or more. Over time, pyrolysis lowered the auto-ignition temperature of the wood in the wicker basket and it ignited. The lady was home, but she did not use a fire extinguisher and a very significant loss occurred.

In 1995, I investigated two other problems caused by dryer vents. In one case, the metal vent pipe was too long, and in the other case the vent pipe had become disconnected behind the dryer. Pyrolysis again caused the wood paneling behind the dryer to be ignited.

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RELAY CONTACTS:



On October 16, 1995, a fire occurred in a large commercial dishwasher in the cafeteria of an elementary school near Indianapolis. The fire was confined to the area around the 20,000 watt electrical heating element in its open hot water tank, and it was obvious that these heating elements overheated after all the water boiled away.

There is a backup safety float switch in the tank which senses a lowering of the water level and turns off voltage to the solenoid coil of the large relay (shown above) which powers the heating elements. Unfortunately, the relay contacts had become welded together because they had become pitted and worn after 14 years. Thus the solenoid coil had no effect.

After this fire, I suggested to the manufacturer that they use two relays as the deep fat fryer manufacturers have done for about 15 years now. Then, if the contacts on the control relay ever weld together, the float switch will still open the contacts on the second relay whenever an overheating condition causes the water to begin boiling away. This will prevent a fire.

I was asked to respond immediately to this fire scene, because the school was incurring a large cost in paper plates.

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