OFPC information BULLETIN
November 2008

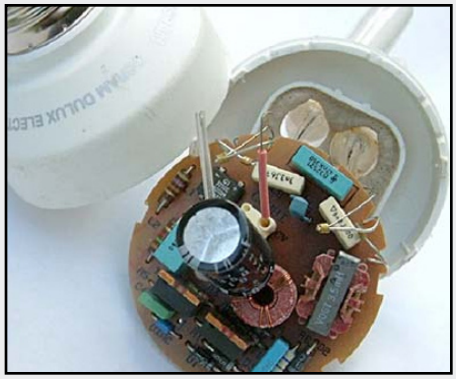
Area Of Origin Tip: CFL bulb

Story provided by Bill Schumm at FireGeezer.com

WITH NEW ADVANCES AND TECHNOLOGY come new problems for fire and rescue people. We all remember the crash-course (sorry for the pun) training on the new automobile bumper shock absorbers and their propensity to hurl deadly debris into the nearest firefighter.

These sorts of discoveries are always a surprise because nobody who makes these things ever thinks about letting us know first. We have to find out about it ourselves and then spread the word. Such is the case with these new, screwy light bulbs that are showing up in homes all over the country.

One of our readers from Local-3272 passed along to us a training memo from his department that we all can file away into the cranial databank for future "smell of smoke" calls. This bulletin tells us:



On June 18, 2008, BC602 ran a house fire where the occupant reported a haze of smoke in the structure. The first Engine reported an electrical odor at the top of the basement steps that had the distinct odor of light ballast. Initial investigation both visually and with a Thermal Image Camera revealed no unusual hazards. The house contained no "traditional" fluorescent light fixtures. The occupant informed us that they had installed CFL bulbs in numerous fixtures and lamps throughout the house.

We began the process of checking each bulb and found one in a ceiling fixture that had a ballast failure much like we are accustomed to finding in traditional overhead tube lighting fixtures in commercial buildings.

A CFL bulb contains a ballast at the base of the unit between the spiral tube and (Edison) screw. This ballast, encased in a plastic shell, may or may not have visible vent holes or slots.

The ballast contains a Voltage Dependent Resister that, when failure occurs, opens like a fuse to protect the device and associated electrical equipment. The resultant heat and smoke should escape from the vents in the housing. Light smoke may be visible and one will smell that distinct electrical ballast odor. As in the case the other night, there were visible smoke marks and a small, brown oily/gooey residue at the vent holes. These signs were not visible with the bulb in its socket.

Since more CFL bulbs are finding their way into the home, don't overlook these items when investigating a smoke odor.

Update:

Dave Statter (STATter911.com) sent this photo of one of these lightbulbs that had a similar problem. You can see that in this instance the discoloration and charring is visible on the outside.

Two photos provided by
Yonkers Fire Department Fire Investigation Unit.

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