



## Where Sparks Fly

By *Wolfgang Jager*

### Federal Pacific Electric Breaker Panels

With this article I want to make good on my promise to write a summary on Federal Pacific Electric (FPE) panels.

**Q:** Are FPE panels really a problem?

**A:** Yes! They do present a latent (hidden) danger.

First I want to tell you that the company named "Federal Electric" has no relation or connection to the "Federal Pacific Electric" company. That said, lets go to the problem with the FPE panels. There are two distinct deficiencies connected with their product.

**Number One:** The connection of their "stab-lok" breakers to the bus-bar is very critical. If the breakers are not seated exactly right, the connection will heat up and burn the bus-bar to a crisp; certainly a great fire hazard.

**Number Two:** This has to do with the breaker operation. Some breakers just will not operate (trip). Their two pole breakers have been known to jam if a fault occurs on only one leg of the 240-volt circuit. This is also a great potential fire hazard. Independent testing of these

breakers revealed a significantly higher failure rate. The industry average is about one in a million, practically nonexistent. If the FPE failure rate is 5 in a million, one can say the FPE failure rate is 5 times greater than breakers of other manufacturers.

So this is the story on their panels. What should you do when you encounter one of these panels? Always recommend replacement of the panel. They are a latent potential hazard, which could cause a fire at any time.

If the seller does not want to replace the panel, then the buyer should negotiate a financial settlement. This is up to them. The buyer may want to take his/her chances and live with it. Your duty to your client however is to always point out the existence of this hazardous situation. Also, mention that spare parts for these panels are almost impossible to obtain.

I hope that with this article I separated the truth from fiction and gave you some guidance of how to handle this dilemma.

Stay tuned for other discussions on tricky electrical findings.

**Thought of the Day:** Open your arms for change but don't let go of your values.

## New Edition of the Energy Code and Electrical Code Become Effective January 1, 2003

The Georgia Department of Community Affairs (DCA) has adopted the 2000 International Energy Conservation Code and the 2002 National Electrical Code. Both code editions have Georgia amendments that are applicable statewide.

The state's adoption of the new Energy Code is a significant step toward lowering energy consumption, cleaning the air, and addressing the many issues we face due to unprecedented growth. All new buildings and significant renovations will be required to comply with the new Energy Code.

A brief list of some changes to the Energy Code can be found in the DCA Fall 2002 Newsletter. Go to the DCA website and download the newsletter for more information.

A complete list of the current Georgia State Minimum Standard Codes effective January 1, 2003 is available for downloading from the DCA website listed on page 3.

## Flammable Vapor Ignition Resistant (FVIR) Water Heaters

Those of you who attended the Fall Conference at Unicoi will remember Ron Anderson and the video discussing upcoming changes to residential gas-fired water heaters.

The water heater industry has been developing a technology to make water heaters more resistant to fires caused from improper use and handling of flammable liquids.

Gas-fired water heaters meeting the FVIR certification standard will be implemented in 3 phases. In phase one, conventional 30, 40 & 50 gallon capacity water heaters with a manufacture date of July 1, 2003 or later will require the FVIR certification.

What does it mean? Water heaters meeting the FVIR certification will not be required to be elevated 18 inches above the floor when installed in garages or other locations where flammable liquids may be present.