AmTrust North America
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Electrical – Replacement of Federal Pacific Stab-Lok

Federal Pacific Stab-Lok circuit breakers and panels have been found to have design flaws where a large percentage of breakers fail to trip, overheat, do not properly function and do not properly protect circuits and users. Federal Pacific Stab-Lok electrical panels and breakers were installed in residential and commercial occupancies built from 1960 to 1985.

The Findings and Results after Testing FPE Circuit Breakers and Panels

Circuit breakers are designed to trip (open the circuit) during an overcurrent or overload situation to protect people, downstream wiring and appliances. Failure to operate properly allows the circuit to stay on, which can lead to wiring overheating and cause a fire or electric shock.

In the 1980s, the Consumer Product Safety Commission (CPSC) hired a company that employed Dr. Jesse Aronstein, an electrical engineer with a doctorate in materials science, to test the Federal Pacific Stab-Lok electrical panels and breakers. Dr. Aronstein and his team determined that 51 percent of the Stab-Lok breakers failed to trip. His research and results were submitted to the CPSC.

Testing conducted by the CPSC, at least four companies and additional independent testing from 1979 to 1983 determined failures to trip in 14 to 74 percent of tests, and up to 80 percent Critical Safety Failures.

Reliance Electric Co, the parent company of FPE, acknowledged “a possible defect” in a 1982 Securities and Exchange Commission filing. Reliance Electric also said that FPE had obtained the Underwriters Laboratories seal of approval for its breakers “through the use of deceptive and improper practices” and noted that Underwriters Laboratories revoked UL listing for most of FPE’s products.

In 1983, when the CPSC announced that it was closing its investigation, it noted in a news release that Reliance had submitted test data the company said proved the breakers “do not create a hazard in the household environment,” and the CPSC said it had “insufficient data” to accept or refute that position.

“Based on the Commission’s limited budget,” the news release said, “and the uncertainty of the results of such a costly investigation, the Commission has decided not to commit further resources to its investigation of FPE’s circuit breakers.”

Eventually, FPE stopped manufacturing products under its own name, however other companies acquired the rights to manufacture Stab-Lok products under different names. This practice continued until about 1990. Today, two companies still make Stab-Lok-type products: Connecticut Electric produces breakers under the name UBI and a Canadian company, Schneider Electric, makes breakers and panels under the name Federal Pioneer.

Portions of the above were taken from an article from the Washington Post.

A class action lawsuit against FPE was filed in New Jersey in 2002 and the Court ruled that FPE had violated the NY Consumer Fraud Act. The court found that FPE knowingly and purposefully distributed circuit breakers, which were not tested to meet UL Standards as indicated on their label.

Additional source material can be found at https://inspectapedia.com/fpe/FPE_StabLok_Summary.htm

Replacement of circuit breakers only is not recommended, even if using UL approved breakers. Mixing of different brand breakers and panels is not in accordance with UL Listings for Assemblies, of panels and breakers. Such mixed assemblies have not been tested by UL. There is also evidence of overheating, deterioration and potential flaw in the design of the enclosure and busbar to which the breakers connect.

There are many other Federal Pacific electrical devices that have been manufactured and installed including but not limited to:

- Main disconnects
- Electrical service panels
- Switch gears

The only reported failures are with the Stab-Lok electrical panels and breakers. AmTrust recommends all Federal Pacific Stab-Lok panels and breakers be replaced, with UL Listed Equipment to eliminate the possibility of failure which can result in fire or electric shock injuries.

For additional resources and other safety and risk management subjects, visit the AmTrust Loss Control website: https://amtrustfinancial.com/loss-control

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