

Potential Dangers of Federal Pacific Electric Stab-Lok Breakers and Panels



Federal Pacific Electric (FPE) Stab-Lok panels and circuit breakers were manufactured during the 1950s into the 1980s. An estimated tens of millions of FPE Stab-Lok panels were sold and can be found in service today throughout the United States and Canada in both residential and commercial settings. Jesse Aronstein, PhD, P.E. has been testing Stab-Lok breakers for decades. Aronstein testified in lawsuits against Federal Pacific Electric Company and published reports about the failures of Stab-Lok breaker panels and how they may be associated with as many as 2,800 electrical fires each year in the United States.¹

Underwriters Laboratory (UL) Removes Listing

“UL listings on circuit breakers made by Federal Pacific had previously been obtained through the use of deceptive and improper practices,” according to a 1982 Security and Exchange Commission report. Aronstein remarked “...they were applying UL labels to products that did not meet the UL requirement.” Underwriters Laboratory (UL) ultimately removed the ‘UL listing’ for these panels.² Today, Federal Pacific Electric is no longer in business, however, ‘Stab-Lok’ circuit breakers were manufactured under other names.

What are the electrical risks associated with FPE Stab-Lok breaker panels?

FPE panels reportedly have a higher rate of failure than current UL listed service panels. The primary concern is that when there is an electrical surge, or branch circuit overload, the circuit breakers may not trip, or close the circuit. Should a circuit breaker fail to trip under these conditions, a continuous electrical supply continues to flow potentially creating ‘hot spots’ that are often concealed behind combustible walls. When this occurs, the building is at a high risk of igniting combustible structural members, and ultimately a destructive fire. When a circuit breaker fails to trip the circuit, a high degree of personal danger also exists and may result in electrical shock and electrocution.

What is the recommended action to take regarding FPE Stab-Lok breaker panels?

Aronstein reported Stab-Lok panels sustained a ‘high defect rate’ and advised to have them replaced. A best practice is to hire a licensed, certified and insured electrical contractor to remove all FPE electrical service panels and their Stab-Lok circuit breakers, and to replace them with industry suitable circuit breaker panel boards to reduce the potential for electrical fires and injury. For more information regarding FPE Stab-Lok breaker panels, please contact Acadia’s Virtual Loss Control team at virtualc@acadia-ins.com or 207-874-5701.

Acadia Insurance is pleased to share this material with its customers. Please note, however, that nothing in this document should be construed as legal advice or the provision of professional consulting services. This material is for general informational purposes only, and while reasonable care has been utilized in compiling this information, no warranty or representation is made as to accuracy or completeness.

Sources:

1. Aronstein Ph.D., P.E., (2017). Hazardous FPE Circuit Breakers and Panels. Retrieved 2020, from <http://www.fpe-info.org/Hazardous%20FPE%20171110.pdf>
2. (1982). Reliance Electric Company and Subsidiaries, Notes to Consolidated Financial statements. Retrieved 2020, from <http://www.fpe-info.org/FPE-Reliance%20SEC%20Filing-Highlighted.PDF>

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