

NEWS from CPSC

U.S. Consumer Product Safety Commission

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Commission Closes Investigation Of FPE Circuit Breakers And Provides Safety Information For Consumers

WASHINGTON, D.C. -- The Consumer Product Safety Commission announced today that it is closing its two year investigation into Federal Pacific Electric Stab-lok type residential circuit breakers. This action was taken because the data currently available to the Commission does not establish that the circuit breakers serious risk of injury to consumers.

The Commission investigation into Federal Pacific Electric (FPE) circuit breakers began in June, 1980, when Reliance Electric Co., a subsidiary of Exxon Corporation and the parent to FPE, reported to the Commission that many FPE circuit breakers did not fully comply with Underwriters Laboratories, Inc. (UL) requirements. Commission testing confirmed that these breakers fail certain UL calibration test requirements. The Commission investigation focused primarily on 2 pole residential circuit breakers manufactured before Reliance acquired FPE in 1979.

To meet UL standards, residential circuit breakers must pass a number of so-called "calibration tests." The purpose of these tests is to determine whether the circuit breakers will hold the current for which they are rated and also automatically open or "trip" (shut off the current) within specified time limits if over-loading of the circuit causes current levels in excess of the breaker's amperage rating. (Overloading can occur because a consumer plugs too many products into a circuit or due to the failure of a product or component connected to that circuit). While the Commission is concerned about the failure of these FPE breakers to meet UL calibration requirements, the Commission is unable at this time to link these failures to the development of a hazardous situation.

According to Reliance, failures of these FPE breakers to comply with certain UL calibration requirements do not create a hazard in the household environment. It is Reliance's position that FPE breakers will trip reliably at most overload levels unless the breakers have been operated in a repetitive, abusive manner that should not occur during residential use. Reliance maintains that, at those few overload levels where FPE breakers may fail to trip under realistic use conditions, currents will be too low to generate hazardous temperatures in household wiring. Reliance believes its position in this regard is supported by test data that it provided to the Commission.

The Commission staff believes that it currently has insufficient data to accept or refute Reliance's position.

The Commission staff estimates that it would cost several million dollars to gather the data necessary to assess fully whether those circuit breakers which are installed in homes but which may fail UL calibration tests present a risk to the public. Based on the Commission's limited budget (\$34 million for fiscal year 1983), the known hazards the Commission has identified and must address (involving products of other manufacturers) 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. However, despite its decision to close this particular investigation, the Commission will continue its investigation of circuit breakers generally. The Commission can reopen its investigation of FPE circuit breakers if further information warrants.

The Commission advises consumers to take certain safety precautions with all circuit breakers and fuses. Consumers should:

- Know your electrical circuit. Know which outlets and products are connected to each circuit.
- Never overload any electrical circuit by connecting too many products to the circuit. Be particularly careful not to connect several products that demand high current (such as heating appliances) to a low amperage circuit.
- Comply with local building codes in wiring or adding electrical circuits. Make sure the wiring and devices used in the circuit are connected to a circuit breaker or fuse of the proper size.
- Immediately disconnect any electrical product if problems develop. Have the product examined by a competent repair person.
- Investigate to determine why a fuse blows or circuit breaker trips. Do not simply replace the fuse or reset the breaker. If a fuse blows or breaker trips, it is often a warning that the circuit is overloaded. Check the circuit for causes of overloading (for example, too many appliances plugged in, a malfunctioning product, a short circuit). When in doubt, consult a licensed electrician.

Consumers who have questions concerning circuit breakers, or who wish to report information relating to their safety, may call the U.S. Consumer Product Safety Commission's toll-free safety hotline at 800-638-CPSC.

[Send the link for this page to a friend!](#) The U.S. Consumer Product Safety Commission is charged with protecting the public from unreasonable risks of serious injury or death from more than 15,000 types of consumer products under the agency's jurisdiction. Deaths, injuries and property damage from consumer product incidents cost the nation more than \$700 billion annually. The CPSC is committed to protecting consumers and families from products that pose a fire, electrical, chemical, or mechanical hazard or can injure children. The CPSC's work to ensure the safety of consumer products - such as toys, cribs, power tools, cigarette lighters, and household chemicals - contributed significantly to the 30 percent decline in the rate of deaths and injuries associated with consumer products over the past 30 years.

To report a dangerous product or a product-related injury, call CPSC's hotline at (800) 638-2772 or CPSC's teletypewriter at (800) 638-8270, or visit CPSC's web site at www.cpsc.gov/talk.html. To join a CPSC email subscription list, please go to www.cpsc.gov/cpsclist.asp. Consumers can obtain this release and recall information at CPSC's Web site at www.cpsc.gov.