I-TEAM: Faulty Circuit Breakers in Thousands of Homes Cause Fire

The Federal Pacific Electric breakers, mostly found in homes built before 1990, sometimes do not

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The accident happened Tuesday morning, with a dump truck plowing into an accident scene that was already there. Luckily, only one of the first responders suffered serious injuries. NBC 4 New York’s Brian Thompson reports. Read More
Circuit breakers are designed to keep you and your family safe from fire, but one brand of breaker might not only fail to protect your family – it could actually cause a fire.

“There’s thousands of them out there,” Clifton, N.J. Fire Chief Vince Colavitti told NBC 4 New York’s I-Team. “It’s a ticking bomb waiting to happen.”

The breakers, mostly found in homes built before 1990, were made by a now-defunct company called Federal Pacific Electric, and experts tell the I-Team there are scores of those breakers in homes throughout the tri-state.

“Instant red flag. You see those and they’re suspect immediately,” said Colavitti, who is also a fire investigator.

A circuit breaker is designed to trip during an overload or short circuit, thereby cutting off the flow of electricity and preventing a fire. But if the breaker doesn’t trip, the increasing current can cause the wires to overheat, and even ignite. Sometimes, Federal Pacific Electric breakers fail to trip.

Colavitti said firefighters around the country as well as home inspectors and even some insurance companies are aware of problems with Federal Pacific Electric breakers. Some insurance companies are refusing to cover homes that have the breakers.

According to fire investigators, the Federal Pacific Electric breaker in Clarissa Rosario’s New Jersey home did not trip when overheated wires were burning in the ceiling between her bedroom and the attic in 1999.

“I saw the light flickering and I thought it wasn’t normal,” said Rosario. “When I opened the attic, it was full of smoke.”
Rosario was able to grab her two children and escape. Firefighters saved her home.

A family in Longmeadow, Mass. was not as lucky. Their home was destroyed in a 1998 blaze when electrical wires overheated and the Federal Pacific Electric breaker failed to trip.

In his notes, the fire investigator on the case wrote: “The Federal Pacific Electrical panels are notorious for malfunctioning. Many of these circuit breakers fail to trip during an overload condition which causes the wiring to overheat and to ignite combustibles in the area.”

Engineer Jesse Aronstein has been studying the breakers for decades. He has testified in lawsuits against the company and published reports about the failures. According to his research, Federal Pacific Electric breakers may be associated with as many as 2,800 electrical fires each year in the U.S.

“People should know that these have a high defect rate and should be advised to have them replaced,” said Aronstein.

Aronstein said Federal Pacific Electric cheated on testing and inspections decades ago to achieve approval from Underwriters Laboratories, a nonprofit product safety testing and certification organization. Nearly every item using or carrying electricity sold in the United States is tested and verified by UL.

“They were applying UL labels to products that did not meet the UL requirement,” said Aronstein.

According to Aronstein, representatives of Federal Pacific Electric would use a remote control to “trip” the breaker if it didn’t trip properly during UL testing.

A 1982 Security and Exchange Commission filing by a company that purchased Federal Pacific Electric reads, “UL listings on circuit breakers made by Federal Pacific had previously been obtained through the use of deceptive and improper practices.”

The company and UL ultimately removed the UL listing for the breakers, but not before millions had been sold from the 1950s to the 1980s.
Not every Federal Pacific Electric breaker will fail to trip if overloaded and, after the company was bought in the early 1980s, the breakers were modified and did legitimately pass UL inspection.

According to Aronstein, the safer, working breakers are marked with a white dot on the on/off toggle switch. He also suggested that anyone with a Federal Pacific Electric breaker contact an electrician to determine if it should be replaced.

Federal Pacific Electric is no longer in business and was ultimately divested by the company that purchased FPE. It exists now only as a legal entity.

Messages left with the last known attorney for the company were not returned.

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