



Consulting, Resource, Education, Training, and Support Services for Home Inspectors
“A candle loses no light when it lights another candle.”

THIS WRITTEN WORK PRODUCT CONTAINS SUGGESTIONS FOR CONSIDERATION BY SUBSCRIBERS AND IS NOT INTENDED AS OR REPRESENTED AS LEGAL ADVICE OR LEGAL OPINION OF ANY KIND WHATSOEVER NOR IS IT TO BE CONSIDERED OR CONSTRUED AS SUCH.

Federal Pacific Electric (FPE) and Zinsco Main Distribution Panelboards and Subpanelboards

Home inspectors are not required to address issues pertaining to product safety testing or product recalls. However, over the course of the development of the home inspection industry knowledge regarding certain products and the potential for specific failure issues relevant to those products has become what many inspectors consider to be “common knowledge” within the industry. Among such products are Federal Pacific Electric (FPE) brand equipment including FPE Stab-lok type circuit breakers and Zinsco brand electrical equipment

Given their knowledge regarding such circuit breakers, home inspectors often ask what they should say in their reports when they find FPE or Zinsco equipment or FPE Stab-lok circuit breakers in a home they are inspecting if they determine that there are no visible **ADVERSE CONDITIONS** affecting the equipment. They are concerned, and correctly, that if they recommend that the equipment be further evaluated by a qualified electrical contractor, they may be accused by a seller and/or agent of recommending that functional components with no apparent adverse conditions be evaluated simply based on a history of “some” components of a similar type having failed. This is particularly true with FPE Stab-lok breakers because the United States Consumer Product Safety Commission examined Stab-lok breakers and did not issue a recall on them. In addition, some electrical contractors refuse to perform any work on any FPE or Zinsco equipment.

However, home inspectors who are knowledgeable about the issues related to FPE equipment and FPE Stab-lok breakers know that the potential problems with the breakers may not be apparent until there is an overload condition on the circuit at which time the breaker may fail to open the circuit. This, in turn, leads to the potential for overheating of the breaker, the circuit wiring, and devices connected to the circuit and to an electrical fire.

The issues regarding Zinsco panelboards and circuit breakers may be evident in the form of scorching, discoloration, or other visible damage to Zinsco circuit breakers. However, in other instances, damage such as melted portions of the 120 volt (nominal) bus bars to which the Zinsco breakers are attached may only be visible by removing the breakers to examine the buses – something home inspectors should never do.

To sum up, failure of a component can't be predicted; failure can only be determined after it has occurred.

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So, what to do? Some home inspectors always recommend replacement of FPE and Zinsco panels when they are present in homes. Others provide information similar to that which appears on pages 4 and 5 of this article.

For additional information regarding FPE equipment, check the following on the web:

<http://www.inspect-ny.com/fpe/fpepanel.htm>

http://home.comcast.net/~randybirzer/federal_pacific_photos.htm

www.cpsc.gov

<http://www.prospex.us/DOCS/ELECTRICAL/FPECircuitBreakerHazards070525.pdf>

For additional information regarding Zinsco equipment, check the following on the web:

Zinsco Electrical Panel and Circuit Breaker Hazards, Failures, Inspection, Detection, Repair, Replacement - Sylvania Zinsco circuit breakers and panel hazards

<http://www.mikeholt.com/forum/Forum1/HTML/005092.html>

<http://home.comcast.net/~randybirzer/photos.htm>

The decision regarding whether or not to document the presence of a FPE panelboard equipped with Stab-lok circuit breakers as an ADVERSE CONDITION must be the sole determination of the individual inspector. The State of Kentucky expressly prohibits doing so unless visible ADVERSE CONDITIONS are present in the panelboard (see below).

***ProSpex* does not make recommendations regarding how subscribers should treat the presence of FPE Stab-lok type or Zinsco panelboards in their reports.**

The prototype language which appears on pages 4 and 5 of this article is provided solely at the request of subscribers to who choose to document the presence of a FPE Stab-lok type or Zinsco main or sub panelboard as an ADVERSE CONDITION when there are no visible ADVERSE CONDITIONS affecting the breakers or panels.

Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Office of Housing, Buildings and Construction
KENTUCKY BOARD OF HOME INSPECTORS

A D V I S O R Y B U L L E T I N N O. 07-001

TO: To All Kentucky Licensed Home Inspectors and KBHI Approved Education Providers

FROM: Kentucky Board of Home Inspectors (KBHI)
In Cooperation with the OHBC Electrical Advisory Committee

DATE: December 3, 2007

SUBJECT: Federal Pacific Electrical (FPE) Panels and Breakers

There is no current documentation from any source that states the FPE panels and breakers are a hazard to life and property solely because of the name of the manufacturer. To assume so without current documentation is incorrect and irresponsible.

To require or recommend the removal of FPE panels and breakers solely on the basis of the manufacturer's name and without visual evidence of a specific hazard is irresponsible and could cause the homeowner undue financial hardship.

If a visual inspection of the interior of the panel or breakers indicates arcing or extreme heat then the licensed home inspector should most certainly recommend further evaluation by a Kentucky licensed electrician.

The Kentucky licensed electrician is the only authority to determine the appropriate action.

To assume all FPE devices are unsafe and a fire hazard without current evaluation by a Kentucky licensed electrician is not within the scope of a home inspection.

ALL KENTUCKY HOME INSPECTOR LICENSEES SHALL REVIEW THEIR INSPECTION REPORTS FOR COMPLIANCE WITH THIS ADVISORY BULLETIN.

FOR FPE MAIN DISTRIBUTION PANELBOARDS

*The main electrical distribution panel is a Federal Pacific Electric (FPE) brand panel with FPE "Stab-lok" type circuit breakers. While there are varying opinions regarding the reliability of FPE Stab-lok circuit breakers and their ability to consistently provide reliable overcurrent protection, there are documented reports of some FPE Stab-lok circuit breakers failing to trip and shut off the power to their related circuits when an overcurrent condition has occurred. This has resulted in overheating, arcing, and, in some instances, electrical system fires. When FPE Stab-lok circuit breaker failure has occurred, replacement of both the circuit breakers and the panel with non-FPE equipment has been necessary to reduce the potential for the occurrence of **ADVERSE CONDITIONS** in the panel and to provide a more reliable system. **IMMEDIATE ACTION** is recommended.*

Additional information regarding FPE panels and Stab-lok circuit breakers can be found at the website <http://www.cpsc.gov/CPSCPUB/PREREL/prhtml83/83008org.html>

To be directed to CPSC reports and information regarding FPE equipment, type "federal pacific" into the search box in the upper left-hand corner of the CPSC webpage. Another source for information regarding FPE panels and Stab-lok circuit breaker failure can be found at Daniel Friedman's website <http://www.inspect-ny.com/fpe/fpepanel.htm>. In the event that the existing FPE panel is replaced, please call us before removing the old panel. We would like to make arrangements with the electrical contractor to obtain it with the circuit breakers preserved and intact so that it can be used for further research and instruction. Thank you.

FOR ZINSCO EQUIPMENT

*The main electrical distribution panel is a Zinsco brand panel. While there are varying opinions regarding the reliability of Zinsco equipment and its ability to consistently provide reliable electrical system protection, there are documented reports of some Zinsco equipment overheating and/or failing to trip and shut off the power to their related circuits when an overcurrent condition has occurred. This has resulted in overheating, arcing, and, in some instances, electrical system fires. When Zinsco equipment failure has occurred, replacement of both the circuit breakers and the panel with non-Zinsco equipment has been necessary to reduce the potential for the occurrence of **ADVERSE CONDITIONS** in the panel and to provide a more reliable system. **IMMEDIATE ACTION** is recommended.*

Additional information regarding Zinsco equipment can be found at Daniel Friedman's website <http://www.inspect-ny.com/electric/Zinsco.htm>. In the event that the Zinsco equipment is replaced, please call us before removing the old panel. We would like to make arrangements with the electrical contractor to obtain it with the circuit breakers preserved and intact so that it can be used for further research and instruction. Thank you.

FOR FPE SUBPANELBOARDS

*The electrical distribution subpanel is a Federal Pacific Electric (FPE) brand panel with FPE "Stab-lok" type circuit breakers. While there are varying opinions regarding the reliability of FPE equipment Stab-lok circuit breakers and their ability to consistently provide reliable overcurrent protection, there are documented reports of some FPE Stab-lok circuit breakers failing to trip and shut off the power to their related circuits when an overcurrent condition has occurred. This has resulted in overheating, arcing, and, in some instances, electrical system fires. When FPE Stab-lok circuit breaker failure has occurred, replacement of both the circuit breakers and the panel with non-FPE equipment has been necessary to reduce the potential for the occurrence of **ADVERSE CONDITIONS** in the panel and to provide a more reliable system. **IMMEDIATE ACTION** is recommended.*

Additional information regarding FPE panels and Stab-lok circuit breakers can be found at the website for the United States Consumer Product Safety Commission (CPSC) at www.cpsc.gov. To be directed to CPSC reports and information regarding FPE equipment, type "federal pacific" into the search box in the upper left-hand corner of the CPSC webpage. Another excellent source for information regarding FPE panels and Stab-lok circuit breaker failure can be found at Daniel Friedman's website <http://www.inspect-ny.com/fpe/fpepanel.htm>. In the event that the existing FPE subpanel is replaced, please call us before removing the old panel. We would like to make arrangements with the electrical contractor to obtain it with the circuit breakers preserved and intact so that it can be used for further research and instruction. Thank you.

FOR ZINSCO SUBPANELBOARDS

*The electrical distribution subpanel is a Zinsco brand panel. While there are varying opinions regarding the reliability of Zinsco equipment and its ability to consistently provide reliable electrical system protection, there are documented reports of some Zinsco equipment overheating and/or failing to trip and shut off the power to their related circuits when an overcurrent condition has occurred. This has resulted in overheating, arcing, and, in some instances, electrical system fires. When Zinsco equipment failure has occurred, replacement of both the circuit breakers and the panel with non-Zinsco equipment has been necessary to reduce the potential for the occurrence of **ADVERSE CONDITIONS** in the panel and to provide a more reliable system. **IMMEDIATE ACTION** is recommended.*

Additional information regarding Zinsco equipment can be found at Daniel Friedman's website <http://www.inspect-ny.com/electric/Zinsco.htm>. In the event that the Zinsco subpanel is replaced, please call us before removing the old panel. We would like to make arrangements with the electrical contractor to obtain it with the circuit breakers preserved and intact so that it can be used for further research and instruction. Thank you.