



**RIC 2012 Session TH26  
Conservatism in Decision Making  
Oconee SSF Pressurizer Heater Breaker Issue**

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**BACKGROUND**



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**Licensee's Actions  
Pre-June 2011**

- Licensee was reviewing the potential impact of external flooding.
- Discovered scenarios during which containment would begin to heat up
- Elevated containment temperatures would cause pressurizer heater breakers to trip

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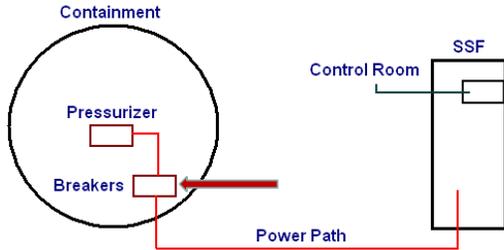
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### SSF Pressurizer Heater Power Path



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### Licensee's Actions June 2011

- Potential loss of pressurizer heater breakers caused licensee to enter a Technical Specification Action Statement for an inoperable SSF
- Two independent paths were pursued to restore operability and exit the Action Statement
  1. Replace the breakers with ones without thermal overload protection
  2. Develop procedural guidance for the required plant conditions (~525F) while in water solid conditions

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### Licensee's Actions June 2011 continued

- The licensee chose to replace the breakers with commercial grade models which did not have thermal overload protection.
- Six days into the 7-day Action Statement, the licensee declared the SSF fully operable after replacing the existing breakers with the new models – **BUT** . . . . .
- The replacement breakers had not been fully tested to confirm they would operate for the mission time at the projected elevated temperatures prior to exiting the LCO

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### Licensee's Actions After Exiting the LCO

- Oconee commenced full qualification testing of the breakers **AFTER** declaring the SSF fully operable.
- Vendor testing revealed that the replacement breakers would not remain operable under accident conditions.
- The licensee then relied on compensatory measures and subsequent procedure enhancements to remain operable.

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### Deciding on the Path to Follow



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### The Regulatory Side

There were two issues associated with the breakers that were addressed within regulatory space:

1. **10CFR50, Appendix B, Criterion III (Design Control)** - **YELLOW** finding issued for original pressurizer heater breaker design.
2. **10CFR50, Appendix B, Criterion V (Procedures)** - **GREEN** finding for not conducting an adequate operability evaluation prior to exiting the Action Statement for an inoperable SSF

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## Take-Aways

- When making an Operability determination, is the basis for the decision technically sound & fully vetted?
- If an Operability determination uses a compensatory measure or position developed previously as its basis, has it been reviewed to ensure it was correct at the time or remains valid?
- If a supervisor in the control room or member of the management team finds themselves becoming involved in the actual problem solving activities, they may be vulnerable to becoming part of a "***non-conservative decision***"

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