



PLANS FOR IMPROVEMENT AT TVA'S BROWNS FERRY NUCLEAR PLANT

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Background

- A failed Browns Ferry, Unit 1, Residual Heat Removal (RHR)/Low Pressure Coolant Injection (LPCI) system valve was discovered during shutdown in October 2010
- Due to the plant's fire protection strategy at that time, the previously undetected failure of this valve was determined to be of high ("Red") safety significance

Background (*continued*)

- TVA acknowledges the safety significance of this occurrence
- Actions were promptly taken to address the valve failure mechanism at all three Browns Ferry units

Background (*continued*)

- While TVA identified a number of factors that could have mitigated the safety significance, we understand these factors could not be credited
- TVA fully agrees that the issue here is the lack of rigor that was applied in evaluating operating and testing information and as a result, not taking appropriate and timely corrective actions

Causal Investigation and Analysis

- New root cause analysis is finding all the possible missed opportunities to identify this valve failure
- Our investigation is going well beyond those issues only associated with the “Red” finding

Causal Investigation and Analysis (*continued*)

- The safety culture assessment part of the root cause analysis will review the actions being taken to address the open substantive cross-cutting issues of thoroughness of evaluating identified problems and the appropriateness and timeliness of corrective actions

Causal Investigation and Analysis *(continued)*

- The causal investigation and analysis also includes the broader issues associated with a long-standing culture of taking a minimalist approach to problems that adversely affect equipment reliability

Improvement Plan

- TVA is using this “Red” finding to accelerate all actions that will lead to equipment reliability improvement at Browns Ferry
 - All actions will be rolled up into an Integrated Improvement Plan
 - Integrated Improvement Plan will include actions necessary to sustain improvement

Improvement Plan (*continued*)

- Some improvements already in place are:
 - Strong corporate governance and oversight
 - Equipment Reliability program including the establishment of necessary proceduralized processes and tools
 - ~\$260 M expended or allocated from FY 2009 through FY 2011 strictly for equipment reliability improvements

Improvement Plan (*continued*)

- Objective of the Integrated Improvement Plan is for Browns Ferry to identify equipment problems, thoroughly evaluate them, and take appropriate and timely corrective actions before they cause occurrences of safety significance
- TVA executive management fully supports this effort