Turkey Point Unit 3
FPL/NRC Meeting

November 6, 2008

Agenda

- Background
- Unit 3 Upgrades
- Units 3 Alternative Approach
- Path Forward
- Summary

Background

- Turkey Point Unit 3 response submitted on June 30, 2008, which included chemical effects data from Vuez
- NRC issued letter to FPL on September 17, 2008 which stated
  - NRC has identified several issues with the Vuez test protocol
  - Request additional information (RAI) with respect to the testing
  - Requested that FPL communicate their plan for demonstrating adequate sump performance by October 3, 2008
  - FPL will need to submit an extension request
- On October 3, 2008 a telephone conference was held to discuss the Turkey Point Unit 3 alternative approach for demonstrating compliance

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Unit 3 Upgrades

- In 2007, FPL installed new strainers with a surface area of approximately **5,500** ft^2
- Mitigated a significant amount of insulation
  - Existing RCS loops and majority of SGs insulation was RMI
  - Replaced the Pressurizer Surge Line insulation with reflective metal insulation (RMI)
  - Replaced the Reactor Coolant Pumps insulation with RMI
  - Removed the calsil insulation from the Pressurizer Relief Tank
- Improved insulation and coatings controls

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Unit 3 Alternate Approach

- Utilize the Unit 4 testing data to validate that the current Unit 3 analysis is conservative
- Different methodologies were utilized at Turkey Point
  - Unit 3: GE debris head loss testing with Alion chemical effects analysis
  - Unit 4: Areva integrated chemical effects testing
- Preliminary assessment concluded that the key parameters on Unit 4 bound Unit 3

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Unit 3 Alternate Approach

- Unit 3 has approximately 50% more strainer surface area than Unit 4
- Unit 3 has significantly less fiber at the strainer
- Both units utilize Sodium Tetraborate as a buffer
- Plant parameters such as flows, pH, temp, etc. are essentially the same
- Particulate and chemical loads are comparable, thus Unit 3 has significantly less debris per square foot
- Both strainers utilize vertical plates with 3/32” holes
- Significant NPSH margin exists, especially as temperature is reduced

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Path Forward

- Submit extension request – completed 10/31/2008
- Conduct a Computational Fluid Dynamics (CFD) analysis for Unit 3 and compare with the Unit 4 tested velocity profile – January 2009
- Complete critical parameters comparison evaluation between Unit 3 and Unit 4, including incorporating the CFD results - February 2009
- Meet with NRC to provide presentation of results and obtain feedback – March 2009
- Submit chemical effects response to the NRC – July 30, 2009

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Summary

- FPL has made substantial plant improvements
- Unit 3 has minimal fiber and a relatively neutral buffer
- Significant NPSH margin is available
- High confidence that the final evaluation will demonstrate that Unit 3 analysis is conservative

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QUESTIONS?