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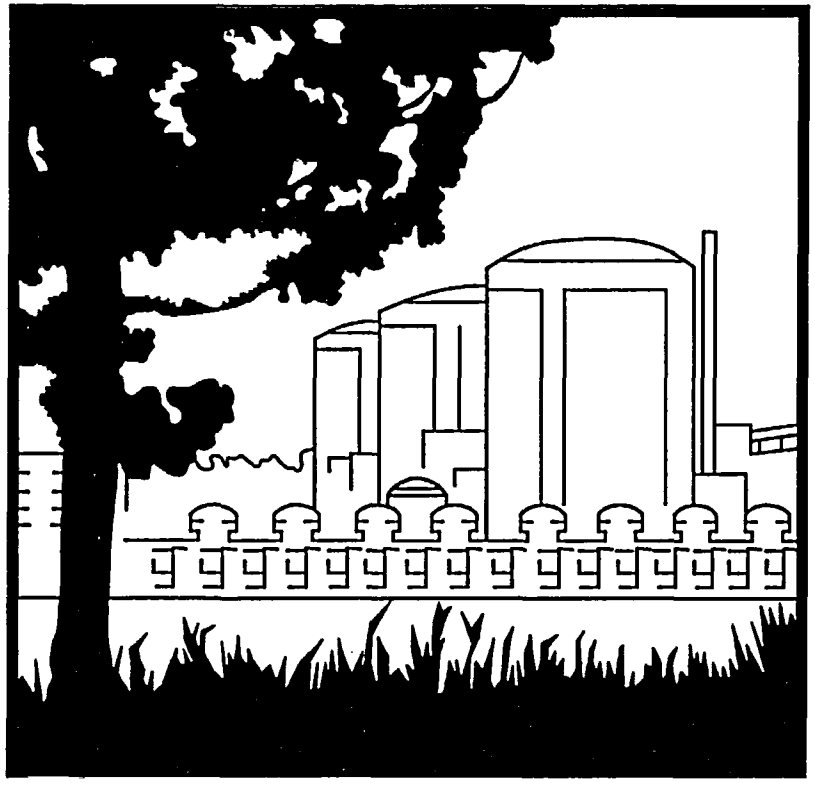

RPS/ESPS
Licensing Amendment Request

Oconee Nuclear Station

April 6, 2005

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Agenda

- Opening Remarks
- Project Status
- RPS/ESPS Modification
- Diverse LPI actuation
- Discrepancy between TXS TR and SER
- Risk-informed D3
- NRC Questions
- Closing Remarks

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Opening Remarks

- Introductions
- Purpose of Meeting & Expected Outcome
  - Meeting Purpose
    - NRC questions
    - Communicate details of proposed LAR
  - Expected Outcome
    - Address preliminary questions from NRC
    - Good mutual understanding of proposed LAR and RPS/ES modification

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Project Status

- Project Activities Completed
  - 30% Owners Review of FANP
    - Initial Scope Document
    - Engineering Turnover
    - Technical Issues Checklist (Multi-Discipline Interface Identifier)
    - Project Change Order Reconciliation
    - Design Document Red Marks
  - Procedure Writers Training
    - 3 Week Intensive training on TXS for procedure revisions

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Project Status

- Upcoming Major Project Activities
  - Beznau NPP Benchmark Trip – Mid July 2005
  - FANP-NGL Hardware FAT in Germany – November 2005
  - FANP-NGL TXS Equipment @ ONS – December 2005
  - FANP-Alpharetta TXS FAT @ ONS – January thru March 2006
  - FANP Lynchburg RCPPM & NI FAT @ ONS – January thru March 2006
  - ONS SAT – April 2006 through September 2006

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Project Status

- Upcoming Project Activities (Continued)
  - Procedure Verification & Validation – August thru September 2006
  - Implementation – October thru November 2006
  - Post Implementation Testing – Late November 2006
  - Unit 1 Return to Service – Early December 2006
- Numerous Internal Project Deliverables Through April 2006

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RPS/ESPS Mod.

- Modification Description
  - Replacement of Analog Bailey RPS/ES with Digital FANP TXS
  - Replacement of some analog/solid state input signal components (RCPPM, NI modules)
- Modification Scope Review
  - R x R - 9 RPS Cabinets, 7 ES Cabinets
  - Delete ES Bailey RZ Module interface panels
  - Add ES Component Status Panels
  - Add ES Channel Trip/Reset Pushbutton Station
  - Add, Relocate some ES actuated component operator control interfaces
  - Additional Redundancy for RCPPM
  - NI Recorder replacement (Units 1 & 2)

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RPS/ES Mod. (cont.)

- FMEA
  - Reliability Analysis for FANP TXS - April 05
  - FMEA for FANP TXS underway
  - Final FMEA for modification - December 05
- Instrument changes
  - No field sensor replacements planned as part of RPS/ES modification
  - Revision to instrumentation loop accuracy calculations underway

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RPS/ES Mod. (cont.)

- Mechanical changes
  - Verification of acceptable heat loading from new TXS, RCPPM to Control Room and Cable Room underway
  - Verification of acceptable heat rise in new TXS cabinetry included in FAT and post-implementation testing
  - Verification of SBO Analyses

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RPS/ES Mod. (cont.)

- Electrical changes
  - System cabling requirements evaluation
  - Power systems loading analysis
  - Human Factors evaluation underway for Control Room changes
  - Modification documentation changes underway
- Civil changes
  - New cabinet seismic mounting design underway
  - Cable tray and conduit installation evaluation underway
  - Review of seismic qualification of non-TXS equipment

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RPS/ES Mod. (cont.)

- Design criteria
  - Electrical separation
  - Cable and wiring Separation
  - Use of fiber optics for Inter-Channel connections
- Functional criteria
  - Equipment Specification Revision 1 approved – March 2005
  - Functional Requirements Specification approved – March 2005
  - Software Requirements Specification approval – August 2005

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RPS/ES Mod. (cont.)

- PRA
  - PRA Input information development underway
- UFSAR Summary
  - UFSAR Changes in Draft (Red Marked) Stage
- Design Basis Documentation
  - DBD Changes in Draft (Red Marked) Stage

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Diverse LPI Actuation

- Provided diverse LPI actuation design requirements in November 17, 2004 meeting
- NRC concurred with design requirements
- Duke approval of FANP proposed design strategy – March 2005
- Duke to provide additional details by June 2005

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Discrepancy between TXS TR and SER

- In one location, TXS Topical Report could be read as indicating that invariable data is stored in the EEPROM and is subject to cyclical redundancy checks (CRCs)
- TXS SER essentially repeats this
- No invariable (Non Changeable Parameter) data is stored in the EEPROMs
- CRCs are performed on EEPROMs only on use (anytime the data is moved from the EEPROM to RAM or RAM to EEPROM)

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Risk-informed D3

- Duke performed deterministic D3 assessment per BTP HICB-19 guidelines
- New EPRI guideline provides risk-informed method of performing parts of or all of D3 assessment
- Duke plans to use EPRI extended deterministic approach to demonstrate adequate defense against digital common cause failures and concurrent LBLOCA based on small change in risk
- Duke plans to submit by July 2005 and request approval within a year
- Upon approval, Duke would discontinue design/installation of diverse LPI actuation

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NRC Questions

- Informal NRC questions received March 30, 2005
- Plan to provide initial response electronically
- Follow-up with docketed response
- Discussion of NRC Questions

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Closing Remarks

- Closing Remarks

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Technical Specification Change

- Combine current and proposed TS requirements by using qualifiers and notes
- Eliminate 12 hour Channel Checks
- Extend Channel Functional Test Intervals to 18 months