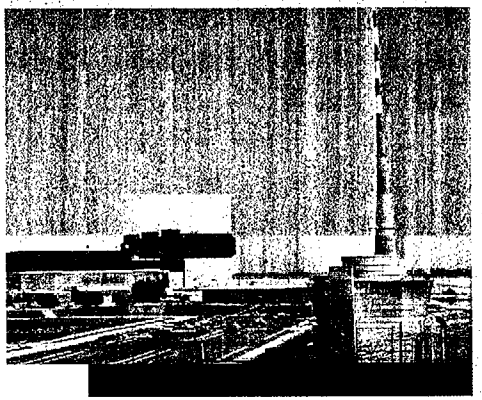
Tennessee Valley Authority
Browns Ferry Nuclear Plant
Units 1, 2, and 3



License Renewal Application

TVA / NRC Meeting
Nuclear Reactor Regulation - Rockville, MD
April 23, 2003

Enclosure 2

TVA

Agenda

❖ Introduction	Tim Abney
❖ Unit 1 Restart Program Status	Joe Valente
❖ License Renewal Project Status	Ray Alexander
❖ Presentation of Unit 1 Current Licensing Basis Differences in the LRA	Gary Adkins
❖ Evaluation of the Unit 1 Layup Program	Mike Morrison
❖ Unit 1 Restart and Inspection and Examination Activities	Joe Valente
❖ The Renewed License	Tim Abney
❖ Closing Remarks	Tim Abney

Introduction

Meeting Objectives

- Continue the dialogue on TVA's approach for the preparation of a three-unit license renewal application for Browns Ferry Nuclear Plant using the latest standard application format
- Address specific issues raised by the staff in previous meetings
- Reach agreement on application content

Background

- October 31, 2002 TVA/NRC meeting highlights
  - The Unit 1 CLB provides an adequate basis for an LRA
  - The Browns Ferry application will resemble multi-site applications previously reviewed by the staff
  - Current Licensing Basis (CLB) differences will be annotated in the application
  - TVA will credit the same aging management programs for all three units
  - TVA recognizes the review of a three-unit Browns Ferry application may take longer than the standard review schedule
  - TVA agrees that a Unit 1 license condition would be acceptable to facilitate the issuance of the renewed Unit 1 license
  - Staff agrees to review a three-unit application and agrees to further discussions on the content and format of the application.
  - TVA was requested to address the following issues in the application:
    - Unit 1 layup
    - Description and schedule for the resolution of Unit 1 CLB differences

Unit 1 Restart Program Status

- Major Engineering Program Activities
  - Design Criteria Documents - complete
  - Safe Shutdown Analysis - complete
  - Operation Mode Calculations - complete
  - Generic Letter 89-10 Calculations - complete
  - EQ Basis Calculations - complete
  - Analytical Limits Calculations - complete
  - Drywell Related Baseline Calculations - complete
  - Reactor Building Baseline Calculations - in progress
- Design Change Status
- Maintenance and Modification Status
- Current Unit 1 Restart Staffing Level ~2000
- Breaker Closure Planned 2nd Quarter 2007
- Program Will Return Unit 1 to Operation the Same as Units 2 and 3

License Renewal Project Status

- Submittal Date – December 2003
  - Will use Class of '03 standard format (modified by understandings reached with the Staff regarding Unit 1)
- Scoping/Screening/Aging Management Reviews for Units 1, 2, and 3
  - Scoping/screening – 80% complete
  - Aging management review – 50% complete
  - Scoping re-review being performed on 27 Unit 2/3 systems as a result of the "non-safety affecting safety" ISG
    - Initial scoping for Unit 1 includes Criterion 2.
- Identification of Time Limited Aging Analyses
  - TVA is performing both calculation and CLB reviews
  - 6000/7700 document reviews complete to identify potential TLAA issues

Presentation of Unit 1 CLB Differences in the LRA

- The Browns Ferry Unit 1 Current Licensing Basis is Well-Known, Documented
- TVA Proposes To Add a New Appendix F to the Browns Ferry Application
  - The plan for the resolution of each Unit 1 CLB difference will be described
- Appendix F Will Address the Specific Issues Raised by the Staff
  - Unit 1 CLB differences clearly identified in the application
  - Differences in system intended functions explained
  - Impact on the application described
  - Schedule for resolution of differences
  - Differences annotated in the application will be hyperlinked to Appendix F
- Use of Appendix F
  - Discussion is based upon the same examples presented at the October 31, 2002, TVA/NRC meeting

Evaluation of the Unit 1 Layup Program

- Layup Program Initiated in 1986 Following Shutdown in 1985
  - Program was designed for asset preservation
    - Program is not a basis for Unit 1 restart
    - TVA will not credit the program for aging management
  - The principal layup method is dry layup (dehumidified air)
    - Minimal use of vapor-phase corrosion inhibitors
- Unit 1 Systems Not in Layup
  - Shared systems in-service to support Units 2 and 3
  - Systems in-service to support Unit 1
- TVA Will Perform an Evaluation of the Effects of the Layup Program on the Application
  - Evaluate layup materials and environments to identify the need for new AMPs
  - No evaluations required on in-service systems/components or on components which will be replaced
- Results Will be Reported in an Appendix F Section to Include:
  - Listing of systems, commodities and layup environments evaluated
  - New AMPs with links to Chapter 3 and Appendix B as appropriate

Unit 1 Restart Inspection and Examination Activities

- Components Not Being Replaced Will be Inspected and/or Tested
- Heat Exchanger Eddy Current Testing
  - All heat exchangers in the Unit 1 restart boundary have been tested
- Selected Pre-Service and ISI NDE In Progress or Completed

RPV & internals	RHR service water	Drywell liner	LLRT – electrical penetrations
MS & FW piping	HPCI piping	RCIC piping	LLRT – mechanical penetrations bellows

- Future Pre-Service and ISI
  - Completion of ISI for the first interval
- Minimal Baseline FAC / IGSCC Inspections
  - Susceptible components are being replaced
- Corrective Action Program Being Used to Document Unanticipated As-Found Conditions as Systems/Components are Breached for Modification

The Renewed License

- TVA Will Not Restart Unit 1 Without NRC Permission (Existing Commitment)
- NRC's Standard SER Template and Usual License Condition(s) are Applicable to the BFN Application
- Final Unit 1 Scoping, Screening and Aging Management Review Results (Component Level) at Restart Will be Identical to Units 2 and 3
- Additional Proposed License Condition for Unit 1
  - TVA will evaluate each of the CLB differences identified in Appendix F of the Browns Ferry application for renewed operating licenses dated _____ to confirm that its elimination did not necessitate the creation of any new Aging Management Program(s) which were not approved by the NRC in the Safety Evaluation Report dated _____.

Closing Remarks

- TVA Will Submit A Three-Unit Application
- TVA Recognizes that Some Lengthening of the Standard Review Schedule May Be Necessary
  - 1-3 months of additional review achievable
- The Unit 1 Layup Program Will be Addressed in the Application
- An Additional Unit 1 License Condition Would be Appropriate