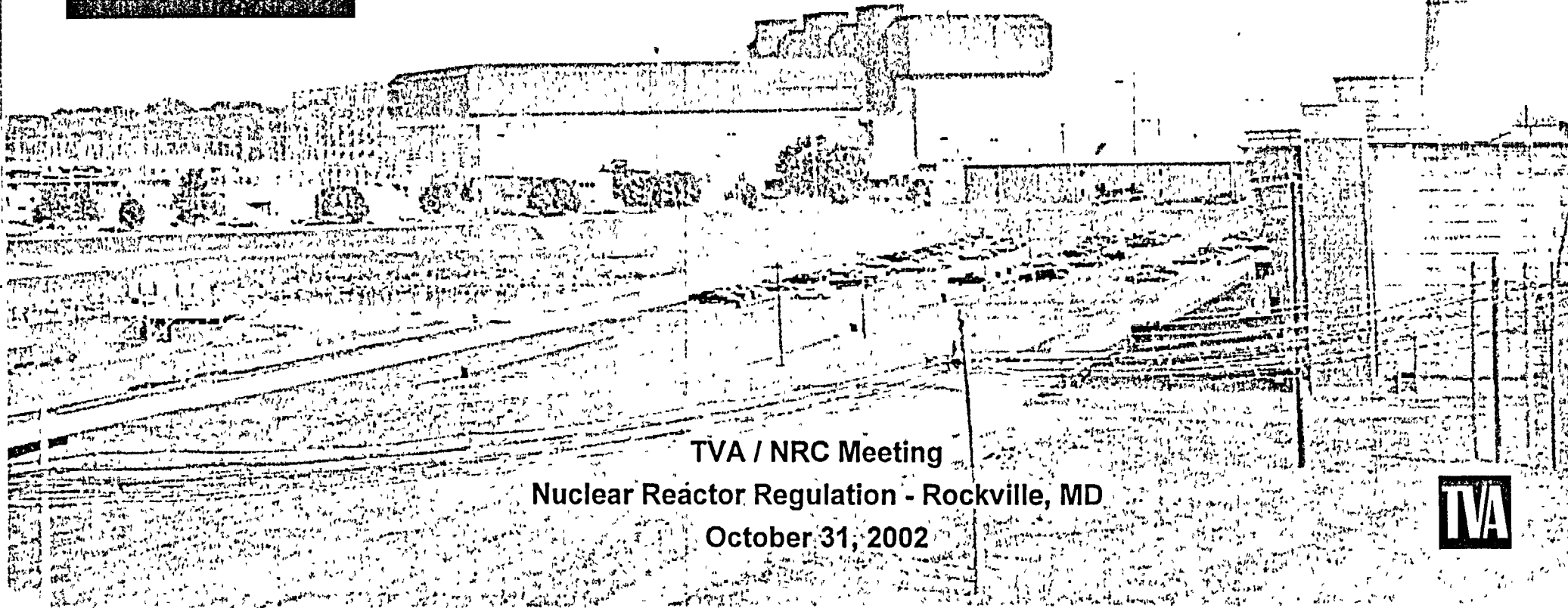


Tennessee Valley Authority Browns Ferry Nuclear Plant Units 1, 2, and 3

License Renewal Application



TVA / NRC Meeting

Nuclear Reactor Regulation - Rockville, MD

October 31, 2002



Agenda



- ❖ Introduction Tim Abney
- ❖ Application Approach – Unit 1 Ray Alexander
- ❖ Application Examples Gary Adkins
- ❖ Application Review Schedule Tim Abney
- ❖ Closing Remarks Tim Abney

Introduction



❖ Meeting Objectives

- Present TVA's approach for the preparation of a three-unit license renewal application for Browns Ferry Nuclear Plant using the latest standard application format
- Provide the Staff with examples that demonstrate the impact of Unit 1 restart activities on the application
- Obtain Staff feedback on TVA's approach

❖ Background

- License renewal letter of intent submitted on June 1, 2000
- TVA Board decision to restart Unit 1 on May 16, 2002
- TVA/NRC meeting on July 24, 2002 to discuss plans for a three-unit license renewal application

❖ License Renewal Project Status

❖ Unit 1 Restart Program Status

Application Approach – Unit 1



- ❖ TVA plans to submit using the standard application format guidance for the class of 2003
 - Unit 1 differences will be annotated in combined application format similar to previous multi-site applications from other utilities
- ❖ TVA will reflect the Unit 1 CLB in the application
 - Implement process for reviewing Unit 1 modifications for impact on the LRA
- ❖ Operating experience
 - Three identical units - Units 2/3 OE applicable to Unit 1
- ❖ AMRs - same aging management programs are credited for all three units
 - Common aging management programs will be evaluated against the GALL and credited for all three units

Application Approach – Unit 1, continued



- ❖ The Unit 1 current licensing basis is well-known, documented
 - Unit 1 elements of the SAR have been maintained
 - Unit differences identified
 - SAR update planned just prior to LRA submittal
 - Unit 1 Technical Specifications converted to Improved Standard & Unit 1 TRM issued in 1998

- ❖ In addition to the SAR, the following licensing and design basis documents are currently being used for Unit 1 scoping, screening and material identification
 - Safe Shutdown Analysis
 - Engineering Specifications, Design Standards
 - Design Criteria Documents
 - System Mechanical Control and Flow Drawings (verified by walkdown)
 - Bills of Material
 - Station Blackout Calculation
 - Vendor Manuals/Drawings
 - Electronic Docket

- ❖ Based on Units 2/3, TVA knows the ultimate Unit 1 licensing basis
 - The scope of the Unit 1 modification program is clearly defined
 - TVA's plan for Unit 1 will result in three identical units at restart



Application Examples

- ❖ **Main Steam Modification - FAC resistant piping installation**
 - Results in a material change (sub-material) in the Browns Ferry license renewal database
 - No new application commodity type
 - No impact on scoping and screening results

- ❖ **RHR & Recirculation Systems Modification – IGSCC resistant piping installation**
 - Sub-material change in the database
 - Scoping results – no application impact
 - AMR results – no application impact

- ❖ **Main Steam Unit 1 Modification – Increased MSIV allowable leakage**
 - Intended function difference has minor impact on scoping results
 - AMR results annotated based on current Unit 1 licensing basis
 - No new aging management programs
 - Staff review of the aging management programs credited in the application directly applicable to the ultimate Unit 1 licensing basis

- ❖ **Other Examples**
 - Connection of Unit 1 piping to existing Auxiliary Decay Heat Removal System
 - New system for Unit 1
 - In scope for containment isolation function
 - Hardened Wet-Well Vent
 - New installation for Unit 1
 - In scope for primary containment function



Application Examples, continued

- ❖ **TLAA Example – Reactor Pressure Vessel Integrity**
 - Unit 1 licensing basis differences annotated
 - 52 EFPY analysis for all three units being performed by the extended power uprate project

- ❖ **Appendix B Program Example – Flow Accelerated Corrosion Program**
 - Common program applied to all three units
 - TVA responses to Staff RAIs applicable to all three units
 - Unit 1 implementation commitment

Application Review Schedule



- ❖ Staff review of the three-unit BFN license renewal application can be completed more efficiently than two separate applications
 - No unique aging management programs required for Unit 1
 - License renewal inspections can be coordinated with Unit 1 restart inspection activities
- ❖ TVA recognizes that the review may take longer than the standard review schedule
- ❖ TVA is willing to make more frequent 10 CFR 54.21(b) updates to the application
- ❖ A Unit 1 license condition is acceptable to allow all three licenses to be issued concurrently
 - TVA will not restart Unit 1 without NRC approval
 - Final closeout inspection if necessary



Closing Remarks

- ❖ Browns Ferry three-unit application is consistent with Commission goals for license renewal
 - Maintain safety
 - No safety impacts associated with a three-unit application
 - Increase effectiveness and efficiency
 - Three-unit application is the most cost-effective use of NRC resources
 - Shutdown/defueled condition of Unit 1 provides unique inspection opportunities
 - Reduce regulatory burden
 - Three-unit economies of scale for TVA resources
 - Environmental data/conclusions review and re-work may be required if the Unit 1 application is delayed
 - Increase public confidence