

RIC 2004

Region II Breakout, Session F4

Major Projects at Browns Ferry
Ashok Bhatnagar
Site Vice President
Tennessee Valley Authority
Browns Ferry Nuclear Plant
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Scope of Current Browns Ferry Projects

- 16 Active Capital and O&M Projects
- \$39,681,000 Budget for Active Projects
- Unit 1 Restart Project
- Over 3,000 people on site

Current Major Projects



- Variable Speed Drives for Reactor Recirculation Pumps
- Fuel vendor change
- Independent Spent Fuel Storage Installation (ISFSI)
- Extended Power Uprate
- License Renewal
- Unit 1 Restart

ISFSI



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- Physical Modifications
 - ISFSI concrete pads scheduled to be completed by summer 2004
 - Security modifications
 - Design underway
 - Field installation scheduled to complete early 2005
 - Major storage hardware delivery by May 2004
 - Reactor building crane modifications scheduled for late 2004
 - Cask Loading Schedule
 - Emphasis will shift from construction to startup in summer 2004
 - Dry runs and demonstration for NRC scheduled mid-2005
 - Three casks will be loaded in first loading campaign
 - Frequent interface with Sequoyah ISFSI project and industry groups

Extended Power Uprate



- Request for Extended Power Uprate, Units 2 and 3 (15%)
- Request for Extended Power Uprate, Unit 1 (20%)
- Both submittals have been drafted
 - NRC’s RS-001 “Review Standard For Power Uprates” was approved December 24, 2003. Will require additional work to:
 - Add markup of NRC’s standard safety evaluation template
 - Address testing requirements as described in SRP 14.2.1, “Extended Power Uprate Testing Program.”
 - Further analysis being done to address recent operating experience and NRC concerns
 - Submittals to NRC scheduled for June 2004

License Renewal



- License Renewal Application for Units 1, 2, and 3 submitted on December 31, 2003
- Currently in early stages of staff review
- Unit 1 restart concurrent with License Renewal Application review resulted in some unique application attributes
 - Significant discussions with staff since mid-2002 regarding three-unit application
- All three renewed licenses should be issued prior to Unit 1 restart
 - Possible additional license renewal inspection prior to Unit 1 restart
 - Possible license condition to track completion of Unit 1 restart as reflected in the application

Unit 1 Restart



- Unit 1 has been shutdown and defueled since 1985
- Unit 1 Restart Project began in May 2002, scheduled restart May 2007
- Projected cost \$1.8 billion
- Regulatory scope
 - 19 License amendments
 - 40 Generic communications completions
 - 27 Special Programs completions
 - Approximately 200 commitments
- Project work scope
 - Work consistent with that required for restart of Units 2 and 3
 - Major projects completed on Units 2 and 3 since restart
 - Major projects on 5-Year Project Plan

Unit 1 Restart (cont'd)



- Sample of Modification Scope
 - Approximately 750,000 feet of electrical cable
 - Approximately 111,000 feet of conduit
 - Approximately 25,000 feet of pipe
 - Approximately 7,000 pipe hangers
- Dedicated Unit 1 Restart Organization
- Extensive Project Controls
- Regulatory Framework approved by NRC in August 2003
- Project is currently on schedule

Lessons Learned



- Managing Multiple Major Projects
 - Advantages
 - Sufficient work load to allow retention of a well-trained contract workforce
 - Expedites plant improvements
 - Develops good relationships with primary contractors, which provides quality and financial incentives
 - Challenges
 - Core plant staff can be spread too thin (become involved in too many projects)
 - Competing/conflicting priorities may arise
 - Site infrastructure (traffic, parking, office space, etc.) is challenged
- Maintain long range project plan
 - BFN uses 5-year project plan
 - Allows planning for cumulative effect of projects
 - Long range plan must be maintained up to date
 - 10 to 15-year project planning process is currently being developed

Lessons Learned



- Utilize dedicated project management staff
 - Balance workload between project managers
 - Assign related projects to same project manager
- Develop detailed change management plans
- Provide senior management oversight
 - Project meetings with site senior management team
 - Corporate project review meetings
- Regulatory Projects
 - Over communicate with NRC
 - Understand NRC expectations, monitor emerging issues
 - Utilize precedents
 - Actively participate with industry organizations and other utilities
 - Monitor NRC/Vendor interactions