



Electrical Raceway Fire Barrier System Project Salem Generating Station

NRC Status Meeting
September 6, 2001



Agenda

- Introduction – G. Salamon
- Project Overview – K. Mathur
- Licensing Approach – B. Thomas
- 4160V Switchgear Suppression – D. Shumaker
- Project Schedule and Summary – A. Moudgill
- Conclusion – A. Moudgill

Project Overview

- Current Salem SSD Analysis Uses Approximately 20,000 Feet of Fire Wrap Materials With Several Exemptions From 10CFR50 Appendix R
- Revised SSD Analysis to Use System Cross-ties, Fire Wrap, Cable Re-routes and Reduces Reliance on Appendix R Exemptions



Project Overview

- Fire Wrap Scope
 - Replacement of ~1100 Linear ft per Unit (two fire areas)
- Use of System Cross-ties
 - To Achieve Hot Standby
 - Charging System Cross-tie
 - Hot Shutdown (HSD) Panel Cross-tie
 - To Achieve Cold Shutdown
 - Service Water Cross-tie
- Cold Shutdown Repairs
- Manual Actions



Project Overview

- Hot Standby System Cross-ties
 - Charging System
 - Inventory Control (RCS Make-up & RCP Seal Injection)
 - Reactivity Management (Boration)
 - HSD Panel Power
 - HSD Panel Process Monitoring Indication (PMI) Powered From Either Unit.

Project Overview

- Cold Shutdown - Assume Unprotected Equipment is Damaged
 - Service Water Cross-tie
 - Repair of Cables
- Manual Actions



Licensing Approach

- Use of System Cross-ties
 - Charging System Cross-tie considered Normal Shutdown (NSD)
 - HSD Panel Power Cross-tie Considered Alternate Shutdown (ASD)
 - Service Water Cross-tie Considered Normal Shutdown (NSD)

Licensing Approach

- Charging System – Normal Shutdown
 - Mainly Existing Plant Equipment
 - Can Align Initial Flow Path From Control Room Complex



Licensing Approach

- Hot Shutdown Panel Cross-tie – Alternate Shutdown
 - Command and Control Shifts to HSD Panel (Loss of Normal Instrumentation)
 - Located Outside of the Credited Fire Areas



Licensing Approach

- Service Water System Cross-tie – Normal Shutdown
 - Existing Plant Equipment
 - Pumps Operated From Control Room Complex



Licensing Approach

- Charging System Cross-tie Currently Credited For
 - 4160 VAC Switchgear Room
 - 460 VAC Switchgear Room
 - 84' Auxiliary Building (Vital Pumps)
 - 64' Auxiliary Building (Vital Cables and Tanks)
 - 100' Auxiliary Building (CVCS Equipment)
- HSD Panel Power Cross-tie Currently Credited For
 - 4160 VAC Switchgear Room
 - 460 VAC Switchgear Room
- Service Water Cross-tie Currently Credited For
 - 4160 VAC Switchgear Room
 - 460 VAC Switchgear Room
 - 64' Auxiliary Building



Licensing Approach

- Overall Designation After Reanalysis:
 - 4160 VAC Switchgear Room – ASD area
 - 460 VAC Switchgear Room – ASD area
 - 84' Auxiliary Building- NSD area
 - 64' Auxiliary Building – NSD area
 - 100' Auxiliary Building- NSD Area



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Licensing Approach

- Compensatory Measures for Cross-Tie Equipment



Licensing Approach

- Exemptions
 - Some Exemptions No Longer Required
 - Some Exemptions Retained But With Less Reliance



4160V Switchgear Suppression

- Current Configuration
- White Finding (Failure to Meet Concentration)
- Initial Resolution of White Finding
 - Commitment to Install Automatic Suppression
 - Commitment to Install Water Suppression System
- Based on Design Review Determined CO₂ System Upgrade More Feasible



4160V Switchgear Suppression

- CO₂ Upgrade to Automatic and Proper Concentration
- Licensing Basis Changes
 - Upgrade CO₂ in Lieu of Installing Water Suppression
 - Revise UFSAR Statement For Double Discharge Volume.
- CO₂ Upgrades Will be Completed by November 2002



Project Schedule/Summary

- Cross-Tie Installed by End of 2002
 - Completion for Both Units is Tie-in in Unit 1
 - Unit 2 Commitment is Spring 2002
- Fire Wrap to be Completed by November 2002



Conclusion

- Revised SSD Analysis to Utilize System Cross-ties, Fire Wrap and Cable Re-routes
- CO₂ System Will be Upgraded to Address White Finding
- Correspondence Will be Submitted to Docket Commitment Changes