



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

October 10, 2012

LICENSEE: Tennessee Valley Authority (TVA)  
FACILITY: Sequoyah Nuclear Plant, Units 1 and 2  
SUBJECT: SUMMARY OF SEPTEMBER 5, 2012, MEETING WITH TVA TO DISCUSS  
SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2, 10 CFR PART 50  
APPENDIX R (FIRE PROTECTION)

On September 5, 2012, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of the Tennessee Valley Authority (TVA, the licensee). The purpose of the meeting was to discuss TVA's approach to multiple spurious operation (MSO) circuit failure resolutions at Sequoyah Nuclear Plant, Units 1 and 2 (SQN, Units 1 and 2).

Prior to the meeting, TVA sent the slide presentation that was used during the meeting to the NRC. This slide presentation can be found at Agencywide Documents Access and Management System (ADAMS) Accession No. ML12215A425. During the meeting, the licensee discussed the slides in detail and the NRC asked clarifying questions concerning the technical aspects of the MSO circuit failure resolutions that were described. A few specific items the licensee discussed include:

- The scope of new or modified equipment that will be needed when implementing the multiple circuit failure resolution to SQN, Units 1 and 2, which include approximately:
  - 16,700ft of conduit,
  - 74,000ft of cable,
  - 6,350ft of stainless steel tubing,
  - 2,400ft of Thermo Lag,
  - 6,000 electrical terminations,
  - 2,000 electrical supports, and
  - 80 plant end-of-line devices
- That SQN, Units 1 and 2 do not currently have a probabilistic risk assessment (PRA) analysis specific to fire protection, and they did not use the PRA when evaluating the need for the modifications. However, TVA did use the SQN, Units 1 and 2 internal events PRA to support the modifications discussed during the meeting.

The licensee responded to the following NRC staff's questions:

- Whether or not the scenarios were evaluated against Revision 3 to Nuclear Energy Institute (NEI) 00-01, "Guidance for Post-Fire Safe Shutdown Circuit Analysis"?<sup>1</sup> The slide

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<sup>1</sup> ADAMS Accession No. ML112910147

presentation states that the scenarios were evaluated against Rev. 2 to NEI 00-01. The licensee responded to this question during the meeting and indicated that the scenarios evaluated were from Rev. 3 to NEI 00-01.

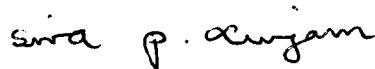
- What changes, if any, are you making to your design change process to ensure that future modifications to the plant consider multiple spurious circuit failure issues? The licensee mentioned that they have a very robust design change process. The changes they are making to address MSO concerns are being incorporated into their design documentation and any subsequent changes to the plant will be evaluated to determine what the impact of the change will be.

Some specific questions the NRC staff asked the licensee to consider during their review:

- Do MSO related modifications affect or not affect any of the licensing basis analyses including accident analyses in Chapter 15 of the Updated Final Safety Analysis Report, thermal-hydraulic (TH) coping analysis satisfying the station blackout rule, and TH analysis supporting the 72-hour mission time?
- What, if any, Technical Specification (TS) implications might be caused by MSO related modifications?
- What, if any, PRA implications or common cause problems from enhancements might be caused by MSO related modifications?
- What, if any, entry conditions for TS events and MSO related modifications will cause and how this will inter-relate with fire protection?

No proprietary information was discussed at the meeting and no members of the public were present. A list of attendees is enclosed.

Please direct any inquiries to me at 301-415-1564 or [siva.lingam@nrc.gov](mailto:siva.lingam@nrc.gov).



Siva P. Lingam  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosure: List of Attendees

cc w/encl: Distribution via ListServ

LIST OF ATTENDEES

SEPTEMBER 5, 2012

MEETING WITH TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

10 CFR PART 50 APPENDIX R (FIRE PROTECTION)

TVA

Eddie Turner  
Joe Shea  
Joe Williams  
P. Todd Noe  
Behrouz Ahmadi  
Brenda Simril  
Robert Egli  
Clyde Mackaman (by phone)

NRC

Joseph Giitter, NRR  
Samson Lee, NRR  
Jessie Quichocho, NRR  
Siva Lingam, NRR  
Jeff Whited, NRR  
Susan Lent, NRR  
Summer Sun, NRR  
Harry Barrett, NRR  
Gary Cooper, NRR  
Chuck Moulton, NRR  
Daniel Frumkin, NRR  
Alex Klein, NRR  
George Lapinsky, NRR (by phone)  
John Rogge, RI (by phone)  
John Mateychick, RIV (by phone)  
Ronald Langstaff, RIII (by phone)  
Mike King, RII (by phone)  
Steve Alferink, RIV (by phone)  
Stephanie Achen, RIV (by phone)  
John Watkins, RIV (by phone)  
Greg Pick, RIV (by phone)

Enclosure

- presentation states that the scenarios were evaluated against Rev. 2 to NEI 00-01. The licensee responded to this question during the meeting and indicated that the scenarios evaluated were from Rev. 3 to NEI 00-01.
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**/RA/**  
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 Plant Licensing Branch II-2  
 Division of Operating Reactor Licensing  
 Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

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cc w/encl: Distribution via ListServ

Distribution:

PUBLIC	LPL2-2 R/F	G. Pick, RIV	G. Cooper, NRR	RidsNrrPMSequoyah
RidsNrrPMBrownsFerry	RidsNrrLABClayton	C. Moulton, NRR	Rids NrrDorLpl2-2	RidsOpaMail
RidsNrrDeEeeb	J. Watkins, RIV	RidsRgn2MailCenter	RidsOgcRp	G. Lapinsky, NRR
S. Alferink, RIV	RidsAcrsAcnw_MailCTR	RidsNrrDraApla	J. Rogge, RI	H. Barrett, NRR
T. Wertz, NRR	D. Merzke, NRR	S. Achen, RIV	J. Mateychick, RIV	S. Kennedy, EDO
S. Lent, NRR	D. Frumkin, NRR	R. Langstaff, RII	RidsNrrDraAfpb	RidsNrrDraAhp
RidsNrrDra	M. King, RII	J. Whited, NRR	S. Sun, NRR	

ADAMS Accession Nos.: Package ML12215A413; Original Meeting Notice ML12215A420  
 Revised Meeting Notice ML12234A758; Meeting Slides ML12215A425; Meeting Summary ML12215A421

OFFICE	LPL1-2/PM	LPL2-2/PM	LPL2-2/LA	DRA/AFP/BC	LPL2-2/BC (A)	LP2-2/PM
NAME	JWhited	SLingam	BClayton	AKlein	JQuichocho	SLingam
DATE	10/09/12	10/09/12	10/09/12	10/03/12	10/10/12	10/10/12

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