

December 21, 1999

Tennessee Valley Authority  
ATTN: Mr. J. A. Scalice  
Chief Nuclear Officer and  
Executive Vice President  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: INSPECTION PLAN FOR SEQUOYAH

On December 6, 1999, the NRC staff reviewed the performance of the Sequoyah Nuclear Plant as reflected in the performance indicators and inspection results in order to integrate performance information and to plan for inspection activities at your facility from January 3, 2000, through July 31, 2000. The purpose of this letter is to inform you of our plans for future inspections at your facility.

We have not identified any areas in which you crossed a performance threshold. Therefore we plan to conduct only baseline inspections at your facility over the next seven months. However, the significance determination of the turbine building railroad bay flooding event is still under review and may involve further inspection.

Enclosure 1 details the scheduled inspections that will occur from January 3, 2000, through July 31, 2000. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The last four months of the inspection plan are tentative and will be revised at the end-of-cycle review meeting.

Enclosure 2 contains a historical listing of plant issues, referred to as the Plant Issues Matrix (PIM), that were identified during the pilot plant inspection program period. The PIM includes items summarized from inspection reports or other docketed correspondence between the NRC and Tennessee Valley Authority.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

PDR ADDL 05000327

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If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Paul Fredrickson at (404) 562-4530 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

(Original signed by Paul E. Fredrickson)

Paul E. Fredrickson, Chief  
Reactor Projects Branch 6  
Division of Reactor Projects

Docket Nos. 50-327, 50-328  
License Nos. DPR-77, DPR-79

Enclosures:           1. Sequoyah Inspection/Activity Plan  
                          2. Plant Issue Matrix

ccw/encls:

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cc w/encls continued: See page 3

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cc w/encls: Continued  
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 Soddy-Daisy, TN 37379

\*See previous concurrence - attached

OFFICE	RII:DRP	RII:DRS	RII:DRS	RII:DRS	RII:DRS		
SIGNATURE	*	*	*	*	<i>MW for</i> KBarr		
NAME	PTaylor alt	GBelisle	CChristensen	KLandis			
DATE	12/ /99	12/ /99	12/ /99	12/ /99	12/17/99	12/ /99	12/ /99
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	YES NO	YES NO

OFFICIAL RECORD COPY

DOCUMENT NAME: G:\SQ\PPR\MID-CYCLE REVIEW LTR-12-6 -R2.wpd

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OFFICE	RII:DRP	RII:DRS	RII:DRS	RII:DRS	RII:DRS		
SIGNATURE	<i>Pat</i>	<i>Belisle</i>	<i>Smith</i>	<i>mt for</i>			
NAME	PTaylor alt	Belisle	Christensen	KLandis	KBarr		
DATE	12/17/99	12/17/99	12/17/99	12/17/99	12/ /99	12/ /99	12/ /99
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

**SEQUOYAH**  
**Inspection / Activity Plan**  
**12/31/1999 - 07/31/2000**

Units	Inspection Activity	Title	No. of Staff on Site	No. assigned to Procedure	Planned Dates Start	Planned Dates End	Inspection Type
	<b>MB</b>	<b>- REACTOR SAFETY</b>					
1,2	IP 71111.08	Inservice Inspection Activities (I,B)	1	1	02/28/2000	03/03/2000	Other Routine
	<b>PB6</b>	<b>- TEMPORARY INSTRUCTION</b>					
1,2	IP 2515/142	Draindown During Shutdown and Common-Mode Failure (NRC GL 98-02)	1	1	03/06/2000	03/10/2000	Safety Issues
	<b>PSB</b>	<b>- RADIATION SAFETY</b>					
1,2	IP 71121.02	ALARA Planning and Controls	1	1	03/13/2000	03/16/2000	Other Routine
	<b>MB</b>	<b>- REACTOR SAFETY</b>					
1,2	IP 71111.12	Maintenance Rule Implementation (I,M,B)	2	2	05/22/2000	05/26/2000	Other Routine
	<b>PSB</b>	<b>- RADIATION SAFETY</b>					
1,2	IP 71122.01	Gaseous and Liquid Effluent Treatment Systems	1	1	06/12/2000	06/16/2000	Other Routine
1,2	IP 71122.02	Radioactive Material Processing and Shipping	0	0	06/12/2000	06/16/2000	Other Routine
1,2	IP 71122.03	Radiological Environmental Monitoring Program	0	0	06/12/2000	06/16/2000	Other Routine
	<b>OLB</b>	<b>- INITIAL EXAM PREP</b>					
1	V23154	SEQUOYAH 1/INITIAL EXAMS AT POWER FACILITIES	3	3	07/24/2000	07/28/2000	Not Applicable

Enclosure 1

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

## United States Nuclear Regulatory Commission Revised Oversight Process PLANT ISSUE MATRIX

By Cornerstone

Region II  
 05000327 - SEQUOYAH 1

Date	Source	ID	Type	Cornerstone	Significance Determination	Item Title Item Description/Significance
07/17/1999	1999004-03	Licensee	NCV	Initiating Events	Green	<p><b>FAILURE TO ENSURE ACCURACY OF A FIRE SUPPRESSION SYSTEM DESIGN DRAWING.</b></p> <p>A design control violation was identified for failure to ensure the accuracy of a fire protection electrical drawing which resulted in an inadequate surveillance instruction and the resultant failure to perform a surveillance requirement. Fire detectors in fire zones 174 and 175 were wired such that they would actuate the wrong suppression valves and thus no water would be supplied to room 734.0-A17 in the event of an actual fire.</p> <p>The mechanical flow diagram and the pre-fire plan were correct and available, if needed, in the control room and to the fire brigade to assist in locating the suppression valves for the purpose of manual actuation of the valves.</p>
07/17/1999	1999004	Licensee	FIN	Mitigating Systems	Green	<p><b>TURBINE DRIVEN AUXILIARY FEEDWATER PUMP MAINTENANCE RULE MISINTERPRETATION.</b></p> <p>An additional example of a previous Maintenance Rule violation was identified. On January 20, 1999, the dropping resistor on Unit 1 turbine driven auxiliary feedwater pump (TDAFW) failed for the second time. The licensee, through a misinterpretation of Maintenance Rule unreliability criteria, did not consider this failure to be a functional failure and therefore did not consider classification of the system as (a)(1) under the Maintenance Rule. Following a third failure in May 1999 the TDAFW was classified (a)(1).</p> <p>The issue of proper classification of functional failures and (a)(1) classification of the TDAFW pump under the Maintenance Rule did not affect the operability of the auxiliary feedwater system.</p>
07/17/1999	1999004-06	NRC	NCV	Mitigating Systems	Green	<p><b>FAILURE TO MEET TS SURVEILLANCE REQMTS FOR POSITION VERIFICATION OF ECCS THROTTLE VAL</b></p> <p>A Technical Specification surveillance violation was identified for failure to meet the 18 month surveillance requirements of TS 4.5.2.g.1 for a safety injection hot leg throttle valve. A surveillance procedure had failed to include the requirement to verify that the mechanical stop of the valve was in its correct position following maintenance on the valve. The valve was subsequently found out of its required position. In addition, the inspectors determined that the licensee was also not correctly performing this surveillance for other emergency core cooling system valves.</p> <p>The improperly throttled injection throttle valve did not affect the operability of the safety injection system and the inadequate surveillance procedure did not result in loss of function of the safety injection system.</p>
07/17/1999	1999004-07	NRC	NCV	Emergency Preparedness	Green	<p><b>FAILURE TO MEET 10 CFR 50.54(q) CHANGE REQMNTS DECREASING EMERG.PLAN EFFECTIVENESS</b></p> <p>A violation of 10 CFR 50.54(q) was identified in that the licensee implemented an emergency action level (EAL) change that decreased the effectiveness of the Emergency Plan without application to and approval by the Commission. The change involved the Alert EALs for Event 2.1, Loss of Instrumentation, which added the following three new peripheral indicators to Condition 1: (1) ICS MCR operator display station, (2) ADDS terminal, and (3) Annunciator operator display station.</p> <p>Had an event occurred during which this EAL would have been called upon, the EAL may not have required a declaration of an Alert even when a significant transient was in progress with loss of most or all annunciators associated with safety systems for greater than 15 minutes. However, the improper change involved only 1 of approximately 35 EALs.</p>

## United States Nuclear Regulatory Commission Revised Oversight Process PLANT ISSUE MATRIX

By Cornerstone

Region II  
 05000328 - SEQUOYAH 2

Date	Source	ID	Type	Cornerstone	Significance Determination	Item Title Item Description/Significance
07/17/1999	1999004-03	Licensee	NCV	Initiating Events	Green	<p><b>FAILURE TO ENSURE ACCURACY OF A FIRE SUPPRESSION SYSTEM DESIGN DRAWING.</b></p> <p>A design control violation was identified for failure to ensure the accuracy of a fire protection electrical drawing which resulted in an inadequate surveillance instruction and the resultant failure to perform a surveillance requirement. Fire detectors in fire zones 174 and 175 were wired such that they would actuate the wrong suppression valves and thus no water would be supplied to room 734.0-A17 in the event of an actual fire.</p> <p>The mechanical flow diagram and the pre-fire plan were correct and available, if needed, in the control room and to the fire brigade to assist in locating the suppression valves for the purpose of manual actuation of the valves.</p>
08/28/1999	1999005-01	Licensee	NCV	Mitigating Systems	Green	<p><b>FAILURE TO PROMPTLY ID AND CORRECT PROBLEMS WITH THE CAL. OF ULTIMATE HEAT SINK INSTR</b></p> <p>A violation of 10 CFR 50, Appendix B, Criterion XVI was identified for failure to identify and correct calibration process problems involving ultimate heat sink temperature monitoring instrumentation. Also, the lack of an extent of condition review for this problem resulted in identifying a deficient condition in another instrument loop in an untimely manner.</p> <p>The instrumentation met the established acceptance criterion when calibration checks were performed using the proper testing methodology, thus creating a condition having little or no impact on safety.</p>
07/17/1999	1999004	Licensee	FIN	Mitigating Systems	Green	<p><b>Unit 2 MSIVs FAILED TO MEET STROKE TIME CRITERIA OF ASME CODE SECTION XI TESTING.</b></p> <p>Unit 2 main steam isolation valves (MSIVs) failed to meet the stroke time acceptance criteria during ASME Section XI testing in Mode 5 due to mechanical thermal binding of the valves as a result of temperature differences between the valve body and poppet.</p> <p>The MSIVs were required to be operable in Modes 1, 2 and 3 only. The condition of concern (main steam line break following a cooldown to less than 447 F) is a condition that would normally be the result of a rapid cooldown. The thermal binding of the MSIVs did not directly affect the operability of the MSIVs in Modes 1, 2 or 3.</p>
07/17/1999	1999004-06	NRC	NCV	Mitigating Systems	Green	<p><b>FAILURE TO MEET TS SURVEILLANCE REQMTS FOR POSITION VERIFICATION OF ECCS THROTTLE VAL</b></p> <p>A Technical Specification surveillance violation was identified for failure to meet the 18 month surveillance requirements of TS 4.5.2.g.1 for a safety injection hot leg throttle valve. A surveillance procedure had failed to include the requirement to verify that the mechanical stop of the valve was in its correct position following maintenance on the valve. The valve was subsequently found out of its required position. In addition, the inspectors determined that the licensee was also not correctly performing this surveillance for other emergency core cooling system valves.</p> <p>The improperly throttled injection throttle valve did not affect the operability of the safety injection system and the inadequate surveillance procedure did not result in loss of function of the safety injection system.</p>
07/17/1999	1999004-04	NRC	NCV	Barrier Integrity	Green	<p><b>FAILURE TO MEET TS REQMTS FOR CONTMNT BLDG PENETRATIONS ISOLATION DURING REFUELING.</b></p> <p>A Technical Specification (TS 3.9.4.c) violation was identified for loss of containment closure during refueling. Three direct unmonitored paths, specifically through containment penetrations for ice blowing, ice condenser drains and steam generator sludge lancing equipment, existed from inside containment to outside the containment atmosphere while fuel movement was in progress.</p> <p>The probability of fuel damage during fuel movement is low and the potential for any substantial off-site release through these paths was also low.</p>

## United States Nuclear Regulatory Commission Revised Oversight Process PLANT ISSUE MATRIX

By Cornerstone

Region II  
 05000328 - SEQUOYAH 2

Date	Source	ID	Type	Cornerstone	Significance Determination	Item Title Item Description/Significance
07/17/1999	1999004-07	NRC	NCV	Emergency Preparedness	Green	<p><b>FAILURE TO MEET 10 CFR 50.54(q) CHANGE REQMNTS DECREASING EMERG.PLAN EFFECTIVENESS</b></p> <p>A violation of 10 CFR 50.54(q) was identified in that the licensee implemented an emergency action level (EAL) change that decreased the effectiveness of the Emergency Plan without application to and approval by the Commission. The change involved the Alert EALs for Event 2.1, Loss of Instrumentation, which added the following three new peripheral indicators to Condition 1: (1) ICS MCR operator display station, (2) ADDS terminal, and (3) Annunciator operator display station.</p> <p>Had an event occurred during which this EAL would have been called upon, the EAL may not have required a declaration of an Alert even when a significant transient was in progress with loss of most or all annunciators associated with safety systems for greater than 15 minutes. However, the improper change involved only 1 of approximately 35 EALs.</p>

# United States Nuclear Regulatory Commission

## Revised Oversight Process PLANT ISSUE MATRIX

By Cornerstone

### Legend

#### Type Codes:

AV	Apparent Violation
FIN	Finding
NCV	NonCited Violation
URI	Unresolved item
VIO	Violation

#### ID Codes:

NRC	NRC
Self	Self-Revealed
Licensee	Licensee

AVs are apparent violations of NRC Requirements that are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action" (Enforcement Policy), NUREG-1600. However, the NRC has not reached its final enforcement decision on the issues identified by the AVs and the PIM entries may be modified when the final decisions are made.

URIs are unresolved items about which more information is required to determine whether the issue in question is an acceptable item, a deviation, a nonconformance, or a violation. A URI may also be a potential violation that is not likely to be considered for escalated enforcement action. However, the NRC has not reached its final conclusions on the issues, and the PIM entries may be modified when the final conclusions are made.

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