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J. L. Wilson
Vice President, Sequoyah Nuclear Plant

October 8, 1992

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 2 - DOCKET NO. 50-328 - FACILITY OPERATING LICENSE DPR-79 - LICENSEE EVENT REPORT (LER) 50-328/92013

The enclosed LER provides details concerning an improper performance of a surveillance requirement. This event is being reported in accordance with 10 CFR 50.73(a)(2)(i) as an operation prohibited by technical specifications.

Sincerely,

J. L. Wilson

Enclosure
cc: See page 2

130036

IE22

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NRC Form 366 (6-89) | U.S. NUCLEAR REGULATORY COMMISSION | Approved OMB No. 3150-0104 Expires 4/30/92

LICENSEE EVENT REPORT (LER)

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TITLE (4) Improper Performance of a Surveillance Requirement for Functional Testing of Circuit Breakers

EVENT DAY (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0 9	0 8	9 2	9 2	0 1 3	0 0	1 0	0 8	9 2		0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following)(11)			
POWER LEVEL (10)	8 6	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	XX 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (AREA CODE)
Jan Bajraszewski, Compliance Licensing	6 1 5 8 4 3 - 7 7 4 9

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On September 8, 1992, at approximately 1400 Eastern daylight time, with Unit 2 in power operation at approximately 86 percent, it was identified during routine review of a surveillance instruction (SI) that the wrong breaker had been tested during an SI performance. It was later determined that this breaker had been replaced with a different breaker type without proper engineering change documentation or SI database update. Upon notification of the discrepancies, Operations immediately entered Limiting Condition for Operation (LCO) 3.8.3.3.b and initiated work documents to remove and test the involved breakers. The breakers were tested and found acceptable. The root cause for the improper performance of the SI is attributed to failure to follow the procedure for evaluation and release of material for field use. The personnel responsible are no longer with TVA. A review will be performed to assess the current process and practices for the evaluation of material for field use.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

I. PLANT CONDITIONS

Unit 2 was in power operation at approximately 86 percent.

II. DESCRIPTION OF EVENT

A. Event

On September 8, 1992, at approximately 1400 Eastern daylight time (EDT), it was identified during routine review of a surveillance instruction (SI) that the wrong breaker (EIIS Code ED) had been tested during an SI performance. It was later determined that one of the breakers tested, breaker No. FL/4FL, had been replaced with a different breaker type without proper engineering change documentation or SI database update. The SI was to test nonclass 1E load circuit breakers fed from class 1E busses. Technical specifications required at least a 10-percent rotating sample of each breaker type. Upon notification, Operations entered Limiting Condition for Operation (LCO) 3.8.3.3.b and initiated work documents to remove and test the two breakers. Prior to removal and testing of the breakers, the breakers were found in the open position.

B. Inoperable Structures, Components, or Systems That Contributed to the Event

None.

C. Dates and Approximate Times of Major Occurrences

1986	Breaker Nos. FL/4FL and FL/4ER on the essential raw cooling water 480-volt motor control center 2A-A were tested.
November 11, 1990	Breaker No. FL/4FL was changed out from a type FB to a type FDB and was tested without proper engineering change documentation or update of the SI database.
November 23, 1991	The preliminary breaker population was issued for scheduling purposes for the Unit 2 Cycle 5 refueling outage. This list required breaker No. FL/4FL to be tested.
March 4, 1992	The final breaker population list was issued for performance of the SI. This list required breaker No. FL/4ER to be tested.
March 13, 1992	The SI package containing the final list was issued for performance.

June 3, 1992	SI performance was completed; breaker No. FL/4FL was tested and breaker No. FL/4ER was not tested.
July 28, 1992	Expiration for SI performance completion to maintain compliance in accordance with technical specifications for breaker No. FL/4ER.
August 25, 1992	The completed SI package was transmitted to the system engineer for review.
September 8, 1992 at 1400 EDT	The system engineer identified SI package discrepancies and notified Operations. Operations personnel entered LCO 3.8.3.3.b and initiated work documents to remove the breakers from their compartments.
September 8, 1992 at 1530 EDT	Breaker Nos. FL/4FL and FL/4ER were removed from their compartments. The breakers were subsequently tested and found acceptable.
September 11, 1992 at 2058 EDT	LCO 3.8.3.3.b was exited.

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

The improper performance of the SI was identified by the system engineer during routine review of the SI package.

F. Operator Actions

Operations personnel immediately entered LCO 3.8.3.3.b and initiated work documents to remove and test the two breakers identified by the systems engineer.

G. Safety System Responses

Not applicable - no safety system responses were required.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

III. CAUSE OF EVENT

A. Immediate Causes

The immediate cause of the condition is attributed to installation of a breaker without proper engineering change documentation.

B. Root Cause

The root cause for the improper performance of the SI is attributed to failure to follow the procedure for evaluation and release of material for field use.

The SI database was not updated when breaker No. FL/4FL was erroneously changed from a FB type to a FDB type because an inadequate engineering evaluation was performed prior to releasing material for field use. The engineering evaluation would require initiation of design change documents that are used for SI database input. An SI database update would have resulted in both breaker Nos. FL/4ER and FL/4FL being included in the breaker test list.

C. Contributing Factors

A preliminary breaker test list, based on a rotating random population, was developed and issued for scheduling purposes. At a time closer to the SI performance period, the final list, which was also based on a rotating random population, was issued for SI performance. There was no comparison of the two lists to determine possible changes. The SI schedulers and performers believed that the preliminary list would not change. Between the preliminary and final breaker lists, there was a difference of six breakers. Five of the six new breakers were properly tested. Breaker No. FL/4ER was apparently not tested based on review of SI documentation. Through investigation of the event, documentation irregularities were identified in the SI package and are still under investigation.

Investigation of the event revealed that the review of the SI package was not timely. Over two months had passed between SI package completion and system engineer review of the package. Had the review been timely, compliance with the SI requirements within the technical specification timeframe could have been achieved.

IV. ANALYSIS OF EVENT

At least once every 18 months, 10 percent of the nonclass 1E load circuit breakers on a rotating basis, fed by Class 1E busses, are functionally tested to verify that each circuit breaker functions. Both the tested breaker installed without proper design change documentation and the breaker that had not been tested were subsequently tested and determined to operate correctly.

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Additionally, prior to removal and testing of the breakers, both breakers were found in the open position. These breakers feed space heaters, and during the test period time (Unit 2 Cycle 5 refueling outage [March 1992]) through the first week of September, it is highly unlikely that the heaters would have been used. The new type FDB breaker also was evaluated for impact to breaker coordination and cable protection. The evaluation results indicated that the type FDB breaker would trip sooner (more conservative) and would trip before auto-ignition of the cables.

Based on the above considerations, the event did not affect the health and safety of plant personnel or the public.

V. CORRECTIVE ACTIONS

A. Immediate Corrective Actions

LCO 3.8.3.3.b was immediately entered, and work documents were initiated to remove both breakers from their compartments.

All FDB breakers were located and placed on administrative hold.

B. Corrective Action to Prevent Recurrence

The personnel responsible for evaluation and release of the breaker described in the LER are no longer with TVA. A review will be performed to assess the current process and practices for the evaluation of material for field use.

A program change was initiated to ensure that changes solely because of random selections will be minimized. Also, the use of the two lists was communicated to personnel responsible for the SI program, scheduling, and individual section representatives.

Applicable work documents will be reviewed to ensure that the SI database has been properly updated to reflect the most recent test performance. This is an enhancement action that would verify proper rotation of the sample test population.

Additional management attention has been placed on the timely review of completed SI packages. The SI tracking data presented to management has been reformatted to enable managers to better focus on and address SI review timeliness.

VI. ADDITIONAL INFORMATION

A. Failed Components

None.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

B. Previous Similar Event.

A review of previous LERs did not identify an LER that was similar to the event identified in this LER. However, LERs do exist involving failure to follow procedure(s) and missed SIs. A review of those LERs did not identify actions that would have been expected to prevent the event described in this LER.

VII. COMMITMENTS

1. A review will be performed by December 4, 1992, to assess the current process and practices for the evaluation of material for field use.