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John A. Scalice
Site Vice President, Watts Bar Nuclear Plant

APR 0 4 1997

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

Gentlemen:

In the Matter of the) Docket No. 50-390
Tennessee Valley Authority)

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 FACILITY OPERATING LICENSE NPF-90 - LICENSEE EVENT REPORT (LER) 50-390/97007 - NONCOMPLIANCE WITH TECHNICAL SPECIFICATION (TS) SURVEILLANCE REQUIREMENTS (SRs) 3.3.1.15 and 3.3.2.10

The purpose of this letter is to provide the subject report. The enclosed report provides details concerning the noncompliance with TS SRs 3.3.1.15 and 3.3.2.10 which require an 18 month response time test of the pressurizer pressure channel.

If you should have any questions, please contact P. L. Pace at (423) 365-1824.

Sincerely,

J. A. Scalice

Enclosure
cc: See page 2

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PDR ADOCK 05000390
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APR 0 4 1997

cc (Enclosure):
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NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20603.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Watts Bar Nuclear Plant - Unit 1	05000390	1 OF 6

TITLE (4)

NONCOMPLIANCE WITH TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENTS 3.3.1.15 AND 3.3.2.10

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
3	6	97	97	007	00	4	7	97	FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	3	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10)	0	20.2201(b)	20.2203(a)(2)(v)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)	50.73(a)(2)(iv)	OTHER - Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	
		20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Rickey Stockton, Licensing Engineer	(423)-365-1818

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 15 single-spaced typewritten lines) (16)

On March 6, 1997, with Unit 1 in Mode 3, it was determined that the response time test requirements of Technical Specification (TS) Surveillance Requirements 3.3.1.15 and 3.3.2.10 had not been met during the post maintenance testing for pressure transmitter 1-PT-68-340. During review of a proposed Technical Specification change, an instrument maintenance engineer requested the response times obtained during the February 9, 1997, replacement of 1-PT-68-340. It was discovered that the above surveillance requirements had not been included as part of the post maintenance testing. Pressure transmitter 1-PT-68-340 is one of four channels which provide trip functions for high and low pressurizer pressure. In addition, it is one of three channels which provide protection against the inadvertent opening of a steam generator relief or safety valve, small line break, inadvertent opening of a pressurizer relief or safety valve, loss of coolant accident, and steam generator rupture. Once discovered, action was initiated to perform these surveillance requirements.

The cause of this condition was determined to be inadequate work package preparation which resulted in failure to perform the required response time test. Corrective actions included a revision to a site procedure to include guidance for response time testing of transmitters and additional training for personnel involved in the planning of transmitter replacement work orders.

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
	05000	YEAR	SEQUENTIAL NUMBER	REVISION	2 OF 6
Watts Bar Nuclear Plant, Unit 1	05000390	97 -	007 -	00	

TEXT *(If more space is required, use additional copies of NRC Form 366A)* (17)

I. PLANT CONDITIONS

Watts Bar Nuclear Plant Unit 1 was in Mode 3 at the time of the discovery of this condition.

II. DESCRIPTION OF EVENT

A. Event

On March 6, 1997, with Unit 1 in Mode 3, it was determined that the response time test requirements of Technical Specification (TS) Surveillance Requirements 3.3.1.15 and 3.3.2.10 had not been met during the post maintenance testing for pressure transmitter 1-PT-68-340 (Energy Industry Identification System (EIIS) code PT). During review of a proposed Technical Specification change, an instrument maintenance engineer requested the response times obtained when 1-PT-68-340 was replaced under Work Order 97-001742-00 on February 9, 1997. It was discovered that the above surveillance requirements had not been included as part of the post maintenance testing. Pressure transmitter 1-PT-68-340 is one of four channels which provide trip functions for high and low pressurizer (EIIS code PZR) pressure. In addition, it is one of three channels which provide protection against the inadvertent opening of a steam generator relief or safety valve, small line break, inadvertent opening of a pressurizer relief or safety valve, loss of coolant accident, and steam generator rupture. Once discovered, action was initiated to perform these surveillance requirements.

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

One pressurizer pressure channel was deemed inoperable due to this condition.

C. Dates and Approximate Times of Major Occurrences

DATE	TIME	EVENT
3/6/97		Review of Work Order 97-001742-00 identified that the response time test SR had not been part of the post maintenance testing following replacement of 1-PT-68-340 on February 9, 1997.
3/6/97	1340	Shift Manager declared 1-PT-68-340 inoperable and entered the appropriate Limiting Conditions for Operation (LCOs).
3/6/97	1530	Operations staff authorized 1-SI-99-223 for the performance of response time testing for 1-PT-68-340.

3/8/97	2249	After successful completion of 1-SI-99-223, transmitter 1-PT-68-34 was returned to service.

D. Other Systems or Secondary Functions Affected

No other systems or secondary functions were affected.

E. Method of Discovery

As described above, it was discovered when an instrument maintenance engineer requested the response times obtained when transmitter 1-PT-68-340 was replaced on February 9, 1997.

F. Operator Actions

The Operations staff declared 1-PT-68-340 inoperable and entered the appropriate LCOs. Action was also initiated to perform the subject response time test under Surveillance Instruction 1-SI-99-223.

G. Automatic and Manual Safety System Response

Although not caused by the performance of 1-SI-99-223 with the unit in Mode 3, two invalid safety injections (SIs) occurred during the performance as described in Licensee Event Report 390/97-008.

III. CAUSE OF EVENT

The cause of this condition was determined to be inadequate work package preparation which resulted in failure to perform the required response time test. Plant Administrative Instruction (PAI) - 10.05, "Post Maintenance Testing", Appendix B for transmitters does not list response time testing as an item to address when replacing a transmitter. In addition, another transmitter 1-PT-68-68 was replaced on January 28, 1997. The work order used for that replacement served as a guide for the planning of work order 97-001742-00 which replaced of 1-PT-68-340. Transmitter 1-PT-68-68 does not require a response time test and therefore its replacement work order did not contain a response time test requirement.

IV. ANALYSIS OF EVENT - ASSESSMENT OF SAFETY CONSEQUENCES

A. Evaluation of Plant Systems/Components

The pressurizer pressure channels are used to provide input to the pressurizer pressure control system. Four channels provide the low and a high pressure trip function and three

channels provide protection against the inadvertent opening of a steam generator relief or safety valve, small line break, inadvertent opening of a pressurizer relief or safety valve, loss of coolant accident, and steam generator rupture.

The low pressurizer pressure trip function ensures that protection is provided against violating the departure from nucleate boiling ratio (DNBR) limit due to low pressure. In Mode 1 above P-7, all four channels are required to be operable. This trip function is automatically enabled on increasing power by the P-7 interlock (Nuclear Instrumentation System (NIS) (EIIS code JC) power range P-10 or turbine impulse pressure greater than approximately 10% of full power equivalent (P-13)). On decreasing power, this trip function is automatically blocked below P-7. Below the P-7 setpoint, no conceivable power distributions can occur that would cause departure from nucleate boiling (DNB) concerns.

In addition, the low pressurizer pressure signal provides protection against the inadvertent opening of a steam generator relief or safety valve, small line break, inadvertent opening of a pressurizer relief or safety valve, loss of coolant accident, and steam generator rupture. This function is one of three channels which must be operable in modes 1, 2, and 3 (above P11 interlock).

The high trip function ensures that protection is provided against overpressurizing the RCS. This trip function operates in conjunction with the pressurizer relief and safety valves (EIIS code RV) to prevent RCS overpressure conditions. The high trip function setting is selected to be below the pressurizer safety valve actuation pressure and above the power operated relief valve (PORV) setting. This setting minimizes challenges to safety valves while avoiding unnecessary reactor trip for those pressure increases that can be controlled by the PORVs. In mode 1 or 2, the pressurizer pressure high trip function must be operable to help prevent Reactor Coolant System (RCS) (EIIS code AB) overpressurization and minimize challenges to the relief and safety valves. In modes 3, 4, 5, or 6, this trip function does not have to be operable because transients that could cause an overpressure condition will be slow to occur. Additionally, low temperature overpressure protection systems provide overpressure protection when below mode 4.

B. Evaluation of Personnel Performance

Once it was recognized that a response time test had not been performed, the involved personnel took action to perform a response time test. The subject channel was declared inoperable and SI 1-SI-99-223 was performed to satisfy the surveillance requirements.

C. Safety Significance

There is no safety significance associated with this condition since the component successfully passed the performance of 1-SI-99-223 on March 8, 1997.

V. CORRECTIVE ACTIONS

A. Immediate Corrective Actions

Actions were initiated to declare the channel inoperable and to perform the required response time test. The required test was completed on March 8, 1997.

A search was conducted of the Tracking and Reporting of Open Items (TROI) database to determine if similar events had previously occurred. No other events were found to be similar. A search was performed of the maintenance database to determine if other transmitters had been replaced without the response time testing being conducted. No other transmitters requiring response time testing have been replaced since the initial Surveillance Instructions have been performed.

B. Corrective Actions to Prevent Recurrence

PAI-10.05, "Post Maintenance Test Program," has been revised to include response time testing as an activity when a transmitter is replaced. Training is being provided to the plant personnel that could routinely be involved in the planning of transmitter replacement work orders.

In addition, a training memorandum to Operations and Maintenance personnel describing this occurrence and the expected actions to be taken during the review of work orders has been issued.

VI. ADDITIONAL INFORMATION

A. Failed Components

1. Safety Train Inoperability

Although there was no component failure as a result of this condition, one channel of pressurizer pressure was considered inoperable.

2. Component/System Failure Information

a. Method of Discovery of Each Component or System Failure:

There was no component failure as a result of this condition.

b. Failure Mode, Mechanism, and Effect of Each Failed Component:

There was no component failure as a result of this condition.

c. **Root Cause of Failure:**

There was no component failure as a result of this condition.

d. **For Failed Components With Multiple Functions, List of Systems or Secondary Functions Affected:**

There was no component failure as a result of this condition.

e. **Manufacturer and Model Number of Each Failed Component:**

There was no component failure as a result of this condition.

B. **Previous Similar Events**

A review of previous WBN LERs did not identify any other LERs where a missed response time test was identified.

VII. COMMITMENTS

The action described above involving training will be completed by April 21, 1997.