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

FEB 2 7 1997

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

Gentlemen:

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

WATTS BAR NUCLEAR PLANT (WBN) - UNIT 1 - FACILITY OPERATING LICENSE NPF-90 - LICENSEE EVENT REPORT (LER) 50-390/97003

The enclosed report details the actions that led to Surveillance Requirement 3.2.4.1 associated with Quadrant Power Tilt Ratio being out of frequency. Submittal of this report is in accordance with 10 CFR 50.73(a)(2)(i)(B).

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

Sincerely,

J. A. Scalice

Enclosure
cc: See page 2

1/1

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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)
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TITLE (4)

Performance of a Surveillance Instruction was not current following the return to the applicable mode.

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
02	01	97	97	003	00	03	03	97	FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)					
POWER LEVEL (10)	50	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
		20.2203(a)(2)(iii)	50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below
		20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)		or in NRC Form 366A

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Jerry Bushnell, Licensing Engineer	(423)-365-8048

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)

Surveillance Instruction (SI) 1-SI-0-21 is required to be performed once every 7 days or during power ascension in accordance with General Operations (GO) 4, prior to exceeding 50 percent power. The performance of 1-SI-0-21 scheduled for January 29, 1997, was canceled due the plant being in a mode where the SI was not applicable. A conditional performance of 1-SI-0-21 was not rescheduled at this point, since it was anticipated that it would be implemented prior to reaching 50 percent power in accordance with GO-4. However, on February 1 Operations personnel waived the performance of 1-SI-0-21 after verifying that the SI was within frequency from a conditional performance on January 25. The failure to ensure a conditional performance of 1-SI-0-21 was scheduled and performed allowed the 7 day frequency to be exceeded. The cause of this event was the failure to follow procedures by the individuals involved in preparation and approval of the cancellation of the scheduled performance of 1-SI-0-21 on January 29. The immediate action taken was to verify that 1-SI-0-21 was in frequency. The actions to prevent recurrence include; counseling of the individuals directly involved in this event, revision of Site Standard Practice 8.02 to more clearly define the responsibilities of the individuals preparing and approving schedule extensions for performance of SIs, revision of GO-4 to require a conditional performance of 1-SI-0-21 prior to exceeding 50 percent power, and a review of conditional SIs and Technical Requirement Instructions that are also periodically scheduled to determine if similar performance or scheduling problems exist.

I. PLANT CONDITIONS:

At approximately 1850 hours (EST) on February 1, 1997, the Plant was in Mode 1 with reactor power at 50 percent.

II. DESCRIPTION OF EVENT

A. Event

Surveillance Instruction (SI) 1-SI-0-21, "Excore Quadrant Power Tilt Ratio (QPTR)," fulfills Surveillance Requirement (SR) 3.2.4.1. This SI is required to be performed once every seven days or during power ascension in accordance with General Operations (GO) 4, "Normal Power Operation." The guidelines in GO-4 require the SI to be performed prior to exceeding 50 percent reactor thermal power or if it has been successfully completed within seven days, the performance of the SI can be waived. Current practice schedules the weekly performance of the SI to occur on each Wednesday. However, the routine performance of 1-SI-0-21 scheduled for January 29, 1997, was canceled by Reactor Engineering personnel utilizing Appendix B of Site Standard Practice (SSP) 8.02, "Surveillance Program." The SI was canceled because the plant was shutdown for condenser repairs and the condition of the plant would not support implementation of 1-SI-0-21. The Reactor Engineering personnel did not reschedule a conditional performance of 1-SI-0-21 at this point, since it was anticipated that it would be implemented prior to reaching 50 percent power in accordance with step 17c of GO-4. However, this step of GO-4 allowed the performance of 1-SI-0-21 to be waived if the SI had been successfully completed within seven days. Therefore, on February 1, 1997, Operations personnel waived implementation of the 1-SI-0-21 after verifying that the SI was within frequency from a conditional performance on January 25, 1997. The failure to ensure a conditional performance of 1-SI-0-21 was scheduled and performed allowed the seven day frequency to be inadvertently exceeded, violating Technical Specification 3.2.4.

Problem Evaluation Report (PER) WBPER970101 was initiated to document this event in the TVA Corrective Action Program.

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

There were no structures, components, or systems inoperable at the start of the event that contributed to the event.

II. DESCRIPTION OF EVENT (continued)

C. Dates and Approximate Times of Major Occurrences

January 22, 1997, Time 1200 - Completed scheduled weekly performance of 1-SI-0-21.

January 22, 1997, Time 1351 - Reactor trip due to low main feedwater pump condenser vacuum.

January 24, 1997, Time 0450 - Unit 1 reactor achieved criticality.

January 25, 1997, Time 0650 - Operations personnel initiated a conditional performance of 1-SI-0-21. All acceptance criteria were met at this time.

January 28, 1997, Time 0559 - Entered Mode 4 for condenser repairs.

January 29, 1997 - Appendix B of SSP-8.02 completed to cancel the performance of 1-SI-0-21. This action was taken because the plant was shutdown for condenser repairs and due to this, the condition of the plant would not support implementation of 1-SI-0-21. The Appendix B indicated that 1-SI-0-21 would be performed during power ascension in accordance with GO-4.

January 31, 1997, Time 1455 - Unit 1 reactor achieved criticality.

February 1, 1997 - Operations personnel waived the performance of the SI after verifying that 1-SI-0-21 was within frequency from a performance of the SI on January 25, 1997.

February 1, 1997, Time 1850 - Reactor thermal power is increased to greater than 50 percent power.

February 5, 1997, Time 1155 - Weekly performance of 1-SI-0-21 successfully completed.

II. DESCRIPTION OF EVENT (continued)

D. Other Systems or Secondary Functions Affected

No other systems or secondary functions were affected by this event.

E. Method of Discovery

During a review of the GO package which was performed on February 1, 1997, the SI program manager could not locate the 1-SI-0-21 package that had been finalized. Subsequent action related to locating the completed SI determined that the frequency of the SI had been inadvertently exceeded due to scheduling errors and the waiving of the performance of the SI in accordance with GO-4.

F. Operator Actions

The actions taken by Operations personnel related to this event are discussed in Item C, "Dates and Approximate Times of Major Occurrences," of this Section.

G. Automatic and manual safety system responses

There were no automatic or manual safety system responses and none were necessary.

III. CAUSE OF EVENT

Root Cause

The root cause of this event was the failure to follow procedures by the individuals involved in preparation and approval of the cancellation of the performance of 1-SI-0-21 using Appendix B of SSP-8.02. Contributing to the event was a lack of ownership to ensure that the SI would be performed at the required time to maintain the surveillance in frequency.

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

IV. ANALYSIS OF EVENT - ASSESSMENT OF SAFETY CONSEQUENCES

In Mode 1, the nuclear enthalpy hot channel factor ($F^N_{\Delta H}$) and heat flux hot channel factor ($F_Q(Z)$) limits must be maintained to preclude core power distributions from exceeding design limits assumed in the safety analyses. The QPTR limit of 1.02 (at which corrective action is required) provides a margin of protection for both the departure from nucleate boiling (DNB) ratio and linear heat generation rate contributing to excessive power peaks resulting from X-Y plane power tilts. A limiting QPTR of 1.02 can be tolerated before the margin for uncertainty in $F_Q(Z)$ and $F^N_{\Delta H}$ is possibly challenged. The QPTR limit must be maintained in Mode 1 with reactor thermal power greater than 50 percent to prevent core power distributions from exceeding the design limits. The implementation of Surveillance Requirement 3.2.4.1 through 1-SI-0-21 verifies that the QPTR is within its limits as indicated by the Nuclear Instrumentation System (NIS) excore channels.

The event discussed in this report allowed the surveillance to be out of frequency for a period between February 1, 1997 to February 5, 1997, but is not considered to be safety significant. This conclusion is based on the successful performance on February 5, 1997, of 1-SI-0-21 which verified that the QPTR was within its acceptance limit. In addition, the QPTR is continuously monitored by the plant process computer which generates a main control room alarm upon exceeding the QPTR limit of 1.02.

V. CORRECTIVE ACTIONS

A. Immediate Corrective Actions

Upon identification of this deficiency on February 7, 1997, the immediate action taken was to verify that 1-SI-0-21 was in frequency. At this time, it was found that 1-SI-0-21 had been successfully performed on February 5, 1997.

B. Corrective Actions to Prevent Recurrence

1. Action was taken by responsible management to reinforce the expectations of ownership for SIs with involved personnel and to counsel the individuals directly involved in this event.

2. Site Standard Practice (SSP) 8.02, "Surveillance Program," will be revised to more clearly define the responsibilities of the individuals preparing and approving schedule extensions for performance of SIs. This revision will also include the addition of a requirement which ensures that the last date an SI was performed is documented on schedule extension requests. This information is being added to aide the individuals involved in extending or canceling the performance of the SI so that correct scheduling decisions can be made.

B. Corrective Actions to Prevent Recurrence (continued)

3. GO-4 has been revised to require a conditional performance of 1-SI-0-21 prior to exceeding 50 percent reactor thermal power. This eliminates the potential for the problem created by the waiving of the SI performance requirement in accordance with step 17c of GO-4 on February 1, 1997.

4. The extent of condition (EOC) for this deficiency will be established through a review of conditional SIs and Technical Requirement Instructions (TRIs) that are also periodically scheduled. This review will determine if similar performance and/or scheduling problems exist. Should additional problem areas be identified based on this review, appropriate corrective measures will be initiated.

Implementation of the incomplete corrective actions listed above will be occur by April 25, 1997.

VI. ADDITIONAL INFORMATION

A. Failed Components

1. Safety Train Inoperability

There were no failures that rendered a train or a safety system inoperable.

2. Component/System Failure Information

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

There were no component failures involved.

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

There were no component failures involved.

c. Root Cause of Failure:

There were no component failures involved.

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

There were no component failures involved.

e. Manufacturer and Model Number of Each Failed Component:

There were no component failures involved.

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

VI. ADDITIONAL INFORMATION (continued)

B. Previous Similar Events

Three similar events involving the failure to perform surveillance instructions have previously occurred at WBN. One event was reported as LER 390/95002 and involved the failure to recognize that the acceptance criteria for SR 3.8.10.1 was not being met during performance of 0-SI-0-3, "Weekly Log." The second event, LER 390/96001, involved SR 3.7.8.1 and SR 3.5.22 which requires position verification of Essential Raw Cooling Water(EIIS BI) valves. The third event, LER 390/96003, involved 4 instances where SR 3.6.13.2 was not performed. While all of these instances involve failures which resulted in improper implementation of an SR, none arose from the cancellation of a weekly scheduled SI.

VII. COMMITMENTS

The actions committed to be implemented in response to this event are tabulated in Section V, Corrective Actions.