Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

FEB 2 5 2000

TVA-WBN-TS-00-005

10 CFR 50.90
10 CFR 50.91(a)(6)

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 - EXIGENT LICENSE AMENDMENT REQUEST - TECHNICAL SPECIFICATION (TS) CHANGE NO. TVA-WBN-TS-00-005 FOR TS 3.3.2 - ENGINEERED SAFETY FEATURE ACTUATION SYSTEM (ESFAS) INSTRUMENTATION

In accordance with the provisions of 10 CFR 50.4, 50.90 and 50.91(a)(6), TVA is submitting a request for an amendment to WBN's license NPF-90 to change the Technical Specifications for Unit 1 on an exigent basis to prevent a potential forced plant shutdown. As discussed in a TVA-NRC telecon on February 23, 2000, and in a Notice of Enforcement Discretion (NOED) letter dated February 24, 2000, this amendment request involves relief from the time response testing requirement of Technical Specification 3.3.2 for solenoid valve, 1-FSV-47-027.

In summary, on February 22, 2000, at 1700 hours, TVA entered TS SR 3.0.3, following the discovery that the response time testing had not been performed for replaced solenoid valve, 1-FSV-47-027, the Train B turbine trip solenoid valve. Following preventative maintenance replacement of this solenoid, the circuit was functionally tested but time response was not recorded. Accordingly, the response time testing requirements of Surveillance Requirement (SR) 3.3.2.10 were not met. TVA requests approval of this exigent amendment so that the response time test requirement of SR 3.3.2.10 is not considered applicable to solenoid valve 1-FSV-47-027 until after the next time the turbine generator is removed from service. The approval of this amendment will prevent an unnecessary forced

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plant shutdown with no corresponding benefit to public health and safety.

Enclosure 1 to this letter provides the description and evaluation of the proposed change. This includes TVA's determination of no significant hazards considerations associated with the proposed change and that the change is exempt from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9). The WBN Plant Operations Review Committee and the WBN Nuclear Safety Review Board have reviewed this proposed change and determined that operation of WBN Unit 1 in accordance with the proposed change will not endanger the health and safety of the public. Additionally, in accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter and enclosures to the Tennessee State Department of Public Health.

Enclosure 2 contains copies of the appropriate TS pages from Unit 1 marked-up to show the proposed change. Enclosure 3 forwards the revised TS pages for Unit 1 which incorporate the proposed change.

As stated above, the NOED was verbally approved on February 23, 2000, effective at 1700 hours for 30 days. That NOED will expire on March 24, 2000 at 1700 hours. Therefore, TVA requests that the revised TS be made effective at the time of NRC approval and no later than the expiration date of the NOED.

If you have any questions about this change, please contact me at (423) 365-1824.

Sincerely,

P. L. Pace
Manager, WBN Licensing
and Industry Affairs

Subscribed and sworn to before me
on the 25 day of February, 2000

Judy C. Lancaster
Notary Public

My Commission Expires 2-28-2001

Enclosures
cc: See page 3

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Enclosures
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ENCLOSURE 1
PROPOSED LICENSE AMENDMENT

I. DESCRIPTION OF THE PROPOSED CHANGE

On February 22, 2000, at 1700 hours, TVA entered TS SR 3.0.3, following the discovery that the response time testing had not been performed for replaced solenoid valve, 1-FSV-47-027, the Train B Turbine trip solenoid valve. Following preventative maintenance replacement of this solenoid, the circuit was functionally tested but time response was not recorded. Accordingly, the response time testing requirements of Surveillance Requirement (SR) 3.3.2.10 were not met. This condition was discussed with NRC on February 23, 2000, and a Notice of Enforcement Discretion (NOED) was approved by NRC that day. The enclosed Technical Specification (TS) amendment requests approval for the response time test requirement of SR 3.3.2.10 to not be considered applicable to 1-FSV-47-027 until after the next time the turbine generator is removed from service.

The specific changes involve adding a note to both TS 3.3.2, Table 3.3.2-1, "Engineered Safety Feature Actuation System Instrumentation," and TS Bases Section 3.3.2.10 describing the circumstances surrounding the response time testing of 1-FSV-47-027. In addition, Item 14 referencing this exigent amendment request is added.

II. REASON FOR THE PROPOSED CHANGE

On February 22, 2000, at 1700 hrs, with WBN Unit 1 at 100 percent reactor thermal power (RTP), WBN entered TS SR 3.0.3 due to a determination that response time testing had not been performed for the Train B turbine trip solenoid valve (1-FSV-47-027-B) during WBN's Unit 1 Cycle 2 Refueling Outage in Spring 1999. Surveillance requirement (SR) 3.3.2.10 is required by Technical Specification (TS) Limiting Condition for Operation (LCO) 3.3.2, "Engineered Safety Feature Actuation System (ESAFS) Function number 5(b), Steam Generator Water Level High-High, on a staggered test basis with a resulting frequency of 36 months for the Train B channel. As a result of this entry into SR 3.0.3, WBN was required to complete performance of the subject SR within 24 hours (e.g., February 23, 2000, at 1700 hrs) or declare the Steam Generator Water Level function inoperable and enter the appropriate TS Condition. Performance of SR 3.3.2.10 cannot be performed at full power since initiation of a turbine trip is required. As discussed below, shutdown of the unit to perform the subject surveillance introduces

an unnecessary plant transient which is not commensurate with the public health and safety for the given condition. Since the subject condition will render multiple channels of Steam Generator Water Level inoperable, Condition (I) provided for Function 5(b) in TS Table 3.3.2-1 is not applicable, and no other Condition is available in the WBN TS for the subject condition. As a result, WBN would have been required to immediately enter LCO 3.0.3 at 1700 hours on February 23, 2000, and place the unit in Mode 3 by 0000 hours on February 24, 2000, which again introduced an unnecessary forced shutdown with no corresponding benefit to public health and safety. However, based on the TVA-NRC telecon on February 23, 2000, enforcement discretion was granted by NRC.

As discussed herein, TVA has determined that the existing turbine trip capability is functional and would not adversely affect the accident analysis time response assumptions. Therefore, WBN is proposing an exigent technical specification change which would extend the surveillance performance requirement to where it must be performed prior to turbine restart the next time the turbine is removed from service.

III. JUSTIFICATION FOR EXIGENT CONSIDERSATION

TVA requests that this license amendment be processed as an exigent amendment under 10 CFR 50.91(a)(6). Without approval of this change, WBN would be required to enter TS LCO 3.0.3 which requires plant shutdown. As discussed below, the condition requiring plant shutdown does not represent a threat to plant safety and would require a plant transient without any corresponding benefit to public health and safety.

TVA could not have avoided this condition from the time of discovery. Current plant procedures required post maintenance testing to ensure equipment functions and meets applicable regulatory requirements before the component return to service. Although TVA's root cause analysis is not yet complete, this appears to be an isolated instance of personnel error by the developer and reviewer of the preventative maintenance instruction. The specific cause will be included in Licensee Event Report 390/2000-001 which will address this issue.

IV. SAFETY ANALYSIS

The WBN turbine-generator unit was manufactured by WBN's Nuclear Steam Safety System supplier, Westinghouse Electric Corporation. The Watts Bar turbine-generator unit consists

of a double-flow high pressure turbine and three double-flow low pressure turbines with extraction nozzles arranged for seven stages of feedwater heating. The turbine utilizes a Westinghouse designed electrohydraulic control (EHC) system for control of both speed and load. The EHC system, composed of solid state electronic devices coupled through suitable electrohydraulic transducers to a high-pressure hydraulic fluid system, provides control of the main stop, governing, intercept, and reheat stop valves of the turbine. Overspeed speed protection is provided by a mechanical overspeed trip mechanism, backed up by an electrical overspeed trip circuit.

The turbine trip function consists of two trip buses, Trains A and B. The Train A trip system consists of the solenoid-operated auto-stop oil dump valve actuated by the turbine trip slave relay in the solid state protection system (SSPS). The resulting low auto stop oil pressure operates the interface valve which dumps EHC fluid from the throttle valves. The Train A overspeed protection controller (OPC) solenoid valve is actuated by the SSPS to dump EHC fluid from the governor and intercept valves. In addition the Train A trip bus is actuated by a relay in the Train B trip bus. The Train B trip system consists of the solenoid-operated emergency trip dump valve which is actuated by the SSPS and operates to dump EHC fluid from the throttle valves. The Train B OPC solenoid valve is actuated by the SSPS to dump EHC fluid from the governor and intercept valves. In addition, the Train B trip bus is actuated by a relay in the Train A trip bus.

During Refueling Outage 2 the Train B solenoid-operated emergency trip dump valve was replaced with a like for like replacement. This replacement valve was then functionally verified on April 15, 1999. During work on a subsequent proposed design change, TVA engineers discovered on February 22, 2000, that the response time for this function had not been verified. Response time testing for other components in the Train B function is still in frequency. Required response time testing of the Train A turbine trip was performed satisfactorily in the last outage.

Technical Specification LCO 3.3.2 requires turbine trip and feedwater isolation for Steam Generator Water Level High-High, Safety Injection, and Valve Vault Room Level High. SR 3.3.2.10 is applicable to Steam Generator Water Level High-High. Technical Requirements Manual (TRM) technical requirement (TR) 3.3.2 specifies that Steam Generator Water Level High-High trip the turbine in ≤ 2.5 seconds and perform feedwater isolation in 8 seconds. TR 3.3.2 for Safety Injection and Valve Vault Room Level High does not specify a response time for turbine trip, but only for feedwater isolation.

Westinghouse performed a qualitative review of the WBN Feedwater Malfunction analysis, which models turbine trip and feedwater isolation off of the steam generator high-high water level setpoint, with a ≤2.5 second delay on the turbine trip. The event is analyzed primarily to demonstrate that the Departure from Nucleate Boiling (DNB) design basis is satisfied. The minimum DNB Ratio (DNBR)in the current analysis occurs prior to the time of turbine trip. In addition, the DNBR remains relatively constant up until the time of the turbine trip and is well above the safety analysis limit DNBR. Therefore, an increase in response time would not result in a more limiting condition for this analysis, but would only delay the time that the event is terminated. Even if the turbine trip does not occur, the feedwater isolation signal would cause the steam generator to drain down and the transient would simply behave as a loss-of-normal feedwater/inadvertent emergency core cooling system (ECCS) at power event. The resultant transient would be bounded by the existing Final Safety Analyses Report (FSAR) analyses. Westinghouse evaluation also indicates that delayed trip would slightly decrease DNBR, but would remain above the DNBR limit.

For Steam Generator Water Level High-High, turbine trip is primarily an equipment protection function, as described in the Technical Specification Bases. This function prevents possible damage to the turbine due to water in the steam lines. Therefore, from the preceding, WBN has concluded:

- Turbine trips have been functionally verified in accordance with technical specifications and the turbine protection program.

- The Train A response times have been verified per technical specifications.

- Other Train B turbine trip components remain within technical specification surveillance frequency for response time testing.

- Turbine trip response time is not a significant contributor in the accident analysis.

- Even if the turbine trip does not occur, the feedwater isolation signal would cause the steam generator to drain down and the transient would behave as a loss-of-normal feedwater/inadvertent ECCS at power event. The resultant transient would be bounded by the existing FSAR analyses.

- Because of the above, it is reasonable to assume that

turbine trip will occur as described in the accident analysis and therefore, failure to obtain response time data for the train B solenoid does not pose an issue of safety significance.

Accordingly, the delay in performing the SR for valve 1-FSV-47-027 until the next time the turbine generator is removed from service does not represent a threat to plant safety.

V. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

I. Description of Proposed License Amendment

On February 22, 2000, at 1700 hours, TVA entered TS SR 3.0.3, following the discovery that the response time testing had not been performed for replaced solenoid valve, 1-FSV-47-027, the Train B turbine trip solenoid valve. Following preventative maintenance replacement of this solenoid, the circuit was functionally tested but time response was not recorded. Accordingly, the response time testing requirements of Surveillance Requirement (SR) 3.3.2.10 were not met. This condition was discussed with NRC on February 23, 2000, and a Notice of Enforcement Discretion (NOED) was approved by NRC that day. The enclosed Technical Specification (TS) amendment request approval of the changes for the response time test requirement of SR 3.3.2.10 to not be considered applicable to 1-FSV-47-027 until after the next time the turbine generator is removed from service.

The specific changes involve adding a note to both TS 3.3.2, Table 3.3.2-1, "Engineered Safety Feature Actuation System Instrumentation," and TS Bases Section 3.3.2.10 describing the circumstances surrounding the response time testing of 1-FSV-47-027. In addition, item 14 referencing this exigent amendment request is added.

II. Basis for No Significant Hazards Consideration Determination

The Nuclear Regulatory Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92 (c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the

possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Each standard is discussed below for the proposed amendment:

A. **Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.**

The requested amendment will not result in a significant increase in the consequences of an accident as the turbine trips have been functionally verified in accordance with the technical specifications and the turbine protection program and turbine trip response time is not a significant contributor to the accident analysis. Accordingly there would be no impact on projected offsite doses.

B. **Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated.**

As discussed above, the safety function of the solenoid valve was confirmed during the post maintenance testing. Further, during the functional testing the control room operator observed normal operation of the trip function. Although the response time was not quantitatively determined for the end device, this deficiency cannot create a new or different accident from any previously evaluated.

C. **Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in the margin of safety.**

Again as discussed above, the trip function was confirmed by post maintenance testing, and the operator did not observe any abnormal delay in response. This clearly indicates there would be no significant reduction in a margin of safety associated with the lack of quantitative documentation of the response time for a portion of the Steam Generator Water Level High High turbine trip function.

III. Summary

Based on the above analysis, TVA has determined that operation of Watts Bar Unit 1, in accordance with the proposed amendments, would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated (2) create the possibility of a new or different kind of accident from any accident previously evaluated or (3) involve a significant reduction in a margin of safety; therefore, operation of Watts Bar Unit 1, in accordance with the proposed amendment, would not involve a significant hazards consideration as defined in 10 CFR 50.92.

VI. ENVIRONMENTAL IMPACT CONSIDERATION

The proposed change does not involve a significant hazards consideration, a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or a significant increase in individual or cumulative occupational radiation exposure. Therefore, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed change is not required.

ENCLOSURE 2
ANNOTATED TECHNICAL SPECIFICATION PAGES

AFFECTED PAGES

Technical Specification

3.3-36

Technical Specification Bases

B 3.3-119
B 3.3-120

Table 3.3.2-1 (page 3 of 7)
Engineered Safety Feature Actuation System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NOMINAL TRIP SETPOINT
4.	Steam Line Isolation (continued)						
	c. Containment Pressure-High High	1,2[c],3[c]	4	E	SR 3.3.2.1 SR 3.3.2.4 SR 3.3.2.9 SR 3.3.2.10	≤ 2.9 psig	2.8 psig
	d. Steam Line Pressure						
	(1) Low	1,2[c], 3[a][c]	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.4 SR 3.3.2.9 SR 3.3.2.10	≥ 666.6[b] psig	675[b] psig
	(2) Negative Rate-High	3[d][c]	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.4 SR 3.3.2.9 SR 3.3.2.10	≤ 108.5[e] psi	100[e] psi
5.	Turbine Trip and Feedwater Isolation						
	a. Automatic Actuation Logic and Actuation Relays	1,2[f], 3[f]	2 trains	H	SR 3.3.2.2 SR 3.3.2.3 SR 3.3.2.5	NA	NA
	b. SG Water Level–High High (P-14)	1,2[f], 3[f]	3 per SG	I	SR 3.3.2.1 SR 3.3.2.4 SR 3.3.2.9 SR 3.3.2.10(h) ← Insert h	≤ 83.1%	82.4%
	c. Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.					
	d. North MSV Vault Room Water Level - High	1,2[f][g]	3/vault room	O	SR 3.3.2.6 SR 3.3.2.9	≤ 5.31 inches	4 inches
	e. South MSV Vault Room Water Level - High	1,2[f][g]	3/vault room	O	SR 3.3.2.6 SR 3.3.2.9	≤ 4.56 inches	4 inches

(continued)

(a) Above the P-11 (Pressurizer Pressure) interlock.
(b) Time constants used in the lead/lag controller are $t_1 \geq 50$ seconds and $t_2 \leq 5$ seconds.
(c) Except when all MSIVs are closed and de-activated.
(d) Function automatically blocked above P-11 (Pressurizer Interlock) setpoint and is enabled below P-11 when safety injection on Steam Line Pressure Low is manually blocked.
(e) Time constants utilized in the rate/lag controller are t_3 and $t_4 \geq 50$ seconds.
(f) Except when all MFIVs, MFRVs, and associated bypass valves are closed and de-activated or isolated by a closed manual valve.
(g) MODE 2 if Turbine Driven Main Feed Pumps are operating.
(h) For the time period between February 23, 2000 and prior to turbine restart (following the next time the turbine is removed from service), the response time test requirement of SR 3.3.2.10 is not applicable for 1-FSV-47-027.

Insert

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.10 (continued)

Therefore, staggered testing results in response time verification of these devices every 18 months. The 18 month Frequency is consistent with the typical refueling cycle and is based on unit operating experience, which shows that random failures of instrumentation components causing serious response time degradation, but not channel failure, are infrequent occurrences.

This SR is modified by a Note indicating that the SR should be deferred until suitable test conditions are established. This deferral is required because there may be insufficient steam pressure to perform the test.

Insert

There is an additional note pertaining to this SR on Page 3 of Table 3.3.2-1 of the Technical Specification, which states the following (Ref. 14):

> Note h:
> For the time period between February 23, 2000 and prior to turbine restart (following the next time the turbine is removed from service), the response time test requirement of SR 3.3.2.10 is not applicable for 1-FSV-47-027.

SR 3.3.2.11

SR 3.3.2.11 is the performance of a TADOT as described in SR 3.3.2.8, except that it is performed for the P-4 Reactor Trip Interlock, and the Frequency is once per RTB cycle. This Frequency is based on operating experience demonstrating that undetected failure of the P-4 interlock sometimes occurs when the RTB is cycled.

The SR is modified by a Note that excludes verification of setpoints during the TADOT. The Function tested has no associated setpoint.

REFERENCES

1. Watts Bar FSAR, Section 6.0, "Engineered Safety Features."

2. Watts Bar FSAR, Section 7.0, "Instrumentation and Controls."

3. Watts Bar FSAR, Section 15.0, "Accident Analyses."

(continued)

BASES

REFERENCES (continued)

4. Institute of Electrical and Electronic Engineers, IEEE-279-1971, "Criteria for Protection Systems for Nuclear Power Generating Stations," April 5, 1972.

5. Code of Federal Regulations, Title 10, Part 50.49, "Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants."

6. WCAP-12096, Rev. 7, "Westinghouse Setpoint Methodology for Protection System, Watts Bar 1 and 2," March 1997.

7. WCAP-10271-P-A, Supplement 1 and Supplement 2, Rev. 1, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation System," and "Evaluation of Surveillance Frequencies and Out of Service Times for the Engineered Safety Features Actuation System." May 1986 and June 1990.

8. Watts Bar Technical Requirements Manual, Section 3.3.2, "Engineered Safety Feature Response Times."

9. TVA Letter to NRC, November 9, 1984, "Request for Exemption of Quarterly Slave Relay Testing, (L44 841109 808)."

10. Evaluation of the applicability of WCAP-10271-P-A, Supplement 1, and Supplement 2, Revision 1, to Watts Bar.

11. Westinghouse letter to TVA (WAT-D-8347), September 25, 1990, "Charging/Letdown Isolation Transients" (T33 911231 810).

12. Design Change Notice W-38238 associated documentation.

13. WCAP-13877, Rev. 1, "Reliability Assessment of Westinghouse Type AR Relays Used As SSPS Slave Relays," August 1998.

Insert →

14. TVA's Letter to NRC dated February ??, 2000, "WBN Unit 1 - Request for TS Amendment for TS 3.3.2 - ESFAS Instrumentation"

(continued)

ENCLOSURE 3
REVISED TECHNICAL SPECIFICATION PAGES

AFFECTED PAGES

Technical Specification

3.3-36

Technical Specification Bases

B 3.3-119
B 3.3-120

Table 3.3.2-1 (page 3 of 7)
Engineered Safety Feature Actuation System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	NORMAL TRIP SETPOINT
4.	Steam Line Isolation (continued)						
c.	Containment Pressure-High High	1,2[c],3[c]	4	E	SR 3.3.2.1 SR 3.3.2.4 SR 3.3.2.9 SR 3.3.2.10	≤ 2.9 psig	2.8 psig
d.	Steam Line Pressure						
	(1) Low	1,2[c] 3[a][c]	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.4 SR 3.3.2.9 SR .3.2.10	≥ 666.6[b] psig	675[b] psig
	(2) Negative Rate-High	3[d][c]	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.4 SR 3.3.2.9 SR 3.3.2.10	≤ 108.5[e] psi	100[e] psi
5.	Turbine Trip and Feedwater Isolation						
a.	Automatic Actuation Logic and Actuation Relays	1,2[f] 3[f]	2 trains	H	SR 3.3.2.2 SR 3.3.2.3 SR 3.3.2.5	NA	NA
b.	SG Water Level-High High(p-14)	1,2[f] 3[f]	3 per SG	I	SR 3.3.2.1 SR 3.3.2.4 SR 3.3.2.9 SR 3.3.2.10 (h)	≤ 83.1%	82.4%
c.	Safety Injection	Refer to Function1 (Safety Injection) for all initiation functions and requirements.					
d.	North MSV Vault Room Water Level - High	1,2[f], [g]	3/Vault Room	O	SR 3.3.2.6 SR 3.3.2.9	≤ 5.31 inches	4 inches
e.	South MSV Vault Room Water Level - High	1,2[f], [g]	3/Vault Room	O	SR 3.3.2.6 SR 3.3.2.9	≤ 4.56 inches	4 inches

(continued)

(a) Above the P-11 (Pressurizer Pressure) interlock.
(b) Time constants used in the lead/lag controller are $t_1 \geq 50$ seconds and $t_2 \leq 5$ seconds.
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(d) Function automatically blocked above P-11 (Pressurizer Interlock) setpoint and is enabled below P-11 when safety injection on Steam Line Pressure Low is manually blocked.
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(g) MODE 2 if Turbine Driven Main Feed Pumps are operating.
(h) For the time period between February 23, 2000, and prior to turbine restart (following the next time the turbine is removed from service), the response time test requirement of SR 3.3.2.10 is not applicable for 1-FSV-47-027.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.10 (continued)

Therefore, staggered testing results in response time verification of these devices every 18 months. The 18 month Frequency is consistent with the typical refueling cycle and is based on unit operating experience, which shows that random failures of instrumentation components causing serious response time degradation, but not channel failure, are infrequent occurrences.

This SR is modified by a Note indicating that the SR should be deferred until suitable test conditions are established. This deferral is required because there may be insufficient steam pressure to perform the test.

There is an additional note pertaining to this SR on Page 3 of Table 3.3.2-1 of the Technical Specification, which states the following (Ref. 14):

Note h: For the time period between February 23, 2000, and prior to turbine restart (following the next time the turbine is removed from service), the response time test requirement of SR 3.3.2.10 is not applicable for 1-FSV-47-027.

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3. Watts Bar FSAR, Section 15.0, "Accident Analyses."

(continued)

BASES

REFERENCES (continued)

4. Institute of Electrical and Electronic Engineers, IEEE-279-1971, "Criteria for Protection Systems for Nuclear Power Generating Stations," April 5, 1972.

5. Code of Federal Regulations, Title 10, Part 50.49, "Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants."

6. WCAP-12096, Rev. 7, "Westinghouse Setpoint Methodology for Protection System, Watts Bar 1 and 2," March 1997.

7. WCAP-10271-P-A, Supplement 1 and Supplement 2, Rev. 1, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation System," and "Evaluation of Surveillance Frequencies and Out of Service Times for the Engineered Safety Features Actuation System." May 1986 and June 1990.

8. Watts Bar Technical Requirements Manual, Section 3.3.2, "Engineered Safety Feature Response Times."

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14. TVA's Letter to NRC dated February 25, 2000, "WBN Unit 1 Request for TS Amendment for TS 3.3.2 - ESFAS Instrumentation"