

- (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required, any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis, instrument calibration or associated with radioactive apparatus or components; and
 - (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the Sequoyah and Watts Bar Unit 1 Nuclear Plants.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level

The Tennessee Valley Authority is authorized to operate the facility at reactor core power levels not in excess of 3455 megawatts thermal.
 - (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 318 are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.
 - (3) Initial Test Program

The Tennessee Valley Authority shall conduct the post-fuel-loading initial test program (set forth in Section 14 of Tennessee Valley Authority's Final Safety Analysis Report, as amended), without making any major modifications of this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

 - a. Elimination of any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;
 - b. Modification of test objectives, methods or acceptance criteria for any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;
 - c. Performance of any test at power level different from there described; and

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>		<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE IS REQUIRED</u>
15.	Deleted				
16.	Undervoltage - Reactor Coolant Pumps	N.A.	R	Q	1
17.	Underfrequency - Reactor Coolant Pumps	N.A.	R	Q	1
18.	Turbine Trip				
	A. Low Fluid Oil Pressure	N.A.	N.A.	(1) (12)	1**
	B. Turbine Stop Valve Closure	N.A.	N.A.	(1) (12)	1**
19.	Safety Injection Input from ESF	N.A.	N.A.	R	1, 2
20.	Reactor Trip Breaker	N.A.	N.A.	M(5) and S/U(1)	1, 2, and *
21.	Automatic Trip Logic	N.A.	N.A.	M(5)	1, 2, and *
22.	Reactor Trip System Interlocks				
	A. Intermediate Range Neutron Flux, P-6	N.A.	R	N.A.	2, and *
	B. Power Range Neutron Flux, P-7	N.A.	N.A.	N.A.	1
	C. Power Range Neutron Flux, P-8	N.A.	R	N.A.	1
	D. Power Range Neutron Flux, P-10	N.A.	R	N.A.	1, 2
	E. Turbine Impulse Chamber Pressure, P-13	N.A.	R	N.A.	1
	F. Power Range Neutron Flux, P-9	N.A.	R	N.A.	1
	G. Reactor Trip, P-4	N.A.	N.A.	R	1, 2, and *
23.	Reactor Trip Bypass Breaker	N.A.	N.A.	M(10)R(11)	1, 2, and *

TABLE 4.3-1 (Continued)

NOTATION

- * - With the reactor trip system breakers closed and the control rod drive system capable of rod withdrawal.
- ** - Above the P-9 (Power Range Neutron Flux) interlock.
- (1) - If not performed in previous 31 days.
- (2) - Heat balance only, above 15% of RATED THERMAL POWER. Adjust channel if absolute difference greater than 2 percent.
- (3) - Compare incore to excore AXIAL FLUX DIFFERENCE above 15% of RATED THERMAL POWER. Recalibrate if the absolute difference greater than or equal to 3 percent. The frequency of this surveillance is every 31 EFPD. This surveillance is not required to be performed until 96 hours after thermal power is \geq 15% RTP.
- (4) - Deleted.
- (5) - Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS. The test shall independently verify the OPERABILITY of the undervoltage and automatic shunt trip circuits.
- (6) - Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (7) - Below P-6 (Block of Source Range Reactor Trip) setpoint.
- (8) - Deleted.
- (9) - The CHANNEL FUNCTIONAL TEST shall independently verify the operability of the undervoltage and shunt trip circuits for the manual reactor trip function.
- (10) - Local manual shunt trip prior to placing breaker in service. Each train shall be tested at least every 62 days on a STAGGERED TEST BASIS.
- (11) - Automatic and manual undervoltage trip.
- (12) - Prior to exceeding the P-9 interlock whenever the unit has been in HOT STANDBY.

- (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
 - (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the Sequoyah and Watts Bar Unit 1 Nuclear Plants.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
 - (1) Maximum Power Level

The Tennessee Valley Authority is authorized to operate the facility at reactor core power levels not in excess of 3455 megawatts thermal.
 - (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 310 are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications.
 - (3) Initial Test Program

The Tennessee Valley Authority shall conduct the post-fuel-loading initial test program (set forth in Section 14 of Tennessee Valley Authority's Final Safety Analysis Report, as amended), without making any major modifications of this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

 - a. Elimination of any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;
 - b. Modification of test objectives, methods or acceptance criteria for any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;
 - c. Performance of any test at power level different from there described; and

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>		<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
15.	Deleted				
16.	Undervoltage - Reactor Coolant Pumps	N.A.	R	Q	1
17.	Underfrequency - Reactor Coolant Pumps	N.A.	R	Q	1
18.	Turbine Trip				
	A. Low Fluid Oil Pressure	N.A.	N.A.	(1) (12)	1**
	B. Turbine Stop Valve Closure	N.A.	N.A.	(1) (12)	1**
19.	Safety Injection Input from ESF	N.A.	N.A.	R	1, 2
20.	Reactor Trip Breaker	N.A.	N.A.	M(5) and S/U(1)	1, 2, and *
21.	Automatic Trip Logic	N.A.	N.A.	M(5)	1, 2, and *
22.	Reactor Trip System Interlocks				
	A. Intermediate Range Neutron Flux, P-6	N.A.	R	N.A.	2, and *
	B. Power Range Neutron Flux, P-7	N.A.	N.A.	N.A.	1
	C. Power Range Neutron Flux, P-8	N.A.	R	N.A.	1
	D. Power Range Neutron Flux, P-10	N.A.	R	N.A.	1, 2
	E. Turbine Impulse Chamber Pressure, P-13	N.A.	R	N.A.	1
	F. Power Range Neutron Flux, P-9	N.A.	R	N.A.	1
	G. Reactor Trip, P-4	N.A.	N.A.	R	1, 2, and *
23.	Reactor Trip Bypass Breaker	N.A.	N.A.	M(10)R(11)	1, 2, and *

Table 4.3-1 (Continued)

NOTATION

- * - With the reactor trip system breakers closed and the control rod drive system capable of rod withdrawal.
- ** - Above the P-9 (Power Range Neutron Flux) interlock.
- (1) - If not performed in previous 31 days.
- (2) - Heat balance only, above 15% of RATED THERMAL POWER. Adjust channel if absolute difference greater than 2 percent.
- (3) - Compare incore to excore AXIAL FLUX DIFFERENCE above 15% of RATED THERMAL POWER. Recalibrate if the absolute difference greater than or equal to 3 percent. The frequency of this surveillance is every 31 EFPD. This surveillance is not required to be performed until 96 hours after thermal power is \geq 15% RTP.
- (4) - Deleted.
- (5) - Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS. The test shall independently verify the OPERABILITY of the undervoltage and automatic shunt trip circuits.
- (6) - Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (7) - Below P-6 (Block of Source Range Reactor Trip) setpoint.
- (8) - Deleted.
- (9) - The CHANNEL FUNCTIONAL TEST shall independently verify the operability of the undervoltage and shunt trip circuits for the manual reactor trip function.
- (10) - Local manual shunt trip prior to placing breaker in service. Each train shall be tested at least every 62 days on a STAGGERED TEST BASIS.
- (11) - Automatic and manual undervoltage trip.
- (12) - Prior to exceeding the P-9 interlock whenever the unit has been in HOT STANDBY. |