ATTACHMENT 1

PROPOSED TECHNICAL SPECIFICATION CHANGES FOR

SURRY UNITS 1 AND 2

3.7 INSTRUMENTATION SYSTEMS

Operational Safety Instrumentation

Applicability

Applies to reactor and safety features instrumentation systems.

Objectives

To provide for automatic initiation of the Engineered Safety Features in the event that principal process variable limits are exceeded, and to delineate the conditions of the plant instrumentation and safety circuits necessary to ensure reactor safety.

Specification

A. For on-line testing or in the event of a sub-system instrumentation channel failure, plant operation at rated power shall be permitted to continue in accordance with TS Tables 3.7-1 through 3.7-3.

B.1 The reactor trip system instrumentation channels of TS Table 3.7-1 shall be operable.

B.2 In the event the number of channels of a particular subsystem in service falls below the limits given in the column entitled Minimum Operable Channels or Minimum Degree of Redundancy cannot be achieved, operation shall be limited according to the requirement shown in Column 4 of TS Tables 3.7-2 and 3.7-3.

C. In the event of subsystem instrumentation channel failure permitted by Specification 3.7.B2, Tables 3.7-2 and 3.7-3 need not be observed during the short period of time, and operable sub-system channel are tested where the failed channel must be blocked to prevent unnecessary reactor trip.

D. The Engineered Safety Features initiation instrumentation setting limits shall be as stated in TS Table 3.7-4.

E. The radioactive liquid and gaseous effluent monitoring instrumentation channels shown in Table 3.7-5(a) and Table 3.7-5(b) shall be operable with their alarm/trip setpoints set to ensure that the limits of Specifications 3.11.A.1 and 3.11.B.1 are not exceeded. The alarm trip setpoints of these channels shall be determined and adjusted in accordance with the Offsite Dose Calculation Manual (ODCM).

1. With a radioactive liquid or gaseous effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, without delay suspend the release of radioactive liquid or gaseous effluents monitored by the affected channel and declare the channel inoperable or change the setpoint so it is acceptably conservative.

2. With less than the minimum number of radioactive liquid or gaseous effluent monitoring instrumentation channels operable, take the action shown in Table 3.7-5(a) or Table 3.7-5(b). Exert best efforts to return the instruments to operable status within 30 days and, if unsuccessful, explain in the next Semi-annual Radioactive Effluent Release Report why the inoperability was not corrected in a timely manner.

TABLE 3.7-1

REACTOR TRIP

INSTRUMENT OPERATING CONDITIONS

	FUNCTIONAL UNIT	TOTAL NUMBER OF CHANNELS	MINIMUM OPERABLE CHANNELS	CHANNELS TO TRIP	PERMISSIBLE BYPASS CONDITIONS	OPERATOR ACTION
1.	Manual	2	2	1		1
2.	Nuclear Flux Power Range	4	3	2	Low trip setting when 2 of 4 power channels greater than 10% of full power	2
3.	Nuclear Flux Intermediate Range	2	2	1	2 of 4 power channels greater than 10% full power	3
4.	Nuclear Flux Source Range				1 of 2 intermediate range channels greater than 10^{-10} amps	
	A. Below P-6 - Note A	2	2	1		4
	B. Shutdown - Note B	2	1	0		5
5.	Overtemperature ΔT	3	2	2		6
6.	Overpower ΔT	3	2	2		6
7.	Low Pressurizer Pressure	3	2	2	3 of 4 nuclear power channels and 2 of 2 turbine load channels less than 10% of rated power	7
8.	Hi Pressurizer Pressure	3	2	2	Same as Item 7 above	7

Note A - With the reactor trip breakers closed and the control rod drive system capable of rod withdrawal

Note B - With the reactor trip breakers open

TABLE 3.7-1

REACTOR TRIP

INSTRUMENT OPERATING CONDITIONS

	FUNCTIONAL UNIT	TOTAL NUMBER OF CHANNELS	MINIMUM OPERABLE CHANNELS	CHANNELS TO TRIP	PERMISSIBLE BYPASS CONDITIONS	OPERATOR ACTION
9.	Pressurizer-Hi Water Level	3	2	2	3 of 4 nuclear power channels and 2 of 2 turbine load channels less than 10% of rated power	6
10.	Low Flow	3/loop	2/loop in each operating loop	2/loop in any operating loop	If inoperable loop channels are not in service they must be placed in the tripped mode	6
11.	Turbine Trip					
	A. Stop valve closure	4	1	4		12
	B. Low fluid oil pressure	3	2	2		6
12.	Lo-Lo Steam Generator Water Level	3/loop	2/loop in each operating loop	2/loop in any operating loops		7
13.	Underfrequency 4KV Bus	3-1/bus	2	2		6
14.	Undervoltage 4KV Bus	3-1/bus	2	2		7
15.	Safety Injection Input From ESF	2	2	1		8
16.	Reactor Coolant Pump Breaker Position					
	A. Above P-8	1/breaker	1/breaker	1		9
	B. Above P-7	1/breaker	1/breaker per operating loop	2		10

TABLE 3.7-1

REACTOR TRIP

INSTRUMENT OPERATING CONDITIONS

	FUNCTIONAL UNIT	TOTAL NUMBER OF CHANNELS	MINIMUM OPERABLE CHANNELS	CHANNELS TO TRIP	PERMISSIBLE BYPASS CONDITIONS	OPERATOR ACTION
17.	Low steam generator water level with steam/feedwater flow mismatch	2/loop-level and 2/loop-flow mismatch	2/loop-level and 2/loop flow mismatch or 2 loop/level and 1/loop-flow mismatch	1/loop level coincident with 1/loop-flow mismatch in same loop		7
18.	A. Reactor Trip Breakers	2	2	1		8A&B
	B. Reactor Trip Bypass Breakers - Note C	2	1	1		11
19.	Automatic Trip Logic					
	A. Undervoltage Trip Logic	2	2	1		8B
	B. Shunt Trip Logic	2	2	1		8B

Note C - With the Reactor Trip Breaker open for surveillance testing in accordance with Specification Table 4.1-1 (item 31A)

TABLE 3.7-1 (Continued)

TABLE NOTATION

ACTION STATEMENTS

ACTION 1. With the number of channels OPERABLE one less than required by the Minimum OPERABLE Channels requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT SHUTDOWN within the next 6 hours and/or open the reactor trip breakers.

ACTION 2.A. With the number of OPERABLE channels equal to the Minimum OPERABLE Channels, POWER OPERATION may proceed provided the following conditions are satisfied:

1. The inoperable channel is placed in the tripped condition within 6 hours.
2. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of the redundant channel(s) per Specification 4.1.
3. Either, THERMAL POWER is restricted to ≤75% of RATED POWER and the Power Range, Neutron Flux trip setpoint is reduced to ≤85% of RATED POWER within 4 hours; or, the QUADRANT POWER TILT is monitored at least once per 12 hours.

TABLE 3.7-1 (Continued)

4. The QUADRANT POWER TILT shall be determined to be within the limit when above 75 percent of RATED POWER with one Power Range Channel inoperable by using the moveable incore detectors to confirm that the normalized symmetric power distribution, obtained from 2 sets of 4 symmetric thimble locations or a full-core flux map, is consistent with the indicated QUADRANT POWER TILT at least once per 12 hours.

2.B. With the number of operable channels one less than required by the Minimum Operable channels requirement, be in Hot Shutdown within 6 hours.

ACTION 3. With the number of channels OPERABLE one less than required by the Minimum OPERABLE Channels requirement and with the THERMAL POWER level:

a. Below P-6, (Block of Source Range Reactor Trip) setpoint, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint.

b. Above P-6, (Block of Source Range Reactor Trip) setpoint, but below 10% of RATED POWER, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above 10% of RATED POWER.

c. Above 10% of RATED POWER, POWER OPERATION may continue.

TABLE 3.7-1 (Continued)

ACTION 4. With the number of channels OPERABLE one less than required by the Minimum OPERABLE Channels requirement and with the THERMAL POWER level:

a. Below P-6, (Block of Source Range Reactor Trip) setpoint, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 setpoint.

b. Above P-6, operation may continue.

ACTION 5. With the number of channels OPERABLE one less than required by the Minimum OPERABLE Channels requirement, verify compliance with the SHUTDOWN MARGIN requirements within 1 hour and at least once per 12 hours thereafter.

ACTION 6.A. With the number of OPERABLE Channels equal to the Minimum Operable Channels, POWER OPERATION may proceed provided the following conditions are satisfied:

1. The inoperable channel is placed in the tripped condition within 6 hours.

2. The Minimum OPERABLE Channels requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.1.

6.B. With the number of OPERABLE Channels one less than required by the Minimum Operable Channels requirement, be in Hot Shutdown within 6 hours.

TABLE 3.7-1 (Continued)

ACTION 7.A. With the number of OPERABLE Channels equal to the Minimum Operable Channels, POWER OPERATION may proceed until performance of the next required CHANNEL FUNCTIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour.

7.B. With the number of OPERABLE Channels one less than required by the Minimum Operable Channels requirement, be in Hot Shutdown within 6 hours.

ACTION 8.A. With the number of channels OPERABLE one less than required by the Minimum OPERABLE Channels requirement, be in Hot Shutdown within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.1 provided the other channel is OPERABLE.

ACTION 8.B. With one of the diverse trip features (undervoltage or shunt trip device) inoperable, restore it to OPERABLE status within 48 hours or declare the breaker inoperable and apply Action 8.A. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status.

TABLE 3.7-1 (Continued)

ACTION 9. With one channel inoperable, restore the inoperable channel to OPERABLE status within 6 hours or reduce THERMAL POWER to below the P-8, (Block of Low Reactor Coolant Pump Flow and Reactor Coolant Pump Breaker Position) setpoint, within the next 2 hours. Operation below P-8 may continue pursuant to ACTION 10.

ACTION 10. With less than the Minimum Number of Channels OPERABLE, operation may continue provided the inoperable channel is placed in the tripped condition within 6 hours.

ACTION 11. With the number of channels OPERABLE one less than required by the Minimum OPERABLE Channels requirement, restore the inoperable channel to OPERABLE status within (1) hour or terminate testing of the Reactor Trip Breaker and open the Reactor Trip Bypass Breaker.

ACTION 12. With the number of OPERABLE channels less than the total number of channels, operation may continue provided the inoperable channels are placed in the tripped condition within 6 hours.

4.1 OPERATIONAL SAFETY REVIEW

Applicability

Applies to items directly related to safety limits and limiting conditions for operation.

Objective

To specify the minimum frequency and type of surveillance to be applied to unit equipment and conditions.

Specification

A.1 Calibration, testing, and checking of instrumentation channels shall be performed as detailed in Table 4.1-1 and 4.1-2.

A.2 The logic for the reactor trip system interlocks listed in Table 4.1-A shall be demonstrated operable prior to each reactor startup unless performed during the preceeding 92 days. The interlock function shall be demonstrated operable at each refueling by channel calibration testing of each channel affected by interlock operation.

B. Equipment tests shall be conducted as detailed below and in Table 4.1-2A.

1. Each Pressurizer PORV shall be demonstrated operable:

   a. At least once per 31 days by performance of a channel functional test, excluding valve operation, and

   b. At least once per 18 months by performance of a channel calibration.

2. Each Pressurizer PORV block valve shall be demonstrated operable at least once per 92 days by operating the valve through one complete cycle of full travel.

TABLE 4.1-1

MINIMUM FREQUENCIES FOR CHECK, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

	Channel Description	Check	Calibrate	Test	Remarks
1.	Nuclear Power Range	S	D(1) Q(3) R	M(2)	1) Against a heat balance standard 2) Signal at ΔT; bistable action permissive, rod stop, trip) 3) Upper and lower chambers for symetric offset by means of the movable incore detector system
2.	Nuclear Intermediate Range (below P-10 setpoint)	*S	R	P(1)	1) Log level; bistable action (permissive, rod stop, trip)
3.	Nuclear Source Range (below P-6 setpoint)	*S	R	P(1)	1) Bistable action (alarm, trip)
4.	Reactor Coolant Temperature	*S	R	M(1) M(2)	1) Overtemperature ΔT 2) Overpower ΔT
5.	Reactor Coolant Flow	S	R	M	
6.	Pressurizer Water Level	S	R	M	
7.	Pressurizer Pressure (High & Low)	S	R	M	
8.	4 kv Voltage and Frequency	N.A.	R	M	
9.	Analog Rod Position	*S(1,2)(4)	R	M(3)	1) With step counters 2) Each six inches of rod motion when data logger is out of service 3) Rod bottom bistable action 4) N.A. when reactor is in cold shutdown

TABLE 4.1-1 (Continued)

MINIMUM FREQUENCIES FOR CHECK, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

	Channel Description	Check	Calibrate	Test	Remarks
10.	Rod Position Bank Counters	S(1,2)	N.A.	N.A.	1) Each six inches of rod motion when data logger is out of service 2) With analog rod position
11.	Steam Generator Level	S	R	M	
12.	Charging Flow	N.A.	R	N.A.	
13.	Residual Heat Removal Pump Flow	N.A.	R	N.A.	
14.	Boric Acid Tank Level	*D	R	N.A.	
15.	Refueling Water Storage Tank Level	S	R	M	
16.	Volume Control Tank Level	N.A.	R	N.A.	
17.	Reactor Containment Pressure-CLS	*D	R	M(1)	1) Isolation valve signal and spray signal.
18.	Boric Acid Control	N.A.	R	N.A.	
19.	Containment Sump Level	N.A.	R	N.A.	
20.	Accumulator Level and Pressure	S	R	N.A.	
21.	Containment Pressure-Vacuum Pump System	S	R	N.A.	
22.	Steam Line Pressure	S	R	M	

TABLE 4.1-1 (Continued)

MINIMUM FREQUENCIES FOR CHECK, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

	Channel Description	Check	Calibrate	Test	Remarks
23.	Turbine First Stage Pressure	S	R	M	
24.	Emergency Plan Radiation Instr.	*M	R	M	
25.	Environmental Radiation Monitors	*M	N.A.	N.A.	TLD Dosimeters
26.	Logic Channel Testing	N.A.	N.A.	M	
27.	Turbine Overspeed Protection Trip Channel (Electrical)	N.A.	R	R	
28.	Turbine Trip				Setpoint verification is not applicable
	A. Stop valve closure	N.A.	N.A.	P	
	B. Low fluid oil pressure	N.A.	N.A.	P	
29.	Seismic Instrumentation	M	R	M	
30.	Reactor Trip Breaker	N.A.	N.A.	M	The test shall independently verify operability of the undervoltage and shunt trip attachments
	A. Undervoltage Trip Logic	N.A.	N.A.	M	
	B. Shunt Trip Logic	N.A.	N.A.	M	
31.	Reactor Coolant Pressure (Low)	N.A.	R	N.A.	
32.	Auxiliary Feedwater				
	a. Steam Generator Water Level Low-Low	S	R	M	
	b. RCP Undervoltage	S	R	M	
	c. S.I.	(All Safety Injection surveillance requirements)			
	d. Station Blackout	N.A.	R	N.A.	
	e. Main Feedwater Pump Trip	N.A.	N.A.	R	

TABLE 4.1-1 (Continued)

MINIMUM FREQUENCIES FOR CHECK, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

	Channel Description	Check	Calibrate	Test	Remarks
33.	Loss of Power				
	a. 4.16 KV Emergency Bus Undervoltage (Loss of Voltage)	N.A.	R	M	
	b. 4.16 KV Emergency Bus Undervoltage (Degraded Voltage)	N.A.	R	M	
34.	Control Room Chlorine Detectors	S	R	M	
35.	Manual Reactor Trip	N.A.	N.A.	R	The test shall independently verify the operability of the undervoltage and shunt trip attachments for the manual reactor trip function. The test shall also verify the operability of the bypass breaker trip circuit.
36.	Reactor Trip Bypass Breaker				
	a. Undervoltage attachment	N.A.	N.A.	M	Test prior to placing in service
	b. Shunt trip attachment	N.A.	N.A.	R	
37.	Safety Injection Input from ESF	N.A.	N.A.	R	
38.	Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	R	
39.	Steam/Feedwater Flow and low S/G Water Level	S	R	M	

S - Each shift
D - Daily
N.A.- Not Applicable
Q - Every 90 effective full power days

M - Monthly
P - Prior to each startup if not done in the previous 31 days
R - Each Refueling Shutdown
AP - After each startup if not done the previous week

TABLE 4.1-A

REACTOR TRIP SYSTEM INTERLOCKS

DESIGNATION	CONDITION	FUNCTION
P-6	1 of 2 Intermediate range above setpoint (increasing power level)	Allows manual block of source range reactor trip
	2 of 2 Intermediate range below setpoint (decreasing power level)	Defeats the block of source range reactor trip
P-10	2 of 4 Power range above setpoint (increasing power level)	Allows manual block of power range (low setpoint) and intermediate range reactor trips and intermediate range rod stop. Blocks source range reactor trip.
	3 of 4 Power range below setpoint (decreasing power level)	Defeats the block of power range (low setpoint) and intermediate range reactor trips and intermediate range rod stop.
		Input to P-7.
P-7	2 of 4 Power range above setpoint or 1 of 2 Turbine Impulse chamber above setpoint (Power level increasing)	Allows reactor trip on: Low flow or reactor coolant pump breakers open in more than one loop, Undervoltage (RCP busses), Underfrequency (RCP busses), Turbine Trip, Pressurizer low pressure, and Pressurizer high level.
	3 of 4 Power range below setpoint and 2 of 2 Turbine Impulse chamber pressure below setpoint (Power level decreasing)	Prevents reactor trip on: Low flow or reactor coolant pump breakers open in more than one loop, Undervoltage (RCP busses), Underfrequency (RCP busses), Turbine Trip, Pressurizer low pressure, and Pressurizer high level
P-8	2 of 4 Power range above setpoint (Power level increasing)	Permit reactor trip on low flow or reactor coolant pump breaker open in a single loop.
	3 of 4 Power range below setpoint (Power level decreasing)	Blocks reactor trip on low flow or reactor coolant pump breaker open in a single loop.

TABLE 4.1-1A

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

CHANNEL DESCRIPTION	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST
1. GROSS RADIOACTIVITY MONITORS PROVIDING ALARM AND AUTOMATIC TERMINATION OF RELEASE				
(a) Liquid Radwaste Effluent Line	D	PR	R	Q
2. GROSS BETA OR GAMMA RADIOACTIVITY MONITORS PROVIDING ALARM BUT NOT PROVIDING AUTOMATIC TERMINATION OF RELEASE				
(a) Circulating Water Discharge Line	D	M	R	Q
(b) Component Cooling Service Water System Effluent Line	D	M	R	Q
3. FLOW RATE MEASUREMENT DEVICES				
(a) Liquid Radwaste Effluent Line	D	N.A.	R	N.A.

D - Daily
M - Monthly
R - Each Refueling Shutdown
Q - Quarterly
PR - Prior to each release
N.A. - Not Applicable

TABLE 4.1-1B

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

CHANNEL DESCRIPTION	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST
1. PROCESS VENT SYSTEM				
(a) Noble Gas Activity Monitor Providing Alarm and Automatic Termination of Release	D	M*	R	Q
(b) Iodine Sampler	W	N.A	N.A	N.A.
(c) Particulate Sampler	W	N.A.	N.A	N.A.
(d) Process Vent Flow Rate Monitor	D	N.A.	R	N.A.
(e) Sampler Flow Rate Measuring Device	D	N.A.	SA	N.A.
2. WASTE GAS HOLDUP SYSTEM EXPLOSIVE GAS MONITORING SYSTEM				
(a) Hydrogen Monitor	D	N.A.	Q(1)	M
(b) Oxygen Monitor	D	N.A.	Q(2)	M
3. CONDENSER AIR EJECTOR SYSTEM				
(a) Gross Activity Monitor	D	M	R	Q
(b) Air Ejector Flow Rate Measuring Device	D	N.A.	R	N.A.
4. VENTILATION VENT SYSTEM				
(a) Noble Gas Activity Monitor	D	M	R	Q
(b) Iodine Sampler	W	N.A.	N.A.	N.A.
(c) Particulate Sampler	W	N.A.	N.A.	N.A.
(d) Ventilation Vent Flow Rate Monitor	D	N.A.	R	N.A.
(e) Sampler Flow Rate Measuring Device	D	N.A.	SA	N.A.

(1) - The channel calibration shall include the use of standard gas samples containing a nominal:
1. one volume percent hydrogen, balance nitrogen, and
2. four volume percent hydrogen, balance nitrogen.

(2) - The channel calibration shall include the use of standard gas samples containing a nominal:
1. one volume percent oxygen, balance nitrogen, and
2. four volume percent oxygen, balance nitrogen.

D - Daily
W - Weekly
M - Monthly
R - Each Refueling Shutdown
SA - Semi-annually
NA - Not Applicable
Q - Quarterly
* - Monthly and prior to each Waste Gas Decay Tank Release

Page TS 4.1-9 should be deleted.

ATTACHMENT 2

DISCUSSION OF PROPOSED CHANGES

DISCUSSION OF PROPOSED CHANGES

Changes to Section 3.7 (Instrumentation System Limiting Condition of Operation) and 4.1 (Operational Safety Review) of Surry's Technical Specifications are being proposed as part of our response to Generic Letter 83-28, Item 4.5.3. This item addressed the surveillance intervals for on-line functional testing of the reactor trip system instrumentation. A description of the changes to each section is provided below.

Section 3.7

The specification statement for the reactor trip system instrumentation channels (TS table 3.7-1) has been separated from the specification statements for the engineered safeguards action instrumentation (TS table 3.7-2) and the instrument operating conditions for isolation functions (TS table 3.7-3). This has been done because TS table 3.7-1 is being revised and re-formated, and specification 3.7.B will no longer be applicable to TS table 3.7-1. Similarly, specification 3.7.C is being changed to be consistent with the changes proposed to specification 3.7.B.

The number of minimum operable channels for 1 of 2 logic Reactor Protection System (RPS) channels has been changed from one (1) to two (2). The channels affected include Manual Reactor Trip, Nuclear Intermediate and Source Ranges, and Low Steam Generator Water Level with Steam/Feedwater Flow Mismatch. These changes are proposed in order to be consistent with the design philosophy presented in the Surry Power Station Updated Final Safety Analysis Report (UFSAR-Reference 1). These changes represent more stringent operability requirements for these instrumentation channels.

Notes have been added for the Nuclear Flux Source Range Reactor Trip in order to clarify the operability requirement for that instrumentation channel. The notes are consistent with the guidance provided in Section 3/4.3.1 of NUREG-0452, Revision 4, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors" (W-STS-Reference 2), for the Nuclear Flux Source Range Reactor Trip.

The minimum operable channels requirement for the low flow reactor trip and low low steam generator water level reactor trip has been modified in order to clarify the requirement in accordance with the guidance provided in Section 3/4.3.1 of Reference 2 for the low flow reactor trip and low low steam generator water level reactor trip.

The Turbine Trip function has been subdivided into its component parts. This change is proposed to provide clarification for the Turbine Trip/RPS interface and is being made in accordance with the guidance provided in the Model Technical Specifications enclosed with the letter from Mr. H. R. Denton (NRC) to Mr. L. D. Butterfield (Westinghouse Owners Group) dated July 24, 1985 (Reference 3), for the turbine trip.

The Safety Injection Function has been changed from referencing the initiating signals for Safety Injection to specifying the logic that makes

up the Safety Injection/RPS interface. This change is proposed to provide clarification of the actual interface between the Safety Injection actuation system and the RPS and is being made in accordance with the guidance provided in Section 3/4.3.1 of Reference 2 for the safety injection input from ESF reactor trip.

A Limiting Condition of Operation for Reactor Coolant Pump Breaker Position has been added to T.S. Table 3.7-1. The position of the Reactor Coolant Pump Breakers is an input into the RPS as described in Section 7.2 of Reference 1 and should be included with the other reactor trip instruments. The operability requirements for this trip channel have been established in accordance with the guidance provided in Section 3/4.3.1 of Reference 2, for the Reactor Coolant Pump Breaker Position Trip.

The control rod misalignment monitor is being deleted from TS table 3.7-1 because it is not part of the reactor trip instrumentation and does not provide a reactor trip signal.

TS table 3.7-1, Reactor Trip Instrument Operating Conditions, has been reformatted to be consistent with the format used in Section 3/4.3.1 of Reference 2. More specifically for each functional unit, column entries are being added for the "Total Number of Channels", "Channels To Trip", and specific "Operator Action". The column for "Degree of Redundancy" is being deleted from the table. The "Action Statements" have been modeled after the Action Statements of Section 3/4.3.1 of the North Anna Power Station Unit 2 Technical Specifications (Reference 4). The times for testing and maintenance that are in the Action Statements have been established in accordance with the guidance provided in the Model Technical Specifications enclosed with Reference 3 and with those provisions of WCAP-10271, "Evaluation Of Surveillance Frequencies And Out Of Service Times For The Reactor Protection Instrumentation System" (Reference 5), and Supplement 1 (Reference 6), which have been approved in the NRC's SER issued in February, 1985 (Reference 7).

The changes to the operability requirements for the reactor trip breakers, the reactor trip bypass breakers and the automatic trip logic are consistent with the proposed changes to the Technical Specifications that were provided in the letter from Mr. W. L. Stewart (VEPCO) to Mr. H. R. Denton (NRC) dated September 9, 1985, Serial No. 85-229A (Reference 8). Additionally, more specific guidance is being provided in the Action Statements for these items that address the time allowed for testing and maintenance. This additional guidance is modeled after the Action Statements for these items that were provided in the letter from Mr. W. L. Stewart (VEPCO) to Mr. H. R. Denton (NRC), September 9, 1985, Serial No. 85-228A (Reference 9).

Section 4.1

A specification is being added that defines the surveillance requirements for the logic for the reactor trip system interlocks and the interlock function. This specification has been modeled after the requirements of Section 3/4.3.1 of Reference 4 for the logic for the reactor trip system interlocks and the interlock function. Additionally, TS table 4.1-A is

being added to this section of the Technical Specifications. This table describes the reactor trip system interlocks and is based on information contained in Section 7.2 of Reference 1.

The surveillance requirements listed in TS table 4.1-1, Minimum Frequencies For Check, Calibrations, And Test Of Instrument Channels, for the Nuclear Power Range, Nuclear Intermediate Range, Nuclear Source Range, 4Kv Voltage and Frequency, Reactor Coolant Temperature and Turbine Trip are being modified in accordance with the guidance provided in Section 3/4.3.1 of Reference 2 and the Model Technical Specifications enclosed with Reference 3, for these instrument channels.

Surveillance requirements have been added to TS table 4.1-1 for the following channels, Safety Injection Input from ESF, Reactor Coolant Pump Breaker Position Trip, and Steam/Feedwater Flow Mismatch Coincident With Low Steam Generator Water Level. The surveillance requirements for these channels have been established based on the guidance provided in Section 3/4.3.1 of Reference 2, for these channels.

The surveillance requirements for the Boron Injection Tank Level have been deleted from TS table 4.1-1 reflecting a recently proposed change to the Technical Specifications that was contained in the letter from Mr. W. L. Stewart (VEPCO) to Mr. H. R. Denton (NRC), dated July 12, 1985, Serial No. 85-342 (Reference 10).

The surveillance requirements for the reactor trip breaker, the manual reactor trip, and the reactor trip bypass breaker (denoted by double vertical lines) are the same as the proposed changes to the Technical Specifications for these items that were provided in Reference 8.

The entries for weekly, semiannually, and every two weeks are being deleted from the listing of defined abbreviations in TS table 4.1-1 because they are no longer used in the table.

The pages for TS table 4.1-1(a), Radioactive Liquid Effluent Monitoring Instrumentation Surveillance Requirements, and TS table 4.1-1(b), Radioactive Gaseous Effluent Monitoring Instrumentation Surveillance Requirements, have been renumbered so that the page numbering in this section will run consecutively.

Page TS 4.1-9 is being deleted because all of the information on that page duplicates information that is contained in other portions of TS table 4.1-1.

50.59 Safety Review

Pursuant to 10 CFR 50.59, we have reviewed the proposed Technical Specification changes and have concluded that no unreviewed safety question exists. Specifically:

(1) The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report is not increased by these proposed changes because the estimated change in reactor protection system unavailability is very small as is the estimated reduction in core damage frequency coming from inadvertant trips. These proposed changes do not alter the manner in which protection is afforded nor the manner in which limiting criteria are established.

(2) The possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report is not being created by these proposed changes because these proposed changes do not involve any alterations to the physical plant which introduce any new or unique operational modes or accident precursors; and

(3) The margin of safety as defined in the basis for any technical specification is not reduced by these proposed changes because the operability and performance of the reactor trip system instrumentation is not being significantly affected by these proposed changes.

50.92 Significant Hazards Review

The proposed changes do not pose a significant hazards consideration as defined in 10 CFR 50.92. The Commission has provided examples of changes that constitute no significant hazards consideration in Federal Register, Volume 48, page 14870. Example (i) is a purely administrative change to technical specifications; for example a change to achieve consistency throughout the technical specifications, correction of an error, or a change in nomenclature. Example (ii) is a change that constitutes an additional limitation, restriction, or control not presently included in the technical specifications; for example, a more stringent surveillance requirement. Example (vi) is a change which either may result in some increase to the probability or consequences of a previously analyzed accident or may reduce in some way a safety margin, but where the results of the change are clearly within all acceptable criteria with respect to the system or component specified in the Standard Review Plan: for example, a change resulting from the application of a small refinement of a previously used calculational model or design method.

Example (vii) is a change to make a license conform to changes in the regulations, where the license change results in very minor changes to facility operations clearly in keeping with the regulations.

The proposed changes that reformat TS table 3.7-1 and re-number the pages that contain TS table 4.1-1(a) and TS table 4.1-1(b) are similar to example (i) in that they do not modify any technical requirement and will foster document consistency.

The proposed changes to the operability requirements for the manual reactor trip, the nuclear flux intermediate range reactor trip, the nuclear source range reactor trip, and the low steam generator water level with steam/feedwater flow mismatch reactor trip, and the addition of the requirements for the reactor coolant pump breaker position trip on TS table 3.7-1 are similar to example (ii) in that they constitute either new or additional requirements. The proposed changes that address the surveillance requirements for the logic for the reactor trip system interlocks and the reactor trip system interlock function in Section 4.1, and the surveillance requirements for the safety injection input from ESF, the reactor coolant pump breaker position trip, and the low steam generator water level with steam/feedwater flow mismatch reactor trip on TS table 4.1-1 are similar to example (ii) in that they constitute additional requirements.

The proposed changes in the Action Statements of TS table 3.7-1 that address the times allowed for testing and maintenance and the proposed change to the prior to startup note at the end of TS table 4.1-1 are similar to example (vi) in that the estimated change in reactor protection system unavailability is very small, and it has been concluded that the change in core damage frequency and risk is insignificant as a result of these changes.

The proposed changes to the operability requirements for the turbine trip, the reactor trip breakers, the reactor trip bypass breaker, the auto trip logic and the Action Statements in TS table 3.7-1 are similar to example (vii) in that they are based on previously issued NRC guidance. The proposed changes to the surveillance requirements for the nuclear power range trip, the nuclear intermediate range trip, the nuclear source range trip, the 4 Kv voltage and frequency trips, reactor coolant temperature and the turbine trip listed in TS table 4.1-1 are similar to example (vii) in that they reflect previously issued NRC guidance.

References

1. Surry Power Station Updated Final Safety Analysis Report, Revision 3, June, 1985.

2. NUREG-0452 (Revision 4), "Standard Technical Specifications For Westinghouse Pressurized Water Reactors, Fall 1981.

3. Letter from Mr. H. R. Denton (NRC) to Mr. L. D. Butterfield (Westinghouse Owners Group), July 24, 1985.

4. North Anna Power Station Unit 2 Technical Specifications, through Amendment No. 49.

5. WCAP-10271, "Evaluation Of Surveillance Frequencies And Out Of Service Times For The Reactor Protection Instrumentation System," January, 1983.

6. WCAP-10271, Supplement 1, "Evaluation Of Surveillance Frequencies And Out Of Service Times For The Reactor Protection Instrumentation System," July, 1983.

7. Letter from Mr. C. O. Thomas (NRC) to Mr. J. J. Sheppard (Westinghouse Owners Group), "Acceptance For Referencing Of Licensing Topical Report WCAP-10271, Evaluation Of Surveillance Frequencies And Out Of Service Times For The Reactor Protection Instrumentation Systems," February 21, 1985.

8. Letter from Mr. W. L. Stewart (VEPCO) to Mr. H. R. Denton (NRC), September 9, 1985 (Serial No. 85-229A).

9. Letter from Mr. W. L. Stewart (VEPCO) to Mr. H. R. Denton (NRC), September 9, 1985 (Serial No. 85-228A).

10. Letter from Mr. W. L. Stewart (VEPCO) to Mr. H. R. Denton (NRC), July 12, 1985 (Serial No. 85-342).

ATTACHMENT 3

APPLICATION FEE