

hours (Required Action G.2). Below P-6, the Source Range Neutron Flux channels (STS Table 3.3.1-1 Function 4) are required to be Operable and will be able to monitor neutron flux. Therefore, since adequate neutron flux monitoring capability and trip capability is provided by the Source Range Neutron Flux channels and positive reactivity additions are required to be suspended, it is not necessary to require a plant shutdown in accordance with CTS 3.0. This change is consistent with STS.

L27 CTS Table 4.1-1 requires that the power-operated relief valve (PORV) Position Indication, PORV Block Valve Position Indicator, and Safety Relief Valve Position Indicator, Containment Level, Pressure, Hydrogen and Radiation Monitors be tested at an "R" Frequency. ITS Specification 3.3.3 has no such requirement. This is a relaxation of requirements and is less restrictive. This change is acceptable, however, because a channel calibration is performed on these channels at an 18-month frequency. The channel calibration encompasses all the testing requirements for these Functions, from sensor to indicator, and provides reasonable assurance that the entire channel is operable. This change is consistent with STS.

L30 Deleted

L32 CTS Table 3.4-1, Function 1, requires under certain channel inoperability conditions that the unit be maintained in hot shutdown. ITS 3.3.8, Required Action B, requires under similar conditions, that the inoperable channel be placed in trip in 6 hours, or be in Mode 3 in 12 hours, and MODE 4 in 18 hours. This is a relaxation of requirements, and is less restrictive. This change is acceptable, however, because placing the inoperable channel in trip maintains the Auxiliary Feedwater (AFW) pump autostart Function Operable, but in a one-out-of-two configuration, instead of two-out-of-three. The allowance of 6 hours to return the channel to operable status or place it in trip is consistent with WCAP-10271-P-A, "Evaluation of Surveillance Frequencies and Out of Service Times for the Engineered Safety Features Actuation System," Supplement 2, Rev. 1, June 1990 and is acceptable. This change is consistent with STS.

As required by the NRC staff Safety Evaluation (dated April 30, 1990) accepting the generic reliability analysis in WCAP-10271-P-A, Supplement 2, Rev.1, CP&L has confirmed that the HBR logic design of the affected instrumentation is bounded by that analyzed in the reliability analysis and the conclusions are applicable to the HBR design. In addition, CP&L has confirmed that the instrument drift due to extended Surveillance

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**ENCLOSURE 4**

The table entries shown below are revised to provide clarification of the staff approved CTS changes. The corrections are noted as underlined text.

Discussion of Change	Summary of Change	ITS Section	CTS Section
3.1 M21	Surveillance requirements were added during physics tests to perform a channel <u>operational test</u> on power range and intermediate range channels within 7 days prior to initiation of physics tests, to verify the RCS lowest loop average temperature is $\geq 530^{\circ}\text{F}$ every 30 minutes, verify thermal power is $\leq 530^{\circ}\text{F}$ 5% rated thermal power every 30 minutes, and to verify that SDM is within the limits of the COLR every 24 hours.	SR 3.1.8.1 SR 3.1.8.2 SR 3.1.8.3 SR 3.1.8.4	3.10.1
3.2 M12	A requirement was added to a surveillance note to reverify that the heat flux hot channel factor is within limits in the event that the nuclear enthalpy rise hot channel factor shows <u>an increasing trend</u> .	SR 3.2.2.1	3.10.2.2.3
3.2 M18	A requirement to reduce thermal power to less than 15 % rated thermal power within nine (9) hours was added for the condition when requirements to reduce thermal power or restore cumulative penalty deviation time to less than one (1) <u>hour</u> are not met. A surveillance requirement to verify that axial flux difference is within limits for each excor channel every seven (7) days was added.	LCO 3.2.3 Required Action D.1 SR 3.2.3.1	3.10.2
3.2 M25	The required power reduction when QPTR exceeds limits was increased from two (2) percent for each percent that QPTR exceeds 1.02 to three (3) percent for each percent that QPTR exceeds 1.00.	LCO 3.2.4 Required Action a.1	3.10.3.1
3.3 M8	The allowed time to restore an inoperable channel of automatic trip logic to OPERABLE status was restricted to six (6) hours from 12 hours and if not restored, the allowed time to reach MODE 3 was restricted to six (6) hours from eight (8) hours. The allowed time to restore an inoperable reactor trip breakers (RTBs) to OPERABLE status was reduced from 12 hours to one (1) hour and if not restored, the allowed time was reduced from eight (8) hours to six (6) hours to place the unit in MODE 3.	LCO 3.3.1 Required Action Q and R	3.10.5.2

Discussion of Change	Summary of Change	ITS Section	CTS Section
3.3 M9	The requirements for the reactor protection system (RPS) were increased to include the RTBs, RTB UV & shunt trip mechanisms and Automatic Trip functions in MODES 3, 4 and 5 including associated requirements when the RTBs are closed <u>with either rods not fully inserted, or rod control system capable of rod withdrawal.</u>	LCO 3.3.1 Required Action C & V; Table 3.3.1-1 Functions 18, 19 & 20	3.10
3.3 M14	Surveillance requirements were added requiring comparison of incore measurement results to NIS axial flux difference and calibration of the excore nuclear instrument channels to agree with OT $\Delta$ T and OP $\Delta$ T functions. Surveillance requirements were added requiring CHANNEL CHECKS, Channel Operational Tests (COTs) and CHANNEL CALIBRATION for the Power Range Neutron Flux-Low function. Surveillance requirements were added requiring a TADOT for the Reactor Coolant Pump (RCP) breaker position, <u>safety Injection (SI) input from ESFAS functions and the RPS P-7 interlock.</u> Surveillance requirements were added requiring a COT for the RPS interlock function P-6, P-8 and P-10 functions.	SR 3.3.1.3 SR 3.3.1.6 SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11 SR 3.3.1.13 SR 3.3.1.14	Table 4.1-1
3.3 M20	Trip setpoint values were added for intermediate range neutron flux, source range neutron flux, steam generator water level and turbine trip <u>(low oil pressure)</u>	LCO 3.3.1 Table 3.3.1-1 Function 3, 4, 14 and 15.	2.3.1
3.5 M16	A Surveillance Requirement to verify specified valves are in the correct position was extended to apply to MODES 2 and 3.	SR 3.5.3.1	4.5.2.2
3.6 M4 (previously listed as 3.6 M6)	Requirements were added for when the containment air lock is inoperable for reasons other than an inoperable door or lock mechanism to verify a door is closed in the air lock within one (1) hour and restore the air lock to operable status within 24 hours.	LCO 3.6.2 Required Actions C.2 and C.3	3.6.1

Discussion of Change	Summary of Change	ITS Section	CTS Section
3.6 M13	Surveillance requirements were added to verify the position of containment isolation valves located outside containment every 31 days, verify the position of containment isolation valves inside containment prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days, and verify each 42 inch inboard containment purge valve is blocked to restrict the valve from opening > 70°.	SR 3.6.3.2 SR 3.6.3.3 SR 3.6.3.6	4.4.2
3.7 M38 (previously listed as 3.7 M11)	Acceptance criteria were added to the requirements for testing the Auxiliary Feedwater Pumps. The acceptance criteria require that the measured pump performance be compared to and exceed the required pump performance.	SR 3.7.4.2	4.8.1, 4.8.2

Discussion of Change	Summary of Change	ITS Section	CTS Section
3.8 M6	<p>Surveillance requirements were added as follows. Verify correct breaker alignment and indicated power availability for the offsite circuit every 7 days. verify each day tank contains <math>\geq 140</math> gallons of fuel oil every 31 days. Check for and remove accumulated water from each day tank every 31 days. Verify the fuel oil transfer system operates to automatically transfer from the storage tank to the day tank every 31 days. Verify each diesel generator starts from standby condition and achieves required voltage and frequency every 184 days. Verify each diesel generator rejects a load greater than or equal to its associated single largest load without tripping on overspeed every 18 months. Verify that each diesel starts on a simulated or actual loss of offsite power signal and achieves required conditions in the required times every 18 months. Verify that each diesel generator starts and achieves required conditions in the required times within five minutes of the 24 hour load test every 18 months. Verify that the interval between each sequenced load block is within <math>\pm 0.5</math> seconds of design setpoint every 18 months. Verify that each diesel starts on a simulated or actual Engineered Safety Features (ESF) signal and achieves required conditions in the required times every 18 months. Verify the automatic transfer capability of the 4.16 kV bus 2 and the 480 volt emergency bus 1 loads from the unit auxiliary transformer to the startup transformer every 18 months. <u>Verify that when started simultaneously from standby condition each diesel achieves required conditions within 10 seconds every 10 years.</u></p>	SR 3.8.1.1 SR 3.8.1.4 SR 3.8.1.5 SR 3.8.1.6 SR 3.8.1.7 SR 3.8.1.8 SR 3.8.1.9 SR 3.8.1.10 SR 3.8.1.13 SR 3.8.1.14 SR 3.8.1.15 SR 3.8.1.17	4.6.1

Discussion of Change	Description	ITS Section	CTS Section	Category	Characterization
3.3 L4	The allowed time to place a channel into tripped condition was extended from one (1) hour to six (6) hours in accordance with WCAP 10271-P-A. The shutdown requirement for when a channel cannot be placed in trip as required was relaxed to require only that reactor power be reduced to below the P-7 interlock within 12 hours, rather than to be in MODE 3 in 8 hours.	LCO 3.3.1 <u>Required Action M,</u> Function 11	Table 3.5-2 Item 14 ACTION 7	V, VII	Allowed Outage Time Extension from 1 hour to 6 hours, relaxation of shutdown requirement
3.3 L15	The frequency of surveillance requirements as it applies to reactor startup for the nuclear intermediate range and source range were relaxed from requiring the surveillance to be performed within <u>7 days</u> prior to startup to within 92 days prior to startup in accordance with WCAP 10271-P-A.	LCO 3.3.1 Table 3.3.1-1 Functions 3 and 4 SR 3.3.1.7 SR 3.3.1.8	Table 4.1-1 Items 2, 3	II	Unique with respect to surveillance frequency

Discussion of Change	Description	ITS Section	CTS Section	Category	Characterization
3.3 L50	Requirements relaxed to permit all channels of a ESFAS Instrument function or a single ESFAS instrumentation train (except for manual Actuation functions) to be inoperable for maintenance or surveillance testing for up to 6 hours.	LCO 3.3.2 <u>Surveillance</u> Note 2	N/A	None	Unique with respect to Action relaxation.
3.8 L8	The required time that the diesel generator is tested between 2650 kW and 2750 kW is reduced from two (2) hours to $\geq$ 1.75 hours.	SR 3.8.1.12	4.6.1.5	None	Unique

ITS & DOC Reference	CTS Reference	Description	General Location	Change Controls	Characterization	Change Type
ITS 3.3 LA1	2.3.1.2.d 2.3.1.2.e	Details concerning how the electronic dynamic compensation and delta flux input to the Overtemperature and <u>Overpower</u> $\Delta T$ Reactor Protection System (RPS) function affects its setpoint	Bases	Bases Control Program in ITS Section 5.5.14	Relocation of descriptive information	1



The following table entries are added or deleted, as noted, to complete the listing of CTS changes previously reviewed by the staff.

Discussion of Change	Summary of Change	ITS Section	CTS Section	Errata Comment
3.1 M22	Requirements were added to maintain reactor coolant system loop average temperature $\geq 530$ °F, shutdown margin within limits and thermal power while performing tests.	LCO 3.1.8	3.10.1	New table entry
3.3 M52	The allowed time between performance of a channel check surveillance for containment pressure was reduced from 24 hours to 12 hours.	LCO 3.3.2 Table 3.3.2-1 Functions 1.c, 2.c, 3.a(3), 3.b(3), 4.c	Table 4.1-1 Item 18	New table entry
3.9 M2	The requirements for maintaining a minimum boron concentration in the primary coolant system were extended to apply to the reactor coolant system, refueling canal and refueling cavity.	LCO 3.9.1	3.8.1	New table entry
3.9 M12	A surveillance was added to verify refueling water level is $\geq 23$ feet above the top of the reactor vessel flange every 12 hours.	SR 3.9.6.1	3.8.2	New table entry
3.9 M17	A required action was added to suspend movement of irradiated fuel assemblies in containment in the event that refueling cavity water level is not within the limit.	LCO 3.9.6 Required Action A.2	3.8.1	New table entry

Discussion of Change	Description	ITS Section	CTS Section	Category	Characterization	Errata Comment
3.3 L51	The frequency of surveillance requirements for containment pressure testing were relaxed from 14 days to 92 days in accordance with WCAP-10271-P-A	SR 3.3.2.4 Functions 3.a(3) and 3.b(3)	Table 4.1-1	II	Unique with respect to Action relaxation	New table entry
3.3 L52	The frequency of surveillance requirements for steam generator pressure were relaxed from 31 days to 92 days in accordance with WCAP-10271-P-A	SR 3.3.2.4 Functions 1.e, 1.g, 4.e	Table 4.1-1	II	Unique with respect to surveillance frequency.	New table entry
3.3 L30	Requirements for an inoperable degraded voltage channel were relaxed by adoption of Note which permits bypassing the inoperable channel for up to four hours for testing of other channels.	LCO 3.3.5 Required Action B.1 Note	3.5.1	None	Unique	Deleted table entry and conforming SE discussion. CTS requirements retained because design does not permit individual channel bypass.
3.6 L.3	The allowed time to isolate an inoperable containment penetration for a closed system was relaxed from 4 hours to 72 hours.	3.6.3 Required Action C.1	3.6.3	VII	Unique with respect to allowed outage time	New table entry

Discussion of Change	Description	ITS Section	CTS Section	Category	Characterization	Errata Comment
3.6 L4	The allowed outage time for a single component of containment cooling fans was relaxed from 24 hours to 7 days for an entire train of containment cooling fans.	3.6.6 Required Action C.1	3.3.2.2	III, IV	Unique with respect to train details and allowed outage time details.	New table entry
3.7 L20	A Surveillance Requirement was relaxed to require that the AFW Pumps be no longer run for 15 minutes.	SR 3.7.4.2	4.8.1, 4.8.2	VI	Unique with respect to details of acceptance criterion.	Deleted table entry. DOC 3.7, LA.7 replaced DOCS 3.7, L6 & L20.
3.7 L6	The frequency for performing testing of the AFW pumps was extended from monthly to Staggered Test Basis (i.e., 31 days to 93 days for any one pump).	SR 3.7.4.2	4.8.1, 4.8.2	II	Unique with respect to frequency details only,	Deleted table entry. DOC 3.7, LA.7 replaced DOCS 3.7, L6 & L20.