SECTION 1.0 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
	USE AND APPLICATION					
1.0-1	A.1	CTS 1.5	CTS 1.5 CHANNEL CHECK, uses the term "and/or" when referring to indications/status. ITS 1.1 CHANNEL CHECK, changes the term to "or" (NUREG 1433 Rev. 1, included the change to "or")	2/20/97 TSB requests discussion and justifications for this change.	SSES ITS Submittal will be revised to address change.	Closed-PP&L will provide revised mark-up of CTS and new Discussion of Change.
1.0-2	A.6	CTS 1.17	CTS 1.17, IDENTIFIED LEAKAGE, and ITS 1.1 LEAKAGE, a.1, Identified LEAKAGE, specify "captured and conducted to a collecting tank" but do not include "a sump or collection tank," as the STS NUREG-1433, Rev 1, does. In the discussion of Deviations, P.1, SSES states that the definition was modified to delete the phrase "sump or" so that IDENTIFIED LEAKAGE includes only leakage in to the drywell that is captured and conducted to a collection tank.	2/20/97 TSB requests further discussion and justification for SSES not including "...or sump" as the NUREG-1433, Rev. 1 does.	Current Licensing Basis. SSES design does not allow measuring of identified LEAKAGE from the sump. JFD P.1 states that "all leakage that is captured in a sump is Unidentified LEAKAGE." It was noted that a mistake was found in that the NUREG M/U did not identify JFD P.1. This will be corrected.	Open-NRC reviewing PP&L response. A copy of the revised NUREG M/U is provided.
1.0-3	A.4	CTS 1.13	CTS 1.13., FRACTION OF LIMITING POWER DENSITY, includes in brackets the term "...[for APRM Setpoints]". The CTS markup deletes this term. However, when this definition is reformatted in the ITS in MAXIMUM FRACTION OF LIMITING POWER DENSITY (MFLPD) the term is included without brackets.	2/20/97 TSB requests clarifying deletion of "...[APRM Setpoint]" from the CTS.	Deleting the statment is incorrect. "for APRM setpoints" will be added back into the definition of FRACTION OF LIMITING POWER DENSITY.	Closed-PP&L to provide a revised M/U SSES CTS.
1.0-4	None	CTS 1.25	CTS 1.25, OFFSITE DOSE CALCULATION MANUAL, is listed as a definition in the CTS and ink-mared "5.5.1" indicating it is moved to the ITS, 5.0 ADMINISTRATIVE CONTROLS, 5.5 Programs and Manuals, 5.5.1. Offsite Dose Calculation Manual (ODCM). This is no DOC number, discussion, or justification listed for this change in CTS 1.0. The change should have been identified as LA (Relocated Specification) with discussion and justification.	2/20/97 TSB requests discussion and justification be provided for the relocated specification.	See CTS M/U page 1-4, Definition of ODCM is designated at section 5.5.1.a within ITS. Although the definition is being moved to a different section of the ITS, it is not being relocated and still can only be changed with a change to TS. Therefore, no DOC is considered necessary.	Open-NRC reviewing PP&L resolution.

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ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
1.0-5A	A.3	CTS 1.6	CTS 1.6 CHANNEL FUNCTIONAL TEST, states including alarm and/or trip functions..." The ITS states "including required alarm, interlock, display, and trip functions, and channel failure trips." The TS channel may include sensors, displays, alarms and trip functions but all of the devices included in the channel may not be "required" to establish OPERABILITY of the channel.	2/20/97 The staff is reconsidering this issue in light of the Peach Bottom issue.	Awaiting resolution of the proposed change to the definition of CFT.	Open-PP&L will incorporate changes when industry TSTF is resolved with NRC.
1.0-6A	LA.1	CTS 1.9	CTS 1.9 DOSE EQUIVALENT I-131 defines the term and identifies specific dose conversion factors used for the calculation (Table III of TID 14844, "Calculation of Distance Factors for Power and Test Reactor Sites)." The ITS defines the term but does not identify the specific factors used. (The STS does.) The licensee says that the information can be adequately defined and controlled in the ITS 3.4.7 Bases, which is controlled in accordance with ITS 5.5.10, Bases Control Program.	2/20/97 TSTF-03 was rejected (9/16/96). Therefore, this change to the SSES should not be made.	Statement of which conversion factors are used will be moved from B3.4.7 to ITS Definition of Dose Equivalent Iodine.	Closed-PP&L will provide M/U of SSES ITS changes.
1.0-7A	A.14	CTS 1.38	CTS 1.38 SHUTDOWN MARGIN is modified to address stuck control rods. The DOCs state this is consistent with SSES CTS requirement Surveillance 4.1.1.c to account for the worth of a stuck control rod.	2/20/97 The correct surveillance needs to be identified, discussion and justification provided.	See CTS M/U page 3/4 1-1. This CTS M/U page will be included in the CTS M/U pages for section 1.0.	Closed-PP&L will include identified CTS M/U in final submittal.
1.0-8A	P.6	Not in CTS or ITS 1.0 included in STS.	The SSES does not include La (Maximum Primary Containment Leakage) as a definition in either the CTS or ITS; however, the STS NUREG -1433 does. In the Discussion of Deviation from NUREG-1433 ITS, Chapter 1.0, SSES states that the definition of La is relocated to the Primary Containment Leakage Rate Testing Program. THis is a new SSES ITS Program, "Primary Containment Leakage Rate Testing Program," in ITS 5.0 ADMINISTRATIVE CONTROLS, 5.5 Programs and Manuals, which is not included in NUREG-1433. The Discussion of Deviations also states, the change is consistent with TSTF-52.	2/20/97 TSTF-52 is being modified.	Current Licensing Basis. SSES incorporation of Appendix J, Option B was accepted by NRC Staff through Amendment Nos 158 (U/1) and 129 (U/2). Other changes identified in TSTF-52 will be reviewed.	Closed-PP&L will provide M/U of SSES ITS to reflect Generic Change. See NRC RAI 3.6.1.1-01 for resolution.

Specification 1.0

NRC RAI 1.0-1

A.1

1.1

~~1.0~~ DEFINITIONS

Note A.1

~~The following terms are defined so that uniform interpretation of these specifications may be achieved.~~ The defined terms appear in capitalized type and ~~shall be~~ are applicable throughout these Technical Specifications. of this section

ACTION and Bases

~~1.1~~ ACTION shall be that part of a Specification ~~which~~ that prescribes ~~remedial measures required~~ Required Actions to be taken under designated conditions within specified Completion Times.

AVERAGE EXPOSURE

1.2 The AVERAGE BUNDLE EXPOSURE shall be equal to the sum of the axially averaged exposure of all the fuel rods in the specified bundle divided by the number of fuel rods in the fuel bundle.

The AVERAGE PLANAR EXPOSURE shall be applicable to a specific planar height and is equal to the sum of the exposure of all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle. A.2

AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)

~~1.3~~ The ~~AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)~~ shall be applicable to a specific planar height and is equal to the sum of the ~~LINEAR HEAT GENERATION RATES~~ LHGR for all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle. at the height A.1

CHANNEL CALIBRATION

~~1.4~~ A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds with the necessary range and accuracy to known values of the parameter which that the channel monitors. The CHANNEL CALIBRATION shall encompass the entire channel, including the sensor and alarm ~~and/or~~ trip functions, and shall include the CHANNEL FUNCTIONAL TEST. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. The CHANNEL CALIBRATION may be performed by ~~any~~ means of series of sequential, overlapping or total channel steps ~~such~~ so that the entire channel is calibrated.

in, display, and required A.3

CHANNEL CHECK

~~1.5~~ A CHANNEL CHECK ~~shall be~~ the qualitative assessment of channel behavior during operation ~~by observation~~, by observation. This determination shall include, where possible, comparison of the channel indication ~~and/or~~ to status ~~with other indications and/or~~ status derived from independent instrument channels measuring the same parameter. A.18

CHANNEL FUNCTIONAL TEST

~~1.6~~ A CHANNEL FUNCTIONAL TEST shall be ~~a~~ as actual

~~a. Analog channels~~ - the injection of a simulated signal into the channel as close to the sensor as practicable to verify OPERABILITY including required alarm, interlock, display, and alarm and/or trip functions, and channel failure trips. A.3

b. Bistable channels - the injection of a simulated signal into the sensor to verify OPERABILITY including alarm and/or trip functions. L.1 A.3

The CHANNEL FUNCTIONAL TEST may be performed by ~~any~~ means of series of sequential, overlapping, or total channel steps ~~such~~ so that the entire channel is tested.

ADMINISTRATIVE (continued)

A.14 The SSES CTS definition of Shutdown Margin is modified to address stuck control rods. This is consistent with the current SSES CTS requirement in Surveillance 4.1.1.c to account for the worth of a stuck control rod. The movement of this requirement to the SDM definition is an administrative change with no impact on safety.

A.15 The SSES CTS definition of Staggered Test Basis is reworded to improve clarity and to establish an approach consistent with BWR STS, NUREG-1433, Rev 1, throughout the SSES ITS. The requirements for the frequency of testing components on a Staggered Test Basis is not changed. The revised definition is designed so that the minimum Surveillance interval for the applicable subsystem is specified as the Surveillance Requirements' Frequency and is independent of the number of subsystems. The impact of the change in the definition will be evaluated for each application of the definition, and therefore, this is an administrative change with no impact safety.

A.16 The stipulation in footnotes to SSES CTS Table 1.2 that the Mode definition applies only when fuel is in the reactor vessel has been moved to the definition of Mode. The stipulation in footnotes to SSES CTS Table 1.2 that a certain Mode definition applies "with the head removed" was eliminated because it is redundant to the condition when "head closure bolts are less than fully tensioned." These are administrative changes because there is no change to the existing requirements and therefore, have no impact on safety.

A.17 The SSES CTS footnotes referencing Special Test Exceptions 3.10.1, 3.10.3, and 3.10.6 have been deleted. These footnotes are cross references and are not needed in SSES ITS. This is consistent with the BWR STS, NUREG-1433, Rev 1. Therefore, this is an administrative change with no impact on safety.

Insert A18

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 The addition of head closure status, mode switch position, and coolant temperatures is intended to address plant conditions in SSES ITS that are not currently defined as a Mode or can be defined as more than one Mode. The intent of these SSES ITS changes is to provide clarity and completeness and avoid potential misinterpretation. Since the changes eliminate the potential to interpret certain plant conditions such that no Mode, or a less restrictive Mode would exist, this change is discussed and justified as a "more restrictive" change. Specifically:

- Startup Mode will now include the mode switch position of "Refuel" when the head bolts are fully tensioned (footnote "(a)"). This is currently a plant condition which has no corresponding Mode and could therefore be incorrectly interpreted as not requiring the application of the majority

NRC RAI 1.0-1

INSERT:

A.18 SSES CTS definition, 1.5 Channel Check, has been modified in SSES ITS definition to more clearly define the intent of the term. The statement "channel indication and/or status with other indications and/or status . . . ", has been change to "channel indication and status to other indications or status...". The elimination of the "or" and "and" clarifies the current SSES CTS intent and PP&L practice. The change of "with" to "to" is a grammatical correction. Therefore, because these changes reflect the intent of the SSES CTS and the current practice of PP&L, these changes are administrative with no impact on safety.

1.1 Definitions

ISOLATION SYSTEM RESPONSE TIME (continued)	overlapping, or total steps so that the entire response time is measured.
P.6 L_a	~~The maximum allowable primary containment leakage rate, L_a, shall be [ ]% of primary containment air weight per day at the calculated peak containment pressure (P_a).~~
LEAKAGE	LEAKAGE shall be: a. Identified LEAKAGE 1. LEAKAGE into the drywell, such as that from pump seals or valve packing, that is captured and conducted to a ~~sump or~~ collecting tank; or 2. LEAKAGE into the drywell atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be pressure boundary LEAKAGE; b. Unidentified LEAKAGE All LEAKAGE into the drywell that is not identified LEAKAGE; c. Total LEAKAGE Sum of the identified and unidentified LEAKAGE; d. Pressure Boundary LEAKAGE LEAKAGE through a nonisolable fault in a Reactor Coolant System (RCS) component body, pipe wall, or vessel wall.
P.1	
[LINEAR HEAT GENERATION RATE (LHGR)	The LHGR shall be the heat generation rate per unit length of fuel rod. It is the integral of the heat flux over the heat transfer area associated with the unit length.]

(continued)

NRC RAI
Specification 1.0

A.T

1.1 DEFINITIONS

~~FRACTION OF LIMITING POWER DENSITY~~

A.4

Moved to MFLPD Definition

~~1.13~~ The FRACTION OF LIMITING POWER DENSITY (FLPD) shall be the LHGR existing at a given location divided by the ~~applicable~~ LHGR ~~for APRM Setpoint~~ limit specified ~~in the CORE OPERATING LIMITS REPORT~~ for that bundle type.

"Undeleted"

FRACTION OF RATED THERMAL POWER

1.14 The FRACTION OF RATED THERMAL POWER (FRTP) shall be the measured THERMAL POWER divided by the RATED THERMAL POWER.

A.13

FREQUENCY NOTATION

1.15 The FREQUENCY NOTATION specified for the performance of Surveillance Requirements shall correspond to the intervals defined in Table 1.1.

A.5

GASEOUS RADWASTE TREATMENT SYSTEM

1.16 A GASEOUS RADWASTE TREATMENT SYSTEM shall be any system designed and installed to reduce radioactive gaseous effluents by collecting primary coolant system offgases from the primary system and providing for delay or holdup for the purpose of reducing the total radioactivity prior to release to the environment.

A.2

a. IDENTIFIED LEAKAGE

A.6

~~1.17~~ ~~IDENTIFIED~~ LEAKAGE shall be: the drywell that from

1. ~~a.~~ Leakage into ~~collection systems~~, such as pump seals or valve packing ~~leaks~~, that is captured and conducted to a collecting tank, or

2. ~~b.~~ Leakage into ~~the containment~~ drywell atmosphere from sources that are both specifically located and known either not to interfere with the operation of the leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE.

A.6

C. Total LEAKAGE: Sum of identified and unidentified LEAKAGE

ISOLATION SYSTEM RESPONSE TIME

~~1.18~~ The ISOLATION SYSTEM RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its isolation ~~actuation~~ initiation setpoint at the channel sensor until the isolation valves travel to their required positions. Times shall include diesel generator starting and sequence loading delays, where applicable. The response time may be measured by means of any series of sequential, overlapping, or total steps such that the entire response time is measured.

A.5

LIMITING CONTROL ROD PATTERN

1.19 A LIMITING CONTROL ROD PATTERN shall be a pattern which results in the core being on a thermal hydraulic limit, i.e., operating on a limiting value for APLHGR, LHGR, or MCPR.

A.2

LINEAR HEAT GENERATION RATE

~~1.20~~ ~~LINEAR HEAT GENERATION RATE~~ (LHGR) shall be the heat generation rate per unit length of fuel rod. It is the integral of the heat flux over the heat transfer area associated with the unit length.

1.1 Definitions

CHANNEL FUNCTIONAL TEST	A CHANNEL FUNCTIONAL TEST shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY, including required alarm, interlock, display, and trip functions, and channel failure trips. The CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is tested.
CORE ALTERATION	CORE ALTERATION shall be the movement of any fuel, sources, or reactivity control components, within the reactor vessel with the vessel head removed and fuel in the vessel. The following exceptions are not considered to be CORE ALTERATIONS: a. Movement of source range monitors, local power range monitors, intermediate range monitors, traversing incore probes, or special movable detectors (including undervessel replacement); and b. Control rod movement, provided there are no fuel assemblies in the associated core cell. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.
CORE OPERATING LIMITS REPORT (COLR)	The COLR is the unit specific document that provides cycle specific parameter limits for the current reload cycle. These cycle specific limits shall be determined for each reload cycle in accordance with Specification 5.6.5. Plant operation within these limits is addressed in individual Specifications.
DOSE EQUIVALENT I-131	DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) that alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. Insert 1.1-2-1

(continued)

NRC RAI 1.0-6A.

INSERT 1.1-2-1:

The thyroid dose conversion factors shall be those listed in ICRP 30, Supplement to Part 1, page 192-212, Table titled, "Committed Dose Equivalent in Target Organs or Tissues per Intake of Unit Activity." Existing calculations using conversion factors listed in Table III of TID-14844, AEC, 1962, "Calculation of Distance Factors for Power and Test Reactor Sites" or those listed in Table E-7 of Regulatory Guide 1.109, Rev. 1, NRC, 1977, are acceptable.

Specification 3.1.1
(See DOC 3.1.1 unless indicat
Specification 1.0
Specification 3.1.3

~~3/4.1.1~~ REACTIVITY CONTROL SYSTEMS (A.1)

LCO 3.1.1 ~~3/4.1.1.1~~ SHUTDOWN MARGIN (A.2)

LIMITING CONDITION FOR OPERATION 3.1.1

LCO 3.1.1 The SHUTDOWN MARGIN shall be equal to or greater than:

a. 0.38% delta k/k with the highest worth rod analytically determined, or

b. 0.28% delta k/k with the highest worth rod determined by test.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4 and 5.

ACTION:

With the SHUTDOWN MARGIN less than specified:

Action A. Action B ~~a.~~ In OPERATIONAL CONDITION 1 or 2, reestablish the required SHUTDOWN MARGIN within 6 hours or be in at least HOT SHUTDOWN within the next 12 hours.

Action C&D Action D ~~b.~~ In OPERATIONAL CONDITION 3 or 4, immediately verify (A.2) all insertable control rods to be inserted ~~and suspend all activities that could reduce the SHUTDOWN MARGIN.~~ (A.3) In OPERATIONAL CONDITION 4, establish SECONDARY CONTAINMENT INTEGRITY within 8 hours (L.1) (M.2) (A.4)

Action E ~~c.~~ In OPERATIONAL CONDITION 5, suspend CORE ALTERATIONS ~~and other activities that could reduce the SHUTDOWN MARGIN and~~ insert all insertable control rods within 1 hour (M.2) (A.3) Establish SECONDARY CONTAINMENT INTEGRITY within 8 hours (M.2) (L.2) (A.4)

SURVEILLANCE REQUIREMENTS

SR 3.1.1.1 ~~4.1.1~~ The SHUTDOWN MARGIN shall be determined to be equal to or greater than specified at any time during the fuel cycle:

SR 3.1.1.1 ~~a.~~ By measurement, prior to or during the first startup after each refueling (L.6) (A.5)

~~b.~~ By measurement, within 500 MWD/T prior to the core average exposure at which the predicted SHUTDOWN MARGIN, including uncertainties and calculation biases, is equal to the specified limit. (L.3)

LCO 3.1.3 Action A.3 ~~c.~~ Within 72 hours after detection of a withdrawn control rod that is immovable, as a result of excessive friction or mechanical interference, or is untrippable, except that the above required SHUTDOWN MARGIN shall be verified acceptable with an increased allowance for the withdrawn worth of the immovable or untrippable control rod. (L.3) (A.3.1) (A.5.3.1)

Def: SDM

SR 3.1.1.1 Prior to each planned in-vessel fuel movement during fuel loading sequence. (M.1)

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	LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY					
3.0-2	A-9	CTS 4.0.1 and 4.0.3	Insert 3.0-8 is referenced in the CTS markup of the licensee submittal but is not included in the licensee submittal.	Provide Insert 3.0-8 as part of licensee submittal (missing).	Insert provided to NRC Project Manager (Dick Clark).	Closed-Insert provided.
3.0-3	A-10	CTS 4.0.2	Insert 3.0-9 is referenced in the CTS markup of the licensee submittal but is not included in the licensee submittal.	Provide Insert 3.0-9 as part of licensee submittal (missing).	Insert provided to NRC Project Manager (Dick Clark).	Closed-Insert provided.
3.0-4	A-11	CTS 4.0.4	Insert 3.0-11 is referenced in the CTS markup of the licensee submittal but is not included in the licensee submittal.	Provide Insert 3.0-11 as part of licensee submittal (missing).	Insert provided to NRC Project Manager (Dick Clark).	Closed-Insert provided.
3.0-5	M-1	CTS 4.0.2	Insert 3.0-9 is referenced in the CTS markup of the licensee submittal but is not included in the licensee submittal.	Provide Insert 3.0-9 as part of licensee submittal (missing).	Insert provided to NRC Project Manager (Dick Clark).	Closed-Insert provided.
3.0-6	L-2	CTS 4.0.2	Insert 3.0-9 is referenced in the CTS markup of the licensee submittal but is not included in the licensee submittal.	Provide Insert 3.0-9 as part of licensee submittal (missing).	Insert provided to NRC Project Manager (Dick Clark).	Closed-Insert provided.
3.0-7	L-3	CTS 4.0.3	Insert 3.0-10 is referenced in the CTS markup of the licensee submittal but is not included in the licensee submittal.	Provide Insert 3.0-10 as part of licensee submittal (missing).	Insert provided to NRC Project Manager (Dick Clark).	Closed-Insert provided.

INSERT 3.0-8 (A.9)

Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

INSERT 3.0-9 (A.10)

The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met. (M.1)

For Frequencies specified as "once," the above interval extension does not apply.

If a Completion Time requires periodic performance on a "once per . . ." basis, the above Frequency extension applies to each performance after the initial performance.

Exceptions to this Specification are stated in the individual Specifications.

INSERT 3.0-10 (L.3)

If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is less. This delay period is permitted to allow performance of the Surveillance.

If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.

INSERT 3.0-11 (A.11)

Entry into a MODE or other specified condition in the Applicability of an LCO shall not be made unless the LCO's Surveillances have been met within their specified Frequency. This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with Actions or that are part of a shutdown of the unit.

SR 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, and 3.

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	REACTIVITY CONTROL SYSTEMS					
3.1-1	LA.2	CTS 3.1.3.8	This change allows relocating the requirements for the Control Rod Housing Support to the Technical Requirements Manual (TRM). No discussion of the change control process in place for the TRM is supplied.	Provide details on change control process in place for the TRM.	Commitment will be provided that TRM is part of SSES FSAR.	Closed
3.1-2	LA.1	CTS 3.1.4.2	This change allows relocating the requirements for the RSCS to the Technical Requirements Manual (TRM). No discussion of the change control process in place for the TRM is supplied.	Provide details on change control process in place for the TRM.	Commitment will be provided that TRM is part of SSES FSAR.	Closed
	SHUTDOWN MARGIN (SDM)					
3.1.1-1	P.3	ITS SR 3.1.1	Frequency changed to apply to "planned" in vessel fuel movement.	Potential generic change. Provide discussion of why "planned" vs current language is not significant	Internal PP&L concern with ambiguity. NUREG without "planned" could be interpreted as requiring SDM demonstration even prior to fuel movement errors which would be impossible to comply with. PP&L will create an editorial TSTF. Editorial change to NUREG rejected by BWROG. Change withdrawn from SSES ITS. Editorial TSTF rejected by BWROG. The word "planned" will be removed from the specification and maintained in the SSES ITS Bases for clarity.	Closed-PP&L to provide M/U of SSES ITS.

SECTION 3.1 NRC RAIs -- SSES Improved Technical Specifications

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	Reactivity Anomalies					
3.1.2-2	L3	CTS 4.1.2.b	CTS 4.1.2.b requires that reactivity anomalies be determined at least once per 700 MWD/MT. ITS SR 3.1.2.1 requires that reactivity anomalies be every 1000 MWD/MT.	Discuss change relative to SSES, not just based on the development of the STS.	Based on experience, K-effective changes as a function of expoure varies slowly. A possible exception to this behavior is control rod sequence exchanges which are performed at SSES approximately every 1500 MWD/MTU. The frequency of every 1000 MWD/MT is adequate to ensure that reactivity anomalies will be detected during any rod frequency exchange. Therefore, change is acceptable based on the fact that large changes in reactivity anomalies are not likely to occur other than during control rod sequence exchanges.	Closed

SECTION 3.1 NRC RAIs -- SSES Improved Technical Specifications

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	Control Rod OPERABILITY					
3.1.3-13	LA.2	CTS 3.1.3.6.a	The detailed methods for coupling an uncoupled control rod contained in CTS 3.1.3.6.a have been moved to plant procedures.	Closed-Provide discussion of which procedures contain these details and the change control mechanism in place.	The information concerning the method for coupling or verifying a control rod is coupled is proposed to be removed as a licensing requirement in Discussion of Change L.x. As identified in the discussion of change, the critical aspect is that the control rod is coupled, which is required in SSES ITS SR 3.1.3.1. The method of verifying or the method of recoupling the control rod has no impact on safety and therefore, does not require to be controlled under a 50.59 control process.	Open-NRC to review PP&L revised discussion of change.
3.1.3-14	LA.3	CTS 4.1.3.5	The detailed methods for verifying control rod coupling contained in CTS 4.1.3.6 have been moved to plant procedures.	Provide discussion of which procedures contain these details and the change control mechanism in place.	The information concerning the method for coupling or verifying a control rod is coupled is proposed to be removed as a licensing requirement in Discussion of Change L.x. As identified in the discussion of change, the critical aspect is that the control rod is coupled, which is required in SSES ITS SR 3.1.3.1. The method of verifying or the method of recoupling the control rod has no impact on safety and therefore, does not require to be controlled under a 50.59 control process.	Open-NRC to review PP&L revised response.

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ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
	Control Rod Scram Times					
3.1.4-1	M.1	CTS 3.1.3.3	CTS 3.1.3.3 requires that the average scram time for all OPERABLE control rods from fully withdrawn to notch position 45 not exceed 0.43 seconds. ITS Table 3.1.4-1 requires that the individual scram time for all OPERABLE control rods from fully withdrawn to notch position 45 not exceed 0.52 seconds. If every operable rod scrammed from fully withdrawn to notch position 45, this will be acceptable in the ITS and unacceptable in the CTS.	Were BWROG-8754 and BWROG:EAS-46-0487 approved. Do these apply to SSES. What is the new methodology	The two cited documents are the bases of NUREG 1433 and 1434 slow rod methodology. Therefore, the documents were approved through the approval of the NUREG. SSES has performed an evaluation for the adoption of the methodology and the discussion of this evaluation is identified in DOC M.1. From review of the documentation, it has been determined that the GE Topical for slow rod methodology has been reviewed and approved by the NRC. Furthermore, PP&L has reviewed the Topical for applicability to SSES and found that the methodology and assumptions of the Topical meet SSES design and therefore, is applicable to SSES.	Closed
3.1.4-2	M.2, L.1	CTS 4.1.3.2.b	CTS 4.1.3.2 requires scram time testing rods after maintenance that may have affected their scram time. CTS 4.1.3.2 allows testing to be delayed until reactor coolant pressure is > 950 psig. The acceptance criteria are contained in CTS 3.1.3.3 and 3.1.3.4. ITS 3.1.4.3 ensures proper testing is performed prior to declaring a control rod OPERABLE following maintenance by removing the allowance to delay post maintenance testing until reactor pressure is > 950 psig. While ITS Table 3.1.4-1 contains acceptance criteria for scram time testing at > 800 psig, the acceptance criteria for pressures less than 800 psig are contained in plant procedures.	Were BWROG-8754 and BWROG:EAS-46-0487 approved. Do these apply to SSES. What is the new methodology.. Provide discussion of which procedures contain these acceptance criteria and the change control mechanism in place. What is the licensing basis for reactor coolant pressure (800 or 950) during measurement of scram insertion times. Provide and explanation of why the reduced pressure is acceptable for SSES and how do you define "not a significant reduction in margin."	SSES Design falls within the requirements of these documents and SSES CRD design has been reviewed and found to conform to the requirements and allowances specified in NUREG 1433. It is a NUREG 1433 convention that the acceptance criteria for scram time testing less than 800 psig are not specified in the ITS.	Open-NRC to review PP&L response.

SECTION 3.1 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.1.4-3	M.1	STS 3.1.4.a	STS 3.1.4.a allows up to [10] control rods to be slow. This bracketed number has been changed to 13. Change M-1 is referenced for this change. M-1 only states that "if the number of slow rods is more than 13 (7% of 185 control rods)..."	Provide additional discussion and justification for this deviation in terms of design or licensing basis.	See DOC M.1. The General Electric Document specifies that 7% of the total control rods can be slow. The 10 control rods is a bracketed number in the NUREG and therefore, is already recognized as being based on plant design. DOC M.1 documents why 13 control rods are allowed to be "slow". This is also fully described in ITS Bases page B 3.1-23, which is consistent with NUREG 1433. PP&L will provide statement that 185 control rods is current licensing basis for SSES.	Closed-PP&L to provide M/U of DOC.
			Control Rod Scram Accumulators			
3.1.5-3	LA.1, LA.2	CTS 4.1.3.5.b.1 4.1.3.5.b.2	References relocations to the TRM.	Identify change control mechanism in place for the TRM.	Commitment will be provided that TRM is part of SSES FSAR.	Closed

SECTION 3.1 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
	Standby Liquid Control (SLC) System					
3.1.7-1	L.2	CTS 4.1.5.b.2	CTS 4.1.5.b.2 requires determining the concentration of boron in solution and the available weight of sodium pentaborate every 31 days. The acceptance criteria in the CTS for available weight of sodium pentaborate is 5500 pounds. ITS SR 3.1.7.5 requires that the concentration of sodium pentaborate be confirmed every 31 days and ITS SR 3.1.7.1 requires that the required volume of solution be confirmed every 24 hours. The acceptance criteria in the ITS is 13.6 weight percent and 4587 gallons.	No calculation is shown or reference to show tht the two sets of acceptance criteria are equivalent. Provide justification to demonstrate the acceptance criteria have not changed.	Compliance with the requirements is a simple evaluation. SSES is complying with the ATWS rule as well as GDC requirements by maintaining the minimum volume and minimum concentration, but there is one problem on how the SRs were written. This problem is that there is no requirement to ensure that the tank does not have a greater concentration of Boron than it should. A modification to SR 3.1.7.5 will correct this by ensuring the concentration is maintained within the limits of figure 3.1.7-1. (This was also identified recently by internal review at SSES).	Closed-PP&L will provide M/U of SSES ITS.
3.1.7-3	GEN	ITS SR 3.1.7.1 SR 3.1.7.5	References to Figures have been deleted.	Are there relationships to the SRs and the Figures and should that be retained in the ITS.	Both figures are referenced in LCO, but Figure 3.1.7-1 is not referenced in SRs. This is needed because there is a risk of having to high a concentration of Boron. PP&L will modify SR 3.1.7.5 to include reference to the figure and requirement to stay within limit.	Closed-See NRC RAI 3.1.7-01 for SSES ITS Changes.

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.1.1	Verify SDM is: a. ≥ 0.38% Δk/k with the highest worth control rod analytically determined; or b. ≥ 0.28% Δk/k with the highest worth control rod determined by test.	Prior to each ~~planned~~ in vessel fuel movement during fuel loading sequence AND Once within 4 hours after criticality following fuel movement within the reactor pressure vessel or control rod replacement

TECHNICAL CHANGES - MORE RESTRICTIVE (continued)

3.1.3.4 incorporate this philosophy using a combination of limits on the average of all control rods and the average of three fastest rods in all four control rod groups.

185 Control Rods is the Licensing design basis of SSES.

SSES ITS 3.1.4 is more conservative than SSES CTS 3.1.3.3 and 3.1.3.4 because all control rods are required to met the LCO time limit found in existing SSES CTS 3.1.3.3. That is, currently, the "average time" of all rods or a group can be improved by a few fast scramming rods. Additionally, SSES ITS 3.1.4 limits the number of slow rods to 13. Specifically, if the number of slow rods is more than 13 (7% of 185 control rods), or the rods do not meet the distribution requirements, scram reactivity insertion requirements cannot be assured and the reactor must be shutdown. SSES CTS 3.1.3.4 ensures the appropriate distribution of slow rods by requiring that the three fastest of each group of 4 rods have scram insertion times within a limit less conservative than the limit applied to the average of all control rods.

The maximum scram time requirement of SSES CTS 3.1.3.2 is retained in SSES ITS 3.1.3 for the purpose of defining the threshold between a slow control rod and an inoperable control rod even though the analyses to determine the LCO scram time limits assumed slow control rods did not scram. Note 2 to SSES ITS Table 3.1.4-1 ensures that a control rod is declared inoperable and inserted and not inadvertently considered "slow" when the scram time exceeds 7 seconds.

The slow rod methodology provides more restrictive requirements, with no negative impact on safety.

M.2 SSES CTS 4.1.3.2 requires scram time testing rods after maintenance that may have affected their scram time. SSES CTS 4.1.3.2 allows (actually requires) testing to be delayed until reactor coolant pressure is ≥ 950 psig. SSES CTS 4.1.3.2 appears to allow control rods, with unknown scram time performance because maintenance may have affected scram times, to be considered Operable until reaching rated reactor pressure. SSES ITS 3.1.4.3 requires testing control rods affected by maintenance "prior to declaring control rod Operable." SSES ITS 3.1.4.3 ensures adequate testing is performed prior to declaring a control rod Operable following maintenance by removing the allowance to delay post maintenance testing until reactor pressure is ≥ 950 psig. This new scram time test may be done at any reactor pressure prior to declaring the control rod Operable and enables a control rod to be considered Operable and withdrawn during a startup.

To support the possibility of a reduced reactor pressure scram time test (even at 0 psig), administratively controlled limits are established in plant procedures and referenced in ITS Table 3.1.4-1. The administrative limits on scram insertion times

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.7.1	Verify available volume of sodium pentaborate solution is ≥ 4587 gallons.	24 hours
SR 3.1.7.2	Verify temperature of sodium pentaborate solution is within the limits of Figure 3.1.7-2.	24 hours
SR 3.1.7.3	Verify temperature of pump suction piping is within the limits of Figure 3.1.7-2.	24 hours
SR 3.1.7.4	Verify continuity of explosive charge.	31 days
SR 3.1.7.5	Verify the concentration of boron in solution is ≥ 13.6 weight percent and within the limits of figure 3.1.7-1	31 days AND Once within 24 hours after water or boron is added to solution AND Once within 24 hours after solution temperature is restored within the limits of Figure 3.1.7-2

(continued)

SECTION 3.2 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.2.1	AVERAGE PLANAR LINEAR HEAT GENERATION RATE(APLHGR)					
3.2.1-01	L.1/P.2	CTS 4.2.1.a/.b ITS SR 3.2.1.1, STS SR 3.2.1.1	CTS 4.2.1.a and 4.2.1.b require verifying APLHGR each 24 hours and within 12 hours....15% of RATED THERMAL POWER." ITS SR 3.2.1.1 requires verifying APLHGR within 24 hours after RTP is > 25%, 24 hours thereafter and prior to exceeding 50% RTP. This is not consistent with the STS which requires.... within 12 hours after > 25% RTP and 24 hours thereafter.	BEYOND SCOPE Surveillance extended from 12 to 24 hours. Added provision to verify ALPHGR prior to exceeding 50% RTP, but does not provide a means to determine when 50% RTP exceeded.	SSES considers NUREG Surveillance requirement a problem if they encounter problems when performing Power Distribution Limit testing and cannot complete testing within 12 hours. The change is considered conservative in that it allows 24 hours to perform testing, but provides a limit of 50% power to prevent a potential abuse of allowance.	Open-NRC Technical Branch to review change.
3.2.1-02		Bases	Refers to complete discussion of analysis in Reference 1.	Applicable Safety Analyses needs to be expanded to include discussion of material contained in Reference 1. Bases should be reasonably complete.	PP&L will be revising the SSES ITS Bases for all of 3.2 to reflect the adoption of the 10x10 Fuel. This will require a major revision, which will also address this comment. The revision will be provided with the full Revision B submittal.	Open-PP&L(JS) will provide revised SSES ITS Bases. Note this change will not be provided until Rev. 0B submittal.
3.2.2	MCPR					
3.2.2.1-1	L-1P.2	CTS 4.2.3.1.a4. 2.3.1.bITS SR3.2.2.1 STS SRSR3.2. 2.1	Same as 3.2.1.1 , except this is for MCPR.	Same as 3.1.1.1-1	See 3.2.1 RAIs.	See NRC RAIs 3.2.1-01, 3.2.1-02
3.2.3	LINEAR HEAT GENERATION RATE (LHGR)					
3.2.3-1	L.1 P.2	CTS 4.2.4.1.a4. 2.4.1.bITS SR3.2.3.1 STS SR3.2.3.1	Same as 3.2.1.1-1, except this is for LHGR	Same as 3.1.1.1-1.	See 3.2.1 RAIs	See NRC RAIs 3.2.1-01, 3.2.1-02

SECTION 3.2 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.2.4	Average Power Range Monitor (APRM) Gain and Setpoints					
3.2.4-1	A.1	CTS 3.2.2 ITS 3.2.4	CTS 3.2.2 contains a note at the end stating "See Specification 3.4.1.1.2.a for single loop operation requirements." ITS 3.2.4. and STS 3.2.4 do not have any reference to single loop operation.	CTS reference to single loop operation requirements deleted from the ITS. What is the implication of the deletion. Is it retained elsewhere? Provide justification for deleting the CTS 3.2.2 note referencing single loop operation.	See CTS M/U page 3/4 2-2 and TS 3.4.1. The setpoints for Single loop operation are controlled and directed to be implemented per TS 3.4.1. The reference for TS 3.2.4 is simply to the COLR which contains the requirements for both single loop and two loop operation. An A.4 DOC will be added to uniquely discuss the elimination of the statement, but the intent of the submittal is that this change is part of the reorganization/reformating associated with adopting the NUREG.	Closed-PP&L will provide separate DOC.
3.2.4-2	LA.2	CTS 3.2.2 ITS 3.2.4	CTS 3.2.2 ACTION contains details related to APRM trip setpoint adjustment and APRM gain adjustment. ITS 3.2.4 requires that the APRM setpoints be maintained, but does not provide details on gain adjustment. The Core Operating Limits Report (COLR) and plant procedures are referenced for these details.	Plant procedures providing APRM gain and setpoint detail and administrative procedures for change control are not identified. Provide reference to the plant procedures containing this detail.	Discussion of change will be revised to relocate information to SSES ITS Bases. Revised DOC and a M/U of SSES ITS will be provided.	Closed-PP&L will provide revised M/U of DOC and SSES ITS.
3.2.4.1-1	L.1/ P.3	CTS 4.2.2.a4.2.2.bITS SR3.2.4.1 STS SR3.2.4.	Same as 3.1.1.1-1, except this is for MFLPD.	Same as 3.1.1.1-1	See 3.2.1 RAIs.	See NRC RAIs 3.2.1-01, 3.2.1-02

NRC RAI 3.2.4-1

SPECIFICATION 3.2.4
(SEE DOC 3.2.4 unless indicated)
Specification 3.3.1.1
Relocated
(SEE DOC CTS 3/4.2)

POWER DISTRIBUTION LIMITS

3/4.2.2 APRM SETPOINTS

LIMITING CONDITION FOR OPERATION

A.1

3.2.4 b ~~3.2.2~~ The APRM flow biased simulated thermal power-upscale scram trip setpoint (S) and flow biased neutron flux-upscale control rod block trip setpoint (S_{RB}) shall be established according to the following relationships: R.1 CTS 3/4.2 LA.2

LA.5 3.3.1.1

T 3.3.1.1-1

TRIP SETPOINT #	ALLOWABLE VALUE #
$S \le (0.58W + 59\%)T$	$S \le (0.58W + 62\%)T$
$S_{RB} \le (0.58W + 50\%)T$	$S_{RB} \le (0.58W + 53\%)T$

R.1

where: S and S_{RB} are in percent of RATED THERMAL POWER,

R.1 CTS 3/4.2

W = Loop recirculation flow as a percentage of the loop recirculation flow which produces a core flow of 100 million lbs/hr,

T = Lowest value of the ratio of FRACTION OF RATED THERMAL POWER divided by the MAXIMUM FRACTION OF LIMITING POWER DENSITY. The FLPD for SNP fuel is the actual LHGR divided by the LINEAR HEAT GENERATION RATE for APRM Setpoints limit specified in the CORE OPERATING LIMITS REPORT. LA.3

T is always less than or equal to 1.0.

3.2.4. APPLICABILITY: OPERATIONAL CONDITION 1, when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER. A.2

R.1 CTS 3/4.2

ACTION: With the APRM flow biased simulated thermal power-upscale scram trip setpoint and/or the flow biased neutron flux-upscale control rod block trip setpoint less conservative than the value shown in the Allowable Value column for S or S_{RB}, as determined above, initiate corrective action within 15 minutes and adjust S and/or S_{RB} to be consistent with the Trip Setpoint value within 2 hours or reduce THERMAL POWER to less than 25% of RATED THERMAL POWER within the next 4 hours. LA.1

Action A

Later 3.3 RBM

Action B.

6 L.2

3.2.4. a + 3.2.4. c With MFLPD greater than the FRTP during power ascension up to 90% of RATED THERMAL POWER rather than adjusting the APRM setpoints, the APRM gain may be adjusted such that APRM readings are greater than or equal to 100% times MFLPD, provided that the adjusted APRM reading does not exceed 100% of RATED THERMAL POWER, the required gain adjustment increment does not exceed 10% of RATED THERMAL POWER, and a notice of the adjustment is posted on the reactor control panel. LA.2

~~See Specification 3.4.1.1.2.a for single loop operation requirements.~~ ~~A.1~~ A.4

NRC RAI 3.2.4-1

DISCUSSION OF CHANGES
ITS: SECTION 3.2.4 - APRM GAIN AND SETPOINTS

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 SSES ITS 3.2.4 does not specify "OPERATIONAL CONDITION 1" in the Applicability because the unit will always be in MODE 1 when THERMAL POWER is ≥ 25% RTP. This is an administrative change because the Applicability is not changed

A.3 SSES CTS 4.2.2.d states that 4.0.4 is not applicable. This is not required in SSES ITS 3.2.4 because any potential confusion concerning when the surveillance is required is eliminated by discussion in SSES ITS Frequency 1.4. This states that surveillance frequencies are specifically designed to allow entry into a Mode of the LCO Applicability before a surveillance is required if the surveillance can only be performed in the specified condition. This is an administrative change with no impact on safety because it is simply a change in presentation which is consistent with the intent of SSES CTS.

Insert A.4

TECHNICAL CHANGES - MORE RESTRICTIVE

None

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 3.2.2 requires operators to "initiate corrective action within 15 minutes". SSES ITS 3.2.4, Condition A, maintains the 2 hour completion time currently allowed to restore APRM Gain Setpoints to within limits, but does not include the requirement to initiate action within 15 minutes. This is acceptable because the requirement to maintain APRM setpoints is maintained and the time requirement to initiate action does not change the requirement to restore APRM setpoints. Therefore, the requirement to initiate prompt action can be adequately controlled in the SSES ITS Bases which require change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain APRM setpoints within limits. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be

INSERT (NRC RAI 3.2.4-1)

A.4 SSES CTS 3.2.2, footnote #, states "See Specification 3.4.1.1.2.a for single loop operation." This footnote is deleted because it provides a cross reference which is not a NUREG 1433 convention. This is an administrative change with no impact on safety because the footnote being deleted does not define a requirement, it only provides a cross reference and is being eliminated to provide consistency throughout the SSES ITS.

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

reduced. This change is a less restrictive administrative change with no impact on safety.

LA.2 SSES CTS 3.2.2 contains details related to APRM trip setpoint adjustment and APRM gain adjustment. SSES ITS 3.2.4 requires that the APRM setpoints be maintained, but does not provide details on gain adjustment. This is acceptable because, the requirement to maintain APRM setpoints is maintained, and the direction on how APRM gain adjustment should be made does not impact the requirement to maintain APRM setpoints. Therefore, the detail can be adequately controlled in the Core Operating Limits Report (COLR) and ~~plant procedures~~. These details can be adequately defined and controlled in documents which require change control in accordance with SSES ITS 5.5.10, Bases Control Program ~~and plant administrative procedures~~. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the APRM setpoints. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

Technical Requirements Manual (TRM)

SSES ITS Bases

and TRM

LA.3 SSES CTS 3.2.2 and 4.2.2 require that the APRM setpoints and the Maximum Fraction of Limiting Power Density (MFLPD) be verified less than the Fraction of Rated Thermal Power (FRTP) and direct that a Fraction "T" be calculated to verify this value. SSES ITS requires that the MFLPD be less than FRTP, but does not identify how this is determined. This is acceptable because the method of calculation and the terms used in the calculation do not impact the requirement to maintain the MFLPD less than the FRTP. Therefore, these details can be adequately controlled in SSES ITS Bases. These requirements can be adequately defined and controlled in documents which require change control in accordance with SSES ITS Bases Control Program, SSES ITS 5.5.10. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain MFLPD less than the FRTP. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

L.1 SSES CTS 4.2.2 requires a verification of APRM Gain and Setpoints "Within 12 hours after completion of a THERMAL POWER increase of a least 15% of RATED THERMAL POWER." SSES ITS SR 3.2.4.1 requires verification of the parameter requires verification of the parameter within 24 hours after THERMAL POWER is ≥ 25% RTP and then every 24 hours thereafter. Additionally, LHGRs must be

BASES

APPLICABLE SAFETY ANALYSES (continued)

(MCPR)," and LCO 3.2.3, "LINEAR HEAT GENERATION RATE (LHGR)," limit the initial margins to these operating limits at rated conditions so that specified acceptable fuel design limits are met during transients initiated from rated conditions. At initial power levels less than rated levels, the margin degradation of either the LHGR or the MCPR during a transient can be greater than at the rated condition event. This greater margin degradation during the transient is primarily offset by the larger initial margin to limits at the lower than rated power levels. However, power distributions can be hypothesized that would result in reduced margins to the pre-transient operating limit. When combined with the increased severity of certain transients at other than rated conditions, the SLs could be approached. At substantially reduced power levels, highly peaked power distributions could be obtained that could reduce thermal margins to the minimum levels required for transient events. To prevent or mitigate such situations, the MCPR margin degradation at reduced power and flow is factored into the power and flow dependent MCPR limits (LCO 3.2.2) ~~and for~~ LHGR (Ref. 4). ~~Then,~~ either the APRM gain is adjusted upward by the ratio of the core limiting MFLPD to the FRTP, or the flow biased APRM scram level is reduced by the ratio of FRTP to the core limiting MFLPD. Either of these adjustments effectively counters the increased severity of some events at other than rated conditions by proportionally increasing the APRM gain or proportionally lowering the flow biased APRM scram setpoints, dependent on the increased peaking that may be encountered.

For LHGR (Ref. 4 and 5)

The adjustment to the APRM gain can be performed provided it is during power ascension up to 90% OF RATED THERMAL POWER, that the adjusted APRM reading does not exceed 100% OF RATED THERMAL POWER, the required gain adjustment increment does not exceed 10% OF RATED THERMAL POWER, and a notice of the adjustment is posted on the reactor control panel.

The APRM gain and setpoints (6) satisfy Criteria 2 and 3 of the NRC Policy Statement (Ref. 5).

LCO

Meeting any one of the following conditions ensures acceptable operating margin to the transient mechanical design limit (PAPT) for events described above:

a. Limiting excess power peaking;

b. Reducing the APRM flow biased neutron flux upscale scram setpoints by multiplying the APRM setpoints by the ratio of FRTP and the core limiting value of MFLPD; or

(continued)

BASES

ACTIONS

A.1 (continued)

The APRM Setpoints include the APRM Rod Block Flow Bias Neutron Flux Upscale Setpoint which is controlled in Technical Requirements Manual (TRM) 3.1.3 "Control Rod Block Instrumentation".

Therefore, prompt action should be taken to restore the MFLPD to within its required limit or make acceptable APRM adjustments such that the plant is operating within the assumed margin of the safety analyses.

The 6 hour Completion Time is normally sufficient to restore either the MFLPD to within limits or the APRM gain or setpoints to within limits and is acceptable based on the low probability of a transient or Design Basis Accident occurring simultaneously with the LCO not met.

B.1

If MFLPD cannot be restored to within its required limits within the associated Completion Time, the plant must be brought to a MODE or other specified condition in which the LCO does not apply. To achieve this status, THERMAL POWER is reduced to < 25% RTP within 4 hours. The allowed Completion Time is reasonable, based on operating experience, to reduce THERMAL POWER to < 25% RTP in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.2.4.1 and SR 3.2.4.2

The MFLPD is required to be calculated and compared to FRTP or APRM gain or setpoints to ensure that the reactor is operating within the assumptions of the safety analysis. These SRs are only required to determine the MFLPD and, assuming MFLPD is greater than FRTP, the appropriate gain or setpoint, and is not intended to be a CHANNEL FUNCTIONAL TEST for the APRM gain or flow biased neutron flux scram circuitry. The 24 hour Frequency of SR 3.2.4.1 is chosen to coincide with the determination of other thermal limits, specifically those for the APLHGR (LCO 3.2.1). The 24 hour Frequency is based on both engineering judgment and recognition of the slowness of changes in power distribution during normal operation. The 24 hour allowance after THERMAL POWER ≥ 25% RTP is achieved is acceptable given the large inherent margin to operating limits at low power levels and because the MFLPD must be calculated prior to exceeding 50% RTP unless performed in the previous 24 hours.

(continued)

SECTION 3.3 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.3.1.1	Reactor Protection System (RPS) Instrumentation					
3.3.1.1-01	None	CTS Table 2.2.1-1	The Trip Setpoint Allowable Values in CTS Table 2.2.1-1 for the Scram Discharge Volume Water Level - High, Level Transmitter and Float Switch Functions are both " </= 88 gallons." These Allowable Values are changed in ITS Table 3.3.1.1-1 as follows: Level Transmitter </= 69 gallons Float Switch </= 61 gallons	Changed A/Vs are outside the scope of review.	Change was needed to reflect SSES Setpoint methodology. CTS M/U and Discussion of change added to identify change.	Open-NRC Technical Branch review. PP&L to provide revised CTS M/U and DOC.
3.3.1.1-05	LA.2	CTS Table 3.3.1 Note J	CTS Table 3.3.1-1 Note j restricts automatic bypass of RPS Functions 8 (Turbine Stop Valve-Closure) and 9 (Turbine Control Valve Fast Closure) when "turbine first stage pressure is greater than an allowable value of 136 psig." The pressure limit of 136 psig is moved to the Technical Requirements Manual(TRM). A discussion of the equivalence of the 136 psig limit to 30% RTP is not provided.	Provide discussion that ensures the 136 psi bypass limit is maintained with ITS >/= 30% RTP Applicability.	See CTS M/U page 3/4 3-5. It is acknowledged that the CTS M/U and the associated DOCs are not as clear as they could be made. The SSES CTS implicitly verified that the associated functions would not be bypassed by identifying in Note (j) that the associated "turbine fist stage pressure switch" should be set to an Allowable Value of 136 psig (which is equivalent to 30% power). NUREG 1433 (SSES ITS) SR 3.3.1.1.16 explicitly requires that the Functions be verified to not be bypassed greater than or equal to 30% power. As described in the SSES ITS Bases, this is a Functional Check performed once every 24 Months. As described in LA.2, the calibration of the turbine first stage pressure switch is being relocated because it does not impact the SSES ITS requirement to ensure that these Functions are not bypassed at greater than or equal to 30% power. PP&L will revise DOC LA.2 to provide a clearer statement that 136 psig allowable value is equivalent to 30% RTP.	Closed-PP&L will provide revised LA.2 wording.(6/10/97)

SECTION 3.3 NRC RAIs -- SSES Improved Technical Specifications

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3.3.1.1-06	LA.6	CTS Table 4.3.1.1-1 Note h.	CTS Table 3.3.1-1 Note j restricts automatic bypass of RPS Functions 8 (Turbine Stop Valve-Closure) and 9 (Turbine Control Valve Fast Closure) when "turbine first stage pressure is greater than an allowable value of 136 psig." The pressure limit of 136 psig is moved to the Technical Requirements Manual(TRM). A discussion of the equivalence of the 136 psig limit to 30% RTP is not provided.	Changed A/Vs are outside the scope of review	No change in A/V, this is a relocation. A statement concerning the equivalency of 30% RTP and 136 psig is made in the DOC LA.6.	Open-NRC technical branch reviewing issue.

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3.3.1.1-08	P.10	CTS Table 4.3.1.1-1 Note f	The CTS Table 4.3.1.1-1 footnote f surveillance frequency for performing a calibration of the Local Power Range Monitors is "at least once per 1000 effective full power hours (1000 EFPH). ITS SR 3.3.1.1.8 requires LPRM calibrations every 1000 MWD/MT.	Provide technical information to support that the change in the SR limit units of measurement is an equivalent measurement of fuel burnup.	As stated in the SSES ITS JFD, 1000 MWD/MT will be conservative with respect to the STS requirement of 1000 EFPH. This can be demonstrated by defining the relationship between EFPH (Effective Full Power Hours) and MWD/MT (Megawatt Days per Metric Ton). EFPH is defined as running the power plant at full power for one hour, so for SSES it would mean operating at 3441 MW for one hour. Megawatt Days per Metric Ton is the power (in Megawatts) generated in one day divided by the amount of fuel (in metric tons) loaded in the core. For SSES, a typical core weight will vary between 132.2 MTU and 136.2 MTU. So if SSES runs at full power for one full day the total MWD/MTU will be 3441 MW/136.2 MTU which is equal to 25.62 MWD/MTU. Using this example, which represents the most conservative Frequency, it will take 39.58 days (1000/25.62) to require a calibration. If 1000 EFPH were used to determine the frequency of calibration when operating at full power (3441 MW), there are 24 EFPH in a day and it would take 41.67 days (1000/24) to require a calibration. Therefore, based on the above description, the Frequency proposed by SSES is conservative to that in the STS. PREVIOUS EXAMPLE PROVIDED: The proposed SSES ITS surveillance frequency of 1000 MWD/MT will be conservative or equivalent to the CTS surveillance frequency of 1000 EFPH if the full power exposure increment per day is greater than 24 MWD/MT. The full power expoure increment per day can be calculated as: 3441 MW/(Core Weight in MTU).	Closed (7/18/97)

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					For SSES, a typical core weight will vary between approximately 132.2 MTU for a full core of SPC 9x9-2 fuel to approximately 136.2 MTU for a full core of SPC ATRIUM-10 fuel. Based on the above core weights, the full power exposure increment per day would vary between: approximately 26.03 MWD/MT for full core SPC 9x9-2 fuel to 25.26 MWD/MTU for ull core SPC ATRIUM-10 fuel. Therefore, since the expoure increment per day is greater than the 24 MWD/MT, 1000 MWD/MT is conservative with respect to EFPH.	
3.3.1.1-09	P.10	STS SR 3.3.1.1.6	STS SR 3.3.1.1.8 test Frequency "1000 MWD/T is changed to "1000 MWD/MT." The change of units to /MT, Metric Tons, results in a deviation from the STS that is not justified.	Provide discussion and justification for the STS deviation based on differences in plant design or operations.	See JFD P.10. The use of metric ton units is considered to be a plant unique parameter.	Closed-(5/7/97)
3.3.1.1-10	P.1	STS SR 3.3.1.1.3	The STS 3.3.1.1.3 requirement to "adjust" the channel to conform to a calibrated flow signal" is changed in ITS 3.3.1.1.3 to "verify the channel conforms to a ...".	Provide discussion and justification for the STS deviation based on differences in plant design or operations.	SSES determined that the statement "adjust" provided the wrong understanding of the purpose of the SR for SSES. As described in the Bases of the SR, the SR is performed by verifying instrumentation readings are consistent. No adjustment is performed. Therefore, the change is based on how SSES complies with the SR which does not involve any adjustments. PP&L will revise the SSES ITS Submittal to maintain NUREG 1433 word "adjust" and change SSES ITS Bases to clarify that an adjustment may not be required if limits are confirmed.	Closed-PP&L will provide M/U of SSES ITS to identify changes.(5/7/97)
3.3.1.1-11	L.6	STS SR 3.3.1.1.-11	STS SR 3.3.1.1-11 Note 2 provides allowance for Function 2.a, when entering MODE 2 from MODE 1, to delay the test for 12 hours after entering MODE 2. ITS 3.3.1.1-11 adds this allowance for Function 1.a, Neutron Flux - High . Justification for the STS deviation is not provided.	Provide discussion and justification for the STS deviation based on differences in plant design or operations.	Will add JFD for change to NUREG M/U page 3.3-5.	Closed-PP&L will provide corrected NUREG M/U page.(6/10/97)

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3.3.1.1-12	R.1	CTS Function 6 MSLRM	CTS requirements for the main steam line radiation monitors are proposed to be relocated consistent with the analyses repoted in NEDO-10174. BWR/6 ITS used a different generic analysis (NEDO-31400A) and commited to revising offgas radiation monitor alarm setpoints.	Provide discussion and justification for the adopting the topical report NEDO-10174 and discuss the need to revise offgas instumentation alarm setpoints based on plant design or operations.	See CTS M/U page 3/4 3-2. This requirement is being relocated only from SSES ITS not eliminated. Therefore, analysis NEDO-31400A is not being applied. NEDO-10174 is being used to demonstrate that the instrument Function is not required for plant protection and therefore, does not meet the 10CFR50.36 screening criteria.	Open-NRC Technical Branch reviewing PP&L response.
3.3.1.1-13	JFD P.3	ITS Note 2 to SR 3.3.1.1.17	Note 2 excludes the channel sensors for Level 3 instruments from RPS Response Time Testing.	This is part of the staff review and approval of the RTT topical report and is beyond the scope of the conversion review.	The RTT Topical is current licensing basis for SSES.	Open-PP&L will provide changes to SSES ITS Bases that were made to SSES CTS. This will be provided with Rev 0B submittal.
3.3.1.1-14	P.4	ITS Bases Page B 3.3-9	The applicable safety analysis for the APRM Flow Biased function Bases is revised to state that the function in not credited in the plant safety analysis.	The Bases need to provide a discussion of basis for the specified Allowable Value TS.	The original design basis for the APRM Flow Biased Simulated Thermal Power-High scram was to protect the fuel cladding integrity for events where core thermal power increases slowly as a function of time (e.g., loss of feedwater heating). However, for SSES, the APRM Flow Biased Simulated Thermal Power-High scram is not credited in an reload analyses where core thermal power varies slowly with time. The current APRM Flow Biased Simulated Thermal Power-High scram is currently set above the APRM rod block and provides defense-in-depth to the APRM Fixed Neutron Flux-High scram. SSES ITS 3.3.1.1 Bases will be revised to incoporate the above information.	Closed-PP&L will provide M/U of SSES ITS.(5/7/97)

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3.3.1.1-15	P.6	ITS Basespages 3.3-18,19,31	This JFD supports changes to the ITS Bases describing the methodology for turbine stop and turbine control valve RPS trip channel calibration SRs, SR 3.3.1.1.16. The NUREG Bases state that to consider the turbine stop and control valve closure funtions operable the main trubine bypass valves must remain shut at all times when greater than 30% power. The SSES proposed Bases replace the operability statement with a statement that the main turbine bypass valves must not cause the trip Functions to be bypassed when greater than or equal to 30% RTP.	Provide discussion and justification for the STS deviation based on differences in plant design or operations rather than the JFD conclusion that equivalent level of protection is provided.	SSES concern is that as stated everytime the Turbine Bypass Valves are cycled (required by TS 3.7.6 to be cycled every 31 days), even close to 100% power, these two scram functions would be required to be declared inoperable. This was considered to be an unnecessary restriction, in that at high power there is no risk that the function would be bypassed. Furthermore, if the Function is Bypassed, an alarm will indicate the condition in the control room. Therefore, the Bases statement for SSES was considered more acceptable. No generic change has been created because bases changes have not typically been accepted as meeting the threshold of changes allowed to the NUREG. A TSTF will be submitted for this proposed generic change.	Open-TSTF Pending. (BWROG-34)
3.3.1.1-16	P.8	ITS Bases SR 3.3.1.1.11/.13	This change deletes the Bases statement "The CHANNEL CALIBRATION is a complete check of the instrument loop and sensor"	Reject, Significant change to STS Bases require a TSB approved TSTF.	SSES internal concern with two ambiguities associated with this Bases statement. First "complete check". This is an open ended statement which is not clarified in the Bases. The second ambiguity is "instrument loop". Loop is not a defined term in the ITS and therefore, different interpretations of what constitutes an "instrument loop" could result in future confusion. It is PP&L's position, that the elimination of this statement simply removes ambiguity from the TS Bases and does not impact the TS intent. Therefore, no generic change is required. An Editorial TSTF will be submitted for this proposed generic change. Editorial change was rejected by the BWROG TS Committee.	Open-Editorial TSTF rejected by TSTF. Awaiting resolution of TSTF on CFT and Channel Calibration definition.

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3.3.1.1-17	P.9	ITS Bases SR 3.3.1.1.9/.12	This change modifies the requirements of the CFT by adding a reference to the FSAR in responce to inspection findings that certain channels cannot be tested according to TS.	Significant changes to the STS Bases require a TSB approved TSTF.	Bases clarification was added explicitly to address the PBAPS concern with the definition of CHANNEL FUNCTIONAL TEST. SSES is evaluating the proposed generic change to the NUREG definition of CHANNEL FUNCTIONAL TEST. The change to the definition of CHANNEL FUNCTIONAL TEST will mostlikely eliminate the need for this bases change.	Open-PP&L will incorporate changes when Industry TSTF is resolved with NRC.
3.3.1.2	Source Range Monitor (SRM) Instrumentation					
3.3.1.2-02	M.2/P.1	CTS 4.3.7.6a	CTS 4.3.7.6 c and CTS 4.9.2 c require verification that the SRM count rate is at least 0.7 cps (provided signal to noise ratio is >2, otherwise 3 cps). ITS 3.3.1.2.4 changes this requirement to verify the count rate is >3.0 "if" the SNR is >2:1 OR, within the limits of Figure 3.3.2.1-1. This change is not adequately justified. The change results in a deviation from the STS.	Provide discussion and justification for the change from CTS requirements.Provide discussion and justification for the STS deviation based on design or operational differences.	See CTS M/U page 3/4 3-74. The change is more restrictive and described in 3.3.1.2 DOC M.2. As identified in DOC M.2, the change is based on recommendations contained in General Electric Service Information Letter (SIL) 478. This SIL provides the technical bases for the SSES change as well as the original NUREG requirements. SSES is adopting the full allowances of the GE SIL to ensure operating flexibility. This is a more restrictive change adopted to agree with NUREG 1433.	Open-NRC Technical Branch reviewing proposed change.
3.3.1.2-03	None	CCTS 4.9.2.a.2	CTS 4.9.2 a.2 requires the OPERABILITY of required SRMs in MODE 5 by verifying the detectors are inserted to the normal operating level. This requirement is not included in the ITS.	Provide discussion and justification for the less restrictive change.	See CTS M/U page 3/4 9-3. As identified, this statement/requirement is not being deleted it is being relocated. DOC LA.1 identifies that this requirement is not required for Operability and can be relocated. This is consistent with NUREG 1433.	Closed
3.3.1.2-04	L.8	CTS 3.9.2	CTS requires SRMs to be operable in MODE 5 and inserted to the normal operating level. The DOC discussion does not characterize the existing TS correctly and includes an incorrect statement of operability for SRM insertion requirements.	Provide a corrected DOC L.8 discussion.	See CTS M/U page 3/4 9-2. LCO 3.9.2 defines an explicit requirement "and inserted to the normal operating level with". The elimination of this explicit requirement was defined as a "Less Restrictive" change. Need to understand why this is not a Less Restrictive Requirement.	Closed.

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3.3.2.1	Control Rod Block Instrumentation					
3.3.2.1-01	L.1	CTS 3.1.4.1	CTS 3.1.4.1, Rod Worth Minimizer (RWM), Applicability "MODES 1 and 2 when THERMAL POWER is less than or equal to 20% RTP, the minimum allowable low power setpoint," is changed in ITS 3.3.2.1 to "MODES 1 and 2 with THERMAL POWER >10% RTP". The change was justified based on the NRC Safety Evaluation Report (SER) for Amendment 17, "Acceptance for Referencing the Licensing Topical Report NEDE-24011-P-A"	Changes to setpoint Allowable Values is outside the scope of the staff conversion review.	Discuss this change. SSES considers this change to be within the scope of ITS conversion.	Open-NRC Technical Branch to review change.
3.3.2.1-02	LC.1	CTS 4.1.4.1.a/.b	CTS 4.1.4.1.a, RWM CHANNEL FUNCTIONAL TEST prior to reactor startup, and CTS 4.1.4.1.b, RWM CHANNEL FUNCTIONAL TEST during a reactor shutdown, are required at every reactor startup and shutdown, regardless of the frequency of these events. ITS SR 3.3.2.1.1 and SSES ITS SR 3.3.2.1.2 require a CHANNEL FUNCTIONAL TEST every reactor startup and shutdown if not performed in the previous 92 days.	Surveillance interval extension based on staff review and approval of topical report GENE-770-06-01 is outside the scope of conversion review.	Discuss this change. SSES considers this change to be within the scope of ITS conversion.	Open-NRC Technical Branch to review change.
3.3.2.1-03	R.6/ P.1	CTS 3.1.4.3CTS3.3.6STS 3.3.2.1-1	CTS 3.3.6 "Control Rod Block Instrumentation", including control rod block functions initiated by APRMs, SRMs, IRMs, Scram Discharge Volume, and Reactor Coolant System Recirculation Flow is relocated to the TRM. The deletion is indicated in the CTS markup as TSCR 279 without justification. Furthermore, the CTS 3.3.6 deletion is double marked as a relocation (R.6). Adequate justification for the relocation of these Functions is not provided. This relocation results in a deviation from the STS.	Provide justification for the STS deviation based on system design or operational constraints.	TSCR 279 was rejected therefore, submittal will be changed to incorporate RBM as a requirement.	Open-NRC Technical Branch needs to complete review of TSCR 279. PP&L will provide M/U of SSES ITS.

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3.3.2.2	Feedwater and Main Turbine High Water Level Trip Instrumentation					
3.3.2.2-01	None	CTS 3.3.9 Action a	CTS 3.3.9 Action a requires a channel with its trip setpoint allowable value less conservative than the required value, to be declared inoperable. The inoperable channel must be tripped until the channel is restored to OPERABLE status, or, the associated system must be declared inoperable. The requirement to trip the inoperable channel until restored to OPERABLE is deleted in the ITS. ITS 3.3.2.2 Required Action A allows the channel to remain untripped for 7 days and allows the channel to remain tripped indefinitely after 7 days. Adequate justification for the change is not provided.	Provide additional discussion and justification to explain why the less restrictive change does not present a significant safety question.	See CTS M/U page 3/4-95. CTS M/U and DOC L.2 will be rewritten to include eliminating requirement to place an inoperable channel in the tripped condition or declare the associated system inoperable.	Closed-PP&L will provide revised wording for DOC L.2 (5/7/97).
3.3.2.2-02	A.2	CTS 3.3.9 Action a	CTS 3.3.9 Action a requires a channel with its trip setpoint allowable value less conservative than the required value, to be declared inoperable. The inoperable channel must be tripped until the channel is restored to OPERABLE status, or, the associated system declared inoperable. The option to declare the associated system inoperable with one channel inoperable is deleted in the ITS. ITS 3.3.2.2 Action C requires THERMAL POWER reduced to less than 25% if the channel is not tripped within 7 days. Discussion and justification for the change is not provided.	Provide discussion and justification for the more restrictive change.	See CTS M/U page 3/4 3-95. After further review, it is interpreted that this statement provides the ability to declare the unique system function inoperable and remove it from service. (i.e., remove the affected feedwater turbine from service). PP&L has proposed that the a new Required Action be added to allow the affected feed pump to be removed from service.	Open-TSTF pending, PP&L will provide M/U of SSES ITS and Discussion of Changes and has proposed a generic change.(BWR OG 42 being developed)
3.3.2.2-05	L.2	CTS 3.3.9 Action b	CTS 3.3.9, Action b, requires that an inoperable channel be restored to OPERABLE within 7 days or be in MODE 2 within the next 6 hours. Under the same Conditions, ITS 3.3.2.2, Required Action A.1, requires the channel placed in trip within 7 days. The requirement to restore an inoperable channel is changed to allow the channel placed in the tripped condition after 7 days and continue operations without a requirement to restore the channel for an indefinite period of time. Leaving a channel in trip changes the 2-out-of-3 logic to a 1-out-of-2 logic which continues to provide single failure protection. The 1-out-of-2 logic provides both redundancy and reliability. However leaving the channel in trip indefinitely does not allow the single failure protection during testing of redundant channels, and increases the risk of safety system challenges.	Provide additional discussion and justification to explain why the less restrictive change does not present a significant safety question.	See NUREG 1433 M/U page 3.3-21. This same condition is allowed in the NUREG.	Closed.

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3.3.2.2-06	P.1	STS 3.3.2.2 Condition C	STS 3.3.2.2 Condition C addresses Required Action and associated Completion Time not met. ITS includes "of Conditions A or B" to the Condition. This addition results in a deviation from the STS.	Provide discussion and justification for the STS deviation based on current licensing basis, system design, or operational constraints.	See deviation "P.1". This change provides clarity to the NUREG. PP&L will submit and "editorial TSTF". Editorial change rejected by TSTF. Need to review with NRC.	Open-Editorial TSTF rejected need to review with NRC.
3.3.2.2-07	P.3	Bases	The Bases are modified to state that an option is always available to remove the affected component from service and restore operability.	This addition is more than a clarification of the existing STS Bases because removing a component from service cannot restore equipment operability. Delete the proposed addition.	See RAI 3.3.2.2-2 for change.	Closed
3.3.2.2-08	P.4	Bases	This Bases addition states that the station design does not permit testing certain channels consistent with the CFT definition. The Bases list an FSAR reference for the affected channels.	Significant changes to the Bases require a TSB approval TSTF.	See RAI 3.3.1.1-17	Open-PP&L will incorporate changes when Industry TSTF is resolved with NRC.

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3.3.3.1	Post Accident Monitoring (PAM) Instrumentation					
3.3.3.1-01	M.3	CTS Table 3.3.7.6-1 STS Table 3.3.3.1-1	CTS Table 3.3.7.6-1 requires 8 channels of Suppression Pool Water Temperature instrumentation Operable in 6 locations. STS Table 3.3.3.1-1 requires 2 channels of Suppression Pool Water Temperature instruments OPERABLE, monitoring each [relief valve discharge] location. The ITS simply requires 2 channels of this instrumentation OPERABLE. Neither the CTS change discussion nor the ITS Bases clearly describe the configuration of the temperature sensors, including what is meant by the CTS "6 locations", or define a "quadrant". Furthermore, this change results in an STS deviation which is not justified.	Provide additional discussion and justification for the CTS change, including a thorough description of the sensor arrangements with regard to single failure criterion.Provide discussion and justification for the STS deviation based on current licensing basis, system design, or operational constraints.	See CTS M/U 3/4 3-71 and 3.3.3.1 DOC M.3. The DOC M.3 defines the Post Accident Monitoring Function and the normal operational requirement defined in SSES ITS SR 3.6.2.1. The requirement for each relief valve discharge location is a bracketed requirement based on plant design. No similar requirement is defined for SSES and therefore, not required. The only deviation related to this change being taken from NUREG 1433 is the description of the channel in the SSES ITS Bases. The description of the monitoring channel will almost always be based on individual plant design. PP&L will change SSES ITS 3.3.3.1 Bases to clearly state that two channels consist of eight sensors of which only four sensor (one in each quadrant) are required.	Closed-PP&L will provide M/U of SSES ITS.(5/7/97)
3.3.3.1-02	LA.1	CTS Table 3.3.6-1 Action 81	CTS Table 3.3.7.6-1, Action 81, requires that with the number of OPERABLE channels less than the minimum required, initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours and restore the inoperable channel within 7 days. Under the same conditions, ITS 3.3.3.1, Action C, requires the channel restored within 7 days, but does not require the preplanned alternate method of monitoring to be initiated within 72 hours. This is a less restrictive change, rather than an administrative change, that deletes CTS requirements since the Bases do not contain the changes the DOC describes as being moved.	Provide discussion and justification for the less restrictive change.	CTS M/U page 3/4 3-72 will be revised to identify new L.6 DOC. It should be noted that the actions were captured in SSES ITS Required Action F Bases.	Closed-PP&L to provide new L.6 DOC.(5/7/97)

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3.3.3.1-04	L.4/P.2	STS 3.3.3.1 SRs	ITS 3.3.3.1, Surveillance Requirements adds Note 2, which allows a channel of PAM instrumentation taken out of service for a period of 12 hours for the performance of a Surveillance Test. This allowance is not provided in the CTS, and results in a deviation from the STS which is not adequately justified.	This extension of CTS AOT is outside the TSB scope of review for conversion to STS.Provide discussion and justification for the STS deviation based on system design differences or operational constraints.	Proposed TSTF rejected by BWROG. Proposed change withdrawn.	Closed-PP&L will provide M/U of SSES ITS.
3.3.3.1-05	L.5	ITS Bases	PP&L has previously committed to maintaining the Oxygen Analyzers with a calibrated range of 0% to 25%. In ITS 3.3.3.1 Bases, PP&L is changing this commitment by stating that the Oxygen Analyzer will be calibrated for a range of 0% to 10%. Adequate discussion and justification specific to the SSES design is not included.	Explain why this change is does not present a significant safety question in the operation of the plant.	See 3.3.3.1 DOC L.5. States that 0 to 10 % is what is required by Regulatory Guide 1.97. Therefore, only require one range not both ranges.	Closed.
3.3.3.1-06	L.3	STS Actions Note for 3.0.4 exception	The DOC discusses acceptability of a 30 day AOT for PAM functions and the acceptability of the unavailability of the instruments without justifying these summary statements.	Provide justification that supports the conclusions used in DOC L.3. Explain why this change is does not present a significant safety question in the operation of the plant.	See NUREG 1433 M/U page 3.3-23. SSES ITS submittal is consistent with NUREG 1433 requirements. PP&L will revise 3.3.3.1 DOC L.3 to identify when balancing risk for these instruments between a plant shutdown or increased AOT enhancement to safety from avoiding unnecessary plant transient.	Closed-PP&L will provide revised DOC L.3.(5/7/97)
3.3.3.1-07	P.6	ITS Bases for Function 6, PCIVs	The STS Bases are revised to include a statement that the loss of PCIV indication does not necessarily result in the PCIV being inoperable.	Provide discussion and justification for the STS deviation based on system design differences or operational constraints.	SSES internal concern. Potential confusion that loss of PCIV indication would require PCIV valve inoperability. Statement clarifies that loss of indication alone does not render the PCIV inoperable.	Closed
3.3.3.1-08	P.8	ITS Bases for Condition G.1	The STS Bases are revised to include allowances that the alternate means could consist of installing a temporary radiation monitor outside the drywell hatch.	Provide discussion and justification for the STS deviation based on system design differences or operational constraints.	See NUREG 1433 M/U page 3.3-72. SSES internal concern. Statement provides clarity as to how temporary monitoring is accomplished. As stated in JFD P.8, this provides information specific to SSES for clarity and consistency. PP&L will remove information from SSES ITS.	Closed-PP&L will provide M/U of SSES ITS.(5/7/97)

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3.3.3.2	Remote Shutdown System					
3.3.3.2-02	P.2	STS 3.3.3.2	The ITS 3.3.3.2 LCO statement is changed from the STS 3.3.3.2 LCO statement to require the "instrumentation for each" RSS Function OPERABLE, instead of the RSS "Function" OPERABLE. No justification is provided for the change.	Provide discussion and justification for the STS deviation based on current licensing basis, system design, or operational constraints.	SSES internal concern for clarity. SSES functions are defined in the SSES ITS on a Function basis similar to other NUREG 1433 section. Therefore, consistent wording was added. Editorial TSTF will be created. TSTF rejected by the BWROG. Wording will be deleted to match NUREG.	Open-NRC to review. PP&L will provide M/U of SSES ITS.

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3.3.4.1	End of Cycle Recirculation Pump Trip (EOC-RPT)Instrumentation					
3.3.4.1-01	A.2		ITS SR 3.3.4.1.4 establishes a specific 24 month Surveillance Requirement to verify that the TSV Closure and TCV Fast Closure, Trip Oil PressureCLow Functions are not bypassed when THERMAL POWER is > 30% RTP. This added requirement, consistent with the STS result in a More Restrictive Change.	Provide discussion and justification for the more restrictive change.	DOC A.2 will be replaced with DOC M.1 for 3.3.4.1 Discussion of Changes.	Closed-PP&L will provide new M.1 DOC.(5/7/97)
3.3.4.1-02	LA.1	CTS Table 3.3.4.2-1	The Function bypass Allowable Value on Turbine First Stage Pressure in CTS Table 3.3.4.2-1 is 136 psig. This Allowable Value is replaced in ITS SR 3.3.4.1.4 as 30% RTP.	Provide confirmation that 30% RTP is equivalent to 136 psig as a function bypass Allowable Value.	See NRC RAI 3.3.1.1-5. PP&L will revise DOC 3.3.4.1 to clearly state that 136 psig is equivalent to 30% RTP.	Closed-PP&L will provide new 3.3.4.1 DOC LA.4.(5/7/97)
3.3.4.1-03	A.6 LB.2	CTS 4.3.4.2.3	CTS 4.3.4.2.3 require EOC-RPT actuation instrumentation tested on a 36 month interval. Each test shall include at least the logic of one type of channel input, turbine control valve fast closure, or turbine stop valve closure, such that both types of channel inputs are tested at least once per 36 months. ITS 3.3.4.1.5 extends this frequency to 24 months on a STAGGERED TEST BASIS, resulting in each channel tested at least once per 48 months with a 25% grace period.	Explain the DOC conclusion that the CTS channel test Frequency (based on the types of trip functions tested) is consistent with the ITS channel test Frequency which doesn't address staggered testing of the trip functions. This change to CTS Surveillance Test Interval is outside the scope of conversion review.	See CTS M/U page 3/4 3-41. Statement is consistent with SSES ITS definition of STAGGERED TEST BASIS. SSES 3.3.4.1 DOC LB.2 also specifically identifies that the change will result in the extension of the individual trip system to 48 months. PP&L will revise the SSES ITS submittal to clarify what is being tested on a STAGGERED TEST BASIS. Specifically, bases will identify that Response Time Testing is alternately tested first on TCV Fast Closure and then on TSV Position.	Closed-PP&L will provide M/U of SSES ITS.(5/7/97)
3.3.4.1-06	P.6	Bases SR 3.3.4.1.1	The Bases are modified to state that an option is always available to remove the affected component from service and restore operability.	This is a generic change because it modifies the intended meaning of the defined terms. Significant changes to the STS Bases require a TSB approved TSTF.	Comment is refering to CFT definition change which is being reviewed with industry change.	Open-PP&L will incorporate changes when Industry TSTF is resolved with NRC.

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3.3.4.1-07	None	CTS 3.3.4.2 Action d ITS 3.3.4.1 Action C.2	CTS 3.3.4.2 Action d requires reducing THERMAL POWER to less than 25% RTP (without a Completion Time). For the same Condition, ITS 3.3.4.1 Required Action C.2 requires reducing THERMAL POWER to less than 30% RTP within 4 hours. Justification for the change is not provided.	Provide discussion and justification for the less restrictive change in % RTP shutdown requirement and provide discussion and justification for the ITS 4 hour Completion Time.	See CTS M/U page 3/4 3-40 as written CTS Action d allows 4 hours to remove recirculation pump or reduce power to < 25%. An A.2 DOC will be added to CTS M/U and 3.3.4.1 DOC to identify the change from 25% to 30%. This is not less restrictive because CTS Applicability is 30%.	Closed-PP&L will provide new A.2 DOC.(5/7/97)
3.3.4.1-08	P.2	CTS 3.3.4.2 Action b STS 3.3.4.1 Action A.3	STS 3.3.4.1 Condition A is modified to include "MCPR limit for inoperable EOC-RPT not made Applicable" when one or more channels of actuation instrumentation are inoperable. Required Action A.3 is also added to include the option of "applying the MPCR limit for inoperable EOC-RPT as specified in the COLR". These are changes from the CTS requirements for this Condition as well as a deviation from the STS. The STS deviation is justified as an STS ambiguity pending a generic change proposal.	Provide discussion and justification for the less restrictive CTS change. Provide justification for the STS deviation based on current licensing basis, system design, or operational constraints.	See SSES CTS M/U page 3/4 3-40. Option is allowed in SSES CTS Action c.	Closed
3.3.4.1-09	P.4	Bases	The Bases are modified to reflect current practice for performing channel functional tests and channel calibration.	This is a generic change because it modifies the intended meaning of the defined terms. Significant changes to the STS Bases require a TSB approved TSTF.	See NRC RAI 3.3.1.1-17.	Open-Editorial TSTF rejected by TSTF. PP&L will incorporate changes when CFT TSTF resolved with NRC.

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3.3.4.1-10	None	Bases PB3.3-88 SR 3.3.4.1.5	CTS markup does not agree with ITS retype.	Correct ITS retype.	Need to identify what does not agree. PP&L will review change to SR 3.3.4.1.5 and address the difference between Functional and Channel Calibration. PP&L will make NUREG M/U wording consistent with SSES ITS wording for SR 3.3.4.1.4. PP&L has reviewed the change and determined that the CTS M/U adequately represents the SSES ITS SR 3.3.4.1-5. PP&L believes no additional changes are necessary. This conclusion is based on the understanding that the SSES CTS 4.3.4.2.3 requires basically the same EOC-RPT Response Time Testing using the same methodology to perform the testing.	Closed-PP&L will provide revised NUREG M/U.(6/10/97)
3.3.4.2	Anticipated Transient Without Scram Recirculation Pump Trip (ATWS-RPT) Instrumentation					
3.3.4.2-03	P.2	Bases	This Bases addition states that the station design does not permit testing certain channels consistent with the CFT definition. The Bases are modified to reflect current testing practices through a list an FSAR reference for the affected channels.	This is a generic change because it modifies the intended meaning of the defined terms. Significant changes to the STS Bases require a TSB approved TSTF.	See RAI 3.3.1.1-17.	Open-PP&L will incorporate changes when Industry TSTF is resolved with NRC.
3.3.4.2-04	P.4	Bases	Changes to the Channel Calibration definition.	This is a generic change because it modifies the intended meaning of the defined terms. Significant changes to the STS Bases require a TSB approved TSTF.	See RAI 3.3.1.1-16.	Open-Editorial TSTF rejected by TSTF. Need to discuss with NRC.
3.3.4.2-05	P.6	Bases	P-6 discusses changes to the defintion of LSFT but it is applied to channel cal TS Bases.	Provide the correct justification for the changes to the channel calibration.	NUREG 1433 M/U page B3.3-99 will be corrected to change P.5 to P.6	Closed-PP&L will provide revised NUREG M/U.(5/7/97)

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3.3.5.1	Emergency Core Cooling System (ECCS) Instrumentation					
3.3.5.1-02	None	CTS 4.3.3.3 STS SR 3.3.5.1.7	The CTS 4.3.3.3 requirement to perform a ECCS RESPONSE TIME TEST on each trip function is not included in ITS 3.3.5.1. The requirement to perform the test is moved to ITS 3.5.1. Deleting the requirement to perform the test on the ECCS Actuation Instrumentation is a change to the current licensing basis and results in a deviation from the STS.	Adoption of BWROG-15 requires staff approval for use of the RTT topical report. Submit appropriate documentation for use of the topical report.	Response Time Testing is currently under review considering industry issues.	Open-PP&L resolving issues with NRC. Any changes necessary to SSES ITS submittal will be incorporated in Rev. 0B submittal.
3.3.5.1-04	L.1 A.8	CTS Table 3.3.3-1	CTS 3.3.3-1 Action 30 requires declaring the associated ECCS inoperable within 1 hour, when loss of ECCS Actuation trip function is determined for Functions 1a, 1c, 2a, and 2c in MODES 1, 2, 3, 4*, and 5* ("*" when required OPERABLE per CTS 3.5.2). ITS 3.3.5.1 Required Action B.1 replaces CTS 3.3.3-1 Action 30 for these Functions. ITS 3.3.5.1 Required Action B.1, Note 1 excludes this requirement when in MODES 4 and 5. No discussion or justification was supplied for the change to Functions 1c and 2c.	Provide additional discussion and justification for the Less Restrictive Change to all ECCS Actuation Instrument Functions affected.Note:Consistent with STS	3.3.5.1 DOC L.1 will be revised to include Function 1.c and 2.c.	Closed-PP&L will provide M/U of DOC.(5/7/97)
3.3.5.1-05	None	CTS Table 3.3.1-1	CTS ECCS Actuation Function 3d, Suppression Pool Water Level-High is deleted from Unit 2 ITS based on TSCR 96-004.	Acceptance of the Unit 2 deletion is based on NRC approval of TSCR 96-004.	TSCR 96-004 has been withdrawn by PP&L, therefore, the requirement for S/P high water level is being restored to SSES ITS for Unit 2.	Closed-PP&L will provide M/U of SSES ITS for Unit 2 only.(5/7/97)
3.3.5.1-07	A.6 P.4 Insert 3.3.-42-1	CTS Table 3.3.3.1 ITS Table 3.3.5.1-1	The CTS Reactor Steam Dome Pressure Low function is split into two separate functions, initiation function (1.c & 2.c) and permissive function (1.d & 2.d). CTS Action 31 (ITS Action C) applies to Modes 1, 2, and 3. CTS Action 30 (ITS Action B) applies Modes 4 and 5. The initiation function (1.c & 2.c) ITS requirements for Modes 4 and 5 is changed to Action B without an accompanying DOC.	Provide a DOC for the proposed change to the initiation function actions in the ITS.	Administrative DOC will be added to address change. After further review, it is requested that the staff review DOC A.6 and determine if any additional justification is necessary.	Closed.(5/7/97)

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3.3.5.1-08	None	ITS Retype	An upper limit Allowable Value of equal to or less than 474 psig is provided as a [ ] value without discussion of the CTS change	Problem with setpoint program.	Information to be supplied with revised submittal.	Open-NRC RAI closed, but PP&L is reevaluating setpoint. PP&L will provide M/U of SSES ITS and new 3.3.5.1 M.3 DOC. (6/10/97) Any changes to PP&L review of setpoint will be provided as part of Rev.0B package.
3.3.5.1-09	A.8	DOC	The DOC references to Action B Notes is incorrect.	Provide corrected DOC.	3.3.5.1 DOC A.8 will be modified to reflect B.1 Note 2 and B.2 Note.	Closed-PP&L will provide M/U of DOC.(5/7/97)
3.3.5.1-10	L.3	CTS Table 4.3.3.1-1	ITS Table 3.3.5.1-1 function 2.e deletes CTS operability requirements in MODES 4 & 5 for LPCI recirculation discharge valve permissive	Explain the safety importance of the loop injection location to the deletion of operability requirements.	See NUREG 1433 M/U page 3.3-43 requires function to be Operable in Modes 1, 2, and 3. SSES. SSES is consistent with NUREG design and therefore, adopts allowance.	Closed

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3.3.6.2	Reactor Core Isolation Cooling (RCIC) System Instrumentation					
3.3.6.2-01	LA.2	CTS 4.3.6.2	CTS 4.3.6.2 requires the performance of a LOGIC SYSTEM FUNCTIONAL TEST (LSFT) and simulated automatic operation. ITS SR 3.3.6.2.6 requires the performance of a LSFT but does not contain the detail "and simulated automatic operation." Justification for this deleted detail is based on moving it to the ITS Bases. This detail is not defined and controlled in the ITS Bases.	Provide discussion and justification for omitting the detail from the ITS Bases.	Bases of SR 3.3.6.2.3 and SR 3.3.6.2.4 will be modified to include "and simulated automatic operation."	Closed-PP&L will provide M/U of SSES ITS.(5/7/97)
3.3.6.2-03	None	CTS Table 3.3.6-1	CTS Table 3.3.6-1 Note (a) is translated to ITS SURVEILLANCE REQUIREMENTS Note 2. The CTS note permits a channel to the place in an inoperable status for up to 6 hours for surveillance without placing the trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter. The ITS note allows a Reactor Vessel Water Level - High, Level 8 channel to be placed in an inoperable status for Surveillances for up to 6 hours without the requirement that there be one other OPERABLE channel. This is a less restrictive change	Provide additional justification for the less restrictive change.	See CTS M/U page 3/4 3-47. PP&L has modified the SSES ITS SR Note and revised SSES CTS M/U and provided a new DOC M.2 to describe change. After further review, PP&L has revised the response and has eliminated the change to SSES ITS 3.3.6.2 to ensure it is consistent with SSES ITS 3.3.6.1 Note and NUREG 1433 Note.	Closed- PP&L will provide ITS M/U, revised CTS M/U and M/U of DOC.(5/7/97)
3.3.6.2-05	M.1	CTS Table 4.3.6.1-1 STS Table 3.3.6.2-1	CTS Table 4.3.6.1-1 requires RPV Level 8 to be calibrated every 18 months. ITS Table 3.3.6.2-1 requires the same Function to be calibrated every 92 days (ITS SR 3.3.6.2.3). The CTS mark-up and the ITS both indicate a frequency of quarterly, or 92 days. The STS mark-up for Table 3.3.6.2-1 indicates a frequency of 24 months (ITS SR 3.3.6.2.4).	Provide either corrected CTS mark-up and corrected ITS or corrected STS mark-up. Revise the DOC Discussion of Deviations as necessary to justify the change.	NUREG M/U Table 3.3.6.2-1 will be corrected to indicate SR 3.3.6.2.3 for function 2.	Closed-PP&L will provide revised NUREG M/U.(5/7/97)
3.3.6.2-06	P.1	STS SR Note 2	ITS 3.3.6.2 Surveillance Requirements Note 2 modifies STS 3.3.6.2 NOTE 2. The STS note allows the Manual Initiation Function to be INOPERABLE for up to 6 hours for performance of required Surveillances. The ITS note provides the same allowance provided the Function maintains RCIC initiation capability. Since the Manual Initiation is only a single (one) channel function, the ITS effectively prevents placing the Manual Initial Function in inoperable status for 6 hours to perform required surveillance.	Provide justification for the change based on system design, operational constraints, or the need to preserve the CLB.	See CTS M/U page 3/4 3-47. SSES ITS, CTS M/U and DOC will be corrected to identify more restrictive change. After further review, PP&L has revised the response and has eliminated the change to SSES ITS 3.3.6.2 to ensure it is consistent with SSES ITS 3.3.6.1 Note and NUREG 1433 Note.	Closed-PP&L will provide ITS M/U, revised CTS M/U and M/U of DOC.(5/7/97)

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3.3.6.1	Primary Containment Isolation Instrumentation					
3.3.6.1-03	L.6	CTS Table 3.3.2-1	CTS Table 3.3.2-1 Function 3.d, Main Steam Line Flow - High, requires with the number of channels less than the minimum specified be in Hot Shutdown within the next 12 hours and Cold Shutdown within the following 24 hours. Under the same conditions, ITS Table 3.3.6.1-1 provides an additional option to shut the MSIVs within the next 12 hours. No justification is provided for allowing 12 to shut the MSIVs.	Provide discussion and justification for allowing 12 hours to shut the MSIVs.	See CTS M/U 3/4 3-12. The change is addressed in 3.3.6.1 DOC L.6. For better clarity CTS M/U page 3/4 3-16 will also reference DOC L.6.	Closed-PP&L will provide revised CTS M/U page.(5/7/97)
3.3.6.1-04	None	CTS Table 3.3.2-1	CTS Table 3.3.2-2 Function 3.e., Condenser Vacuum - Low, APPLICABILITY includes MODES 1, 2, and 3. ITS Table 3.3.6.1-1 Function 1.d. APPLICABILITY includes MODE 1 and MODES 2 and 3 with Note (a) that limits the applicability to with any turbine stop valve not closed. No justification is provided for this change in APPLICABILITY	Provide discussion and justification for the change in Applicability.	See CTS M/U page 3/4 3-26. Allowance is provided in CTS Table 4.3.2.1-1 Footnote "***".	Closed.
3.3.6.1-05	None	CTS 3.3.2-1	The requirements of ACTION 26 for CTS Table 3.3.2-1 Function 7.c, RHR Flow - High, is to Lock the affected system isolation valves closed with 1 hour and declare the affected system INOPERABLE. With one or more required channels INOPERABLE, the ACTIONS for ITS Table 3.3.6.1-1 Function 6.c are to Place the channel in trip within 24 hours (ACTION A.1) and if that is not met Initiate action to restore channel to OPERABLE status or Initiate action to isolate the RHR Shutdown Cooling System immediately (ACTIONS J.1 or J.2). This is an extension of Allowed Outage Time and no justification is provided for this change.	The changes from CTS Action 26 to ITS Action J are not discussed.	See CTS M/U page 3/4 3-9. CTS Action c allows one hour prior to entering TS Table with isolation capability not maintained. SSES ITS also allows one hour. SSES ITS does eliminate the 1 hour to shut the valve allowed in Action 26. To correct address this change an M DOC will be added. PP&L will revise the SSES ITS Submittal in this area to relocate the RHR High Flow Isolation.	Closed-PP&L will provide revised CTS M/U, new DOC and M/U of SSES ITS and M/U of Screening Criteria.(6/10/97)
3.3.6.1-06	None	CTS Tables 3.3.2.1-1/-2	CTS Tables 3.3.2-1 and 3.3.2-2 Function 7.d, RHR System Shutdown Cooling/Head Spray Mode Isolation Manual Initiation, is applicable in MODES 1, 2, and 3. ITS Table 3.3.6.1-1, Function 6.d is APPLICABLE in MODES 3, 4, and 5. No justification is provided for this change	Provide discussion and justification for this change and provide an explanation of why the automatic isolation on level is required in Modes 1, 2, and 3 yet the Manual backup is only applicable in Modes 3, 4, and 5.	CTS M/U and DOC M.1 will be corrected to include changing Manual Isolation to Modes 3, 4, and 5.	Closed-PP&L will provide M/U of DOC.(5/7/97)

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3.3.6.1-07	A.3	CTS Table 3.3.2-1 Actions 23, 24,26	CTS Table 3.3.2-1, ACTIONS 23, 24, and 26 require the affected system isolation valves be shut and the affected system declared INOPERABLE. ITS Table 3.3.6.1, ACTIONS F and G, require that the affected system isolation valves be shut but does not provide direction to declare the affected system INOPERABLE. Justification is not provided which discusses the safety impact of declaring the affected system INOPERABLE. Justification is not provided for ITS Condition H, the requirements of Conditions F & G not met. The "because" statement discussion in A.3 does not make sense. What's an unnecessary cross reference to take action of the affected system?	Provide adequate discussion for this change. Rewrite.	See CTS M/U page 3/4 3-16. DOC A.3 is consistent with other ITS submittal statements. This is a convention of NUREG 1433. It should be noted that DOC will be modified to include condition "H".	Closed-PP&L will provide M/U of DOC A.3.(5/7/97)
3.3.6.1-08	M.2 P.7, ITS Insert 33-55-01	CTS Table 4.3.2.1-1	CTS Table 4.3.2.1-1 requires that Functions 1.a.1, 1.b, 5.j, 6.j and 7.a be calibrated every refueling outage. CTS Table 4.3.2.1-1 requires Functions 3.c, 3.e, 3.f, 4.b, 5.a, 5.b, 5.c, 5.d, 5.f, 5.h, 6.a, 6.b, 6.c, 6.d, 6.f, 6.g, and 7.b be calibrated every 92 days (Q). ITS 3.3.6.1 requires SR 3.3.6.1.3 be performed for these functions. SR 3.3.6.1.3 contains a logical connector OR that does not conform to the STS format. This logical connector allows a surveillance frequency of either 92 days or 24 months and does not provide instructions that clarify when each are to be followed. This results in a STS deviation. In addition SR 3.3.6.1.3 contains a note that exempts ITS Function 2.d.	Revise ITS SR 3.3.6.1.3 to follow the STS format without using a logical "OR" connector. Change the Table 3.3.6.1-1 Channel Calibration SR for Function 2.d to SR 3.3.6.1.4. Evaluate any CTS surveillance interval extensions that result and provide DOC justifications.	Logical connector will be changed to "AND"	Closed-PP&L will provide M/U of SSES ITS.(5/7/97)
3.3.6.1-10	LA.1	CTS Table 3.3.2-2 Functions 5.l and 6.g	CTS Table 3.3.2-2, requires the instrumentation function OPERABLE and Footnote ## identifies that there is a 15 minute time delay for the HPCI and RCIC Pipe Routing Area (Functions 5.l and 6.g). ITS Table 3.3.6.1-1 requires the same instrument functions OPERABLE, but does not specify the time delay. The requirement is defined in the Bases. The ITS Bases for these Functions states that one reason for the time delay is to avoid spurious temperature isolations due to short temperature increases. The justification for defining this requirement in the Bases does not address this purpose for the required 15 minute delay.	Provided adequate discussion and justification for this change.	See CTS M/U page 3/4 3-20. The timer requirements were added to the bases because they were not required per the analysis. Therefore, only required to ensure logic works and the specific time does not require calibration. PP&L will provide appropriate FSAR reference to identify 15 minute time delay.	Closed-PP&L to provide FSAR references.(5/7/97)

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3.3.6.1-10	A.9	CTS Table 3.3.2-1, 3.3.2-2, and 4.3.2.1-1	CTS Tables 3.3.2-1, 3.3.2-2, and 4.3.2.1-1 provide requirements for Function 7.e "Drywell Pressure - High" actuation instrumentation, Applicable in Modes 1,2, and 3 for RHR System Shutdown Cooling/Head Spray Isolation. This RHR Shutdown Cooling Isolation Instrumentation Function is deleted in ITS Table 3.3.6.1-1 and the title of Function 6 is modified to delete reference to RHR Head Spray.The justification for this A.9 change states that Drywell Pressure - High Function is required in MODES 3, 4, and 5. However, both the CTS and the ITS require this function in MODES 1, 2, and 3.The justification provided does not adequately address that RHR Shutdown Cooling System Isolation is also provided by the Drywell Pressure - High Function in the ITS Table 3.3.6.1-1 for Primary Containment Isolation functions.	Provide discussion and justification that clearly states the Applicable MODES for the Drywell Pressure - High Function.Provide discussion and justification which demonstrates that the Drywell Pressure - High Function in the ITS Table 3.3.6.1-1 Primary Containment Isolation Section will also provide RHR Shutdown Cooling System Isolation.Provide discussion and justification for less restrictive change.	See CTS M/U page 3/4 3-20. Function 7.e is provided only for Head Spray Mode Isolation in Modes 1, 2 and 3. This is a primary containment isolation function and is inappropriately defined in the CTS as a non-PCIV. Therefore, requirement is appropriately relocated within ITS to PCIV function.	Closed.(5/7/97)
3.3.6.1-12	P.2	sts sr 3.3.6.1.6	A Note is added to ITS SR 3.3.6.1.6 that excludes the Sensors of Functions 1.a, 1.c, and 1.d from ISOLATION SYSTEM RESPONSE TIME verification. Justification for this change is based on previous amendments. CTS 4.3.2.3 requires that ISOLATION SYSTEM RESPONSE TIME be verified for each isolation function.	Approval of the change is dependent upon NRR approval of the previous amendments.	Response Time Testing is currently under review considering industry issues	Open-PP&L will provide changes to SSES ITS Bases that were made to SSES CTS. This will be provided with Rev 0B submittal.
3.3.6.1-13	P.2	CTS 4.3.2.3	CTS 4.3.2.3 requires that ISOLATION SYSTEM RESPONSE TIME be verified for each isolation function. ITS Table 3.3.6.1-1 requires SR 3.3.6.1.6, ISOLATION SYSTEM RESPONSE TIME verification, for only Functions 1.a, 1.b. 1.c, and 5.a. SR 3.3.6.1.6 is not required for any other isolation function. No justification has been provided.	Provide justification and discussion for this less restrictive change.Provide justification for the deviation from the STS based on system design, operational constraints, or the need to preserve the CLB.	Response Time Testing is currently under review considering industry issues	Open-PP&L will provide changes to SSES ITS Bases that were made to SSES CTS. This will be provided with Rev 0B submittal..

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3.3.6.1-14	M.1	CTS Table 3.3.2.1	The CTS tables require the RHR Flow instrument to be operable in Modes 1, 2, and 3. The same instrument in the ITS are only required to be operable in Modes 3, 4, and 5. DOC M.1 states that the change is acceptable because the Modes 3, 4 and 5 requirements ensure the safety function is met. Explain why it is not a safety issue for the plant to operating in accordance with current TS that do not have the new requirements.	Provide a safety basis discussion for the current plant limits.	PP&L is evaluating this change. It is likely that PP&L will relocate the requirement based on information provided by General Electric stating that the Function is not credited in any design basis analysis and therefore, does not meet any of the screening criteria for incorporation into the SSES ITS.	Closed-repeat, see NRC RAI 3.3.6.1-05(6/10/97)
3.3.6.1-15	L.5	CTS Talbe 3.3.2 Action c	New Action B.2 is added which permits isolation of an affected penetration with unlimited operation in the resulting condition. This is a deviation the STS and requires generic review and approval from the industry and NRR. Additionally, the justification in L.5 does not provide discussion of the change to the operational limits that would result from B.2 nor is a safety basis discussion provided.	Provide justification for the deviation from the STS based on system design, operational constraints, or the need to preserve the CLB. Provide and industry approved TSTF.	This change is currently being evaluated by the Technical Specification Task Force. Currently being tracked as BWROG - 29.	Open-TSTF Pending (BWROG-29)

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ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.3.6.2	Secondary Containment Isolation Instrumentation					
3.3.6.2-03	L.3 P.2	CTS 3.3.2 Action d	CTS 3.3.2, Action d, requires if ACTIONS b or c are not met, take ACTION required by CTS Table 3.3.2-1. For Trip Functions 2.c and 2.e the ACTION is to Establish Secondary Containment with Standby Gas Treatment System (SGTS) operating in 1 hour. The STS ACTIONS meet the intent of the CTS but the Required Actions for ITS 3.3.6.2.C deviate from the STS as explained by P.2 which in part states "performing this ACTION ensures that the SGTS is placed in service...". The change in terminology from STS "Isolate the associated zone and place SGTS in service" to ITS "Initiate isolation on the associated zone" is not explained to show how or whether the SGTS will be in operation.	Provide additional discussion and justification to show the equivalency of STS and ITS 3.3.6.2, ACTIONS for Condition C and specifically for how the SGTS will be in operation.	See 3.3.6.2 DOC L.2. The DOC identifies that the SGTS will be inoperation. Need to discuss SSES design. One Subsystem initiates one SGTS Train. Therefore, one Channel inop only requires one SGTS inoperable. Change in wording was necessary to ensure operations personnel understood the required action.	Closed
3.3.6.2-04	L.2	CTS Action B. ITS Action A.2 and B.2	CTS Table 3.3.2-1, Action 25 requires, with the loss of a secondary containment isolation function, establish Secondary Containment Integrity with standby gas treatment system operating, within 1 hour. ITS Required Actions C.2.1 and C.2.2 provide the option to declare the associated secondary containment isolation valves inoperable and declare associated SGT subsystem inoperable. It is not explained how the actions required for the proposed actions to declare the associated secondary containment isolation valves and SGT subsystem inoperable will, as stated ensure continued safe operation. In addition, a plant-specific design difference or an approved TSTF is required for approval to deviate from the STS.	Provide additional discussion and justification to show how the change in ACTION from CTS Table 3.3.2-1, Action 25, to ITS C.2.1.and C.2.2, will ensure continued safe operation and provide discussion to support deviation from the STS.	See 3.3.6.2 DOC L.2. The DOC identifies that the SGTS will be inoperation. Need to discuss SSES design. One Subsystem initiates one SGTS Train. Therefore, one Channel inop only requires one SGTS inoperable. Change in wording was necessary to ensure operations personnel understood the required action.	Open-NRC Technical Branch Review.
3.3.6.2-05	P.1	CTS Action b ITS Action A.2 and B.2	New conditions (A.2 and B.2) are added to STS 3.3.6.2 which provide an alternate action to the ITS requirements for placing inoperable radiation protection channels in trip. The action would permit isolating the associate refueling floor exhaust radiation system.	Provide additional discussion explaining the plant safety analysis report basis for this proposed change to the STS.	See 3.3.6.2 DOC L.3. SSES Secondary Containment Design for refuel floor radiation monitors when the ventilation system is running will detect high radiation and isolate and start SGTS. An equivalent action is to isolate the refuel floor exhaust duct which isolates the radiation duct and eliminates the need for the isolation function. Any radiation problem will still be detected by an inservice radiation monitor.	Open-NRC Technical Branch to review white paper and simplified diagram

SECTION 3.3 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.3.7.1	CREOAS System Instrumentation					
3.3.7.1-03	L.1	CTS 3.3.7.1 Action a	CTS 3.3.7.1, Action a, requires that with the radiation monitoring instrumentation channel alarm/trip setpoint exceeding the value shown in Table 3.3.7.1-1, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable. ITS 3.3.7.1-1 eliminates this requirement for maintaining the setpoint and requires that the Allowable Value be maintained. This change should be classified as an LA change because the bounding value is maintained in the ITS.	Change the classificaiton of the change to LA instead of an L change.	See CTS M/U page 3/4 3-57. Less restrictive change is that the instrument is no longer being declared inoperable at the trip setpoint value.	Closed
3.3.7.1-04	A.3	CTS 3.3.7.1 Action C	The provisions of LCO 3.0.3 are deleted from the CTS in adopting the ITS. This change is consistent with the STS, but the discussion does not provide sufficient explanation for review of the proposed change.	Provide additional justification for the proposal change.	DOC 3.3.7.1 A.3 will be modified to identify that the specification is for a support system.	Closed-PP&L will provide M/U of DOC A.3. (5/7/97)

SECTION 3.3 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.3.7.1-05	A.4	CTS Table 3.3.7.1-1	The DOC states that proposed ITS Conditions C and D achieve the same results as the CTS requirements for inoperable MCR air intake radiation monitors. This conclusion is presented with insufficient supporting arguments because the CTS provisions require a channel trip within one hour or a system start within the next 170 hours, whereas ITS requires a trip within one hour and only requires declaring the supported system inoperable for loss of trip capability. Additionally, proposed ITS Action C.1.2, which allows declaring the supported system inoperable is a generic change to the ITS which is unjustified.	Revise the DOC to provide a detailed analysis of the difference between the CTS and ITS proposed actions and completion times. Include industry proposed traveler for proposed ITS Action C.1.2 NEW COMMENT: The new L.3 DOC requires additional discussion for CTS to ITS differences related to specified CORE ALTS and OPDRVS conditions of applicability and to specified shutdown tracks. The DOC states that the ITS requires similar actions. When the actions for the CREOAS system spec are considered the differences are noteworthy and require discussion. Please provide additional L.3 discussion to address these concerns and change the item status to "open, pending a revision to L.3.	PP&L will review change and provide a Less Restrictive DOC. Per discussions with NRC, it was agreed that it would be prudent to make further changes to the SSES ITS Conditions and Required Actions. These will be provided to NRC for review. Response from NRC is that they wanted to see if specification could be revised. PP&L has reviewed the specification and determined that no obvious change could be made to address NRC comments without causing other problems with how the specification is implemented. It is requested that the NRC reviewer, reconsider the need to revise the specification. Because it is consistent with other ITS instrumentation specifications.	Closed-(6/10/97)
3.3.7.1-06	P.1, P.2, P.4	ITS Revised Actions C	The ITS required actions are completely rewritten to address an allowable out-of-service time for a loss of single-failure protection, and loss of initiation capability; however the STS also provides appropriate limits for such conditions. The DOC states these protective actions are consistent with the SSES design without explaining why this conclusion is valid.	Provide additional documentation that the SSES design is different from the design assumed in the STS and that the allowances proposed in the ITS are justified based on the design difference, otherwise provide an industry approved traveler for the generic changes.	Discuss level detail required in JFD's.	Open-NRC technical branch will review change. PP&L will provide white paper on arrangement of refuel dampers. See NRC RAI 3.3.6.2-03)

SECTION 3.3 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.3.8.1	Loss of Power (LOP) Instrumentation					
3.3.8.1-01	None	CTS 3.3.8.1	The STS formatting and presentation of LOP Instrument Functions is changed for ITS 3.3.8.1. The reformatting is based on ITS 3.3.8.1 Condition A requirement to enter conditions referenced in ITS Table 3.3.8.1-1. The change results in a deviation from the STS.	Proposed ITS Actions A and B can be combined using a note to differentiate between the required actions for 2 channel vice 1 channel functions. Provide an explanation of the need to change to an alternate format.	SSES ITS presentation was accepted by SSES personnel. Either change is an alternate format from NUREG.	Closed, no further action required.
3.3.8.1-02	LA.3	CTS 3.3.3 Action B	CTS 3.3.3 Table 3.3.3.1 ACTION 35 requires "With the number of OPERABLE channels one less than the Total Number of channels, declare the associated emergency diesel generator inoperable...." ITS 3.3.8.1 Action B allows a one hour restoration time prior to the diesel being declared inoperable. A technical justification was not provided for this deviation from the CTS.Additionally, the CTS markup of Action 35 eliminates the use of a cross reference which is not disucssed in DOC LA.3.	Provide additional discussion and justification for the changed CTS requirement.	See CTS M/U page 3/4 3-29. DOC L.3 provides justification.	Closed
3.3.8.1-05	LA.1	CTS Table 3.3.3-2	The CTS Table 3.3.3-2 requires the OPERABILITY of LOP Instrumentation and provides system details including the trip setpoints. ITS Table 3.3.8.1-1 requires the LOP OPERABILITY but does not provide the details of trip setpoints. These details are moved to the Technical Requirements Manual (TRM)". This comment DOC is applied to the CTS markup on page 3-29.	This comment justification is not acceptable for the proposed markup. Provide a revised markup.	New LA.5 DOC will be added to 3.3.8.1 DOCs.	Closed-PP&L will provide new LA DOC.(5/7/97)
3.3.8.1-06	LA.4	CTS Table 3.3.3-1	CTS Table 3.3.3-1, 3.3.3-2, and 4.3.3.1-1 items 5.d and 5.e require OPERABILITY of the 480V ESS Bus Undervoltage (Degraded Voltage, 65% and 92%) relays. ITS Table 3.3.8.1-1 does not require these relays maintained OPERABLE.	Provide additional discussion and justification for the less restrictive change. Confirm that the FSAR does not credit undervoltage protection for this bus level.	3.3.8.1 Specification is "LOP Instrumentation" for DG start only. These relays are for bus protection only. Therefore, these relays are covered in the TRM and the TRM directs appropriate actions.	Open-NRC reviewing response.

SECTION 3.3 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.3.8.1-07	L.2 P.1	CTS Table 3.3.3-1	CTS Table 3.3.3-1 ACTION 36 requires declaring the 4.16KV bus inoperable when both degraded voltage instrument channels are inoperable. Under the same condition ITS Required Action B allows 1 hour to restore the second channel before placing the channel in trip. The ITS provide for immediately declaring the channel inoperable if the trip option is not taken. The L.2 justification provided is incorrect. In addition, changes to the format of STS actions are proposed without justification based on an industry TSTF or design differences from the STS.	Provide discussion and justification for the changed CTS requirement and STS deviation.	See CTS page 3/4 3-30(a). Action 36(a) states with the number of OPERABLE channels one less than the total Number of Channels. DOC 3.3.8.1 L.3 will be modified to incorporate not requiring DG to be declared inoperable with both channels inoperable. Need to provide further clarification of the change.	Open-PP&L will provide revised CTS M/U and M/U of DOC L.3. Need to discuss change with NRC.
3.3.8.1-08	CTS Mark up	CTS Table 3.3.3-1	p. 3/4 3-29: Function 5.a, Action 35 is marked-up to be ITS Action C with changes to the action given as L.3; L.3 discusses changes to Action 36.p. 3/4 3-30a: Action 35 is marked-up as ITS Action D with LA.3 justifications; LA.3 justifications discuss the changes as Action B	Clear up the confusion with revised DOCs and revised CTS markup	See CTS page 3/4 3-29 and 3/43 30(a) and DOC LA.3 and L.3. Utilized Action 35 for Action D. CTS M/U and DOC L.3 revised to more clearly identify changes.	Open-PP&L will provide revised CTS M/U and DOC M/U. Need to discuss change with NRC.
3.3.8.1-09	A.4	CTS Table 3.3.3.2 Function 5 Time delay	The A.4 DOC states in part that CTS requirements include timers without specifying actions. The requriements for the timers are CTS Action a., which specifies declare the associated channel inoperable for failure to meet the TS Allowable Values. The table markup specified as A.4 includes changes to the Allowable Values without justification.	Provide revised DOC discussion for the proposed changes.	See CTS M/U page 3/4 3-32. No changes noted to Timer Allowable Values.	Closed.

SECTION 3.3 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.3.8.2	Reactor Protection System (RPS) Electric Power Monitoring					
3.3.8.2-03	L.1 P.4	ITS Applicability	CTS requires the RPS EPAs to be operable at all times. The proposed change deletes the ITS applicability that specifies Mode 5, when control rods are withdrawn. The related Bases changes delete the applicability discussion about RPS EPA operability when both RHR Shutdown Cooling Isolation valves are open. The proposed EPA applicability does not match with the RPS Mode 5 applicabiltiy.	Provide additional discussion that justifies the mismatch between related LCO applicabilities.	NUREG 1433 3.3.8.2 Applicability provides an option to only require the RPS Electric Power Monitoring when in MODES 4 or 5 with a Control Rod withdrawn or SDC Valves Open. When not in these conditions, the RPS Electric Power Monitoring system would not be required. SSES ITS requires the RPS Power Monitoring system at all time when in Modes 4 or 5. Therefore, SSES ITS is more restrictive than the allowance in NUREG and does not represent a non-conservative position. Furthermore, the Specification and Bases are consistent in that they do not specify a specific exception in Modes 4 or 5. PP&L has reviewed SSES ITS and determined that the proposed change is acceptable. The change removes any Applicability conditions in Modes 4 and 5 so Operability is required at all times in these Modes, not just when RHR SDC valves are open or Control Rod Removed. Therefore, no further change has been determined to be necessary.	Open-NRC reviewing PP&L response.

TECHNICAL CHANGES - MORE RESTRICTIVE (continued)

not bypassed when Thermal Power is ≥ 30% RTP. The addition of a specific Surveillance Requirement is a more restrictive change. The Frequency of 24 months was selected based on SSES future operating cycles and the need to perform this surveillance during a plant startup. This more restrictive change is acceptable because it does not introduce any operation which is unanalyzed while requiring a more conservative test than is currently required. Therefore, this change has no negative impact on safety.

M.3 SSES CTS Table 4.3.1-1 requires that the Drywell Pressure - High Functions be calibrated on a Frequency of once every 18 months. SSES ITS Table 3.3.1.1-1 requires this instrument to be calibrated once every 92 days. The same instrument is used for other Technical Specification Functions such as ECCS which require a quarterly Channel Calibration. To ensure consistency in surveillance requirements the frequency is being changed from once every 18 months to once every 92 days. This more restrictive change is acceptable because it does not introduce any operation which is unanalyzed while requiring a more conservative test than is currently required. Therefore, this change has no negative impact on safety.

Insert M.4

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS Table 3.3.1-1, Function 2 (APRM), is modified by footnote (e) which states: "An APRM channel is inoperable if there are less than 2 LPRM inputs per level or less than 14 LPRM inputs to an APRM channel." SSES ITS 3.3.1.1 does not specifically identify this requirement but maintains the requirement that APRMs must be Operable. This is acceptable because this design information does not affect the SSES ITS requirement for Operability. Therefore, this information about LPRM Operability requirements is moved to the Bases for SSES ITS 3.3.1.1. This change is acceptable because Technical Specifications still require the Operability of the RPS APRM Function. Additionally, the SSES ITS Bases require change control in accordance with the SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the equipment Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.2 SSES CTS Table 3.3.1-1, Functions 8 (Turbine Stop Valve-Closure) and 9 (Turbine Control Valve Fast Closure) are modified by Note (j) which requires that these functions not be automatically

INSERT (NRC RAI 3.3.1.1-01)

M.4 SSES CTS Table 2.2.1-1 establishes the Allowable Value for Function 8 a. and 8.b, SDV Level-High as ≤ 88 gallons. For the same Function, SSES ITS Table 3.3.1.1-1 establishes the Allowable Value as ≤ 69 gallons and ≤ 61 gallons. This more restrictive change is required to ensure that the Allowable Value in the SSES ITS is consistent with the Allowable Value in the SSES setpoint calculation. Therefore, this more restrictive change will have no negative impact on safety.

3.3.1.1-1

TABLE ~~2.2.1-1~~
REACTOR PROTECTION SYSTEM INSTRUMENTATION SETPOINTS (allowable values)

A.1

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. Intermediate Range Monitor, Neutron Flux-High	≤ 120/125 divisions of full scale	≤ 122/125 divisions of full scale
2. Average Power Range Monitor:		
a. Neutron Flux-Upscale, Setdown	≤ 15% of RATED THERMAL POWER	≤ 20% of RATED THERMAL POWER
b. Flow Biased Simulated Thermal Power-Upscale		
1) Flow Biased	≤ 0.58 W + 59%[#], with a maximum of	≤ 0.58 W + 62%[#], with a maximum of
2) High Flow Clamped	≤ 113.5% of RATED THERMAL POWER	≤ 115.5% of RATED THERMAL POWER
c. Neutron Flux-Upscale	≤ 118% of RATED THERMAL POWER	≤ 120% of RATED THERMAL POWER
d. Inoperative	NA	NA
3. Reactor Vessel Steam Dome Pressure - High	≤ 1087 psig	≤ 1093 psig
4. Reactor Vessel Water Level - Low, Level 3	≥ 13.0 inches above instrument zero[*]	≥ 11.5 inches above instrument zero
5. Main Steam Line Isolation Valve - Closure	≤ 10% closed	≤ 11% closed
6. Main Steam Line Radiation - High	≤ 7.0 x full power background	≤ 8.4 x full power background
7. Drywell Pressure - High	≤ 1.72 psig	≤ 1.88 psig
8. Scram Discharge Volume Water Level - High		
a. Level Transmitter	≤ 88 gallons	≤ 88 gallons
b. Float Switch	≤ 88 gallons	≤ 88 gallons
9. Turbine Stop Valve - Closure	≤ 5.5% closed	≤ 7% closed
10. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	≥ 500 psig	≥ 460 psig
11. Reactor Mode Switch Shutdown Position	NA	NA
12. Manual Scram	NA	NA

[*] See Bases Figure B 3/4 3-1

[#] See Specification 3.4.1.1.2.a for single loop operation requirement

LA.5

LA.5

L.A.5

P.1

CTS 2.0

M.4

A.1

Note (b) to Table 3.3.1.1-1

NRC RAI 3.3.1-01

Specification 3.3.1.1 Relocated (See CTS 2.0)

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

bypassed when "turbine first stage pressure is greater than 136 psig." This requirement is a setpoint associated with the value of 30% reactor thermal power. SSES ITS requires only that instrumentation operates to ensure the RPS Function is not bypassed; therefore, requirements for trip setpoints are moved to the Technical Requirements Manual (TRM). This is acceptable because SSES ITS 3.3.1.1, Functions 8 and 9, replaces this requirement with a Function specific Applicability that requires that these Functions must be Operable when reactor power is greater than 30%. Additionally, SSES ITS SR 3.3.1.1.16 establishes a specific requirement to test this bypass feature to ensure that the RPS Functions are not bypassed when required to be Operable. Moving design details including setpoints (Turbine first stage pressure corresponding to 30% RTP) to the TRM provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the equipment Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

For SSES, a turbine first stage pressure of 136 psig is equivalent to 30% reactor power.

LA.3 SSES CTS 4.3.1.2, RPS Logic System Functional Tests (LSFT), specifies that the LSFT include "simulated automatic operation" of all channels. SSES ITS 3.3.1.1.15 requires an LSFT but does not include this detail. This is acceptable because "simulated automatic operation" is a description of how the LSFT is performed and not a requirement to perform more than a LSFT. Therefore, this description of how a LSFT is performed is moved to the Bases which require change control in accordance with the SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to perform a LSFT. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.4 SSES CTS Table 3.3.1-1, footnotes (b), (g) and (k) provide design details and descriptive information for various RPS functions. SSES ITS 3.3.1.1 addresses this information in the Bases and does not include these details in the Technical Specifications. This change is acceptable because the information being moved to the Bases does not establish Operability or Testing requirements or the associated allowable values or acceptance criteria. This change is acceptable because Technical Specifications still require the Operability of the features described in these notes either directly or through Surveillance Requirements. Bases require change control in accordance with the SSES ITS 5.5.10.

SURVEILLANCE REQUIREMENTS

----------NOTES----------

1. Refer to Table 3.3.1.1-1 to determine which SRs apply for each RPS Function.

2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains RPS trip capability.

SURVEILLANCE		FREQUENCY
SR 3.3.1.1.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.1.1.2	----------NOTE---------- Not required to be performed until 12 hours after THERMAL POWER ≥ 25% RTP. ---------- Verify the absolute difference between the average power range monitor (APRM) channels and the calculated power is ≤ 2% RTP plus any gain adjustment required by LCO 3.2.4, "Average Power Range Monitor (APRM) Setpoints" while operating at ≥ 25% RTP.	7 days
SR 3.3.1.1.3	Adjust ~~Verify~~ the channel to conform~~s~~ to a calibrated flow signal.	7 days
SR 3.3.1.1.4	----------NOTE---------- Not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2. ---------- Perform CHANNEL FUNCTIONAL TEST.	7 days

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.1.2 (continued)

experience and in consideration of providing a reasonable time in which to complete the SR.

SR 3.3.1.1.3

The Average Power Range Monitor Flow Biased Simulated Thermal Power–High Function uses the recirculation loop drive flows to vary the trip setpoint. This SR verifies proper operation of the total loop drive flow signals from the drive flow units used to vary the setpoint of the APRM. The components operation is verified in two steps. The first step is a CHANNEL CHECK performed by reading the output of the four drive flow units. This gross check ensures that all drive flow units are within a tolerance defined by station staff. The second step is a verification that the flow signal from the APRM readout (which is the lowest flow signal from two associated drive flow units) is conservative with respect to the total core flow/drive flow relationship. This two step process ensures that the drive flow signal is consistent with the actual total core flow. If the flow unit signal is not within the limit, one required APRM that receives an input from the inoperable flow unit must be declared inoperable.

If instruments are found within tolerance no adjustments will be made.

The Frequency of 7 days is based on engineering judgment, operating experience, and the reliability of this instrumentation.

SR 3.3.1.1.4

A CHANNEL FUNCTIONAL TEST is performed on each required channel to ensure that the entire channel will perform the intended function.

As noted, SR 3.3.1.1.4 is not required to be performed when entering MODE 2 from MODE 1, since testing of the MODE 2 required IRM and APRM Functions cannot be performed in MODE 1 without utilizing jumpers, lifted leads, or movable links. This allows entry into MODE 2 if the 7 day Frequency is not met per SR 3.0.2. In this event, the SR must be performed within 12 hours after entering MODE 2 from MODE 1. Twelve hours is based on operating experience and in

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY	<CTS>
SR 3.3.1.1.11	----------NOTES---------- 1. Neutron detectors are excluded. 1.a and 2. For Function 2.a, not required to be performed when entering MODE 2 ~~from~~ MODE 1 until 12 hours after entering MODE 2. P.2 ---------- Perform CHANNEL CALIBRATION.	184 days	<Table 4.3.1.1-1 Note a> <DOC L.5> <Table 4.3.1.1-1 Column 2>
SR 3.3.1.1.12	Perform CHANNEL FUNCTIONAL TEST.	~~[18]~~ months 24	<Table 4.3.1.1-1, Column 2>
SR 3.3.1.1.13	----------NOTES---------- ~~1. Neutron detectors are excluded.~~ P.2 ~~2. For Function 1, not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2.~~ ---------- Perform CHANNEL CALIBRATION.	~~[18]~~ months 24	<Table 4.3.1.1-1 Note a> <Table 4.3.1.1-1 Column 3>
SR 3.3.1.1.14	Verify the APRM Flow Biased Simulated Thermal Power—High time constant is ≤ ~~[7]~~ seconds.	~~[18]~~ months 24	<Table 4.3.1.1-1, Note h>
SR 3.3.1.1.15	Perform LOGIC SYSTEM FUNCTIONAL TEST.	~~[18]~~ months 24	<4.3.1.2>

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

2.b. Average Power Range Monitor Flow Biased Simulated Thermal Power–High (continued)

~~No credit is taken for~~ The Average Power Range Monitor Flow Biased Thermal Power - High Function ~~in the plant safety analysis~~. The THERMAL POWER time constant of < 7 seconds is based on the fuel heat transfer dynamics and provides a signal proportional to the THERMAL POWER. The simulated thermal time constant is part of the filter circuit that simulates the relationship between neutron flux and core thermal power.

is set above the APRM Rod Block to provide defense in depth to the APRM Fixed Neutron Flux-High

The Average Power Range Monitor Flow Biased Simulated Thermal Power–High Function and associated flow units are required to be OPERABLE in MODE 1 when there is the possibility of generating excessive THERMAL POWER and potentially exceeding the SL applicable to high pressure and core flow conditions (MCPR SL). During MODES 2 and 5, other IRM and APRM Functions provide protection for fuel cladding integrity.

2.c. Average Power Range Monitor Fixed Neutron Flux–High

The APRM channels provide the primary indication of neutron flux within the core and respond almost instantaneously to neutron flux increases. The Average Power Range Monitor Fixed Neutron Flux–High Function is capable of generating a trip signal to prevent fuel damage or excessive RCS pressure. For the overpressurization protection analysis of Reference 4, the Average Power Range Monitor Fixed Neutron Flux–High Function is assumed to terminate the main steam isolation valve (MSIV) closure event and, along with the safety/relief valves (S/RVs), limits the peak reactor pressure vessel (RPV) pressure to less than the ASME Code limits. The control rod drop accident (CRDA) analysis (Ref. 5) takes credit for the Average Power Range Monitor Fixed Neutron Flux–High Function to terminate the CRDA.

The APRM System is divided into two trip systems with three APRM channels inputting to each trip system. The system is designed to allow one channel in each trip system to be bypassed. Any one APRM channel in a trip system can cause the associated trip system to trip. Four channels of Average Power Range Monitor Fixed Neutron Flux–High with two channels in each trip system arranged in a one-out-of-

(continued)

3.3 INSTRUMENTATION

3.3.2.1 Control Rod Block Instrumentation

LCO 3.3.2.1 The control rod block instrumentation for each Function in Table 3.3.2.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.2.1-1.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~A~~ C. Rod worth minimizer (RWM) inoperable during reactor startup.	Insert 3.3-16-1	
	~~A~~ C.1 Suspend control rod movement except by scram.	Immediately
	OR	
	~~A~~ C.2.1.1 Verify ≥ 12 rods withdrawn.	Immediately
	OR	
	~~A~~ C.2.1.2 Verify by administrative methods that startup with RWM inoperable has not been performed in the last calendar year.	Immediately
	AND	

(continued)

INSERT (3.3-16-1 NRC RAI 3.3.2.1-03):

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One rod block monitor (RBM) channel inoperable.	A.1 Restore RBM channel to OPERABLE status.	7 days
B. Required Action and associated Completion Time of Condition A not met. OR Two RBM channels inoperable.	B.1 Place one RBM channel in trip.	48 hours

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~K~~. C (continued)	~~K~~.2.2 C Verify movement of control rods is in compliance with banked position withdrawal sequence (BPWS) by a second licensed operator or other qualified member of the technical staff.	During control rod movement
~~B~~. D RWM inoperable during reactor shutdown.	~~B~~.1 D Verify movement of control rods is in accordance with BPWS by a second licensed operator or other qualified member of the technical staff.	During control rod movement
~~C~~. E One or more Reactor Mode Switch-Shutdown Position channels inoperable.	~~C~~.1 E Suspend control rod withdrawal.	Immediately
	AND	
	~~C~~.2 E Initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies.	Immediately

SURVEILLANCE REQUIREMENTS Insert 3.3-18-01

SURVEILLANCE	FREQUENCY
SR 3.3.2.1.~~1~~ 2 ----------NOTE---------- Insert 3.3-18-02 Not required to be performed until 1 hour after any control rod is withdrawn at ≤ 10% RTP in MODE 2. ---------- Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.2.1.~~2~~ 3 ----------NOTE---------- Not required to be performed until 1 hour after THERMAL POWER is ≤ 10% RTP in MODE 1. ---------- Perform CHANNEL FUNCTIONAL TEST.	92 days
Insert 3.3-18-03 SR 3.3.2.1.~~3~~ 5 Verify the RWM is not bypassed when THERMAL POWER is ≤ 10% RTP.	24 months
SR 3.3.2.1.~~4~~ 6 ----------NOTE---------- Not required to be performed until 1 hour after reactor mode switch is in the shutdown position. ---------- Perform CHANNEL FUNCTIONAL TEST.	24 months
SR 3.3.2.1.~~5~~ 7 Verify control rod sequences input to the RWM are in conformance with BPWS.	Prior to declaring RWM OPERABLE following loading of sequence into RWM

INSERT (3.3-18-01 NRC RAI 3.3.2.1-03):

----------NOTES----------

1. Refer to Table 3.3.2.1-1 to determine which SRs apply for each Control Rod Block Function.

2. When an RBM channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains control rod block capability.

INSERT (3.3-18-02 NRC RAI 3.3.2.1-03):

SR 3.3.2.1.1	Perform CHANNEL FUNCTIONAL TEST.	92 days

INSERT (3.3-18-03 NRC RAI 3.3.2.1-03):

SR 3.3.2.1.4	----------NOTE---------- Neutron detectors are excluded. ---------- Perform CHANNEL CALIBRATION.	24 months

Table 3.3.2.1-1 (page 1 of 1)
Control Rod Block Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. 2	Rod Worth Minimizer	1 (b), 2 (b)	1	SR 3.3.2.1.2 SR 3.3.2.1.3 SR 3.3.2.1.5 SR 3.3.2.1.7	NA
2. 3	Reactor Mode Switch – Shutdown Position	(c)	2	SR 3.3.2.1.6	NA

(a) With THERMAL POWER ≤ 10% RTP.

(b) Reactor mode switch in the shutdown position.

Insert 3.3-19-01

Insert 3.3-19-02

INSERT (3.3-19-01 NRC RAI 3.3.2.1-03):

1.	Rod Block Monitor				
	a. Low Power Range — Upscale	1[a]	2	SR 3.3.2.1.1 SR 3.3.2.1.4	≤ 0.58W + 55% RTP [b]
	b. Inop	1[a]	2	SR 3.3.2.1.1	NA
	c. Downscale	1[a]	2	SR 3.3.2.1.1 SR 3.3.2.1.4	≥ 3/125 divisions of full scale

INSERT (3.3-19-02 NRC RAI 3.3.2.1-03):

(a) When THERMAL POWER is ≥ 30% RTP

(b) 0.58W + 50% RTP when reset for single loop operation per LCO 3.4.1, "Recirculation Loops Operating"

3.10 SPECIAL OPERATIONS

3.10.8 SHUTDOWN MARGIN (SDM) Test – Refueling

LCO 3.10.8 The reactor mode switch position specified in Table 1.1-1 for MODE 5 may be changed to include the startup/hot standby position, and operation considered not to be in MODE 2, to allow SDM testing, provided the following requirements are met:

a. LCO 3.3.1.1, "Reactor Protection System Instrumentation," MODE 2 requirements for Functions 2.a and 2.d of Table 3.3.1.1-1;

b. 1. LCO 3.3.2.1, "Control Rod Block Instrumentation," MODE 2 requirements for Function ~~1~~ 2 of Table 3.3.2.1-1, with the banked position withdrawal sequence requirements of SR 3.3.2.1.5 changed to require the control rod sequence to conform to the SDM test sequence,

OR

2. Conformance to the approved control rod sequence for the SDM test is verified by a second licensed operator or other qualified member of the technical staff;

c. Each withdrawn control rod shall be coupled to the associated CRD;

d. All control rod withdrawals that are not in conformance with the BPWS shall be made in notch out mode;

e. No other CORE ALTERATIONS are in progress; and

f. CRD charging water header pressure ≥ 940 psig.

APPLICABILITY: MODE 5 with the reactor mode switch in startup/hot standby position.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.10.8.2	----------NOTE---------- Not required to be met if SR 3.10.8.3 satisfied. ---------- Perform the MODE 2 applicable SRs for LCO 3.3.2.1, Function ~~1~~ 2 of Table 3.3.2.1-1.	According to the applicable SRs
SR 3.10.8.3	----------NOTE---------- Not required to be met if SR 3.10.8.2 satisfied. ---------- Verify movement of control rods is in compliance with the approved control rod sequence for the SDM test by a second licensed operator or other qualified member of the technical staff.	During control rod movement
SR 3.10.8.4	Verify no other CORE ALTERATIONS are in progress.	12 hours

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

As described in LCO 3.0.7, compliance with Special Operations LCOs is optional, and therefore, no criteria of the NRC Policy Statement apply. Special Operations LCOs provide flexibility to perform certain operations by appropriately modifying requirements of other LCOs. A discussion of the criteria satisfied for the other LCOs is provided in their respective Bases.

LCO

As described in LCO 3.0.7, compliance with this Special Operations LCO is optional. Control rod testing may be performed in compliance with the prescribed sequences of LCO 3.1.6, and during these tests, no exceptions to the requirements of LCO 3.1.6 are necessary. For testing performed with a sequence not in compliance with LCO 3.1.6, the requirements of LCO 3.1.6 may be suspended, provided additional administrative controls are placed on the test to ensure that the assumptions of the special safety analysis for the test sequence are satisfied. Assurances that the test sequence is followed can be provided by either programming the test sequence into the RWM with conformance verified as specified in SR 3.3.2.1.~~8~~ 7 and allowing the RWM to monitor control rod withdrawal and provide appropriate control rod blocks if necessary, or by verifying conformance to the approved test sequence by a second licensed operator or other qualified member of the technical staff. These controls are consistent with those normally applied to operation in the startup range as defined in the SRs and ACTIONS of LCO 3.3.2.1, "Control Rod Block Instrumentation."

APPLICABILITY

Control rod testing, while in MODES 1 and 2, with THERMAL POWER greater than the LPSP of the RWM, is adequately controlled by the existing LCOs on power distribution limits and control rod block instrumentation. Control rod movement during these conditions is not restricted to prescribed sequences and can be performed within the constraints of LCO 3.2.1, "AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)," LCO 3.2.2, "MINIMUM CRITICAL POWER RATIO (MCPR)," LCO 3.2.3, "LINEAR HEAT GENERATION RATE (LHGR)," and LCO 3.3.2.1. With THERMAL POWER less than or equal to the LPSP of the RWM, the provisions of this Special Operations LCO are necessary to perform special tests that are not in conformance with the prescribed sequences of LCO 3.1.6.

(continued)

BASES

LCO (continued)

must be enforced and the approved control rod withdrawal sequence must be enforced by the RWM (LCO 3.3.2.1, Function ~~1~~ 2, MODE 2), or must be verified by a second licensed operator or other qualified member of the technical staff. The SDM may be demonstrated during an in sequence control rod withdrawal, in which the highest worth control rod is analytically determined, or during local criticals, where the highest worth control rod is determined by analysis or testing.

Local critical tests require the withdrawal of control rods in a sequence that is not in conformance with the BPWS. This testing would therefore require bypassing or reprogramming of the rod worth minimizer to allow the withdrawal of rods not in conformance with BPWS, and therefore additional requirements must be met (see LCO 3.10.7, "Control Rod Testing - Operating").

Control rod withdrawals that do not conform to the banked position withdrawal sequence specified in LCO 3.1.6, "Rod Pattern Control," (i.e., out of sequence control rod withdrawals) must be made in the individual notched withdrawal mode to minimize the potential reactivity insertion associated with each movement.

Coupling integrity of withdrawn control rods is required to minimize the probability of a CRDA and ensure proper functioning of the withdrawn control rods, if they are required to scram. Because the reactor vessel head may be removed during these tests, no other CORE ALTERATIONS may be in progress. Furthermore, since the control rod scram function with the RCS at atmospheric pressure relies solely on the CRD accumulator, it is essential that the CRD charging water header remain pressurized. This Special Operations LCO then allows changing the Table 1.1-1 reactor mode switch position requirements to include the startup/hot standby position, such that the SDM tests may be performed while in MODE 5.

APPLICABILITY

These SDM test Special Operations requirements are only applicable if the SDM tests performed in accordance with LCO 3.1.1, "SDM" are to be performed while in MODE 5 with the reactor vessel head removed or the head bolts not fully tensioned. Additional requirements during these tests to

(continued)

BASES

ACTIONS

A.1 (continued)

are governed by subsequent entry into the Condition and application of the Required Actions.

B.1

With one or more of the requirements of this LCO not met for reasons other than an uncoupled control rod, the testing should be immediately stopped by placing the reactor mode switch in the shutdown or refuel position. This results in a condition that is consistent with the requirements for MODE 5 where the provisions of this Special Operations LCO are no longer required.

SURVEILLANCE REQUIREMENTS

SR 3.10.8.1

Performance of the applicable SRs for LCO 3.3.1.1, Functions 2.a and 2.d will ensure that the reactor is operated within the bounds of the safety analysis.

SR 3.10.8.1, SR 3.10.8.2, and SR 3.10.8.3

LCO 3.3.1.1, Functions 2.a and 2.d, made applicable in this Special Operations LCO, are required to have applicable Surveillances met to establish that this Special Operations LCO is being met. However, the control rod withdrawal sequences during the SDM tests may be enforced by the RWM (LCO 3.3.2.1, Function ~~1~~, MODE 2 requirements) or by a second licensed operator or other qualified member of the technical staff. As noted, either the applicable SRs for the RWM (LCO 3.3.2.1) must be satisfied according to the applicable Frequencies (SR 3.10.8.2), or the proper movement of control rods must be verified (SR 3.10.8.3). This latter verification (i.e., SR 3.10.8.3) must be performed during control rod movement to prevent deviations from the specified sequence. These surveillances provide adequate assurance that the specified test sequence is being followed.

(continued)

NRC RAI 3.3.2.1-05
OI #575

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.10.7.2

When the RWM provides conformance to the special test sequence, the test sequence must be verified to be correctly loaded into the RWM prior to control rod movement. This Surveillance demonstrates compliance with SR 3.3.2.1.~~8~~7, thereby demonstrating that the RWM is OPERABLE. A Note has been added to indicate that this Surveillance does not need to be performed if SR 3.10.7.1 is satisfied.

REFERENCES

1. FSAR 15.4.9
2. PL-NF~~-~~001-90 A "Application of Reactor Analysis Methods for BWR Design and Analysis," August 1990.

A.2 11/12/97
~~A.1 09/15/97~~

B 3.3 INSTRUMENTATION

B 3.3.2.1 Control Rod Block Instrumentation

BASES

BACKGROUND

Control rods provide the primary means for control of reactivity changes. Control rod block instrumentation includes channel sensors, logic circuitry, switches, and relays that are designed to ensure that specified fuel design limits are not exceeded for postulated transients and accidents. During low power operations, control rod blocks from the rod worth minimizer (RWM) enforce specific control rod sequences designed to mitigate the consequences of the control rod drop accident (CRDA). During shutdown conditions, control rod blocks from the Reactor Mode Switch-Shutdown Position Function ensure that all control rods remain inserted to prevent inadvertent criticalities.

During high power operations the rod block monitor (RBM) provides protection for control rod withdrawal error events

The purpose of the RWM is to control rod patterns during startup, such that only specified control rod sequences and relative positions are allowed over the operating range from all control rods inserted to 10% RTP. The sequences effectively limit the potential amount and rate of reactivity increase during a CRDA. Prescribed control rod sequences are stored in the RWM, which will initiate control rod withdrawal and insert blocks when the actual sequence deviates beyond allowances from the stored sequence. The RWM determines the actual sequence based position indication for each control rod. The RWM also uses steam flow signals to determine when the reactor power is above the preset power level at which the RWM is automatically bypassed (Ref. 1). The RWM is a single channel system that provides input into RMCS rod block channel 2.

Insert B 3.3-43-1

With the reactor mode switch in the shutdown position, a control rod withdrawal block is applied to all control rods to ensure that the shutdown condition is maintained. This Function prevents inadvertent criticality as the result of a control rod withdrawal during MODE 3 or 4, or during MODE 5 when the reactor mode switch is required to be in the shutdown position. The reactor mode switch has two channels, each inputting into a separate RMCS rod block circuit. A rod block in either RMCS circuit will provide a control rod block to all control rods.

(continued)

NRC RAI 3.3.2.1-03

Insert B3.3-43-1:

The purpose of the RBM is to limit control rod withdrawal if localized neutron flux exceeds a predetermined setpoint during control rod manipulations. The RBM supplies a trip signal to the Reactor Manual Control System (RMCS) to appropriately inhibit control rod withdrawal during power operation above the low power range setpoint. The RBM has two channels, either of which can initiate a control rod block when the channel output exceeds the control rod block setpoint. One RBM channel inputs into one RMCS rod block circuit and the other RBM channel inputs into the second RMCS rod block circuit. The RBM channel signal is generated by averaging a set of local power range monitor (LPRM) signals at various core heights surrounding the control rod being withdrawn. A signal from one average power range monitor (APRM) channel assigned to each Reactor Protection System (RPS) trip system supplies a reference signal for the RBM channel in the same trip system. This reference signal is used to determine which RBM range setpoint (low, intermediate, or high) is enabled. If the APRM is indicating less than the low power range setpoint, the RBM is automatically bypassed. The RBM is also automatically bypassed if a peripheral control rod is selected (Ref. ~~1~~ 2).

BASES (continued)

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

INSERT B 3.3-44-1

2 ~~1~~. Rod Worth Minimizer

The RWM enforces the banked position withdrawal sequence (BPWS) to ensure that the initial conditions of the CRDA analysis are not violated. The analytical methods and assumptions used in evaluating the CRDA are summarized in References 2, 3, 4, and 5. The BPWS requires that control rods be moved in groups, with all control rods assigned to a specific group required to be within specified banked positions. Requirements that the control rod sequence is in compliance with the BPWS are specified in LCO 3.1.6, "Rod Pattern Control."

The RWM Function satisfies Criterion 3 of the NRC Policy Statement. (Ref. ~~8~~ 7)

Since the RWM is designed to act as a backup to operator control of the rod sequences, only one channel of the RWM is available and required to be OPERABLE (Ref. ~~8~~ 6). Special circumstances provided for in the Required Action of LCO 3.1.3, "Control Rod OPERABILITY," and LCO 3.1.6 may necessitate bypassing the RWM to allow continued operation with inoperable control rods, or to allow correction of a control rod pattern not in compliance with the BPWS. The RWM may be bypassed as required by these conditions, but then it must be considered inoperable and the Required Actions of this LCO followed.

Compliance with the BPWS, and therefore OPERABILITY of the RWM, is required in MODES 1 and 2 when THERMAL POWER is < 10% RTP. When THERMAL POWER is > 10% RTP, there is no possible control rod configuration that results in a control rod worth that could exceed the 280 cal/gm fuel damage limit during a CRDA (Refs. ~~9, 8~~ 9 and ~~8~~ 6). In MODES 3 and 4, all control rods are required to be inserted into the core (except as provided in 3.10 "Special Operations"): therefore, a CRDA cannot occur. In MODE 5, since only a single control rod can be withdrawn from a core cell containing fuel assemblies, adequate SDM ensures that the consequences of a CRDA are acceptable, since the reactor will be subcritical.

(continued)

NRC RAI 3.3.2.1-03

INSERT B3.3-44-1:

1. Rod Block Monitor

The RBM is designed to limit control rod withdrawal if localized neutron flux exceeds a predetermined setpoint. The RBM was originally designed to prevent fuel damage during a Rod Withdrawal Error (RWE) event while operating in the power range in a normal mode of operation. FSAR 15.4.2 (Rod Withdrawal Error - At Power) originally took credit for the RBM automatically actuating to stop control rod motion and preventing fuel damage during an RWE event at power. However, current reload analyses do not take credit for the RBM system. The Allowable Values are chosen as a function of power level to not exceed the APRM scram setpoints. Based on the specified Allowable Values, operating limits are established.

(Ref 16)

The RBM Function satisfies Criterion 4 of the NRC Policy Statement. (Ref. 7)

Two channels of the RBM are required to be OPERABLE, with their setpoints within the appropriate Allowable Value for the associated power range, to ensure that no single instrument failure can preclude a rod block from this Function. The actual setpoints are calibrated consistent with applicable setpoint methodology.

Nominal trip setpoints are specified in the setpoint calculations. The nominal setpoints are selected to ensure that the setpoints do not exceed the Allowable Values between successive CHANNEL CALIBRATIONS. Operation with a trip setpoint less conservative than the nominal trip setpoint, but within its Allowable Value, is acceptable. Trip setpoints are those predetermined values of output at which an action should take place. The setpoints are compared to the actual process parameter (e.g., reactor power), and when the measured output value of the process parameter exceeds the setpoint, the associated device (e.g., trip unit) changes state. The analytic limits are derived from the limiting values of the process parameters. The Allowable Values are derived from the analytic limits, corrected for calibration, process, and some of the instrument errors. The trip setpoints are then determined accounting for the remaining instrument errors (e.g., drift). The trip setpoints derived in this manner provide adequate protection because instrumentation uncertainties, process effects, calibration tolerances, instrument drift, and severe environment errors (for channels that must function in harsh environments as defined by 10 CFR 50.49) are accounted for.

NRC RAI 3.32.1-07

INSERT B3.3-44-1 (continued):

[The RBM will function when operating greater than 30% RTP. Below this power level, the RBM is not required to be OPERABLE.]

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

~~2~~ 3. Reactor Mode Switch–Shutdown Position

During MODES 3 and 4, and during MODE 5 when the reactor mode switch is required to be in the shutdown position, the core is assumed to be subcritical; therefore, no positive reactivity insertion events are analyzed. The Reactor Mode Switch–Shutdown Position control rod withdrawal block ensures that the reactor remains subcritical by blocking control rod withdrawal, thereby preserving the assumptions of the safety analysis.

The Reactor Mode Switch–Shutdown Position Function satisfies Criterion 3 of the NRC Policy Statement. (Ref. ~~6~~ 7)

Two channels are required to be OPERABLE to ensure that no single channel failure will preclude a rod block when required. There is no Allowable Value for this Function since the channels are mechanically actuated based solely on reactor mode switch position.

During shutdown conditions (MODE 3, 4, or 5), no positive reactivity insertion events are analyzed because assumptions are that control rod withdrawal blocks are provided to prevent criticality. Therefore, when the reactor mode switch is in the shutdown position, the control rod withdrawal block is required to be OPERABLE. During MODE 5 with the reactor mode switch in the refueling position, the refuel position one-rod-out interlock (LCO 3.9.2) provides the required control rod withdrawal blocks.

ACTIONS

C ~~A~~.1, C ~~A~~.2.1.1, C ~~A~~.2.1.2, and ~~A~~.2.2 C

Insert B 3.3-45-1

With the RWM inoperable during a reactor startup, the operator is still capable of enforcing the prescribed control rod sequence. However, the overall reliability is reduced because a single operator error can result in violating the control rod sequence. Therefore, control rod movement must be immediately suspended except by scram. Alternatively, startup may continue if at least 12 control rods have already been withdrawn, or a reactor startup with an inoperable RWM was not performed in the last 12 months. Required Actions ~~A~~.2.1.1 and ~~A~~.2.1.2 require verification of these conditions by review of plant logs and control room indications. A reactor startup with an inoperable RWM is

C

(continued)

NRC RAI 3.3.2.1-03

INSERT B3.3-45-1:

A.1

With one RBM channel inoperable, the remaining OPERABLE channel is adequate to perform the control rod block function; however, overall reliability is reduced because a single failure in the remaining OPERABLE channel can result in no control rod block capability for the RBM. For this reason, Required Action A.1 requires restoration of the inoperable channel to OPERABLE status. The Completion Time of 7 days is based on the low probability of an event occurring coincident with a failure in the remaining OPERABLE channel.

B.1

If Required Action A.1 is not met and the associated Completion Time has expired, the inoperable channel must be placed in trip within 48 hours. If both RBM channels are inoperable, the RBM is not capable of performing its intended function; thus, one channel must also be placed in trip. This initiates a control rod withdrawal block, thereby ensuring that the RBM function is met.

The 48 hour Completion Time is intended to allow the operator time to evaluate and repair any discovered inoperabilities and is acceptable because it minimizes risk while allowing time for restoration or tripping of inoperable channels.

BASES

ACTIONS

C C C C
~~A~~.1, ~~A~~.2.1.1, ~~A~~.2.1.2, and ~~A~~.2.2 (continued)

defined as rod withdrawal during startup when the RWM is required to be OPERABLE. Once Required Action ~~A~~.2.1.1 or ~~A~~.2.1.2 is satisfactorily completed control rod withdrawal may proceed in accordance with the restrictions imposed by Required Action ~~A~~.2.2. Required Action ~~A~~.2.2 allows for the RWM Function to be performed manually and requires a double check of compliance with the prescribed rod sequence by a second licensed operator (Reactor Operator or Senior Reactor Operator) or other qualified member of the technical staff. The RWM may be bypassed under these conditions to allow continued operations. In addition, Required Actions of LCO 3.1.3 and LCO 3.1.6 may require bypassing the RWM, during which time the RWM must be considered inoperable with Condition A entered and its Required Actions taken.

D ~~B~~.1

With the RWM inoperable during a reactor shutdown, the operator is still capable of enforcing the prescribed control rod sequence. Required Action ~~B~~.1 allows for the RWM Function to be performed manually and requires a double check of compliance with the prescribed rod sequence by a second licensed operator (Reactor Operator or Senior Reactor Operator) or other qualified member of the technical staff. The RWM may be bypassed under these conditions to allow the reactor shutdown to continue.

E ~~C~~.1 and ~~C~~.2

With one Reactor Mode Switch-Shutdown Position control rod withdrawal block channel inoperable, the remaining OPERABLE channel is adequate to perform the control rod withdrawal block function. However, since the Required Actions are consistent with the normal action of an OPERABLE Reactor Mode Switch-Shutdown Position Function (i.e., maintaining all control rods inserted), there is no distinction between having one or two channels inoperable.

In both cases (one or both channels inoperable), suspending all control rod withdrawal and initiating action to fully insert all insertable control rods in core cells containing

(continued)

BASES

ACTIONS

E ~~C~~.1 and E ~~C~~.2 (continued)

one or more fuel assemblies will ensure that the core is subcritical with adequate SDM ensured by LCO 3.1.1. Control rods in core cells containing no fuel assemblies do not affect the reactivity of the core and are therefore not required to be inserted. Action must continue until all insertable control rods in core cells containing one or more fuel assemblies are fully inserted.

SURVEILLANCE REQUIREMENTS

SR 3.3.2.1.1 and SR 3.3.2.1.~~2~~ 3 (Insert B 3.3-47-1)

A CHANNEL FUNCTIONAL TEST is performed for the RWM to ensure that the entire system will perform the intended function. The CHANNEL FUNCTIONAL TEST for the RWM is performed by attempting to withdraw a control rod not in compliance with the prescribed sequence and verifying a control rod block occurs and by verifying proper indication of the selection error of at least one out-of-sequence control rod. As noted in the SRs, SR 3.3.2.1.1 is not required to be performed until 1 hour after any control rod is withdrawn in MODE 2. As noted, SR 3.3.2.1.2 is not required to be performed until 1 hour after THERMAL POWER is ≤ 10% RTP in MODE 1. This allows entry into MODE 2 for SR 3.3.2.1.1, and entry into MODE 1 when THERMAL POWER is ≤ 10% RTP for SR 3.3.2.1.2, to perform the required Surveillance if the 92 day Frequency is not met per SR 3.0.2. The 1 hour allowance is based on operating experience and in consideration of providing a reasonable time in which to complete the SRs. The Frequencies are based on reliability analysis (Ref. ~~1~~ 8).

(Insert B 3.3-47-2)

SR 3.3.2.1.~~3~~ 5

The RWM is automatically bypassed when power is above a specified value. The power level is determined from steam flow signals. The automatic not bypassed bypass setpoint must be verified periodically to be ≤ 10% RTP. This is performed by a Functional check. If the RWM low power setpoint is nonconservative, then the RWM is considered inoperable. Alternately, the low power setpoint channel can be placed in the conservative condition (nonbypass). If placed in the nonbypassed condition, the SR is met and the RWM is not considered inoperable. The Frequency is based on the

(continued)

NRC RAI 3.3.2.1-03

INSERT B 3.3-47-1:
As noted at the beginning of the SRs, the SRs for each Control Rod Block instrumentation Function are found in the SRs column of Table 3.3.2.1-1.

The Surveillances are modified by a Note to indicate that when an RBM channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains control rod block capability. Upon completion of the Surveillance, or expiration of the 6 hour allowance, the channel must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This Note is based on the reliability analysis (Ref. 9) assumption of the average time required to perform channel Surveillance. That analysis demonstrated that the 6 hour testing allowance does not significantly reduce the probability that a control rod block will be initiated when necessary.

<u>SR 3.3.2.1.1</u>

A CHANNEL FUNCTIONAL TEST is performed for each RBM channel to ensure that the entire channel will perform the intended function. It includes the Reactor Manual Control Multiplexing System input.

Any setpoint adjustment shall be consistent with the assumptions of the current plant specific setpoint methodology. The Frequency of 92 days is based on reliability analyses (Ref. 8).

DRC RAI 3321-07

INSERT B 3.3-47-2:

SR 3.3.2.1.4

The RBM setpoints are automatically varied as a function of power. Three Allowable Values are specified in Table 3.3.2.1-1, each within a specific power range. The power at which the control rod block Allowable Values automatically change are based on the APRM signal's input to each RBM channel. Below the minimum power setpoint, the RBM is automatically bypassed. These power Allowable Values must be verified periodically to be less than or equal to the specified values. If any power range setpoint is nonconservative, then the affected RBM channel is considered inoperable. Alternatively, the power range channel can be placed in the conservative condition (i.e., enabling the proper RBM setpoint). If placed in this condition, the SR is met and the RBM channel is not considered inoperable. As noted, neutron detectors are excluded from the Surveillance because they are passive devices, with minimal drift, and because of the difficulty of simulating a meaningful signal. Neutron detectors are adequately tested in SR 3.3.1.1.2 and SR 3.3.1.1.8. The 24 month Frequency is based on the actual trip setpoint methodology utilized for these channels.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.1.~~3~~5 (continued)

the need to perform the surveillance during a plant start-up.

SR 3.3.2.1.~~4~~6

A CHANNEL FUNCTIONAL TEST is performed for the Reactor Mode Switch–Shutdown Position Function to ensure that the entire channel will perform the intended function. The CHANNEL FUNCTIONAL TEST for the Reactor Mode Switch–Shutdown Position Function is performed by attempting to withdraw any control rod with the reactor mode switch in the shutdown position and verifying a control rod block occurs.

As noted in the SR, the Surveillance is not required to be performed until 1 hour after the reactor mode switch is in the shutdown position, since testing of this interlock with the reactor mode switch in any other position cannot be performed without using jumpers, lifted leads, or movable links. This allows entry into MODES 3 and 4 if the 24 month Frequency is not met per SR 3.0.2. The 1 hour allowance is based on operating experience and in consideration of providing a reasonable time in which to complete the SRs.

The 24 month Frequency is based on the need to perform portions of this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown these components usually pass the Surveillance when performed at the 24 month Frequency.

SR 3.3.2.1.~~5~~7

The RWM will only enforce the proper control rod sequence if the rod sequence is properly input into the RWM computer. This SR ensures that the proper sequence is loaded into the RWM so that it can perform its intended function. The Surveillance is performed once prior to declaring RWM OPERABLE following loading of sequence into RWM, since this is when rod sequence input errors are possible.

BASES (continued)

REFERENCES

1. FSAR, Section 7.7.1.2.~~8~~.

~~2~~ 3. NEDE-24011-P-A-9-US, "General Electrical Standard Application for Reload Fuel," Supplement for United States, Section S 2.2.3.1, September 1988.

2. FSAR, Section 7.6.1.5.7

~~3~~ 4. "Modifications to the Requirements for Control Rod Drop Accident Mitigating Systems," BWR Owners' Group, July 1986.

~~4~~ 5. NEDO-21231, "Banked Position Withdrawal Sequence," January 1977.

~~5~~ 6. NRC SER, "Acceptance of Referencing of Licensing Topical Report NEDE-24011-P-A," "General Electric Standard Application for Reactor Fuel, Revision 8, Amendment 17," December 27, 1987.

~~6~~ 7. Final Policy Statement on Technical Specifications Improvements, July 22, 1993 (58 FR 32193)

~~7~~ 8. NEDC-30851-P-A, "Technical Specification Improvement Analysis for BWR Control Rod Block Instrumentation," October 1988.

9. GENE-770-06-1, "Addendum to Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications," February 1991.

10. FSAR Section 15.4.2

Specification 3.3.2.2

3/4.3.9 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

NRC RAI 3.3.2.2-1 (A.1)

~~3.3.9~~ LCO 3.3.2.2 The feedwater/main turbine trip system actuation instrumentation channels shown in Table 3.3.9-1 shall be OPERABLE ~~with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.9-2.~~ (LA.1)

APPLICABILITY: As shown in Table 3.3.9-1 — THERMAL POWER ≥ 25% RTP (L.1)

ACTION: Add Actions Note (A.3)

Action A ~~a.~~ With a feedwater/main turbine trip system actuation instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.9-2, declare the channel inoperable ~~and~~ either place the inoperable channel in the tripped condition until the channel is restored to OPERABLE status ~~with its trip setpoint adjusted consistent with the Trip Setpoint value, or declare the associated system inoperable~~ (LA.1) (A.2) within 7 days (L.2)

Action A ~~b.~~ With the number of OPERABLE* channels one less than required by the Minimum OPERABLE Channels requirement, restore the inoperable channel to OPERABLE ~~[illegible] days~~ or be in at least STARTUP within the next 6 hours. or place the channel in trip (L.2)

Act C. ~~c.~~ With the number of OPERABLE* channels two less than required by the Minimum OPERABLE Channels per Trip System requirement, restore at least one of the inoperable channels to OPERABLE status within 1 (2) hours or be in at least STARTUP (M.1) within the next 6 (4) hours. (L.1) (≤ 25%)

Action B

SURVEILLANCE REQUIREMENTS

~~4.3.9.1~~ SR 3.3.2.2.1 SR 3.3.2.2.2 SR 3.3.2.2.3 Each feedwater/main turbine trip system actuation instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.9.1-1.

~~4.3.9.2~~ SR 3.3.2.2.4 LOGIC SYSTEM FUNCTIONAL TESTS ~~and simulated automatic operation~~ of all channels shall be performed at least once per 18 (24) months. (LA.2) including valve actuation (L8.1) (A.1)

Note to SRs

- When a channel is placed in an inoperable status solely for performance of required Surveillances, ACTIONS may be delayed for up to 6 hours provided feedwater/main turbine trip capability is maintained.

DISCUSSION OF CHANGES
ITS: SECTION 3.3.2.2 - FEEDWATER-MAIN TURBINE HIGH WATER LEVEL TRIP INSTRUMENTATION

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

established MCPR limits. MCPR is not a concern below 25% RTP due to the large inherent margin that ensures the MCPR Safety Limit is not exceeded, even if a limiting transient occurs. Therefore, the Applicability has been modified to be ≥ 25% RTP, and the current shutdown action has been changed to only require power to be reduced to < 25% RTP instead of a requirement to enter Mode 2. The Completion Time change from 6 to 4 hours is consistent with other SSES ITS Completion Times to reduce power to ≤ 25% power. This change has no impact on safety because the Applicability for this function is consistent with the Applicability for the MCPR limits.

L.2 SSES CTS 3.3.9, Action b, requires that an inoperable channel be restored to Operable within 7 days and Action a, requires the channel to be immediately placed in Trip. Under the same conditions, SSES ITS 3.3.2.2, Required Action A.1, requires that the channel be placed in trip within 7 days. The requirement to restore an inoperable channel has been changed to allow the channel to be placed in the tripped condition and to continue operations without a requirement to restore the channel. This change is acceptable because leaving a channel in trip changes the current 2-out-of-3 logic to a 1-out-of-2 logic which continues to provide single failure protection. This change has no impact on safety because the 1-out-of-2 logic provides both redundancy and reliability.

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.3.2.2 consistent with the BWR STS, NUREG-1433, Rev. 1.

3.3 INSTRUMENTATION

3.3.2.2 Feedwater - Main Turbine High Water Level Trip Instrumentation

LCO 3.3.2.2 Three channels of feedwater - main turbine high water level trip instrumentation shall be OPERABLE.

APPLICABILITY: THERMAL POWER ≥ 25% RTP

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One feedwater - main turbine high water level trip channel inoperable.	A.1	Place channel in trip.	7 days
B. Two or more feedwater - main turbine high water level trip channels inoperable.	B.1	Restore feedwater - main turbine high water level trip capability.	2 hours
C. Required Action and associated Completion Time of Conditions A or B not met.	C.~~1~~2	Reduce THERMAL POWER to < 25% RTP.	4 hours

C.1 Remove the affected feedwater pump from service.

OR

NRC · RAI 3.3.2.2-02

BASES

ACTIONS

B.1 (continued)

The 2 hour Completion Time is sufficient for the operator to take corrective action, and takes into account the likelihood of an event requiring actuation of feedwater - main turbine high water level trip instrumentation occurring during this period. It is also consistent with the 2 hour Completion Time provided in LCO 3.2.2 for Required Action A.1, since this instrumentation's purpose is to preclude a MCPR violation.

C.1 and C.2

With the required channels not restored to OPERABLE status or placed in trip, THERMAL POWER must be reduced to < 25% RTP within 4 hours. As discussed in the Applicability section of the Bases, operation below 25% RTP results in sufficient margin to the required limits, and the feedwater - main turbine high water level trip instrumentation is not required to protect fuel integrity during the feedwater controller failure, maximum demand event. The allowed Completion Time of 4 hours is based on operating experience to reduce THERMAL POWER to < 25% RTP from full power conditions in an orderly manner and without challenging plant systems.

Alternatively if only a feed pump is affected, the affected feed pump can be removed from service because this performs the intended function of the instrument

If the failure only effects the trip function of a single component, such as a main feed pump, an option is always available to remove the affected component from service and restore OPERABILITY. This is acceptable because removing the component from service performs the safety function.

SURVEILLANCE REQUIREMENTS

The Surveillances are modified by a Note to indicate that when a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains feedwater - main turbine high water level trip capability. Upon completion of the Surveillance, or expiration of the 6 hour allowance, the channel must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This Note is based on the reliability analysis (Ref. 2) assumption that 6 hours is the average time

(continued)

BASES

LCO (continued)

10. Suppression Chamber Water Temperature

Two channels are required to be OPERABLE. Each channel consists of eight sensors of which a minimum of four sensors (one sensor in each quadrant) must be OPERABLE to consider a channel OPERABLE.

Suppression Chamber water temperature is a Category I variable provided to detect a condition that could potentially lead to containment breach and to verify the effectiveness of ECCS actions taken to prevent containment breach. The suppression chamber water temperature instrumentation allows operators to detect trends in suppression chamber water temperature in sufficient time to take action to prevent steam quenching vibrations in the suppression pool. Sixteen temperature sensors are arranged in two groups of eight independent and redundant channels. A channel is considered OPERABLE when one sensor in each quadrant is OPERABLE. The outputs for the temperature sensors are displayed on two independent indicators in the control room and recorded on the monitoring units located in the control room on a back panel. The temperature indicators are the primary method of indication used by the operator during an accident, therefore the PAM Specification deals specifically with this portion of the instrument channel.

APPLICABILITY

The PAM instrumentation LCO is applicable in MODES 1 and 2. These variables are related to the diagnosis and preplanned actions required to mitigate DBAs. The applicable DBAs are assumed to occur in MODES 1 and 2. In MODES 3, 4, and 5, plant conditions are such that the likelihood of an event that would require PAM instrumentation is extremely low; therefore, PAM instrumentation is not required to be OPERABLE in these MODES.

ACTIONS

Note 1 has been added to the ACTIONS to exclude the MODE change restriction of LCO 3.0.4. This exception allows entry into the applicable MODE while relying on the ACTIONS even though the ACTIONS may eventually require plant shutdown. This exception is acceptable due to the passive function of the instruments, the operator's ability to diagnose an accident using alternative instruments and methods, and the low probability of an event requiring these instruments.

(continued)

NRC RAI 3.3.3.1-2

Specification 3.3.3.1
(See DOC 3.3.3.1 unless indic
Specification 5.6

A.1

TABLE 3.3.7.5-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

ACTION STATEMENT

L.1

Add Action E

~~ACTION 80~~ -

Action A ~~a.~~ With the number of OPERABLE accident monitoring instrumentation channels less than the Required Number of Channels shown in Table 3.3.7.5-1, restore the inoperable channel(s) to OPERABLE status within 7 days ~~or be in at least HOT SHUTDOWN within the next 12 hours.~~ 30 L.2

Action C ~~b.~~ With the number of OPERABLE accident monitoring instrumentation channels less than the Minimum Channels OPERABLE requirements of Table 3.3.7.5-1, restore the inoperable channel(s) to OPERABLE status within ~~48 hours~~ 7 days L.2 or be in at least HOT SHUTDOWN within the next 12 hours.

Action E

~~ACTION 81~~ - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours 7 days L.6 and:

Action C

Add Action A.B

Action F

~~1.~~ either restore the inoperable channel(s) to OPERABLE status within 7 days of the event, or

Action F/5.6.7 ~~2.~~ prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.

~~ACTION 82~~ -

Action A ~~a.~~ With the number of OPERABLE channels one less than the required Number of Channels shown in Table 3.3.7.5-1, restore the inoperable channel to OPERABLE status within 30 days ~~or be in at least HOT SHUTDOWN within the next 12 hours.~~

Add Action B

Action C ~~b.~~ With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirements of Table 3.3.7.5-1, restore at least one channel to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

L.1

Action E

Add Action D A.4

TECHNICAL CHANGES - MORE RESTRICTIVE (continued)

suppression pool volume during normal operation. Therefore, this is an additional restriction on plant operation, with no negative impact on safety because it ensures adequate plant monitoring.

M.4 SSES CTS Tables and 3.3.7.5-1 and 4.3.7.5-1 Functions 2 and 6 specify only Reactor Vessel Water Level and Primary Containment Pressure. For these same Functions, SSES ITS Table 3.3.3.1-1 specifies three ranges of reactor vessel water level and two ranges of primary containment pressure. These other ranges are specified to clearly define those instruments, which SSES has identified in their Regulatory Guide 1.97 commitment, which serve these Functions and are identified as Category I Type A variables. The Frequency for these surveillances has been specified based on planned SSES operating cycles. This is an additional restriction on plant operation, with no negative impact on safety because it ensure adequate plant monitoring.

TECHNICAL CHANGES - LESS RESTRICTIVE

Not used

LA.1 SSES CTS Table 3.3.7.5-1, Action 81, requires that with the Operable channels less than the minimum required initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours and restore the inoperable channel within 7 days. Under the same conditions, SSES ITS 3.3.3.1, Action C, requires the channel restored within 7 days, but does not require the preplanned alternate method of monitoring to be initiated within 72 hours. This is acceptable because the requirement to initiate an alternate monitoring plan does not impact the requirement to restore the channel within 7 days. Therefore, this requirement can be adequately defined and controlled in the SSES ITS Bases which require change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the instrumentation Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.2 SSES CTS Table 4.3.7.5-1 require channel calibration of PAM instrumentation and footnote "*" and "**" identify the method of performing the channel calibration. SSES ITS Table 3.3.7.5-1 require the channel calibration of PAM instrumentation, but does not identify the specific method of performing the channel calibration. This is acceptable because the method of performing the calibration does not impact the SSES ITS requirement to perform the calibration. Therefore, this information can be adequately defined and controlled in SSES ITS Bases which require

DISCUSSION OF CHANGES
ITS: SECTION 3.3.3.1 - POST ACCIDENT MONITORING INSTRUMENTATION

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

L.5 In PP&L Letter PLA-2222, N. Curtis to A. Schwencer, dated May 31, 1984, PP&L identified to the NRC how SSES design will comply with the requirements of Regulatory Guide 1.97. In SSES ITS 3.3.3.1 Bases, some of these commitments have been changed to reflect SSES's current plans for PAM instrumentation. Specifically, for the Oxygen Analyzers, in PLA 2222, PP&L committed to maintaining the analyzer with a calibrated range of 0% to 25%. In SSES ITS 3.3.3.1 Bases, PP&L is changing this commitment by stating that the Oxygen Analyzer will be calibrated for a range of 0% to 10%. This is acceptable because the 0% to 10% range meets the requirements of Regulatory Guide 1.97. Therefore, this change will have a minimal impact on safety.

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.3.3.1 consistent with the BWR STS, NUREG-1433, Rev. 1.

L.6 For the Containment High Radiation Function, if both ~~instruments~~ channels are inoperable Action 81 requires preplanned alternate method of monitoring within 72 hours. Under the same conditions, SSES ITS allows 7 days before alternate method of monitoring is required per SSES ITS 5.6.7. This change is acceptable because of the low probability of an event requiring PAM Instrumentation and the availability of alternate monitoring methods such as installing a temporary radiation monitor outside the drywell hatch. ~~Both~~ Based on the above discussion and that the change is made to be consistent with NUREG 1433, this change will have a minimal impact on safety

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition C not met.	D.1 Enter the Condition referenced in Table 3.3.3.1-1 for the channel.	Immediately
E. As required by Required Action D.1 and referenced in Table 3.3.3.1-1.	E.1 Be in MODE 3.	12 hours
F. As required by Required Action D.1 and referenced in Table 3.3.3.1-1.	F.1 Initiate action in accordance with Specification 5.6.7.	Immediately

SURVEILLANCE REQUIREMENTS

----------NOTES----------

1. These SRs apply to each Function in Table 3.3.3.1-1.

2. ~~When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 12 hours provided the associated Function maintains Post Accident Monitoring Capability.~~

SURVEILLANCE	FREQUENCY
SR 3.3.3.1.1 Perform CHANNEL CHECK.	31 days

(continued)

BASES

ACTIONS (continued)

F.1

Since alternate means of monitoring primary containment area radiation have been developed and tested, the Required Action is not to shut down the plant, but rather to follow the directions of Specification 5.6.7. These alternate means will be temporarily installed if the normal PAM channel cannot be restored to OPERABLE status within the allotted time. The alternate means could consist of installing a temporary radiation monitor outside the drywell equipment hatch. The report provided to the NRC should discuss the alternate means used, describe the degree to which the alternate means are equivalent to the installed PAM channels, justify the areas in which they are not equivalent, and provide a schedule for restoring the normal PAM channels.

SURVEILLANCE REQUIREMENTS

The following SRs apply to each PAM instrumentation Function in Table 3.3.3.1-1.

The Surveillances are modified by a Note to indicate that when a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 12 hours provided the associated Function maintains trip capability. Upon completion of the Surveillance, or expiration of the 12 hour allowance, the channel must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This Note is based on the reliability analysis (Refs. 5 and 6) assumption of the average time required to perform channel surveillance. That analysis demonstrated that the 12 hour testing allowance does not significantly reduce the probability that PAM Instrumentations will be available when required.

SR 3.3.3.1.1

Performance of the CHANNEL CHECK once every 31 days ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel against a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should

(continued)

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

invalidate the conclusion that the impact, if any, on system availability is small from a change to a 24 month operating cycle.

L.1 SSES CTS Table 3.3.7.5-1, Action 80.a and 82.a require that if the instrument channel is not restored within the allowed out of service time be in at least Hot Shutdown within the next 12 hours. SSES ITS 3.3.3.1, Action B, under the same conditions, requires a special report to be sent to the Commission immediately. This action is appropriate in lieu of a shutdown requirement because alternative monitoring capability is available and given the likelihood of plant conditions that would require information provided by this information. Therefore, this less restrictive change will have a negligible impact on safety.

L.2 SSES CTS Table 3.3.7.5-1, Action 80.a, requires the inoperable channel to be restored within 7 days. Under the same conditions, SSES ITS 3.3.3.1, Action A, requires the inoperable channel to be restored within 30 days. SSES CTS Table 3.3.7.5-1, Action 80.b, requires when two PAM instruments are inoperable restore the inoperable channels within 48 hours. SSES ITS 3.3.3.1, Action C, requires one required channel to be restored within 7 days. The increased allowed out of service time is acceptable based on operating experience and takes into account the remaining Operable channels (or, in the case of a function that has only one required channel, other non-Regulatory Guide 1.97 instrument channels to monitor the function), the passive nature of the instrument (no critical automatic action is assumed to occur from these instruments), and the low probability of an event requiring PAM instrumentation during this interval. Therefore, this less restrictive change will have a negligible impact on safety.

L.3 SSES ITS 3.3.3.1, Action Note 1, identifies that LCO 3.0.4 is not applicable. This is acceptable based on the following: a) ~~probabilities have determined a 30 day allowed out of service time for one PAM instrument per function is acceptable~~, and b) there is no impact on normal plant operations from the unavailability of the PAM instrument. Therefore, the LCO 3.0.4 exception will have an insignificant impact on safety. balancing the risks associated with allowing a change in MODE as compared to an unnecessary plant shutdown.

L.4 SSES ITS 3.3.3.1, Surveillance Requirements adds a note which allows a channel of PAM instrumentation to be taken out of service for a period of 12 hours for the performance of a Surveillance Test. This is acceptable based on the evaluations performed by the BWROG for similar instrumentation out of service. Although not specifically evaluated by the BWROG, the evaluations demonstrated that the probability of an event occurring concurrent with an instrument out of service for surveillance testing and a failure which renders the other instrument inoperable is small. Therefore, the allowance will have an insignificant impact on safety.

BASES

ACTIONS (continued)

F.1

Since alternate means of monitoring primary containment area radiation have been developed and tested, the Required Action is not to shut down the plant, but rather to follow the directions of Specification 5.6.7. These alternate means will be temporarily installed if the normal PAM channel cannot be restored to OPERABLE status within the allotted time. The alternate means could consist of installing a temporary radiation monitor outside the drywell equipment hatch. The report provided to the NRC should discuss the alternate means used, describe the degree to which the alternate means are equivalent to the installed PAM channels, justify the areas in which they are not equivalent, and provide a schedule for restoring the normal PAM channels.

SURVEILLANCE REQUIREMENTS

The following SRs apply to each PAM instrumentation Function in Table 3.3.3.1-1.

The Surveillances are modified by a Note to indicate that when a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 12 hours provided the associated Function maintains trip capability. Upon completion of the Surveillance, or expiration of the 12 hour allowance, the channel must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This Note is based on the reliability analysis (Refs. 5 and 6) assumption of the average time required to perform channel surveillance. That analysis demonstrated that the 12 hour testing allowance does not significantly reduce the probability that PAM Instrumentations will be available when required.

SR 3.3.3.1.1

Performance of the CHANNEL CHECK once every 31 days ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel against a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should

(continued)

RAI 3.3.3.2-02

3.3 INSTRUMENTATION

3.3.3.2 Remote Shutdown System

LCO 3.3.3.2 The Remote Shutdown System instrumentation for each Functions in Table 3.3.3.2-1 shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

----------NOTES----------

1. LCO 3.0.4 is not applicable.
2. Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required Functions inoperable.	A.1 Restore required Function to OPERABLE status.	30 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	12 hours

ADMINISTRATIVE (continued)

Technical Specifications. Therefore, elimination of this statement is an administrative change with no impact on safety.

TECHNICAL CHANGES - MORE RESTRICTIVE

None — M.1 Insert

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 3.3.4.2, Action a, requires that "With an end-of-cycle recirculation pump trip system instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.4.2-2, declare the channel inoperable until the channel is restored to OPERABLE status with the channel setpoint adjusted consistent with the Trip Setpoint value." SSES ITS 3.3.4.1 does not specify a similar requirement. SSES ITS requires only that instrumentation operate within the Allowable value; therefore, requirements for trip setpoints are moved to Technical Requirements Manual (TRM) controlled in accordance with 10 CFR 50.59. Similarly, Trip Setpoint values in Table 3.3.4.2-2 and the trip setpoint for function bypass in Table 3.3.4.2-1, Note b, are moved to TRM. The trip setpoint is established based on a combination of instrument design factors, environmental factors, and the allowable value which is directly assumed in the event analysis. Therefore, these details can be adequately defined and controlled in the TRM, which require change control in accordance with 10 CFR 50.59. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the instruments Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.2 SSES CTS 4.3.4.2.3 establishes requirements for EOC-RPT Response Time with the maximum response times listed in SSES CTS Table 3.3.4.2-3. SSES ITS SR 3.3.4.1.5 establishes requirements for EOC-RPT Response Time but the values for the maximum response times are not retained in Technical Specification because these values are controlled in the FSAR. This is acceptable because the requirement to meet response time requirements and to perform response time testing at the prescribed interval is retained in the Technical Specifications. Maintaining control of RPS, ECCS and Isolation instrumentation and response time requirements in the FSAR was already approved in Amendment 148 (Unit 1) and 118 (Unit 2) dated July 11, 1995. EOC-RPT Functions are initiated by RPS instruments for which response time tests are eliminated; and,

M.1 SSES CTS Table 3.3.4.2-1 footnote (6) states that the associated functions shall not be automatically bypassed when reactor power is above a specified limit (based on turbine first stage pressure). SSES ITS 3.3.4.1.4 is added to verify the operability of the instrumentation that provides the bypass of the Turbine Stop Valve -- Closure and Turbine Control Valve Fast Closure, Trip Oil Press - Low Functions. This SR assures that these Functions are not bypassed when Thermal Power is ≥ 30% RTP (First stage pressure > 136 psig). The addition of a specific Surveillance Requirement is a more restrictive change. The Frequency of 24 months was selected based on SSES future operating cycles and the need to perform this Surveillance during a plant start-up. This more restrictive change is acceptable because it does not introduce any operation which is unanalyzed while requiring a more conservative test than is currently required. Therefore, this change has no negative impact on safety.

NRC RAI 3.3.4.1-2
3.3.4.1-1
Specification 3.3.4.1
A.1

~~TABLE 3.3.4.2-1~~ A.1

END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

	TRIP FUNCTION	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM[a]
LCO 3.3.4.1.c.1	~~1.~~ Turbine Stop Valve - Closure	2[b]
LCO 3.3.4.1.c.2	~~2.~~ Turbine Control Valve - Fast Closure	2[b]
Note to SRs	~~(a)~~ A trip system may be placed in an inoperable status for up to 6 hours for required surveillance provided that the other trip system is OPERABLE.	
SR 3.3.4.1.4	~~(b)~~ This function shall not be automatically bypassed when turbine first stage pressure is greater than an allowable value of 136 psig.	

~~LA.1~~ LA.4

Add SR 3.3.4.1.4 ~~A.2~~ M.1

NRC RAI 3.3.4.1-

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

EOC-RPT system response time is still required by SSES ITS SR 3.3.4.1.5. This is acceptable because these documents require change control in accordance with 10 CFR 50.59. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to verify response times. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.3 SSES CTS 4.3.4.2.2 requires performance of a Logic System Functional Test including "simulated automatic operation." SSES ITS SR 3.3.4.1.3 requires performance of a Logic System Functional Test but does not specifically require automatic simulated operation. This change is acceptable because "Simulated automatic operation" is a description of how the LSFT is performed and not a requirement to perform more than an LSFT. Therefore, this description of how a LSFT is performed is moved to the Bases. Moving these details to the Bases is acceptable because it does not affect the requirement to perform an LSFT. Moving these details to the Base will ensure that these requirements are maintained because the Bases require change control in accordance with the SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to perform the LSFT. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

Insert LA.4

LB.1 SSES CTS 4.3.4.2.2 specifies the Frequency for the EOC-RPT Logic System Functional Tests (LSFT) as once every 18 months. In SSES ITS SR 3.3.4.1.3, the Frequency for the LSFT is specified as once every 24 months. The Surveillance Test Interval of this SR is being increased from once every 18 months to once every 24 months for a maximum interval of 30 months including the 25% grace period. This SR ensures that EOC-RPT trip logic will function as designed to ensure proper response during an analyzed event. Extending the SR interval for this function is acceptable because the EOC-RPT logic is tested every 92 days by the Channel Functional Test in SSES ITS SR 3.3.4.1.1. This testing of the EOC-RPT logic system ensures that a significant portion of the circuitry is operating properly and will detect significant failures of this circuitry. The EOC-RPT logic including the actuating logic is designed to be single failure proof and therefore, is highly reliable. Furthermore, as stated in the NRC Safety Evaluation Report (dated August 2, 1993) relating to

Insert 3.3.4.1 DOC:

LA.4 SSES CTS Table 3.3.4.2-1, is modified by Note (b) which requires that the associated functions not be automatically bypassed when "turbine first stage pressure is greater than 136 psig." This requirement is a setpoint associated with the value of 30% reactor thermal power. For SSES, a turbine first stage pressure of 136 psig is equivalent to 30% reactor power. SSES ITS requires only that instrumentation operates to ensure the EOC-RPT Function is not bypassed; therefore, requirements for trip setpoints are moved to the Technical Requirements Manual (TRM). This is acceptable because SSES ITS 3.3.4.1 replaces this requirement with a Function specific Applicability that requires that these Functions must be Operable when reactor power is greater than 30%. Additionally, SSES ITS SR 3.3.4.1.4 establishes a specific requirement to test this bypass feature to ensure that the associated Functions are not bypassed when required to be Operable. Moving design details including setpoints (Turbine first stage pressure corresponding to 30% RTP) to the TRM provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the equipment Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.4.1.5 (continued)

A Note to the Surveillance states that breaker interruption time may be assumed from the most recent performance of SR 3.3.4.1.6. This is allowed since the time to open the contacts after energization of the trip coil and the arc suppression time are short and do not appreciably change, due to the design of the breaker opening device and the fact that the breaker is not routinely cycled.

For this SR, STAGGERED TEST Basis means that each 24 month test shall include at least the logic of one type of channel input, turbine Control valve fast closure or turbine stop valve closure such that both types of channels inputs are tested at least once per 48 months.

EOC-RPT SYSTEM RESPONSE TIME tests are conducted on an 24 month STAGGERED TEST BASIS. Response times cannot be determined at power because operation of final actuated devices is required. Therefore, the 24 month Frequency is consistent with the typical industry refueling cycle and is based upon plant operating experience, which shows that random failures of instrumentation components that cause serious response time degradation, but not channel failure, are infrequent occurrences.

SR 3.3.4.1.6

This SR ensures that the RPT breaker interruption time (arc suppression time plus time to open the contacts) is provided to the EOC-RPT SYSTEM RESPONSE TIME test. The 60 month Frequency of the testing is based on the difficulty of performing the test and the reliability of the circuit breakers.

REFERENCES

1. FSAR, Figure 7.2-1-4 (EOC-RPT logic diagram).
2. FSAR, Sections 15.2 and 15.3.
3. FSAR, Sections 7.1 and 7.6.
4. GENE-770-06-1, "Bases For Changes To Surveillance Test Intervals And Allowed Out-Of-Service Times For Selected Instrumentation Technical Specifications," February 1991.
5. FSAR Table 7.6-10.

(continued)

NRC RAI 3.3.4.1-7
Specification 3.3.4.1

END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

A.1

~~3.3.4.2~~ The end-of-cycle recirculation pump trip (EOC-RPT) system instrumentation channels shown in Table 3.3.4.2-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.4.2-2 and with the END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM RESPONSE TIME as shown in Table 3.3.4.2-3. LA LA.2

LCO 3.3.4.1.a

APPLICABILITY: OPERATIONAL CONDITION 1 when THERMAL POWER is greater than or equal to 30% of RATED THERMAL POWER. A.3

ACTION:

a. With an end-of-cycle recirculation pump trip system instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.4.2-2, declare the channel inoperable until the channel is restored to OPERABLE status with the channel setpoint adjusted consistent with the Trip Setpoint value. LA.1

Add Note A.4

~~b.~~ With one or more channels required by Table 3.3.4.1-2 inoperable:

Action A

~~1.~~ Within 72 hours, restore the channel(s) to OPERABLE status; or,

~~2.~~ Within 72 hours, place the channel(s) in the tripped condition if the inoperable channel(s) is not the result of an inoperable breaker.

LCO 3.3.4.1.b ~~c.~~ With one or more Trip Functions in Table 3.3.4.1-2 with EOC-RPT trip capability not maintained; and, with MCPR less than the limit specified in the COLR for inoperable EOC-RPT:

Action B

1. Within 2 hours, restore EOC-RPT trip capability; or,

2. Within 2 hours, apply the MCPR limit for inoperable EOC-RPT as specified in the COLR and take the ACTION required by Specification 3.2.3. A.6

~~d.~~ If ACTION b or c is not met:

Action C

1. Remove associated recirculation pump from service within 4 hours; or,

2. Reduce THERMAL POWER to less than 25% of RATED THERMAL POWER.

30% A.2

NRC RAI 3.3.4.1-1
NRC RAI 3.3.4.1-7

DISCUSSION OF CHANGES
ITS: SECTION 3.3.4.1 - EOC-RPT INSTRUMENTATION

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

~~A.2~~ Insert A.2

~~SSES ITS SR 3.3.4.1.4 establishes a specific requirement to Verify TSV-Closure and TCV Fast Closure, Trip Oil Pressure-Low Functions are not bypassed when THERMAL POWER is ≥ 30% RTP every 24 months. This verification is currently performed as part of plant startup from a refuel outage which is performed at the same Frequency; therefore, the establishment of a specific SR is an administrative change with no impact on safety.~~

A.3 The SSES CTS 3.3.4.2 Applicability is Operational Condition 1, when Thermal Power is greater than or equal to 30% of Rated Thermal Power. SSES ITS 3.3.4.1 Applicability is Thermal Power greater than 30%. Since the plant must be in MODE 1 at the power level, this is an administrative change with no impact on safety.

A.4 SSES ITS 3.3.4.1 Actions are preceded by the Note "Separate Condition entry is allowed for each channel." This note provides more explicit instructions for proper application of the Actions for SSES ITS compliance. In conjunction with the SSES ITS Specification 1.3, "Completion Times," this Note provides direction consistent with the intent of the existing Action for an inoperable channel. This is an administrative change with no impact on safety.

A.5 SSES CTS 4.3.4.2.3, EOC-RPT Instrumentation, response time testing modifies the required Frequency for this SR with the allowance that: Each test shall include at least the logic of one type of channel input, turbine control valve fast closure or turbine stop valve closure, such that both types of channel inputs are tested at least once per 36 months. SSES ITS SR 3.3.4.1.5 modifies the Frequency of this SR by allowing it to be performed on a Staggered Test Bases. The SSES CTS 4.3.4.2.3 Frequency is consistent with the SSES ITS Definition of Staggered Test Bases; therefore, this is an administrative change with no impact on safety.

A.6 SSES CTS 3.3.4.2, Action c.2, requires the MCPR limit for inoperable EOC-RPT be applied when EOC-RPT is inoperable and, if the MCPR limits are not met, take the Actions of SSES CTS 3.2.3, MCPR. Under the same conditions, SSES ITS 3.3.4.1, Required Action B.2, also requires application of the MCPR limits but does not specify that the Required Actions for MCPR be applied if MCPR limits are exceeded because entering Conditions when an LCO is not met is understood to be required at all times and for all

INSERT:

A.2 SSES CTS 3.3.4.2 Action d.2 requires that if Actions are not completed, reduce THERMAL POWER to less than 25% of RATED THERMAL POWER. SSES ITS Required Action C.2, only requires power to be reduced to < 30% RTP. This changes corrects an inconsistency within the SSES CTS. The SSES CTS Applicability for 3.3.4.2 is ≥ 30% RTP. Because the LCO would be exited prior to completing the Required Actions, there would be no requirement in SSES CTS to reduce power to less than 25% RTP. Based on the fact that the SSES CTS were inconsistent and would not actually require the power reduction, this change is considered an administrative change with no impact on safety.

BASES

NRC RAI 3.3.4.1-10

SURVEILLANCE REQUIREMENTS

SR 3.3.4.1.~~3~~ 2 (continued)

The Frequency is based upon the assumption of an ~~18~~ 24 month calibration interval in the determination of the magnitude of equipment drift in the setpoint analysis.

SR 3.3.4.1.~~4~~ 3

The LOGIC SYSTEM FUNCTIONAL TEST demonstrates the OPERABILITY of the required trip logic for a specific channel. The system functional test of the pump breakers is included as a part of this test, overlapping the LOGIC SYSTEM FUNCTIONAL TEST, to provide complete testing of the associated safety function. Therefore, if a breaker is incapable of operating, the associated instrument channel(s) would also be inoperable.

The ~~18~~ 24 month Frequency is based on the need to perform portions of this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown these components usually pass the Surveillance when performed at the ~~18~~ 24 month Frequency.

SR 3.3.4.1.~~5~~ 4

This SR ensures that an EOC-RPT initiated from the TSV—Closure and TCV Fast Closure, Trip Oil Pressure—Low Functions will not be inadvertently bypassed when THERMAL POWER is ≥ 30% RTP. ~~This involves calibration of the bypass channels. Adequate margins for the instrument setpoint methodologies are incorporated into the actual setpoint.~~ Because main turbine bypass flow can affect this ~~setpoint~~ Function nonconservatively (THERMAL POWER is derived from first stage pressure) ~~the~~ main turbine bypass valves must remain closed ~~at THERMAL POWER > 30% RTP to ensure that the calibration remains valid. If any bypass channel's setpoint is nonconservative (i.e., the Functions are bypassed at ≥ 30% RTP, either due to open main turbine bypass valves or other reasons), the~~ affected TSV—Closure and TCV Fast Closure, Trip Oil Pressure—Low Functions are considered inoperable. Alternatively, the bypass channel can be placed in the conservative condition (nonbypass). ~~If placed in the~~

This is performed by a Functional check that ensures the EOC-RPT Function is not bypassed.

(increasing)

P.3 opening of the

Not cause the trip Function to be bypassed when thermal power is ≥ 30% RTP.

P.3

If any Functions are bypassed at ≥30% RTP, either due to open main turbine bypass valves or other reasons, the

(continued)

NRC RAI 3.3.4.2-5

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.4.2.3 (continued)

channel performance is still within the requirements of the plant safety analysis. Under these conditions, the setpoint must be readjusted to be equal to or more conservative than accounted for in the appropriate setpoint methodology.

The Frequency of 92 days is based on the reliability analysis of Reference 2. P.1

SR 3.3.4.2.~~4~~3 and SR 3.3.4.2.4 P.6

that

P.6 ~~P.5~~ A CHANNEL CALIBRATION is a complete check of the instrument loop and the sensor. This test verifies the channel responds to the measured parameter within the necessary range and accuracy. CHANNEL CALIBRATION leaves the channel adjusted to account for instrument drifts between successive calibrations consistent with the plant specific setpoint methodology.

The Calibration Frequency is based upon the assumption ~~of an 18 month~~ used for the calibration interval in the determination of the magnitude of equipment drift in the setpoint analysis. P.6

SR 3.3.4.2.5

RPT P.1

The LOGIC SYSTEM FUNCTIONAL TEST demonstrates the OPERABILITY of the required trip logic for a specific channel. The system functional test of the pump breakers is included as part of this Surveillance and overlaps the LOGIC SYSTEM FUNCTIONAL TEST to provide complete testing of the assumed safety function. Therefore, if a breaker is incapable of operating, the associated instrument channel(s) would be inoperable.

24 The ~~18~~ month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown these components usually pass the Surveillance when performed at the ~~18~~ 24 month Frequency.

(continued)

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

These Functions are performed by Barton 288A differential pressure indicating switches. The instruments' drift was evaluated using the GE methodology, fitting the drift values to a straight line (versus time), review of the data with respect to direction of previous calibration and review of the data for 'mechanical memory' type characteristics. No conclusive evidence could be drawn that drift was dependent on time, direction of previous calibration or mechanical memory. A qualitative review of the failure history indicates that the instruments have rarely exceeded their Allowable Values. Based on this qualitative review and apparent randomness of the drift data, it is concluded that the instruments will continue to rarely exceed their Allowable Values with a calibration interval of 24 months.

Functions 4.d, 5.d, ADS Reactor Vessel Low Level 3

This function is performed by Barton 288A differential pressure indicating switches. The instruments' drift was evaluated using the GE methodology, fitting the drift values to a straight line (versus time), review of the data with respect to direction of previous calibration, and review of the data for 'mechanical memory' type characteristics. No conclusive evidence could be drawn that drift was dependent on time, direction of previous calibration or mechanical memory. A qualitative review of the failure history indicates that the instruments have rarely exceeded their Allowable Values. Based on this qualitative review and apparent randomness of the drift data, it is concluded that the instruments will continue to rarely exceed their Allowable Values with a calibration interval of 24 months.

Based on the design of the instrumentation and the drift evaluations, it is concluded that the impact, if any, on system availability is small as a result of the change in the surveillance test interval.

A review of the surveillance test history was performed to validate the above conclusion. This review of the surveillance test history demonstrates that there are no failures that would invalidate the conclusion that the impact, if any, on system availability is small.

L.1 SSES CTS Table 3.3.3-1 Action 30.b is applicable in Modes 1, 2, 3, 4, and 5 for Functions 1.a, 1.b, 2.a, and 2.b according to the Applicability column. SSES ITS 3.3.5.1 Required Action B.1 adds Note 1 which identifies that the Required Action is only applicable in Modes 1, 2, and 3. This is acceptable because the specific initiation time of the low pressure ECCS is not assumed in Mode 4 and 5 and the probability and consequences of a LOCA are lower. Furthermore, SSES ITS 3.5.2 ensures that sufficient ECCS is available in Modes 4 and 5. Therefore, a total loss of

Table 3.3.5.1-1 (page 3 of 6)
Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. LPCI System (continued)					
f. Manual Initiation	1,2,3, 4(a), 5(a)	2 1 per subsystem	C	SR 3.3.5.1.5	NA
3. High Pressure Coolant Injection (HPCI) System					
a. Reactor Vessel Water Level – Low Low, Level 2	1, 2(e), 3(e)	4	B	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -45 inches
b. Drywell Pressure – High	1, 2(e),3(e)	4	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Reactor Vessel Water Level – High, Level 8	1, 2(e), 3(e)	2	C	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 55.5 inches
d. Condensate Storage Tank Level – Low	1, 2(e), 3(e)	2	D	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 36.0 inches above tank bottom
e. Suppression Pool Water Level – High	1, 2(e) 3(e)	2	D	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 24 feet

(continued)

(a) When the associated subsystem(s) are required to be OPERABLE.

(e) With reactor steam dome pressure > 150 psig.

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

3.d. Condensate Storage Tank Level-Low (continued)

Normally the suction valves between HPCI and the CST are open and, upon receiving a HPCI initiation signal, water for HPCI injection would be taken from the CST. However, if the water level in the CST falls below a preselected level, first the suppression pool suction valve automatically opens, and then the CST suction valve automatically closes. This ensures that an adequate supply of makeup water is available to the HPCI pump. To prevent losing suction to the pump, the suction valves are interlocked so that the suppression pool suction valves must be open before the CST suction valve automatically closes. The Function is implicitly assumed in the accident and transient analyses (which take credit for HPCI) since the analyses assume that the HPCI suction source is the suppression pool.

Condensate Storage Tank Level-Low signals are initiated from two level instruments. The logic is arranged such that either level switch can cause the suppression pool suction valves to open and the CST suction valve to close. The Condensate Storage Tank Level-Low Function Allowable Value is high enough to ensure adequate pump suction head while water is being taken from the CST.

Two channels of the Condensate Storage Tank Level-Low Function are required to be OPERABLE only when HPCI is required to be OPERABLE to ensure that no single instrument failure can preclude HPCI swap to suppression pool source. Refer to LCO 3.5.1 for HPCI Applicability Bases.

Insert B 3.3-110-1

3.~~e~~f. Manual Initiation

The Manual Initiation push button channel introduces signals into the HPCI logic to provide manual initiation capability and is redundant to the automatic protective instrumentation. There is one push button for the HPCI System.

The Manual Initiation Function is not assumed in any accident or transient analyses in the FSAR. However, the Function is retained for overall redundancy and diversity of the HPCI function as required by the NRC in the plant licensing basis.

(continued)

INSERT 3.3-110-1

3.e. Suppression Pool Water Level – High

Excessively high suppression pool water could result in the loads on the suppression pool exceeding design values should there be a blowdown of the reactor vessel pressure through the safety/relief valves. Therefore, signals indicating high suppression pool water level are used to transfer the suction source of HPCI from the CST to the suppression pool to eliminate the possibility of HPCI continuing to provide additional water from a source outside containment. To prevent losing suction to the pump, the suction valves are interlocked so that the suppression pool suction valves must be open before the CST suction valve automatically closes.

This Function is implicitly assumed in the accident and transient analyses (which take credit for HPCI) since the analyses assume that the HPCI suction source is the suppression pool.

Suppression Pool Water Level – High signals are initiated from two level instruments. The logic is arranged such that either switch can cause the suppression pool suction valves to open and the CST suction valve to close provided the HPCI injection valve is open. The Allowable Value for the Suppression Pool Water Level – High Function is chosen to ensure that HPCI will be aligned for suction from the suppression pool before the water level reaches the point at which suppression pool design loads would be exceeded.

Two channels of Suppression Pool Water Level – High Function are required to be OPERABLE only when HPCI is required to be OPERABLE to ensure that no single instrument failure can preclude HPCI swap to suppression pool source. Refer to LCO 3.5.1 for HPCI Applicability Bases.

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

3.~~d~~e. Manual Initiation (continued)

There is no Allowable Value for this Function since the channel is mechanically actuated based solely on the position of the push button. One channel of the Manual Initiation Function is required to be OPERABLE only when the HPCI System is required to be OPERABLE. Refer to LCO 3.5.1 for HPCI Applicability Bases.

Automatic Depressurization System

4.a, 5.a. Reactor Vessel Water Level – Low Low Low, Level 1

Low RPV water level indicates that the capability to cool the fuel may be threatened. Should RPV water level decrease too far, fuel damage could result. Therefore, ADS receives one of the signals necessary for initiation from this Function. The Reactor Vessel Water Level – Low Low Low, Level 1 is one of the Functions assumed to be OPERABLE and capable of initiating the ADS during the accident analyzed in Reference 1. The core cooling function of the ECCS, along with the scram action of the RPS, ensures that the fuel peak cladding temperature remains below the limits of 10 CFR 50.46.

Reactor Vessel Water Level – Low Low Low, Level 1 signals are initiated from four level instruments that sense the difference between the pressure due to a constant column of water (reference leg) and the pressure due to the actual water level (variable leg) in the vessel. Four channels of Reactor Vessel Water Level – Low Low Low, Level 1 Function are required to be OPERABLE only when ADS is required to be OPERABLE to ensure that no single instrument failure can preclude ADS initiation. Two channels input to ADS trip system A, while the other two channels input to ADS trip system B. Refer to LCO 3.5.1 for ADS Applicability Bases.

The Reactor Vessel Water Level – Low Low Low, Level 1 Allowable Value is chosen to allow time for the low pressure core flooding systems to initiate and provide adequate cooling.

(continued)

Table 3.3.5.1-1 (page 2 of 6)
Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. LPCI System (continued)					
b. Drywell Pressure – High	1,2,3	4[c]	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Reactor Steam Dome Pressure – Low (initiation)	1,2,3	4	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 416 psig
	4[a], 5[a]	4	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 416 psig and [≤ 474 psig]
d. Reactor Steam Dome Pressure – Low (injection permissive)	1,2,3	4	C	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 416 psig and [≤ 474 psig]
e. Reactor Steam Dome Pressure – Low (Recirculation Discharge Valve Permissive)	1[d],2[d], 3[d]	4	C	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 216 psig

(continued)

(a) When associated subsystem(s) are required to be OPERABLE.

(c) Also required to initiate the associated DG, ESW pump timer reset and Turbine Building and Reactor Building Chiller trip.

(d) With either associated recirculation pump discharge or bypass valves open.

ADMINISTRATIVE (continued)

Therefore, this is an administrative change with no impact on safety.

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES CTS Tables require the Operability of the ECCS initiation instruments. SSES ITS Table 3.3.5.1-1 adds footnotes (b) and (c) which identify that some of these instruments are also required to support the automatic starting of the Diesel Generators on a Loss of Coolant Accident (LOCA) signal and other initiation features. With this note, when a corresponding channel is not restored within the allowed time, the affected DG and the other initiation features will be declared inoperable in addition to the affected ECCS subsystem. This is a more restrictive change with no negative impact on safety because it ensures that the appropriate functions are declared inoperable with the loss of a channel.

M.2 SSES CTS Table 3.3.3-1 footnotes (d) and (e) allow one of the ADS pump permissive channels (either LPCI or CS) in one trip system to be inoperable indefinitely. SSES ITS 3.3.5.1, Action G, does not allow this condition to exist. This more restrictive change will have no negative impact on safety because the SSES ITS does not allow a reduction in the ADS initiation capability for an indefinite period of time.

TECHNICAL CHANGES - LESS RESTRICTIVE Insert M.3

LA.1 SSES CTS 3.3.3 and SSES CTS Table 3.3.3-2 require the Operability of the ECCS instrumentation and provide system design details including the Trip Setpoint. SSES ITS 3.3.5.1 and Table 3.3.5.1-1 require the Operability of ECCS but do not provide system design details including the trip setpoint. This is acceptable because this design information does not impact the requirement to maintain the ECCS instrumentation Operable. The SSES ITS does not specify the trip setpoints because Operability is based on the instrument operating within the allowable value and not the trip setpoint. The trip setpoint is established based on a combination of instrument design factors, environmental factors, and the allowable value which is directly assumed in the event analysis. Therefore, these details can be adequately defined and controlled in the Technical Requirements Manual (TRM). The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the instrumentation Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

NRC RAI 3.3.5.1-C

Insert

M.3 SSES CTS Table 3.3.3.2 Functions 1.c, 1.d, 2.c and 2.d specify an Allowable Value of ≥ 416 psig. SSES ITS maintains the lower limit, but adds an upper limit of ≤ 474 psig. This change will have no negative impact on safety because it provides a limit to ensure the low pressure ECCS will not be overpressurized during an event.

ADMINISTRATIVE (continued)

greater than or equal to the set pressure. Therefore, the deletion of this information from SSES ITS is an administrative change with no impact on safety.

A.6 SSES CTS Tables 3.3.3-1, 3.3.3-2, and 4.3.3.1-1 require Reactor Vessel Steam Dome Pressure - Low (Functions 1.c and 2.c) to be Operable in the applicable Modes. SSES ITS Table 3.3.5.1-1 splits this single SSES CTS Function into two separate Functions. This is necessary because there are two different Functions being required (an ECCS initiation Function (SSES ITS Table 3.3.5.1-1 Function 1.d and 2.d) and a discharge valve injection permissive Function (SSES ITS 3.3.5.1-1 Function 1.e and 2.e)). This does not change the technical requirements for these Functions. The separation of the Functions ensures that the proper Actions are taken for each Function. For the ECCS initiation Function, the proper Condition is Condition B which allows the channel to be placed in trip within 24 hours. This is acceptable because placing this channel in trip will ensure the safety function is still available. For the injection permissive, the proper Condition is Condition C which does not allow the channel to be placed in trip since placing the channel in trip may result in a single failure causing the injection valve to open in an unsafe condition. Although the change results in a different action for one condition, this action ensures the associated safety function is Operable and allows the function to be in a degraded condition for the same allowed out of service time of 24 hours. Therefore, this is an administrative change with no impact on safety because the change represents a change in presentation only with no technical change.

A.7 SSES CTS Table 3.3.3-1, Function 4.i requires that a Manual Initiation Function with 1 channel/valve be Operable. SSES ITS Table 3.3.5.1-1 Function 4.h for Manual Initiation Function requires 2 channel per trip system. SSES ITS identifies the manual initiation circuitry for the ADS system. SSES CTS identifies the manual initiation capability for the individual ADS valves which is not the intent of the ITS Requirement. Therefore, the definition of the ADS Manual Initiation has been changed. This is an administrative change with no impact on safety, based on the fact that the requirement for a manual initiation function for ADS is maintained.

A.8 SSES CTS Table 3.3.3.1-1 Action 30.b requires that within one hour from discovery of loss of initiation capability by this trip function, declare the associated ECCS inoperable. SSES ITS Required Action B.1 Note * and Required Action B.2, Note * specifically identify the applicable functions. This is required to identify the correct Required Actions for HPCI and other ECCS systems. The added notes are an administrative change which defines the correct actions which are required to be taken.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.5.2.3 and SR 3.3.5.2.4 (continued)

accuracy. CHANNEL CALIBRATION leaves the channel adjusted to account for instrument drifts between successive calibrations consistent with the plant specific setpoint methodology.

The Frequency of SR 3.3.5.2.3 is based upon the assumption of a 92 day calibration interval in the determination of the magnitude of equipment drift in the setpoint analysis.

The Frequency of SR 3.3.5.2.4 of 24 months is based upon the historical drift of the equipment and the assumption in the setpoint analysis.

SR 3.3.5.2.5

and simulated automatic operation

The LOGIC SYSTEM FUNCTIONAL TEST demonstrates the OPERABILITY of the required initiation logic for a specific channel. The system functional testing performed in LCO 3.5.3 overlaps this Surveillance to provide complete testing of the safety function.

The 24 month Frequency is based on the need to perform portions of this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency.

REFERENCES

1. NEDE-770-06-2, "Addendum to Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications," February 1991.

2. Final Policy Statement on Technical Specifications Improvements, July 22, 1993 (58 FR 32193).

3. FSAR, Section 7.3.

NRC RAI 3.3.5.2-3
3.3.5.2-6

Specification 3.3.5.2

A.1

TABLE ~~3.3.5-1~~ 3.3.5.2-1

REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION

FUNCTIONAL UNITS	MINIMUM OPERABLE CHANNELS PER TRIP ~~SYSTEM~~ Function A.3 [a]	ACTION
~~a~~.1 Reactor Vessel Water Level - Low Low, Level 2	~~2~~ 4	~~50~~ B
~~b~~.2 Reactor Vessel Water Level - High, Level 8	2 [b] LA.3	~~51~~ C
~~c~~.3 Condensate Storage Tank Water Level - Low	2 [c]	~~52~~ D
~~d~~.4 Manual Initiation	1 system [d]	~~53~~ C

Note 2 to Surv Req.

~~(a)~~ A channel may be placed in an inoperable status, for up to 6 hours for required surveillance without placing the trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter.

~~(b) One trip system with two-out-of-two logic.~~
~~(c) One trip system with one-out-of-two logic.~~
~~(d) One trip system with one channel.~~
LA.3

For Functions other than Function 2 and 4 provided the associated Function maintains initiation capability

SURVEILLANCE REQUIREMENTS

----------NOTES----------

1. Refer to Table 3.3.5.1-1 to determine which SRs apply for each ECCS Function.

2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed as follows: (a) for up to 6 hours for Functions 3.c and 3.f; and (b) for up to 6 hours for Functions other than 3.c and 3.f provided the associated Function or the redundant Function maintains ECCS initiation capability.

SURVEILLANCE		FREQUENCY
SR 3.3.5.1.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.5.1.2	Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.5.1.3	Perform CHANNEL CALIBRATION.	92 days
SR 3.3.5.1.4	Perform CHANNEL CALIBRATION.	24 months
SR 3.3.5.1.5	Perform LOGIC SYSTEM FUNCTIONAL TEST.	24 months

BASES

ACTIONS

F.1 and F.2 (continued)

an inoperable channel cannot exceed 8 days. If the status of HPCI or RCIC changes such that the Completion Time changes from 96 hours to 8 days, the "time zero" for beginning the 8 day "clock" begins upon discovery of the inoperable channel. If the inoperable channel cannot be restored to OPERABLE status within the allowable out of service time, Condition G must be entered and its Required Action taken. The Required Actions do not allow placing the channel in trip since this action would not necessarily result in a safe state for the channel in all events.

G.1

With any Required Action and associated Completion Time not met, the associated supported feature(s) may be incapable of performing the intended function, and those associated with inoperable untripped channels must be declared inoperable immediately.

SURVEILLANCE REQUIREMENTS

As noted in the beginning of the SRs, the SRs for each ECCS instrumentation Function are found in the SRs column of Table 3.3.5.1-1.

The Surveillances are modified by a Note to indicate that when a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours as follows: (a) for Function 3.c; and (b) for Functions other than 3.c provided the associated Function or redundant Function maintains ECCS initiation capability. Upon completion of the Surveillance, or expiration of the 6 hour allowance, the channel must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This Note is based on the reliability analysis (Ref. 3) assumption of the average time required to perform channel surveillance. That analysis demonstrated that the 6 hour testing allowance does not significantly reduce the probability that the ECCS will initiate when necessary.

and 3

(continued)

NRC RAI 3.3.5.2-5

Table 3.3.5.2-1 (page 1 of 1)
Reactor Core Isolation Cooling System Instrumentation

<CTS>
<3/4.3.5 TABLE>

FUNCTION	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Reactor Vessel Water Level – Low Low, Level 2	[4]	B	SR 3.3.5.2.1 SR 3.3.5.2.2 ~~[SR 3.3.5.2.3]~~ SR 3.3.5.2.~~3~~4 SR 3.3.5.2.~~4~~5	≥ ~~[-47]~~ -45 inches
2. Reactor Vessel Water Level – High, Level 8	[2]	C	SR 3.3.5.2.1 SR 3.3.5.2.2 ~~[SR 3.3.5.2.3]~~ 3 SR 3.3.5.2.~~3~~4 SR 3.3.5.2.~~4~~5	≤ ~~[54.5]~~ 55.5 inches
3. Condensate Storage Tank Level – Low	[2]	D	~~[SR 3.3.5.2.1]~~ SR 3.3.5.2.2 ~~[SR 3.3.5.2.3]~~ ~~[SR 3.3.5.2.4]~~ 3 SR 3.3.5.2.~~4~~5	≥ ~~[0]~~ 36 inches above Tank bottom
~~4. Suppression Pool Water Level – High~~	~~[2]~~	~~D~~	~~[SR 3.3.5.2.1]~~ ~~SR 3.3.5.2.2~~ ~~[SR 3.3.5.2.3]~~ ~~SR 3.3.5.2.5~~ ~~SR 3.3.5.2.6~~	~~≤ [151] inches~~
~~B.~~ 4. Manual Initiation	[1]	C	SR 3.3.5.2.~~5~~6	NA

SURVEILLANCE REQUIREMENTS

----------NOTES----------

1. Refer to Table 3.3.5.2-1 to determine which SRs apply for each RCIC Function.

2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed as follows: (a) for up to 6 hours for Function 2 and 4; and (b) for up to 6 hours for Functions other than Function 2 and 4 provided the associated Function maintains RCIC initiation capability.

SURVEILLANCE		FREQUENCY
SR 3.3.5.2.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.5.2.2	Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.5.2.3	Perform CHANNEL CALIBRATION.	92 days
SR 3.3.5.2.4	Perform CHANNEL CALIBRATION.	24 months
SR 3.3.5.2.5	Perform LOGIC SYSTEM FUNCTIONAL TEST.	24 months

BASES

ACTIONS

D.1, D.2.1, and D.2.2 (continued)

to the suppression pool, which also performs the intended function. If it is not desired to perform Required Actions D.2.1 and D.2.2, Condition E must be entered and its Required Action taken.

E.1

With any Required Action and associated Completion Time not met, the RCIC System may be incapable of performing the intended function, and the RCIC System must be declared inoperable immediately.

SURVEILLANCE REQUIREMENTS

As noted in the beginning of the SRs, the SRs for each RCIC System instrumentation Function are found in the SRs column of Table 3.3.5.2-1.

The Surveillances are modified by a Note to indicate that when a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed as follows: (a) for up to 6 hours for Function 2; and (b) for up to 6 hours for Functions other than Function 2; provided the associated Function maintains trip capability. Upon completion of the Surveillance, or expiration of the 6 hour allowance, the channel must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This Note is based on the reliability analysis (Ref. 1) assumption of the average time required to perform channel surveillance. That analysis demonstrated that the 6 hour testing allowance does not significantly reduce the probability that the RCIC will initiate when necessary.

SR 3.3.5.2.1

Performance of the CHANNEL CHECK once every 12 hours ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a parameter on other similar channels. It is based on the assumption that instrument channels monitoring the same parameter should read

(continued)

NRC RAI 3.3.6.1-3

Specification 3.3.6.1 (All Docs apply to both specification unless indicated)
Specification 3.3.6.2

3.3.6.1-1
TABLE ~~3.3.2-1~~ (Continued)

Relocated (See DOC CTS 3/4.3)

A.1

ISOLATION ACTUATION INSTRUMENTATION

ACTION STATEMENTS

LCO 3.3.6.1

ACTION ~~20~~ H	Be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours. (isolate main steam Line) L.3 12 — L.6 — 3.3.6.1
ACTION ~~21~~ D	Be in at least STARTUP with the associated isolation valves closed within 6 hours or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
ACTION ~~22~~ E	Be in at least STARTUP within 6 hours.
ACTION ~~23~~ F	Close the affected system isolation valves within 1 hour ~~and declare the affected system inoperable.~~ — A.3 — 3.3.1
ACTION ~~24~~ G Act H	Restore the manual initiation function to OPERABLE status within 8 hours or close the affected system isolation valves within the next hour and declare the affected system inoperable or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. — L.6 — 24 — A.3 — 3
LCO 3.3.6.2 ACTION ~~25~~ C	Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within 1 hour. — Add Req Act C.1
LCO 3.3.6.1 ACTION ~~26~~ F	Lock the affected system isolation valves closed within ~~1 hour~~ and declare the affected system inoperable. — LA.4 — A.3 — 3.
ACTION ~~27~~ J	Initiate action to restore channel to OPERABLE status; or, initiate action to isolate the Residual Heat Removal (RHR) Shutdown Cooling System.

NOTES — Add Action I — L.1 — 3.3.6.1

T. 3.3.6.2 Footnote (a)+(b)

When handling irradiated fuel in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

•• Actuates dampers shown in Table 3.6.5.2-1. — LA.3 — 3.3.6.2

••• When VENTING or PURGING the drywell per Specification 3.11.2.8. — R.2 — CTS 3/4.3

T. 3.3.6.2 Footnote (a)+(b) — LCO 3.10.8

When handling irradiated fuel in the secondary containment and during CORE ALTERATIONS and operations with the potential for draining the reactor vessel. Single control rod movement, except for the purpose of SDM demonstration (TS 3.10.3), is excluded.

T. 3.3.6.2 Footnote (c)

When handling irradiated fuel within the Railroad Access Shaft and above the Railroad Access Shaft Equipment Hatch open.

(a) See Specification 3.6.3, Table 3.6.3-1 for valves which are actuated by these isolation signals. — LA.

Add Required Actions A.2 and B.2 — L.3 — 3.3.6.2

Table 3.3.6.1-1 (page 6 of 6)
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
6. Shutdown Cooling System Isolation					
a. Reactor Steam Dome Pressure – High	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≤ 108 psig
b. Reactor Vessel Water Level – Low, Level 3	3,4,5	2[c]	J	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≥ 11.5 inches
c. RHR Flow – High	3,4,5	1	J	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 26,000 gpm
~~d.~~ c. Manual Initiation	3,4,5	1	G	SR 3.3.6.1.5	NA

(c) Only one trip system required in MODES 4 and 5 when RHR Shutdown Cooling System integrity maintained.

3.3.6.1-1

TABLE ~~3.3.2-1~~ (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION	ISOLATION SIGNAL(S)[a]	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM	APPLICABLE OPERATIONAL CONDITION	ACTION
~~7.~~ 6 ~~RHR SYSTEM SHUTDOWN COOLING/HEAD SPRAY MODE ISOLATION~~ A.9				
6 ~~a.~~ Reactor Vessel Water Level - Low, Level 3	A	2*	3,4,5	M.1 ~~27~~ J
9 ~~b.~~ Reactor Vessel (RHR Cut-In Permissive) Pressure - High	UB	1	1,2,3	~~28~~ F
~~c. RHR Flow - High~~	~~NA~~	~~1~~	~~1,2,3~~ 3,4,5	~~28~~ F R.15
d. Manual Initiation	NA	1	~~1,2,3~~	~~24~~ G
~~e. Drywell Pressure - High~~	~~2~~	~~2~~	~~1,2,3~~	~~30~~ A.9

T 3.3.6.1-1 foot note (c) → Only one trip system required in OPERATIONAL CONDITIONS 4 and 5 when RHR Shutdown Cooling System integrity is maintained.

LA3

Specification 3.3.6.1-1 A.9

NRC RAI 3.3.6.1-5

RELOCATED SPECIFICATIONS (continued)

R.12 The requirements specified in SSES CTS 3/4.3.7.10, Radioactive Liquid Effluent Monitoring Instrumentation, do not satisfy the NRC Policy Statement Technical Specification screening criteria as documented in the Application of Selection Criteria to the SSES CTS. These requirements have been relocated to the TRM. See the SSES CTS Split Report for further discussion of this change.

R.13 The requirements specified in SSES CTS 3/4.3.7.11, Radioactive Gaseous Effluent Monitoring Instrumentation, do not satisfy the NRC Policy Statement Technical Specification screening criteria as documented in the Application of Selection Criteria to the SSES CTS. These requirements have been relocated to the TRM. See the SSES CTS Split Report for further discussion of this change.

R.14 The requirements specified in SSES CTS 3/4.3.7.12, Loose Part Detection System, do not satisfy the NRC Policy Statement Technical Specification screening criteria as documented in the Application of Selection Criteria to the SSES CTS. These requirements have been relocated to the TRM. See the SSES CTS Split Report for further discussion of this change.

R.15 The requirements specified in SSES CTS LCO 3.3.2 For RHR Flow-High, do not satisfy the NRC Policy Statement Technical Specification screening criteria as documented in the Application of Selection Criteria to the SSES CTS. These requirements have been relocated to the TRM. See the SSES CTS Split Report for further discussion of this change.

TECHNICAL CHANGES - MORE RESTRICTIVE

None

TECHNICAL CHANGES - LESS RESTRICTIVE

None

NRC RAI 3.3.6.1-5

B 3.3 INSTRUMENTATION

B 3.3.6.1 Primary Containment Isolation Instrumentation

BASES

BACKGROUND

The primary containment isolation instrumentation automatically initiates closure of appropriate primary containment isolation valves (PCIVs). The function of the PCIVs, in combination with other accident mitigation systems, is to limit fission product release during and following postulated Design Basis Accidents (DBAs). Primary containment isolation within the time limits specified for those isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a DBA.

The isolation instrumentation includes the sensors, relays, and instruments that are necessary to cause initiation of primary containment and reactor coolant pressure boundary (RCPB) isolation. When the setpoint is reached, the sensor actuates, which then outputs an isolation signal to the isolation logic. Functional diversity is provided by monitoring a wide range of independent parameters. The input parameters to the isolation logics are (a) reactor vessel water level, (b) area ambient and emergency cooler temperatures, (c) main steam line (MSL) flow measurement, (d) Standby Liquid Control (SLC) System initiation, (e) condenser vacuum, (f) main steam line pressure, (g) high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) steam line Δ pressure, (h) SGTS Exhaust radiation, (i) HPCI and RCIC steam line pressure, (j) HPCI and RCIC turbine exhaust diaphragm pressure, (k) reactor water cleanup (RWCU) differential flow and high flow, (l) reactor steam dome pressure, (m) drywell pressure and ~~(n) RHR flow~~. Redundant sensor input signals from each parameter are provided for initiation of isolation. The only exception is SLC System initiation. In addition, manual isolation of the logics is provided.

Primary containment isolation instrumentation has inputs to the trip logic of the isolation functions listed below.

(continued)

BASES

BACKGROUND (continued)

6. Shutdown Cooling System Isolation

The Reactor Vessel Water Level—Low, Level 3 Function receives input from four reactor vessel water level channels. The outputs from the reactor vessel water level channels are connected to two two-out-of-two trip systems. The Reactor Vessel Pressure—High Function receives input from two channels, with each channel in one trip system using a one-out-of-one logic. Each of the two trip systems is connected to one of the two valves on each shutdown cooling penetration. ~~The RHR Flow High Function receives input from two RHR Flow channels. The outputs from the RHR Flow channels are connected to one-out-of-one trip systems.~~

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

The isolation signals generated by the primary containment isolation instrumentation are implicitly assumed in the safety analyses of References 1 and 2 to initiate closure of valves to limit offsite doses. Refer to LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," Applicable Safety Analyses Bases for more detail of the safety analyses.

Primary containment isolation instrumentation satisfies Criterion 3 of the NRC Policy Statement. (Ref. 8) Certain instrumentation Functions are retained for other reasons and are described below in the individual Functions discussion.

The OPERABILITY of the primary containment instrumentation is dependent on the OPERABILITY of the individual instrumentation channel Functions specified in Table 3.3.6.1-1. Each Function must have a required number of OPERABLE channels, with their setpoints within the specified Allowable Values, where appropriate. A channel is inoperable if its actual trip setpoint is not within its required Allowable Value. The actual setpoint is calibrated consistent with applicable setpoint methodology assumptions. Each channel must also respond within its assumed response time, where appropriate.

Allowable Values are specified for each Primary Containment Isolation Function specified in the Table. Nominal trip setpoints are specified in the setpoint calculations. The nominal setpoints are selected to ensure that the setpoints do not exceed the Allowable Value between CHANNEL

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

6.b. Reactor Vessel Water Level–Low, Level 3 (continued)

level to the top of the fuel. In MODES 1 and 2, another isolation (i.e., Reactor Steam Dome Pressure–High) and administrative controls ensure that this flow path remains isolated to prevent unexpected loss of inventory via this flow path.

6.c Residual Heat Removal Flow–High

High RHR Flow indicates that there is a valve mispositioning or system break which could result in a vessel drain down. Should RPV water level decrease too far, fuel damage could result. Therefore, isolation of some reactor vessel interfaces occurs to begin isolating the potential sources of a break. The RHR Flow - High Function is not directly assumed in safety analysis because a break of the RHR Shutdown Cooling System is bounded by breaks of the recirculation and Main Steam Lines.

The RHR Shutdown Cooling System isolation on RHR Flow supports actions to ensure that the RPV water level does not drop below the top of active fuel during a vessel draindown event caused by a leak (e.g., pipe break or inadvertent valve opening) in the RHR Shutdown Cooling System.

RHR Flow - High signals are initiated from two flow instruments. Two channels (one channel per trip system) of the RHR Flow - High Function are available and are required to be OPERABLE to ensure that no single instrument failure can preclude the isolation function.

The RHR Flow - High Allowable Value was chosen to be low enough to indicate a RHR Shutdown Cooling System break or valve mispositioning event, but high enough to prevent spurious isolations.

The RHR Flow - High Function is only required to be OPERABLE in MODES 3, 4, and 5 to prevent this potential flow path from lowering the reactor vessel level to the top of the fuel. In MODES 1 and 2, another isolation (i.e., Reactor Steam Dome Pressure - High) and administrative controls ensure that this flow path remains isolated to prevent unexpected loss of inventory via this flow path.

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

6.~~d~~c Manual Initiation

The Manual Initiation push button channels introduce signals to RHR Shutdown Cooling System isolation logic that is redundant to the automatic protective instrumentation and provide manual isolation capability. There is no specific FSAR safety analysis that takes credit for this Function. It is retained for overall redundancy and diversity of the isolation function as required by the NRC in the plant licensing basis.

There are two push buttons for the logic, one manual initiation push button per trip system. There is no Allowable Value for this Function since the channels are mechanically actuated based solely on the position of the push buttons.

Two channels of the Manual Initiation Function are available and are required to be OPERABLE in MODES 3, 4, and 5, since these are the MODES in which the RHR Shutdown Cooling System Isolation automatic Function are required to be OPERABLE.

ACTIONS

A Note has been provided to modify the ACTIONS related to primary containment isolation instrumentation channels. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for inoperable primary containment isolation instrumentation channels provide appropriate compensatory measures for separate inoperable channels. As such, a Note has been provided that allows separate Condition entry for each inoperable primary containment isolation instrumentation channel.

(continued)

S

ONS

B.1 and B.2 (continued)

channel per location OPERABLE or in trip. For Functions 2.a, 2.b, 2.c, 2.d, 3.b, 3.c, 3.d, 4.b, 4.c, 4.d, 5.f, and 6.b, this would require one trip system to have two channels, each OPERABLE or in trip. For Functions 2.e, 3.a, 3.e, 3.f, 3.g, 4.a, 4.e, 4.f, 4.g, 5.a, 5.b, 5.c, 5.d, 5.e, 5.g, 6.a, and 6.c, this would require one trip system to have one channel OPERABLE or in trip. The Condition does not include the Manual Initiation Functions (Functions 1.f, 2.f, 3.h, 4.h, 5.h, and 6.g), since they are not assumed in any accident or transient analysis. Thus, a total loss of manual initiation capability for 24 hours (as allowed by Required Action A.1) is allowed.

Required Action B.2 provides an option which is always available is to perform the safety Function (i.e., isolate the penetration flow path). This Required Action allows isolation of the affected penetration(s) if the failure only affects a limited number of penetrations whose isolation would not impact plant operation. In this case, isolation of the penetration provides the ability to continue plant operation without requiring a plant shutdown.

The Completion Time is intended to allow the operator time to evaluate and repair any discovered inoperabilities. The 1 hour Completion Time is acceptable because it minimizes risk while allowing time for restoration or tripping of channels.

C.1

Required Action C.1 directs entry into the appropriate Condition referenced in Table 3.3.6.1-1. The applicable Condition specified in Table 3.3.6.1-1 is Function and MODE or other specified condition dependent and may change as the Required Action of a previous Condition is completed. Each time an inoperable channel has not met any Required Action of Condition A or B and the associated Completion Time has expired, Condition C will be entered for that channel and provides for transfer to the appropriate subsequent Condition.

(continued)

INSERT (NRC RAI 3.3.6.1-05):

3/4.3.2 ISOLATION.ACTUATION INSTRUMENTATION

LCO Statement:

The isolation actuation instrumentation channels shown in Table 3.3.2.1-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.2-2.

3/4.3.2.7.c RHR Flow - High

Discussion:

The RHR Flow-High isolation indicates that ther is a valve mispositioning or system break which could result in a vessel drain down. The RHR Flow-High isolation trip setpoint was chosen to be low enough to indicate a RHR Shutdown Cooling System break or valve mispositioning event, but high enough to prevent a spurious isolation. No credit is taken for operation of the RHR High Flow isolation in the FSAR event analysis. This was further confirmed with General Electric. The Function is, however, identified in the FSAR as a design Feature, but because it is not credited in any design event and Reactor Water Level Isolation (Level 3) provides adequate protection for the identified events, it can be concluded that the RHR High Flow isolation is not required.

Comparison to Screening Criteria:

1. The RHR Flow –High trips are not used for, nor capable of, detecting a significant abnormal degradation of the reactor coolant pressure boundary prior to a DBA.

2. The RHR Flow – High trips are not used to monitor a process variable that is an initial condition of a DBA or transient analyses.

3. The RHR Flow- High trips are not part of a primary success path in the mitigation of a DBA or transient.

4. PP&L has reviewed the risk significance of the RHR High – Flow trips to the SSES PRA and found that these trips are a non-significant risk contributor to core damage frequency and offsite releases during operation.

Conclusion:

Because the screening criteria have not been satisfied, the RHR Flow – High LCO and Surveillances may be relocated to other plant controlled documents outside the Technical Specifications.

ADMINISTRATIVE (continued)

the different Functions. This does not change the technical requirements for the Functions. Therefore, this is an administrative change with no impact on safety because the change represents a change in presentation only with no technical change.

A.11 (Unit 2 Only) SSES CTS Tables 3.3.2-1, 3.3.2-2, and 4.3.2.1-1 Function 4.f.2 and footnote #, require the Non-Regenerative Heat Exchanger Discharge Temperature - High to be Operable in place of the RWCU High instrument for Unit 2 Cycle 6 operation. This Function and the footnotes have been deleted and are not in SSES ITS 3.3.6.1. This is acceptable because the requirement for this Function was only for a limited time which will not be required when the SSES ITS is implemented. Therefore, this is an administrative change with no impact on safety.

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES CTS Tables 3.3.2-1 and 4.3.2.1-1 requires Function 7 ~~d~~ d. ~~RHR Flow - High~~ (Manual Initiation) to be Operable in Modes 1, 2 and 3. For the same Function, SSES ITS Table 3.3.6.1-1 requires that it be Operable in Modes 3, 4, and 5. This is acceptable because the ~~instruments~~ channel causes the isolation of the RHR SDC suction valves. In Modes 1, 2, and 3 (above the RHR Cut-in Permissive Pressure), the RHR SDC suction valves are isolated from the high pressure source, therefore, this instrument serves no active safety function. ~~In Modes 3, 4, and 5, the RHR Flow instrumentation ensures that if high RHR flow, caused by a pipe break or a valve mispositioning event, is detected the SDC line will be isolated and the drain-down event will be terminated.~~ This is a more restrictive change with no negative impact on safety, because it ensures the instrumentation will be Operable when the safety function is required.

M.2 SSES CTS Table 4.3.2.1-1 requires that Functions 1.a.1, 2.d, 5.j, 6.j and 7.a be calibrated every refueling outage. For these same Functions, SSES ITS Table 3.3.6.1-1 requires that the instruments be calibrated every 92 days with the exception of SSES ITS Table 3.3.6.1-1, Function 2.d, which adds a note to SR 3.3.6.1.3 Frequency which identifies that for Static O-Ring instruments the Frequency is 24 months. The 24 month Frequency for Static O-Ring instruments is justified in 3.3.6.1 Discussion of Change LD.1. These more restrictive changes are required to ensure that the Channel Calibration for these instruments are performed on a Frequency which will ensure that the instruments do not exceed their Allowable Value. Therefore, this change will not have a negative impact on safety.

M.3 SSES CTS Table 3.3.2-2 establishes the Allowable Value for the Function 4.a, RWCU differential flow as 80 gpm. For the same Function, SSES ITS Table 3.3.6.1-1 establishes the Allowable Value

NRC RAI 3.3.6.1-7

DISCUSSION OF CHANGES
ITS: SECTION 3.3.6.1 - PRIMARY CONTAINMENT ISOLATION INSTRUMENTATION

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 SSES ITS 3.3.6.1 adds a note to the Actions Table. This note provides more explicit instructions for proper application of the Actions for Technical Specification compliance. In conjunction with the proposed Specification 1.3, "Completion Times," the Actions Note ("Separate Condition entry is allowed for each....") provides direction consistent with the intent of the existing Action for an inoperable Primary Containment instrumentation channel. Since this change only provides more explicit direction of the current interpretation of the existing specifications, this is an administrative change with no impact on safety.

Action H

A.3 SSES CTS Table 3.3.2-1, Action 23, ~~Action~~ 24, and Action 26 require the affected system isolation valves be shut and the affected system declared inoperable. SSES ITS Table 3.3.6.1, Action F and Action G require that the affected system isolation valves be shut but does not provide direction to declare the affected system inoperable. This is acceptable because this action ~~is considered an unnecessary cross reference to take action of the affected system~~. This is presentation preference which represents no change in intent and is consistent with the BWR STS NUREG 1433, Revision 1. Therefore, it is an administrative change with no impact on safety.

to declare a system inoperable is not a NUREG 1433 convention.

A.4 SSES CTS Table 4.3.2.1-1 requires a Channel Functional Test for the manual initiation function of various Isolation Actuation Instrumentation and isolation of SLCS. SSES CTS 4.3.2.2 requires a Logic System Functional Test (LSFT). SSES ITS Table 3.3.6.1-1 deletes the requirement to perform a manual initiation test. This is acceptable because the requirement for the SSES ITS LSFT SR 3.3.6.1.5 includes the requirement to functionally test the manual initiation function and the SLCS isolation. Therefore, SSES ITS and SSES CTS require the same test through the performance of the SSES ITS LSFT. This is an administrative change with no impact on safety because the change represents a change in presentation only with no technical change.

A.5 SSES CTS Table 3.3.2-2 footnote "**" states that the value is an initial value and the final value will be established based on Power Uprate testing. This footnote is deleted in the SSES ITS because Power Uprate testing is completed and no change was necessary. This is an administrative change with no impact on safety because the allowance no longer applies.

SURVEILLANCE REQUIREMENTS

----------NOTES----------

1. Refer to Table 3.3.6.1-1 to determine which SRs apply for each Primary Containment Isolation Function.

2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains isolation capability.

SURVEILLANCE		FREQUENCY
SR 3.3.6.1.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.6.1.2	Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.6.1.3	Perform CHANNEL CALIBRATION.	-----NOTE----- Not applicable for Static O-Ring Instruments in Function 2.d ---------- 92 days ~~OR~~ AND 24 months
SR 3.3.6.1.4	Perform CHANNEL CALIBRATION.	24 months
SR 3.3.6.1.5	Perform LOGIC SYSTEM FUNCTIONAL TEST.	24 months

ISOLATION TIME DELAYS
(NRC RAI 3.3.6.1-10)

1. NRC REQUEST:

SSES CTS TABLE 3.3.2-2 "ISOLATION ACTUATION INSTRUMENTATION SETPOINTS" footnote ## identifies that for the HPCI and RCIC Pipe Routing Area Temperature Trips there is a 15 minute Time Delay. The footnote ## is provided as information only. There are no SSES CTS requirements to perform any instrumentation calibrations on these time delays. PP&L is relocating the information contained in the SSES CTS Table to the Bases of the SSES ITS. The NRC request is to provide the FSAR statements which support the 3.3.6.1 LA.5 DOC statement that the 15 minute timer delay is not required to meet the safety functions of the instrumentation. The 15 minute time delay provides sufficient time for plant operators to take appropriate action to manually isolate the affected penetration. No credit is taken in the SSES design for the temperature isolation or the 15 minute time delay.

2. LICENSING BASIS:

SSES FSAR Section 7.6.1a.4.3.8.2.1 "Circuit Description" describes the logic as follows: "The HPCI area and tunnel ambient and differential temperature sensing elements are thermocouples. Their outputs go to temperature switches set to activate at a preset temperature. Closing the temperature switches will light the point module alarm indicator and sound the high temperature alarm in the main control room. In addition, activation of the tunnel temperature switches will start the timer, which after a suitable delay period, initiates HPCI isolation valve closure. If at any time during the timing cycle, the temperature switch contacts are opened, the timer will automatically reset and no isolation valve closure will result. Before timer timeout, the operator can initiate isolation by depressing pushbutton switch HPCI ISOLATE. This action will bypass the timer circuits and, providing no logic test is in progress, the HPCI isolation valves will close." From this description, it can be seen that the automatic isolation function for the HPCI and RCIC Temperature is not directly credited in the Licensing Basis and essentially provides sufficient time for the operator to assess the plant conditions. It should also be noted that FSAR Section 7.6.1a.4.3.3.2.1 refers back to this HPCI discussion for the RCIC logic.

This was further clarified in FSAR,QUESTION 211.34, 211,34.D: "In Section 7.6.1a.4.3.9.2.1 you state that the HPCI high ambient area temperature switch will start the timer and initiate (after a delay period) the HPCI isolation valve closure. Provide this time delay period and justify its selection.

RESPONSE: The time delay is provided to allow the operator the opportunity to differentiate between HPCI or RCIC pipe routing tunnel leakage and once identified isolate the source of the leakage while not allowing plant safety to be compromised. The HPCI/RCIC common pipe routing area temperature switches activate a timer which is set for a 15-minute delay. This delay provides time for the operator to determine which system is leaking, and manually isolate that system from the Control Room before the leak detection logic automatically isolates both systems.

The maximum temperature limitations of the HPCI/RCIC isolation valves will not be exceeded given this time delay and a 5 GPM leak rate. "

3. **PP&L POSITION:**

PP&L believes that the SSES FSAR supports the discussion of change proposed in 3.3.6.1 DOC LA.5.

WHITE PAPER ON PROPOSED TS ACTIONS FOR THE SECONDARY CONTAINMENT REFUEL FLOOR HIGH RADIATION ISOLATIONS

1. NRC ISSUE:

SSES ITS submittal proposed a change to the SSES CTS and NUREG 1433 to change the identification of SSES Instrument channels and include new Required Actions based on SSES Design.

Specifically, SSES ITS proposes to add 3.3.6.2 Required Actions A.2 and B.2 to allow the isolation of a refuel floor duct (secure ventilation through the ductwork) instead of requiring the SGTS to be initiated. As described in SSES ITS 3.3.6.2 DOC L.3, PP&L has determined that the action of isolating the ductwork is equivalent to starting the SGTS. In fact, the proposed Required Action could be considered an enhancement to the SSES ITS based on the fact that the allowance minimizes the time the SGTS (normally a standby system) is unnecessarially operated.

2. BACKGROUND:

SSES has a common refuel floor for both Unit 1 and Unit 2 Refueling Operations. SSES CTS is written to not differentiate between Unit 1 and 2 instruments and simply identifies secondary isolation logic in Table 3.3.2-1 as "Refuel Floor High Exhaust Duct Radiation - High 2 channels per trip system (Two channels being one Unit 1 channel which provides a 1 out-of 1 initiation of one division of SGTS and one Unit 2 Channel which provides a 1 out-of 1 initiation of the same division of SGTS). The way the SSES CTS defines an instrument channel is inconsistent with the SSES FSAR which in Section 7.3.1.1b.4.1 identifies this instrumentation as follows: "The High radiation sensed by any of the five gamma sensors located as follows (see Section 11.5 and Table C FSAR,TABLE,11.5-1)

1) Unit 1 - Refueling floor high exhaust duct
2) Unit 2 - Refueling floor high exhaust duct
3) Unit 1 - Refueling floor wall exhaust duct
4) Unit 2 - Refueling floor wall exhaust duct
5) Railroad access shaft exhaust duct "

It should be understood that the above description is for one trip system (i.e., A SGTS will be initiated from one of the above five Division I initiation signals and B SGTS will be initiated from one of the above five Division II initiation signals). Therefore, there are a total of ten radiation sensors.

In order to reflect the licensing basis for SSES, it was necessary to differentiate between the Units instrumentation and identify what instrumentation was actually required for a trip. Therefore, SSES ITS Table 3.3.6.2-1 lists each instrument trip function on a unit bases. Furthermore, because the Refuel Floor is a common area, it was necessary to require both Units instruments in each Units TS.

While reviewing the isolation capability, it was recognized that the design of the SSES Refuel Floor HVAC and associated secondary containment isolation system, allows actions to be taken to isolate the specific HVAC system duct work to secure ventilation flow instead of taking action to initiation the SGTS. Understanding the fact that isolation of the appropriate ventialtion duct satisfies the system safety function for the isolation, PP&L determined that the proposed new Required Actions provided increased plant flexibility while maintaining full design capability.

3. **SSES LICENSING BASIS:**

FSAR Figure 9.4-8 HVAC CONTROL DIAGRAM REACTOR BUILDING - Zone III, shows the Unit 1 ductwork and the associated isolation instrumentation for Unit 1. Recognizing that the isolation instrumentation for each ventilation flow path has two one-out-of-one trip systems (fully redundant)(see above description from FSAR Section 7.3.1.1b.4.1), it can be shown that each exhaust duct is single failure proof and independent for sensing a high radiation condition within the associated ductwork.

Based on the above discussion, it is PP&L's position that closing one or more exhaust ducts and preventing air flow through the duct, the safety function for these radiation monitors is being performed and the other ducts provide full isolation capability. The only change to the system will be that the flow through the unisolated ducts will increase. A review of the setpoint calculation for this instrumentation, shows that the setpoint is only based on a volume of air in the duct and not the flow of air past the detector. Therefore, the closing of the exhaust damper has no impact on the assumptions of the design basis accident. It is recognized, however, that by closing the exhaust flow paths, there is a potential that a design criteria for the system could be impacted. This design criteria is specified in FSAR Section 9.4.2.1.1.k which states the following: " Provide for a transit time of exhaust air from the radiation monitors to the isolation dampers of Zone III unfiltered exhaust system, greater than the damper closing time plus the radiation monitor response time". It is PP&L's position, that because the time period this condition is allowed to exist would be limited (efforts would be made to restore the inoperable instrumentation) and there is no impact on the assumptions for the offsite dose, the impact is negligible.

NRC RAI 3.3.7.1-4
3.3.7.1-5

DISCUSSION OF CHANGES
ITS: SECTION 3.3.7.1 - CREOAS SYSTEM INSTRUMENTATION

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 SSES ITS 3.3.7.1 adds a note to the Actions Table. This note provides more explicit instructions for proper application of the Actions for Technical Specification compliance. In conjunction with the proposed Specification 1.3, "Completion Times," the Actions Note ("Separate Condition entry is allowed for each....") provides direction consistent with the intent of the existing Action for an inoperable Secondary Containment instrumentation channel. Since this change only provides more explicit direction of the current interpretation of the existing specifications, this is an administrative change with no impact on safety.

A.3 SSES CTS 3.3.7.1 Action c identifies that the provisions of 3.0.3 are not applicable. SSES ITS 3.3.7.1 does not contain this same statement. This is acceptable because the SSES ITS Conditions and Required Actions will adequately cover all potential conditions for inoperable equipment in the system, ~~and~~ Therefore, the indication that Specification 3.0.3 is not applicable is unnecessary. This is an administrative change with no impact on safety because it is a change in presentation only.

Furthermore, it should be understood that instrumentation is a support system and as such appropriate actions are provided to declare affected supported systems inoperable

A.4 ~~SSES CTS Table 3.3.7.1-1, Action 70.a, requires with one of the required Main Control Room Outside Air Intake Radiation Monitors inoperable, place the inoperable channel in the downscale tripped condition within 1 hour; restore the inoperable channel to Operable status within 7 days or within the next 6 hours initiate and maintain operation of the control room emergency filtration system in the isolation mode of operation. Under the same conditions, SSES ITS 3.3.7.1, Actions C and D, achieve the same results. The SSES ITS 3.3.7.1, Required Action C.2, requirement that if the inoperable channel cannot be restored to OPERABLE status within 6 hours, the channel must be placed in the tripped condition is equivalent to the SSES CTS requirements to operate the system because placing the inoperable channel in trip performs the intended function of the channel (starts the lead CREOAS subsystems in the pressurization/filtration mode). The SSES CTS requirement to place the inoperable channel in the downscale tripped condition for up to 7 days is equivalent to the SSES ITS requirement of declaring the associated CREOAS inoperable as required by SSES ITS Condition D.~~

Not used

~~SSES CTS Table 3.3.7.1-1, Action 70.b, requires with both of the required monitors inoperable, initiate and maintain operation of~~

~~the control room emergency filtration system in the isolation mode of operation within 1 hour. Under the same conditions, SSES ITS 3.3.7.1, Actions C 1.1 and C 1.2, achieve the same results by requiring that within one hour the CREOAS subsystem be started and operated or declared inoperable. These are administrative changes because the allowable out of service times and compensatory actions of the SSES ITS and SSES CTS are equivalent.~~

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES CTS Table 3.3.7.1-1 and Table 4.3.7.1-1 identifies only the Main Control Room Outside Air Intake Radiation Monitor as a required function. SSES ITS Table 3.3.7.1-1 adds the following five functions in addition to the SSES CTS Function:

- Reactor Vessel Water Level - Low Low, Level 2
- Drywell Pressure - High
- Unit 1 Refuel Floor High Exhaust Duct Radiation - High
- Unit 2 Refuel Floor High Exhaust Duct Radiation - High
- Unit 1 Refuel Floor Wall Exhaust Duct Radiation - High
- Unit 2 Refuel Floor Wall Exhaust Duct Radiation - High
- Railroad Access Shaft Exhaust Duct Radiation - High
- Manual Initiation

As described for each function, these instruments are required to support the Operability of the CREOAS System. In addition to the Functions, Condition B and associated Required Actions provide an option for the appropriate Actions. The addition of these instrument functions and Actions is a more restrictive change with no negative impact on safety because the addition of the Functions ensures the proper actions are taken with the loss of the instrumentation.

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS Table 3.3.7.1-1 identifies the required function and also identifies the measurement range of the instrument. SSES ITS 3.3.7.1 identifies the required function, but does not identify the measurement range. This is acceptable because defining the instrumentation measurement range does not impact the requirement to maintain the function Operable. Therefore, this information can be adequately defined and controlled in the SSES FSAR which require change control in accordance with 10 CFR 50.59. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the instrumentation Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

SSES ITS because it can be adequately defined and controlled in the Technical Requirements Manual which is controlled through 10 CFR 50.59. Based on the above discussion, this less restrictive change will have a minimal impact on safety.

L.2 SSES CTS Table 3.3.7.1-1 and 4.3.7.1-1 identify the Applicability for the Main Control Room Outside Air Intake Radiation Monitor as Modes 1, 2, 3, 5 and footnote "*", when irradiated fuel is being handled in secondary containment. SSES ITS Table 3.3.7.1-1 identify the same functions Applicability as Modes 1, 2, 3, and footnotes (a) and (b) which are operations with a potential for draining the reactor vessel, and during Core Alterations and during movement of irradiated fuel assemblies in the secondary containment. The deletion of Mode 5 from the SSES ITS Applicability for the function is acceptable because the two footnotes for the function Applicability bound all plant conditions that this function is assumed to provide protection. Therefore, this less restrictive change will have no impact on safety.

Insert L3

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.3.7.1 consistent with the BWR STS, NUREG-1433, Rev. 1.

L.3 SSES CTS Table 3.3.7.1-1, Action 70.a, requires with one of the required Main Control Room Outside Air Intake Radiation Monitors inoperable, place the inoperable channel in the downscale tripped condition within 1 hour; restore the inoperable channel to Operable status within 7 days or within the next 6 hours initiate and maintain operation of the control room emergency filtration system in the isolation mode of operation. The action of placing the instrument in downscale trip is to prevent the radiation monitor from functioning. Therefore, as defined in SSES CTS Action 70.a, the SSES CTS require that the instrument be ~~diable~~ to prevent supurious starts, then a 7 day period is allowed to restore the instrument to Operable status. If this is not completed, then within the following 6 hours the CREOAS System is initiated. X Cap.

Under the same conditions, SSES ITS 3.3.7.1, Actions C and D, require similar actions, but do not require the instrument to be placed in downscale trip. SSES ITS 3.3.7.1, Required Action C.2, requires that if the inoperable channel cannot be restored to OPERABLE status within 6 hours, the channel is placed in the tripped condition(which will result in the starting of one CREOAS subsystem). If Required Action C.2 is not met after 6 hours, Condition D is entered and one CREOAS System would be declared inoperable with the loss of one division of instrumentation. SSES ITS LCO 3.7.5 allows 7 days for the inoperability of one train of CREOAS. Therefore, for SSES ITS 3.3.7.1, if one instrument division is inoperable, allows 6 hours to restore or place in trip and if this is not met SSES ITS LCO 3.7.5 will allow 7 days to restore the inoperable CREOAS System.

SSES CTS Table 3.3.7.1-1, Action 70.b, requires with both of the required monitors inoperable, initiate and maintain operation of the control room emergency filtration system in the isolation mode of operation within 1 hour. Under the same conditions, SSES ITS 3.3.7.1, Actions C 1.1 and C 1.2, achieve the same results by requiring that within one hour the CREOAS subsystem be started and operated or declared inoperable.

Based on the above discussion, this change is less restrictive based on removing the need to place the inoperable channel in downscale trip within one hour. This action simple prevents spurious CREOAS starts and does not enhance nuclear safety. Therefore, this less restrictive change will have a negligible impact on safety.

Specification 3.3.7.1
(See Doc 3.3.7.1 where indicated)
Relocation CTS 3/4.3 (A.1)

NRC RAI 3.3.7.1-5

TABLE 3.3.7.1-1 (Continued)

CREOAS
~~RADIATION MONITORING~~ INSTRUMENTATION

ACTION STATEMENTS

(L.3)

Add Action B (M.1)

ACTION ~~70~~ -

~~a.~~ With one of the required monitors inoperable, place the inoperable channel in the downscale tripped condition within hours; restore the inoperable channel to OPERABLE status within 7 days, or, within the next 6 hours, initiate and maintain operation of the control room emergency filtration system in the isolation mode of operation. (A.4) (place channel in trip) (A.1)

Req Action C.2

Req Action D

Req Actions C.1.1 C.1.2.

~~b.~~ With both of the required monitors inoperable, initiate and maintain operation of the control room emergency filtration system in the isolation mode of operation within 1 hour.

ACTION 71 - With the required monitor inoperable, assure a portable continuous monitor with the same alarm setpoint is OPERABLE i the vicinity of the installed monitor during any fuel movemen If no fuel movement is being made, perform area surveys of th monitored area with portable monitoring instrumentation at le once per 24 hours.

(or) declare CREOAS inoperable within one hour (A.4)

C7

3.3.5(B).1-1

TABLE ~~3.3.3-1~~ (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

TRIP FUNCTION	MINIMUM OPERABLE CHANNELS PER TRIP ~~SYSTEM~~ Function	APPLICABLE OPERATIONAL CONDITIONS	ACTION
T3.3.5.1-1			
~~f.~~ AUTOMATIC DEPRESSURIZATION SYSTEM (1) 4 and 5	footnote (d)		
a. Reactor Vessel Water Level - Low Low Low, Level 1	2[a]	1,2,3	~~32~~ E
b. Drywell Pressure - High	2[a]	1,2,3	~~32~~ E
c. ADS Timer	1[a]	1,2,3	~~33~~ F
e ~~d.~~ Core Spray Pump Discharge Pressure - High (Permissive)	2[a][e]	1,2,3	~~33~~ F
f ~~e.~~ RHR LPCI Mode Pump Discharge Pressure - High (Permissive)	2[a][e][e]	1,2,3	~~33~~ F
d ~~f.~~ Reactor Vessel Water Level - Low, Level 3 (Permissive)	1[a]	1,2,3	~~32~~ E
g. ADS Drywell Pressure Bypass Timer	2[a]	1,2,3	~~33~~ F
~~h. Manual Inhibit~~	~~1~~	~~1,2,3~~	~~33~~ (R.5)
h. ~~i.~~ Manual Initiation	~~1/valve~~ (2)	(A.7) 1,2,3	~~33~~ F

CTS 3/4.2

	TOTAL NO OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE OPERATIONAL CONDITIONS	ACTION
T3.3.8.1-1					
~~8.~~ LOSS OF POWER			(LA.1) 3.3.8.1		(A.7) 3.3.8.1
1 ~~a.~~ 4.16 kv ESS Bus Under voltage (Loss of Voltage, < 20%)	1/bus	1/bus	1/bus	1,2,3,4**,5**	~~35~~ (C) (L.3) 3.3.8.1
2 ~~b.~~ 4.16 kv ESS Bus Under voltage (Degraded Voltage, < 65%)	2/bus	2/bus	2/bus	1,2,3,4**,5**	(B) ~~36~~ (L.2)
3 ~~c.~~ 4.16 kv ESS Bus Under voltage (Degraded Voltage, < 93%)	2/bus	2/bus	2/bus	1,2,3,4**,5**	(B) ~~36~~ 3.3.8.1
d. 480V ESS Bus 0B565 Under voltage (Degraded Voltage, < 65%)###	2/bus	1/bus	2/bus	1,2,3,4**,5**	36
e. 480V ESS Bus 0B565 Under voltage (Degraded Voltage, < 93%)###	2/bus	2/bus	2/bus	1,2,3,4**,5**	36

See footnotes on next page (A.1)

(LA.5) 3.3.8.1 (LA.4) 3.3.8.1

Specification 3.3.5.1 (See Doc 3.3.5.1 unless indicated. Specification 3.3.8.1 Relocated (See Doc CTS 3/4.3)

NRC CAT I 3.3.8.1-5

NRC RAI 3.3.8.1-5

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

facility operation is unaffected by the change because there is no change in the requirement to declare the associated equipment inoperable. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.4 SSES CTS 3.3.3 Table 3.3.3-1, 3.3.3-2 and 4.3.3.1-1 Items 5.d and 5.e, requires the Operability of the 480 V ESS Bus 0B565 Undervoltage (Degraded Voltage, 65% and 92%) relays. SSES ITS Table 3.3.8.1-1 does not require that these relays be maintained Operable. This is acceptable because these relays are required to be maintained Operable by SSES ITS Specification 3.8.1 and 3.8.2 "AC Sources". Therefore, this requirement is adequately addressed by the definition of Operability. Because the requirement for these components is maintained within SSES ITS, this change is a less restrictive administrative change with no impact on safety.

Insert LA.

LB.1 SSES CTS 4.3.3.3 specify the frequency for the ECCS and Loss of Power Logic System Functional Tests (LSFT) as once every 18 months. In SSES ITS SR 3.3.8.1.4, the frequency for the LSFT is specified as once every 24 months. The Surveillance Test Interval of this SR is being increased from once every 18 months to once every 24 months for a maximum interval of 30 months including the 25% grace period. This SR ensures that LOP Instrumentation logic will function as designed to ensure proper response during an analyzed event. Most LOP relays are tested on a more frequent basis during the operating cycle in accordance with SSES ITS 3.3.8.1. The testing of the LOP instrumentation ensures that a significant portion of the Isolation Actuation Instrumentation circuitry is operating properly and will detect significant failures of this circuitry. The LOP instrumentation including the actuating logic is designed to be single failure proof and therefore, is highly reliable. Furthermore, as stated in the NRC Safety Evaluation Report (dated August 2, 1993) relating to extension of the Peach Bottom Atomic Power Station, Unit Numbers 2 and 3 surveillance intervals from 18 to 24 months:

> "Industry reliability studies for boiling water reactors (BWRs), prepared by the BWR Owners Group (NEDC-30936P) show that the overall safety systems' reliabilities are not dominated by the reliabilities of the logic system, but by that of the mechanical components, (e.g., pumps and valves), which are consequently tested on a more frequent basis. Since the probability of a relay or contact failure is small relative to the probability of mechanical component failure, increasing the logic system functional test interval represents no significant change in the overall safety system unavailability."

NRC RAI 3.3.8.1-5

INSERT

LA.5 SSES CTS Table 3.3.3-1, provides design details and descriptive information for LOP Functions. SSES ITS 3.3.8.1 addresses this information in the Bases and does not include these details in the Technical Specifications. This change is acceptable because the information being moved to the Bases does not establish Operability or Testing requirements or the associated allowable values or acceptance criteria. Furthermore,the information being relocated does not impactthe Technical Specification requirements for Operability of the features described. SSES ITS Bases require change control in accordance with the SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirements for Operability or SRs. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

3.3.5.1-1

TABLE ~~3.3.3-1~~ (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

A.1

ACTION STATEMENTS

3.3.5.1

ACTION ~~34~~ D. - With one or more required channel(s) inoperable in one or more Trip Functions:

Req Act. D.2 a. Within 24 hours, place the inoperable channel(s) in the tripped condition or align the HPCI pump suction to the suppression pool; and,

Req Act D.1 + Note b. Within one hour of discovery of loss of initiation capability declare HPCI inoperable if the associated pump suction is not aligned to the suppression pool.

Req Act. G c. If ACTION a or b is not met, declare HPCI inoperable.

3.3.8.1 D

ACTION ~~35~~ - With the number of OPERABLE channels one less than the Total Number of Channels, declare the associated emergency diesel generator inoperable ~~and take the ACTION required by Specification 3.8.1.1 or 3.8.1.2, as appropriate.~~ LA.3 3.3.8.1

(one or more channels inoperable) L.3

ACTION ~~36~~ S - a) With ~~the number of OPERABLE channels one less than the Total Number of Channels~~, place the inoperable channel in the tripped condition within 1 hour; ~~operation may then continue until performance of the next required CHANNEL FUNCTIONAL TEST.~~ L.1 3.3.8.1

B+C

b) ~~With both channels inoperable on a 4.16Kv ESS bus, declare the associated 4.16Kv ESS bus inoperable, and take the ACTION required by Specification 3.8.3.1 or 3.8.3.2 as appropriate.~~ L.2 3.3.8.1 L.3

c) ~~With both channels inoperable on the 480V ESS Bus 0B565, declare the 480V ESS Bus 0B565 not energized;~~

~~(1) For the Diesel Generator E aligned to the Class 1E system, take the ACTION required by Specification 3.8.3.1 or 3.8.3.2 as appropriate.~~

~~(2) For the Diesel Generator E not aligned to the Class 1E system, declare the Diesel Generator E 125 Volt DC distribution system load group not energized and take the ACTION required by Specification 3.8.3.1 or 3.8.3.2 as appropriate.~~

LA.4 3.3.8.1

A.1

NRC RAI 3.3.8.1-7 3.3.8.1-8 Specification 3.3.5.1/3.3.8.1 (All docs apply to both specifications unless indicated)

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

L.2 SSES CTS Table 3.3.3-1, Action 36, requires with a loss of function of the degraded voltage the associated 4.16 kV ESS bus be declared inoperable. Under the same conditions, SSES ITS 3.3.8.1, Action B, requires ~~the associated Diesel Generator~~ to be declared inoperable. The allowed out of service time for an inoperable Diesel Generator is 72 hours compared to 8 hours for the loss of an ESS bus. This is acceptable because the purpose of the specification is to ensure the Diesel Generator start capability is maintained. Furthermore, even though the loss of the degraded voltage relays does cause the ESS bus automatic transfer to be inoperable, the bus itself is still energized and capable of supplying the required loads provided the normal offsite power source remains available. Therefore, this less restrictive change will have a negligible impact on safety.

L.3 SSES CTS Table 3.3.3-1, Action 3~~6~~5, for Function 5.a requires declaring the DG ~~inoperable~~ or the 4.16 kV ESS bus is operable immediately for a loss of Function. Action 36.b, for Fu 5.b and Under the same conditions, SSES ITS Table 3.3.8.1-1 allows 1 hour to restore the channel prior to requiring that the DG be declared inoperable. The allowance for 1 hour is acceptable because 1 hour provides sufficient time for the troubleshooting of the failure and restore component OPERABILITY while minimizing risk. Therefore, this less restrictive change will have a negligible impact on safety.

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.3.8.1 consistent with the BWR STS, NUREG-1433, Rev. 1.

SECTION 3.4 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.4	REACTOR COOLANT SYSTEM (RCS)					
3.4-1	R.1 R.2	Relocated 3.4	The requirements specified in CTS 3/4.4.4 and 3/4.4.8 do not satisfy the NRC Policy Statement screening criteria for inclusion in the ITS. These requirements are relocated to the Technical Requirements Manual (TRM).	Provide commitment that the TRM will be incorporated into FSAR (under 50.59 control) in order to justify moving these CTS requirements to the TRM.	The TRM is being incorporated as part of the SSES FSAR.	Closed
3.4.1	Recirculation Loops Operating					
3.4.1-1A	L.2	cts 3.4.1.1.2 Action c.1 ITS 3.4.1 Note	CTS 3.4.1.1.2, ACTION c.1, requires compliance with single loop limits within 6 hours of entering single loop operation. ITS 3.4.1, Note, allows 12 hours to make the necessary limit and setpoint modifications.	Additional justification is required for this beyond scope change.	SSES did an evaluation and determined that for an unplanned event(i.e., the event occurs on the back shift (plant transient)) the backshift plant staffing would need approximately 12 hours to complete the necessary changes.	Closed
3.4.1-2A	LA-5	CTS 3.4.1.1.2.a .6	CTS 3/4.3CTS 3.4.1.1.2.a.6 refers to CTS table 3.3.6-2 and specifies control rod block setpoints. The ITS and STS do not contain such requirements for the control rod block monitor setpoints which are moved the TRM.	Provide discussion of placement of CR block setpoints into the TRM.	PP&L preference that setpoints will be controlled in the TRM.	Closed
3.4.10	RCS Pressure and Temperature (P/T) Limits					
3.4.10-1	A.1	CTS 3.4.3.4 ITS SR 3.4.10.3 STS SR 3.4.10.3	CTS 3.4.10 specifies a differential temperature limit between the "reactor pressure vessel steam space coolant" and the "bottom head drain line coolant". ITS SR 3.4.10 specifies this differential temperature limit as between the "reactor pressure vessel (RPV) coolant temperature" and the "bottom head coolant temperature". This terminology is different and not necessarily equivalent. No discussion is provided to justify the equivalency of these two differential temperature measurements.	Provide additional discussion and justification for the equivalency of the changed terminology used in determing this temperature differential.	An "A" DOC will be added to 3.4.10 DOCs. Terminology is equivalent.	Closed-PP&L will provide new DOC.

SECTION 3.4 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.4.3	Safety/Relief Valves (S/RVs)					
3.4.3-1	P.1	CTS 3.4.2 ITS SR 3.4.3.1 STS SR 3.4.3.1	CTS 3.4.2 has a note that allows up to two inoperable S/RVs to be replaced with S/RVs with lower setpoints.ITS SR 3.4.3.1 retains this note.STS SR 3.4.3.1 does not have this note.	Evaluate whether the note to allow lower setpoint S/RVs to replace inoperable S/RVs is a generic change or the need to manually actuate S/RVs (SSES eliminates SR 3.4.3.2).	Current Licensing Basis. PP&L will submit change as a TSTF.	Closed-TSTF Pending, but change is acceptable based on CLB.
3.4.3-2	P.3	STS SR 3.4.3.2	SSES ITS does not include STS SR 3.4.3.2, requiring each S/RV be manually actuated, due to resulting S/RV susceptibility to damage. This has generic implications.	Submit TSTF change form to incorporate change into STS.	Current Licensing Basis. PP&L will add a statement to JFD P.3 to identify this as a design issue for SSES.	Closed-PP&L will provide revised wording for the JFD.
3.4.4	RCS Operational LEAKAGE					
3.4.4-1	L.2	CTS 3.4.3.2.e ITS 3.4.4.d STS 3.4.4.d	CTS 3.4.3.2, Action e, requires that if the unidentified LEAKAGE increase is greater than 2 gpm within any 24 hour period,... identify the source of LEAKAGE increase,... within 12 hours. ITS 3.4.4.d and Action B.2 requires that if unidentified LEAKAGE increases greater than 2 gpm in any 4 hour period,.. verify source of unidentified LEAKAGE increase,.. within 4 hours. The increase in unidentified leak rate is changed from .083 gpm/hr to .5 gpm/hr which is a less restrictive change to the allowable value but is consistent with the STS.	Provide further justification for the change from 24 hours to 4 hours and the change for the frequency in ITS SR 3.4.4.1.	See NUREG M/U page 3.4-7. This is the period identified in the NUREG.	Closed-No further action required.
3.4.4-2A	L.1 P.2	CTS SRs 4.4.3.2.1.a /b/c ITS 3.4.4.1 STS SR 3.4.4.1	The CTS SR 4.4.3.2.1.a, b, and c have frequencies of 4, 12 and 24 hours respectively. The frequency for this combined SR, in ITS SR 3.4.4.1, is changed to 12 hours. The STS SR 3.4.4.1 interval is 8 hours. There is no justification for the changing the ITS SR 3.4.4.1 frequency to 12 hours versus the 8 hours provided in the STS SR 3.4.4.1.	Provide justification for the proposed SR 3.4.4.1 frequency of 12 hours.	3.4.4 JFD P.2 will be modified to identify that the 12 hour frequency is based on current plant operating shifts of 12 hours.	Closed-PP&L will provide revised JFD.
3.4.5	RCS Pressure Isolation Valve (PIV) Leakage					
3.4.5-1A	P.1	STS 3.4.5 Req Action A.2	ITS 3.4.5 does not include the STS 3.4.5 Required Action A.2 because it is not in the Current Licensing Basis (CTS). A.2 requires that the RCS pressure boundary double isolation barrier be restored within 72 hours. The CTS allows continued operation with single barrier isolation. This is not prudent.	Justify the acceptability of continued operation with RCS pressure boundary single barrier isolation with an inop PIV.	Current Licensing Basis.	Closed.

SECTION 3.4 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.4.6	RCS Leakage Detection Instrumentation					
3.4.6-1	A.4	CTS 3.4.3.1.b ITS 3.4.6 STS 3.4.6	CTS 3.4.3.1.b requires that one primary containment atmosphere gaseous radioactivity monitor and one containment atmosphere particulate radioactive monitor be aligned to the drywell. This requirement is deleted from ITS 3.4.6 because the plant configuration is changed and the capability to align the particulate monitors to either the suppression chamber or the drywell is removed. This deletion is a less restrictive change to CTS requirements and is beyond the scope of the conversion.	THis deletion of CTS 3.4.3.1.b requirements and plant reconfiguration needs further justification, and a description of the existing plant design is needed. This change should have required a TS license amendment.	Change based on plant design. When CTS was issued it was physically possible to align monitors to either drywell or S/P air space. Modification performed which eliminated the lineup to the S/P. No TS change was needed because physical change ensured compliance with CTS. PP&L reword 3.4.6 DOC to state that modification performed previously eliminated Non-Technical Specification Capability.	Closed-PP&L will provide M/U of DOC A.4.
3.4.7	RCS Specific Activity					
3.4.7-1A	A.2 (L)	CTS 3.4.5, Action c. ITS 3.4.7 Actions A.1 and B.	CTS 3.4.5, Action c, requires additional sampling for RCS Specific Activity following conditions where off-gas activity exceeds limits and when THERMAL POWER is changed by more than 15% in one hour. ITS 3.4.7, Actions A.1 and B.1 also require additional sampling but only when RCS Specific Activity is first identified to exceed allowable limits. ITS 3.4.7 Action A.1 and B.1 requirements fail to encompass the sampling requirements of CTS 3.4.5, Action c, because these ACTIONS are taken only after ITS SR 3.4.7.1 identifies an out of specification condition, and ITS SR 3.4.7.1 is only performed once each 7 days. ITS 3.4.7 has no requirement to sample the RCS for increased activity during the interim when increased RCS activity precursors occur. Eliminating the requirements of CTS, Action c, is a deleted Surveillance requirement of CTS 3.4.5.	This deleted CTS surveillance Test (Sampling upon change of RTP of >15% is not in ITS) is a less restrictive change that needs justification.	CTS M/U will be modified and new DOC for change will be written.	Closed-PP&L will provide revised CTS M/U and new DOC.

SECTION 3.4 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.4.8	Residual Heat Removal (RHR) Shutdown Cooling System Hot Shutdown					
3.4.8-1A	A.6	CTS 3.4.9.1 Note * ITS 3.4.8 Note 1	CTS 3.4.9.1 contains a NOTE indicated by "*" stating "The shutdown cooling pump may be removed from operation for up to 2 hours per 8-hour period provided the other loop is OPERABLE." ITS 3.4.8, NOTE 1 rephrases this NOTE to say "Both RHR shutdown cooling subsystems and recirculation pumps may be removed from operation for up to 2 hours per 8 hour period." This is a less restrictive change to the allowed outage time and conditions because CTS 3.4.9.1 does not specifically allow all SDC cooling loops and both recirculation loops to be removed from operation at the same time. ITS 3.4.8, Note 2, directly conflicts with CTS 3.4.9.1, Action b, and ITS 3.4.8, Action B.1 which requires immediate ACTION to restore one RHR SDC subsystem OR one recirculation pump to operation. The difference between CTS 3.4.9.1, with Note "*" and ITS 3.4.8, Note 2 is not explained. In addition, the terms "shutdown cooling pump" (used in the CTS) and "shutdown cooling subsystem" (used in the ITS) are not the same entity. No explanation for this change is provided.	Provide discussion for the less restrictive change which justifies the difference between CTS 3.4.9.1, Note * and ITS 3.4.8, Note 2, allowing both RHR shutdown cooling loops and both recirculation pumps to be removed from operation for 2 hours per 8 hour period.	See CTS page 3/4 4-24. Notes are considered equivalent.	Closed.

SECTION 3.4 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.4.9	Residual Heat Removal (RHR) Shutdown Cooling System Cold Shutdown					
3.4.9-1	A.3	CTS 3.4.9.2 Note * ITS 3.4.9 Note 1	CTS 3.4.9.2 contains a Note indicated by "*" stating "The shutdown cooling pump may be removed from operation for up to 2 hours per 8-hour period provided the other loop is OPERABLE." ITS 3.4.9, NOTE 1 rephrases this NOTE to say "Both RHR shutdown cooling subsystems and recirculation pumps may be removed from operation for up to 2 hours per 8 hour period." This is a less restrictive change to the allowed outage time and conditions because CTS 3.4.9.2 does not specifically allow all SDC cooling loops and both recirculation loops to be removed from operation at the same time. ITS 3.4.9, NOTE 2, directly conflicts with CTS 3.4.9.2., Action b, and ITS 3.4.9, Action B.1 which requires ACTION to verify reactor coolant circulating by an alternate method within one hour. The difference between CTS 3.4.9.2, with Note "*" and ITS 3.4.9, Note 2 is not explained. In addition, the terms "shutdown cooling pump" (used in the CTS) and "shutdown cooling subsystem" (used in the ITS) are not the same entity. No explanation for this change is provided.	Provide discussion for the less restrictive change which justifies the difference between CTS 3.4.9.2, Note "*" and ITS 3.4.9, Note 2, allowing both RHR shutdown cooling loops and both recirculation pumps to be removed from operation for 2 hours per 8	See CTS page 3/4 4-25. Notes are considered equivalent.	Closed.

NRC [illegible] 3.4.3-2

DISCUSSION OF DEVIATIONS FROM NUREG 1433
ITS: SECTION 3.4.3 - S/RVs

NON-BRACKETED PLANT SPECIFIC CHANGES

P.1 SSES ITS 3.4.3 include a Note which allows up to two inoperable S/RVs to be replaced with S/RVs with lower setpoints. This is allowed in SSES current licensing basis and does not impact the requirements of the SSES Overpressure analysis. Therefore, this change is not a significant or generic deviation from NUREG 1433.

P.2 Additional design details were added and some statements removed the Bases of SSES ITS 3.4.3. This change provides additional detail and is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

P.3 SSES ITS 3.4.3 does not include SR 3.4.3.2, verification that each S/RV opens when manually actuated. Due to the susceptibility of S/RVs to damage and subsequent leakage during the operating cycle SSES does not perform this surveillance. SSES has determined that lift testing provides sufficient verification of S/RV Operability This is consistent with current licensing bases and a specific design issue for SSES. Therefore, this change is not a significant or generic deviation from NUREG 1433.

P.4 SSES ITS SR 3.4.3.1 Bases are revised to clarify that the setpoint required for S/RV Operability is ±1% of the nominal setting. This statement is then clarified to indicate that "Requirements for accelerated testing are established in accordance with the InService Test Program." This is consistent with requirements in the SSES CTS which require an S/RV setpoint of ±1% of the nominal setting for Operability at the time S/RVs are installed with subsequent requirements for accelerated testing if an S/RV setpoint is determined to be more than ±3% of nominal during testing following removal of the S/RV. This change provides additional detail and is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

INCORPORATED GENERIC CHANGES TO NUREG-1433, REV. 1

None

NRC RAI 3.4.4-2A

DISCUSSION OF DEVIATIONS FROM NUREG 1433
ITS: SECTION 3.4.4 - RCS OPERATIONAL LEAKAGE

NON-BRACKETED PLANT SPECIFIC CHANGES

P.1 Editorial changes and additional design details are added to clarify the SSES ITS Bases. This change provides additional detail and is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

P.2 NUREG 1433 SR 3.4.4.1 Frequency is changed to 12 hours from 8 hours. This change is consistent with current licensing basis ~~and~~ and current operating shift schedule of 12 hours. Therefore is not a significant or generic deviation from NUREG 1433.

INCORPORATED GENERIC CHANGES TO NUREG-1433, REV. 1

None

DISCUSSION OF CHANGES
ITS: SECTION 3.4.6 - RCS LEAKAGE DETECTION INSTRUMENTATION

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 SSES CTS 3.4.3.1, Action a, requires that an alternate means of determining the leak rate be applied for the floor drain sump. In SSES ITS 3.4.6, this Action has been deleted since it duplicates the requirement in SSES ITS SR 3.4.4.1. To perform SSES ITS SR 3.4.4.1, some form of measurement device is necessary. If a measurement device is not Operable, LCO 3.4.4 would dictate a shutdown since Leakage would not be known. Since the requirements of SSES ITS is consistent with SSES CTS, this change is administrative with no impact on safety.

A.3 SSES ITS 3.4.6 adds Action D which explicitly identifies that LCO 3.0.3 is required to be entered if all required RCS leakage monitoring systems are inoperable. This additional Action is consistent with SSES CTS which has no Action for all RCS leakage monitoring systems inoperable, therefore entrance into 3.0.3 is required. Therefore, SSES ITS 3.4.5, Action D, is consistent with the current requirements and is an administrative change with no impact on safety.

A.4 SSES CTS 3.4.3.1 requires that the radioactivity monitors be aligned to the drywell. This statement is eliminated in SSES ITS 3.4.6 ~~since~~ because the capability to align to either the suppression chamber or the drywell has been removed. The change is made to reflect the current plant configuration with no change in the SSES CTS requirements, therefore, the change is administrative with no impact on safety.

SSES original design allowed monitors to be in a non-TS alignment. After the completion of the modification, the monitors can only be aligned to the drywell

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES CTS 3.4.3.1, Action b, requires grab samples every 24 hours. SSES ITS Required Action B.1 increases the required grab sampling frequency with no atmospheric monitoring available, to once every 12 hours. This change is consistent with the BWR STS, NUREG-1433, Revision 1 and is a more restrictive change with no negative impact on safety, based on the fact the increased atmospheric monitoring will provide greater assurance of leakage detection, without a significant impact on plant staff.

A.1

REACTOR COOLANT SYSTEM

3/4.4.5 SPECIFIC ACTIVITY

LIMITING CONDITION FOR OPERATION

LCO 3.4.7 ~~3.4.5~~ The specific activity of the primary coolant shall be limited to:

a. Less than or equal to 0.2 microcurie per gram DOSE EQUIVALENT I-131, and

b. Less than or equal to 100/E microcuries per gram. L.1

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3 and 4 with any Main Steam Line not isolated L.2

ACTION: L.3

Add Note to Action A.

a. In OPERATIONAL CONDITIONS 1, 2 or 3 with the specific activity of the primary coolant:

Action A 1. Greater than 0.2 microcurie per gram DOSE EQUIVALENT I-131 but less than or equal to 4.0 microcuries per gram DOSE EQUIVALENT I-131 for more than 48 hours during one continuous time interval or greater than 4.0 microcuries per gram DOSE EQUIVALENT I-131,

Action B be in at least HOT SHUTDOWN with the main steam line isolation valves closed within 12 hours. L.2

2. Greater than 100/E microcuries per gram, be in at least HOT SHUTDOWN with the main steamline isolation valves closed within 12 hours. L.2

b. In OPERATIONAL CONDITIONS 1, 2, 3 or 4 with the specific activity of the primary coolant greater than 0.2 microcurie per gram DOSE EQUIVALENT I-131 or greater than 100/E microcuries per gram, perform the sampling and analysis requirements of Item 4a of Table 4.4.5-1 until the specific activity of the primary coolant is restored to within its limit.

Required Actions A.1 and B.1

c. In OPERATIONAL CONDITION 1 or 2, with:

1. THERMAL POWER changed by more than 15% of RATED THERMAL POWER in one hour, or

2. The off-gas level, at the SJAE, increased by more than 10,000 microcuries per second in one hour during steady state operation at release rates less than 75,000 microcuries per second, or

3. The off-gas level, at the SJAE, increased by more than 15% in one hour during steady state operation at release rates greater than 75,000 microcuries per second.

A.2 L.4

NRC RAI 3.4.7-1A

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 ~~SSES CTS 3.4.5, Action c, requires additional sampling following conditions where the specific activity exceeds the limits. SSES CTS 3.4.5 Action b, and SSES ITS 3.4.7, Actions A.1 and B.1 also require additional sampling. Since the SSES CTS 3.4.5 Action b and SSES ITS 3.4.7 requirements encompass the sampling requirements of SSES CTS 3.4.5, Action c, eliminating the specifics of SSES CTS Action c is an administrative change with no impact on safety.~~

Not used

A.3 SSES CTS Table 4.4.5-1 Requirement 5 "Isotopic Analysis of an Offgas Sample...", is being deleted in SSES ITS 3.4.7. This is acceptable because the SSES CTS requirement is the same as SSES ITS SR 3.7.5.1 which requires the same sample to be taken every 31 days. Therefore, this is an administrative change with no impact on safety because it only eliminates a duplicate requirement contained in SSES CTS and SSES ITS.

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES CTS Table 4.4.5-1 item 2 requires that isotopic analysis for DOSE EQUIVALENT I-131 concentration be made at least once per 31 days. SSES ITS SR 3.4.7.1 requires that this sample be taken once every 7 days. The increased surveillance frequency provides a compensatory measure for the removal of the requirement that gross specific activity remain less than or equal to 100/E-bar μCi/gram. This more restrictive change will have no negative impact on safety, based on the fact that the increased sampling will provide an earlier detection of a degraded condition.

TECHNICAL CHANGES - LESS RESTRICTIVE

L.1 SSES CTS 3.4.5 requirement to maintain specific activity $\leq$ 100/E-bar μCi/gm has been deleted. The SSES CTS Bases state that the intent of the requirement to limit the specific activity of the reactor coolant is to ensure that whole body and thyroid doses at the site boundary would not exceed a small fraction of the limits stated in 10 CFR 100 (i.e., 10% of 25 rem and 300 rem, respectively) in the event of a main steam line failure outside containment or an instrument line break. To ensure that offsite thyroid doses do not exceed 30 rem, reactor coolant dose

NRC RAI 3.4.7-1A

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

L.2 SSES CTS 3.4.5 Applicability includes Operational Condition 4. SSES ITS 3.4.7 Applicability is limited to only those conditions which represent a potential for release of significant quantities of radioactive coolant to the environment. Mode 4 is omitted since the reactor is not pressurized and the potential for leakage is significantly reduced. In Modes 2 and 3, with the main steam lines isolated, no escape path exists for significant releases and requirements for limiting the specific activity are not required. The Required Actions are also modified to reflect the new Applicability, and an option for exiting the applicable Modes is provided for cases where isolation is not desired. Based on the fact that the SSES ITS Applicability is consistent with plant conditions where event consequences are significant, this less restrictive change will have a negligible impact on safety.

L.3 SSES ITS 3.4.7 Action A adds a Note to the Required Actions to indicate that LCO 3.0.4 is not applicable. Entry into the applicable Modes should not be restricted since the most likely response to the condition is restoration of compliance within the allowed 48 hours. Further, since the LCO limits assure the dose due to a LOCA would be a small fraction of the 10 CFR 100 limit, operation during the allowed time frame would not represent a significant impact to the health and safety of the public. Therefore, this less restrictive change will have a negligible impact on safety.

L.4 Insert

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.4.7 consistent with the BWR STS, NUREG-1433, Rev. 1.

NRC RAI 3.4.7-1A.

INSERT 3.4.7 DOC:

L.4 SSES CTS 3.4.5, Action c, specifies increased sampling in Modes 1 and 2 whenever there is an increase in power of greater than 15% in one hour or specified changes in the off-gas levels as measured at the SJAE. SSES ITS 3.4.7, requires increased sampling if limits are exceeded, but does not require this increased sampling for plant condition changes. This is acceptable because a change in plant power or a change in SJAE offgas levels does not necessarily indicate that the limits are exceeded. Therefore, this change being implemented to be consistent with NUREG 1433 requirements, will have a negligible impact on safety.

NRC RAI 3.4.10-1

SPECIFICATION 3.4.10

REACTOR COOLANT SYSTEM

IDLE RECIRCULATION LOOP STARTUP

LIMITING CONDITION FOR OPERATION

A.1

LCO. 3.4.10

SR 3.4.10.3 ~~3.4.1.4~~ An idle recirculation loop shall not be started unless the temperature differential between the reactor pressure vessel steam space coolant and the bottom head drain line coolant is less than or equal to 145°F, and:

RPV Coolant A.10

SR 3.4.10.4 ~~a.~~ When both loops have been idle, unless the temperature differential between the reactor coolant within the idle loop to be started up and the coolant in the reactor pressure vessel is less than or equal to 50°F, or

SR 3.4.10.4 ~~b.~~ When only one loop has been idle, unless the temperature differential between the reactor coolant within the idle and operating recirculation loops is less than or equal to 50°F, and the operating loop flow rate is less than or equal to 50% of rated loop flow, and the reactor is operating at a THERMAL POWER/core flow condition below the 80% Rod Line shown in Figure 3.4.1/1.-1.

A.3 LA.1 A.7

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3 and 4.

ACTION:

LA.1

Action A With temperature differences and/or flow rates exceeding the above limits, suspend startup of any idle recirculation loop. M.2

Required Action A.2

SURVEILLANCE REQUIREMENTS

~~4.4.1.4~~ The temperature differentials and flow rate shall be determined to be within the limits within 15 minutes prior to startup of an idle recirculation loop.

SR 3.4.10.3
3.4.10.4

ADMINISTRATIVE (continued)

A.7 SSES CTS 3.4.1.4.b requires when starting a recirculation pump the Thermal power/core flow be below the 80% rod line. SSES ITS 3.4.10 does not contain this requirement. This is acceptable because SSES ITS 3.4.1, for single loop operation, requires that loop operation will be maintained below the 80% rod line. SSES ITS 3.4.1 duplicates the SSES CTS 3.4.1.4.6 requirement. Therefore, this is an administrative change with no impact on safety.

A.8 SSES CTS 4.4.1.1.2.3 requires verification that the plant is within applicable limits when recirculation flow is ≤ 50% of rated loop flow. SSES ITS SR 3.4.10.5 and SR 3.4.10.6 require that the same limits be maintained with recirculation loop flow ≤ 21,320 gpm. This is acceptable because the 21,320 gpm is equivalent to 50% rated loop flow and "gpm" is what is read in the Control Room. Therefore, this is an administrative change with no impact on safety.

A.9 SSES ITS SR 3.4.10.1 notes eliminate details containment in SSES CTS 3.4.6.1 to monitor limits following a nuclear shutdown and low power physics tests. This is acceptable because SSES ITS SR 3.4.10.1 notes bound all conditions described in SSES CTS 3.4.6.1 Therefore, this change is an administrative change with no impact on safety.

Insert A.10

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES ITS 3.4.10, Required Action A.2 and C.2, add a specific Completion Time for the required engineering evaluation. The time of 72 hours is considered reasonable in Modes 1, 2, and 3 because the limits represent controls on long term vessel fatigue and usage factors. In conditions other than Modes 1, 2, and 3, the proposed time (prior to entering Mode 2 or 3) would prevent entry in the operating Modes which is consistent with the intent of SSES CTS LCO 3.0.4. Although SSES ITS 3.4.10 Required Actions A.2 and C.2 are more restrictive, they are consistent with the intent of the SSES CTS and will have no negative impact on safety.

M.2 SSES CTS 3.4.1.4 Actions prohibits startup of a recirculation loop not within limits, but do not provide an Action if the loop is already operating. SSES ITS 3.4.10 Actions A and C require an engineering evaluation to ensure continued operation is acceptable. This additional restriction on plant operation, although more restrictive, will no negative impact safety because the required evaluation is necessary to ensure the nonconforming condition is acceptable.

M.3 SSES CTS 3.4.6.1 Action requires that the temperature and/or pressure be restored "within 30 minutes." SSES ITS 3.4.10 Action C requires that operators "initiate action to restore ...

NRC RAI 2 3.4.10-1

INSERT 3.4.10 DOCs

A.10 SSES CTS 3.4.1.4 states that the differential between the reactor pressure vessel steam space coolant and the bottom head drain line . . .". SSES ITS 3.4.10.3 specifies that the difference between the bottom head coolant temperature and the reactor pressure vessel (RPV) coolant temperature . . .". These terms are equivalent and will not result in a change in how this SR is performed, but the term used in the SSES ITS provides a more accurate description of the temperature measured. Therefore, this is change is an administrative change with no impact on safety.

SECTION 3.5 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.5.1	ECCS Operating					
3.5.1-1	A.3	CTS 3.5.1 Action b.4	CTS 3.5.1 footnote "*" to Action b.4 states that if Cold Shutdown cannot be established when two or more RHR subsystems are inoperable then reactor coolant temperature should be maintained as low as practical using alternate heat removal methods. ITS 3.5.1, Action I, requires entry into LCO 3.0.3 when two or more RHR subsystems are inoperable.	DOC A.3 states that the CTS footnote is deleted because it does not establish any additional restrictions on plant operation. The staff believes that the footnote requires establishing alternate decay heat removal methods; however, the deletion of the footnote can still be justified as an administrative change since the requirement to establish alternate decay heat removal methods when two RHR subsystems are inoperable remains in ITS 3.4.8. Please revise DOC A.3 accordingly.	DOC A.3 will be revised to address comment.	Closed-PP&L will provide M/U of DOC A.3
3.5.1-2	L.8 / M.2	CTS 3.4.1.1.1	CTS 3.4.1.1.1, Actions c and d, and CTS 3.4.1.1.2, Actions e and f, require closing a recirculation pump discharge and/or bypass valve immediately if a valve is inoperable. Entering CTS 3.0.3 is required if the valve cannot be closed. ITS SR 3.5.1.6 requires verification that each recirculation pump discharge valve and bypass valve either cycles through one complete cycle of full travel or is de-energized in the closed position. If the SR cannot be satisfied, the associated LPCI subsystem would have to be declared inoperable and ITS 3.5.1, Action A, entered. Under ITS 3.5.1, Action A, plant operation may continue for as long as 7 days. The change modifies two requirements. The first is that the allowed outage time for a valve that can't be closed is changed from immediately to 7 days. The second is that the CTS require that the inoperable valve be verified in the closed position every 31 days. ITS SR 3.5.1.6 requires that the inoperable valve be verified "deenergized" in the closed position "once each startup prior to exceeding 25% RTP. No periodic frequency for verifying valve status exists in the ITS.	The only more restrictive portion of this change that should be addressed under M.2 is the requirement to de-energize the valve in the closed position. The less restrictive portions which should be addressed under L.8 include the change in the allowed outage time for a valve that cannot be closed and the removal of the periodic requirement to verify valve position every 31 days. The DOCs will be restructured in the safety evaluation to appropriately address the more restrictive and less restrictive aspects of this change. No licensee action is required.	No action required.	Closed.

SECTION 3.5 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.5.1-3	LA.3	CTS 3.8.3.1.a.1.c	The CTS markup identifies DOC LA.3 to justify the deletion of the details associated with the isolated 480V swing bus.	DOC LA.3 for ITS 3.5.1 does not address this change. Please provide an appropriate DOC reference for this change.	See CTS M/U page 3/4 8-17. DOC LA.3 can be found in section 3.8.7 DOCs.	Closed
3.5.1-4	P.3	STS Bases for SR 3.5.1.12	The sentence "However, the requirements of SR 3.5.12 are met by a successful performance at any pressure," has been added to the STS Bases description.	The STS markup references JFD P.3 for this change. P.3 only addresses changes to the Bases for SR 3.5.1.11. Please provide a JFD for the change to the Bases for SR 3.5.1.12, keeping in mind that the proposed change is a generic change and addressing any plant-specific reason for SSES to make the change.	NUREG M/U will be revised to identify correct JFD.	Closed-PP&L will provide revised NUREG M/U.
3.5.1-5	No JFD	STS Bases for SR 3.5.1.10	The STS markup for SR 3.5.1.10 shows the first sentence of the second paragraph modified as follows:The 18 to 24 month Frequency is based on the need to perform the Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.acceptable because . . .	No JFD is referenced to justify this change. Please provide a JFD reference.	NUREG M/U will be revised to identify correct JFD.	Closed-PP&L will provide revised NUREG M/U.
3.5.1-6	P.2	NUREG	STS 3.5.1, Required Action C.1, allows 1 hour to verify that the RCIC system is operable when HPCI is inoperable. ITS 3.5.1, Required Action D.1 requires immediate verification of RCIC operability.	JFD P.2 states, "This change is a preference that reflects PP&L's conservative operating philosophy and is not being proposed as a generic change to NUREG-1433. The staff believes that this is a generic change.	PP&L will submit a TSTF.	Open-TSTF Pending (BWROG-??)

SECTION 3.5 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.5.2	ECCS Shutdown					
3.5.2-1	A.7	CTS 3.5.3.b	CTS 3.5.3.b requires immediate suspension of OPDRVs if one of the two CS subsystems becomes inoperable in Mode 4 or 5 when the suppression pool is drained or less than the required limit. ITS 3.5.2, Actions A & B, allow 4 hours to suspend OPDRVs when one of the required CS subsystems becomes inoperable.	Please explain why this is not justified as a less restrictive change, given the change in time for suspension of OPDRVs from immediately to within 4 hours.	See CTS M/U page 3/4 5-6. As stated in DOC A.7 CTS 3.5.2 Action a. allows 4 hours to suspend OPDRVs with a loss of one CS subsystem which would result from draining the S/P.	Open-NRC reviewing allowance.
3.5.2-2	L.3	CTS 3.8.3.2.a.1.c	CTS 3.8.3.2.a.1.c, 3.8.3.2.a.2.c, 3.8.3.2, Action f, & 4.8.3.2.2 requirements associated with the isolated 480 AC swing bus in Mode 4 and 5 are deleted in the ITS. CTS 3.8.3.2, Action f, requires declaring the LPCI system inoperable when the isolated swing bus is inoperable. It appears the swing power bus acts as a backup power source to the normal source. The ITS deletes the requirement for declaring the applicable LPCI inoperable when the swing bus is inoperable.	Explain what is meant by the statement, "Since SSES ITS Bases permits only one LPCI pump in a subsystem to be used to satisfy the requirements of LCO 3.5.2, each component in the flow path is required to have a power supply and testing of the isolated 480 AC swing bus is not required." The staff is having difficulty following the logic. Also, CTS 3.8.3.2.a.1.c and 3.8.3.2.a.2.c required the operability of the isolated 480 AC swing bus in Modes 4 & 5 only "if the division I (II) LPCI subsystem 'alone' is fulfilling the requirements of Specification 3.5.2." How is this possible when Specification 3.5.2 requires two ECCS subsystems to be operable? Additional explanation of why operability of the isolated 480 AC swing bus is not required to support LPCI operability in Modes 4 and 5 is needed	Discuss the design of the LPCI subsystems. In shutdown condition only one LPCI pump in a subsystem is required. If the single failure criteria in shutdown condition is met by having the two different loops of LPCI Operable and only one pump is required to be OPERABLE, there is no need to have the additional power (independence of supply to the injection valve provided by the swing bus). In CTS two LPCI subsystems in a single RHR Loop were considered OPERABLE when the swing bus was also OPERABLE because it provided single failure protection from an event which included a loss of power.	Open-NRC reviewing PP&L response.

SECTION 3.5 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.5.3	RCIC System					
3.5.3-1	LA.4	CTS 4.7.3.b	CTS 4.7.3.b specifies performing RCIC testing at a frequency of 92 days, consistent with the STS. ITS SR 3.5.3.3 references the Inservice Testing Program for the testing frequency. The justification did not justify deviating from the STS specified frequency of 92 days.	Was there a reason that RCIC testing frequency was specified as 92 days in the CTS and all ECCS testing frequencies were specified as in accordance with the IST Program? This is both a change to the CTS and a change to the STS, which appears to be a generic change. Please justify the change on a plant-specific basis or submit a generic STS change to the TSTF.	PP&L is evaluating this change.	Closed- PP&L's review identified that the first 10 year IST program did not incorporate RCIC, but the current inspection program does include RCIC therefore, change is acceptable.

NRC RAI 3.5.1-1

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 SSES CTS 3.5.1, footnote "#" to the Applicability, references SSES CTS 3.10.5, Training Startups, which allows a relaxation to the requirements for ECCS system Operability if certain conditions are maintained during training startups. SSES ITS 3.0.7 adequately prescribes the use of the Special Operations LCOs and eliminates the need for this "cross reference." Elimination of this reference is an administrative change with no impact on safety.

A.3 SSES CTS 3.5.1, footnote "*" to Action b.4, states that if Cold Shutdown cannot be established when two or more RHR subsystems are inoperable then reactor coolant temperature should be maintained as low as practical using alternate heat removal methods. This footnote is deleted because it does not establish any additional restrictions on plant operation. Furthermore, this footnote could be interpreted as a relaxation of the requirement to achieve Cold Shutdown. SSES ITS 3.5.1, Action I, which requires entry into SSES ITS 3.0.3 when two or more RHR subsystems are inoperable, adequately prescribes the requirement to make efforts to maintain coolant temperature as low as practical if Cold Shutdown cannot be achieved. Elimination of this footnote is an administrative change because there is no change to the existing requirements.

Insert

A.4 SSES CTS 4.5.1.b.2 specifies that the LPCI pump flow verification test be performed at a pressure corresponding to a reactor vessel to primary containment differential pressure (psid) greater than or equal to the value assumed in the safety analysis. SSES ITS SR 3.5.1.7 and SR 3.5.2.5 specify that the LPCI pump flow test be performed at a system head corresponding to a reactor pressure greater than or equal to the value assumed in the safety analysis. This change was made to make the test description for the LPCI test the same as that currently used for the CS test. Both tests are intended to verify the flow rates at the reactor pressures assumed in the safety analysis. NEDC-32071P, Table 4-3. NEDC-32071P, Table 4-3 footnote (1), indicates that the pressures assumed for LPCI or CS pump injection and the values at which the pumps are tested is expressed in "vessel to drywell differential pressure." The acceptance criteria used for SSES ITS SR 3.5.1.7 (and SSES ITS SR 3.5.2.5) is expressed as minimum flow rate against a system head corresponding to reactor pressure. This criteria is clarified in the Bases which states that pump flow rates are verified against a system head equivalent to the

INSERT 3.5.1 DOC:

A.3 SSES CTS 3.5.1, footnote "*" to Action b.4, states that if Cold Shutdown cannot be established when two or more RHR subsystems are inoperable then reactor coolant temperature should be maintained as low as practical using alternate heat removal methods. This footnote is deleted because it does not establish any additional restrictions on plant operation. Furthermore, this footnote could be interpreted as a relaxation of the requirement to achieve Cold Shutdown. The above identified conclusion is based on SSES ITS 3.4.8, Conditions and Required Actions, specifically Required Action A.3, to be in Mode 4, which prescribes the requirement to make efforts to "maintain reactor coolant temperature as low as practical." If conditions are such that Mode 4 cannot be attained, the Action remains in effect, essentially requiring efforts to reach Mode 4 to continue. Since the change does not result in a change to the technical requirements of the SSES CTS, it is an administrative change with no impact on safety.

NRC RAI 3.5.1-4

BASES

SURVEILLANCE REQUIREMENTS

SR 3.5.1.12 (continued)

that no blockage exists in the S/RV discharge lines. This is demonstrated by the response of the turbine control or bypass valve or by a change in the measured flow or by any other method suitable to verify steam flow. Adequate reactor steam dome pressure must be available to perform this test to avoid damaging the valve. Also, adequate steam flow must be passing through the main turbine or turbine bypass valves to continue to control reactor pressure when the ADS valves divert steam flow upon opening. Sufficient time is therefore allowed after the required pressure and flow are achieved to perform this SR. Adequate pressure at which this SR is to be performed is ~~[920 psig] (the pressure recommended by the valve manufacturer)~~. Adequate steam flow is represented by [at least 1.25 turbine bypass valves open, ~~or total steam flow ≥ 10^6 lb/hr]~~. Reactor startup is allowed prior to performing this SR because valve OPERABILITY and the setpoints for overpressure protection are verified, per ASME requirements, prior to valve installation. Therefore, this SR is modified by a Note that states the Surveillance is not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. The 12 hours allowed for manual actuation after the required pressure is reached is sufficient to achieve stable conditions and provides adequate time to complete the Surveillance. SR 3.5.1.11 and the LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.5.1 overlap this Surveillance to provide complete testing of the assumed safety function.

P.7

150 psig

However, the requirements of SR 3.5.1.12 are met by a successful performance at any pressure

The Frequency of ~~18~~ 24 months on a STAGGERED TEST BASIS ensures that both solenoids for each ADS valve are alternately tested. The Frequency is based on the need to perform the Surveillance under the conditions that apply just prior to or during a startup from a plant outage. Operating experience has shown that these components usually pass the SR when performed at the ~~18~~ 24 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

P.4

Insert: B 3.5-15-01

REFERENCES

1. FSAR, Section [6.3.2.2.3].
2. FSAR, Section [6.3.2.2.4].

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.5.1.7, SR 3.5.1.8, and SR 3.5.1.9 (continued)

operating pressure since it is assumed that the low pressure test has been satisfactorily completed and there is no indication or reason to believe that HPCI is inoperable.

Therefore, SR 3.5.1.8 and SR 3.5.1.9 are modified by Notes that state the Surveillances are not required to be performed until 12 hours after the reactor steam pressure and flow are adequate to perform the test.

The Frequency for SR 3.5.1.7 and SR 3.5.1.8 is in accordance with the Inservice Testing Program requirements. The ~~18~~ 24 month Frequency for SR 3.5.1.9 is based on the need to perform the Surveillance under the conditions that apply just prior to or during a startup from a plant outage. Operating experience has shown that these components usually pass the SR when performed at the ~~18~~ 24 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.5.1.10

The ECCS subsystems are required to actuate automatically to perform their design functions. This Surveillance verifies that, with a required system initiation signal (actual or simulated), the automatic initiation logic of HPCI, CS, and LPCI will cause the systems or subsystems to operate as designed, including actuation of the system throughout its emergency operating sequence, automatic pump startup and actuation of all automatic valves to their required positions. Insert B 3.5-13-01 This SR also ensures that the HPCI System will automatically restart on an RPV low water level (Level 2) signal received subsequent to an RPV high water level (Level 8) trip and that the suction is automatically transferred from the CST to the suppression pool. The LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.5.1 overlaps this Surveillance to provide complete testing of the assumed safety function. P.7 P.7

The ~~18~~ 24 month Frequency is acceptable because ~~based on the need to perform the Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.~~ P.7

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.5.1.10 (continued)

Operating experience has shown that these components usually pass the SR when performed at the ~~18~~ month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint. (24) (P.7)

This SR is modified by a Note that excludes vessel injection/spray during the Surveillance. Since all active components are testable and full flow can be demonstrated by recirculation through the test line, coolant injection into the RPV is not required during the Surveillance.

SR 3.5.1.11

The ADS designated S/RVs are required to actuate automatically upon receipt of specific initiation signals. A system functional test is performed to demonstrate that the mechanical portions of the ADS function (i.e., solenoids) operate as designed when initiated either by an actual or simulated initiation signal, causing proper actuation of all the required components. SR 3.5.1.12 and the LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.5.1 overlap this Surveillance to provide complete testing of the assumed safety function. (P.3)

The ~~18~~ month Frequency is based on the need to perform portions of the Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the SR when performed at the ~~18~~ month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint. (24)

This SR is modified by a Note that excludes valve actuation. This prevents an RPV pressure blowdown.

SR 3.5.1.12

A manual actuation of each ADS valve is performed to verify that the valve and solenoid are functioning properly and

(continued)

SECTION 3.6 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.6.1.1	Primary Containment					
3.6.1.1-01	CTS 4.6.1.1 ITS SR 3.6.1.1.1	A.4 JFD P.1 and P.3	CTS 4.6.1.1 contains details which are found in 10 CFR 50 Appendix J including the description of the test method or requirements to perform the tests. The STS requires the visual examination and leakage rate testing be performed in accordance with 10 CFR 50 Appendix J as modified by approved exemptions. The ITS modifies this requirement to "in accordance with the Primary Containment Leakage Rate Testing Program." Staff SEs issued July 2, 1996, and September 6, 1996, converts the CTS from 10 CFR 50 Appendix J Option A to 10 CFR 50 Appendix J Option B for Type A, B, and C tests. Changes to the STS with regards to Option A versus Option B are covered by a letter from Mr. Christopher I. Grimes to Mr. David J. Modeen, NEI dated 11/2/95 and TSTF 62. The ITS is not in conformance with the letter or TSTF as modified by staff comments.	Licensee to update submittal with regards to 11/2/95 letter and updated TSTF 62 when OG provides revision or provide additional justification for deviation.	PP&L will review changes. PP&L will review NRC response back to TSTF (Oct. '98)	Closed-PP&L will provide M/U of SSES ITS
3.6.1.1-02	CTS 3.6.2.1	A.6 L.1	Justification A5 states that the drywell-to-suppression chamber leakage reporting requirement is not included in the ITS. The CTS markup for ITS 3.6.1.1 does not contain an A5 for the drywell-to-suppression chamber leakage reporting requirement. An item marked L1 on CTS pg 3/4.6.14 implies a report must be submitted for staff approval. However, there is no L1 in the DOCs for ITS 3.6.1.1. Since CTS 4.6.2.1 also applies to ITS 3.6.2.1 and 3.6.2.2, a review of the discussion of changes shows an L1 for both of those specifications but neither justification corresponds to the changes in CTS 4.6.2.1.2.	Provide the appropriate marked up CTS pages for A.6, and provide an appropriate justification for L.1	CTS M/U will be revised to identify DOC A.6	Closed-PP&L will provide revised CTS M/U.
3.6.1.1-03	CTS 3.6.2.1.b	A.6 JFD P.2	CTS 3.6.2.1.b requires the suppression chamber bypass leakage to be less than or equal to 10% of the acceptable design valve of 0.0535 ft.2 ITS SR 3.6.1.1.2 just requires the bypass leakage to be less than the acceptable valve of 0.0535 ft.2 . No justification is given for dropping the limit or 10%. This change would be less restrictive than the current requirement.	Provide justification and appropriatedocumentation for this less restrictive change.	Submittal will be revised to correct SSES ITS to reflect the correct value.	Closed-PP&L will provide markup of SSES ITS.

SECTION 3.6 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.6.1.1-04	CTS 3.6.2.1 Action e	A.7	CTS 3.6.2.1 ACTION e requires that the drywell-to-suppression chamber bypass leakage be restored to within limits. This change is justified as administrative change A7 for ITS 3.6.1.1. No A7 is provided.	Provide the appropriate administrative change justification for A.7	SSES submittal will be corrected identify issue by developing an DOC A.7	Closed-PP&L will provide DOC A.7
3.6.1.1-05	CTS 3.6.1.2 Action	M.1	See Item Number 3.6.1.3-4	See Item Number 3.6.1.3-4	See Item Number 3.6.1.3-4	See Item Number 3.6.1.3-4
3.6.1.1-06	CTS 3.6.1.2.b CTS 3.6.1.2 Action b	LA.1 LA.3	CTS Table 3.6.3-1 identifies all primary containment isolation valves. The table has been removed from the ITS. CTS 3.6.1.2.b, ACTION "with:" b and ACTION "restore:" b reference ITS Table 3.6.3-1. These CTS items are labeled ITS SR 3.6.1.1.1, ITS LCO 3.6.1.1 Condition A and ITS LCO 3.6.1.1 RA A.1 respectively. For Unit 1, the changes to CTS 3.6.1.2.b and ACTION "with:" b are designated LA1 and to ACTION "restore:" b are designated LA3. For Unit 2 changes to CTS 3.6.1.2.b has no designation, to ACTIONS "with:" b and "restore:" b are designated LA1. LA1 and LA3 only apply to ITS 3.6.1.3 not to ITS 3.6.1.1. In addition LA3 discusses changes to MSIVs not CTS Table 3.6.3-1. All the changes to CTS 3.6.1.2.b and ACTION b should be labeled LA1. In addition LA1 applies to both ITS 3.6.1.1 and 3.6.1.3. Furthermore CTS Table 3.6.3-1 has been relocated to the ITS Bases (for design details) and Technical Requirements Manual (TRM) (for program notes) LA1 states that both documents are controlled by ITS 5.5.10 "Bases Control Program." ITS 5.5.10 only controls changes to the Bases not the TRM.	Provide justification LA.1 for ITS 3.6.1.1 correct the labeling for CTS M/U Provide a discussion and justification of how changes to the TRM are controlled. Also provide a discussion on why the design details and program notes need to be in separate documents.	Commitment will be made that TRM will be part of FSAR. CTS M/U will be revised. PP&L will also revise LA. 1 DOC to identify the program notes will be relocated to the Primary Containment Leak Rate Testing Program while certain information (list of PCIVs) is maintained in the SSES ITS Bases for operator's reference.	Closed-PP&L will provide M/U of DOC.
3.6.1.1-07	CTS 4.6.2.1.e ITS 3.6.1.1.3	LB.1	LB1 states that ITS SR 3.6.1.1.3 requires verifying, every 24 months, the total drywell-to-suppression chamber vacuum breaker leakage. CTS 4.6.2.1.e requires the vacuum breaker test every refueling outage. This change increases the FREQUENCY of this test from 18 months to 24 months. However, CTS 4.6.2.1.e does not show any changes and there is no LB.1 in ITS 3.6.1.1.	Provide the appropriate marked up pages for LB.1	CTS M/U will be revised to address the issue identified. Current SSES ITS submittal has DOC LB.1 to address the change in Frequency, problem exists in referencing the correct CTS Surveillance and properly annotating the CTS M/U.	Closed-PP&L will provide revised CTS M/U.

SECTION 3.6 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.6.1.2	Primary Containment Air Lock					
3.6.1.2-01	CTS 3.6.1.3 Action a.1 and Action b.	A.4	CTS 3.6.1.3, ACTIONS a.1 and ACTION b, require maintaining one air lock door closed. ITS 3.6.1.2 RA A.1, B.1, and C.1 require verifying the OPERABLE door is closed within 1 hour. Requiring verification that the door is closed is more restrictive.	Provide justification and documentation for this more restrictive change.	See CTS M/U page 3/4 6-5 and SSES ITS page 3.6-4. Having to maintain an airlock door closed was determined to be equivalent to verifying the door is closed, because in order to maintain the door close you first must know it is closed. PP&L will provide M DOC to identify and justify change.	Closed-PP&L will provide revised DOC and CTS M/U.
3.6.1.2-02	CTS 3.6.1.3 Actions ITS 3.6.1.2 Action B	L.2	ITS 3.6.1.2 ACTION B is added to address a situation where the air lock interlock mechanism is inoperable. The justification states that this is consistent with CTS 3.6.1.3 ACTION a and that the change is less restrictive. This is incorrect. If it was consistent with CTS 3.6.1.3 ACTION a then the change would be administrative. However, since an inoperable air lock interlock mechanism does not make the air lock door inoperable, but the air lock inoperable, CTS 3.6.1.3 ACTION b is entered instead. Therefore, ITS 3.6.1.2 ACTION B is less restrictive than CTS 3.6.1.3 ACTION b.	Provide additional justification and documentation for this less restrictive change.	As identified in the DOC, PP&L has identified that this is a less restrictive change. It is PP&L's position that the actions are consistent with Action a because it allows access by administrative controls. DOC L.2 will be revised to address that administrative controls provide adequate protection and the avoidance of a plant transient. Furthermore, PP&L will eliminate statement on consistency.	Closed-PP&L will provide revised DOC L.2.
3.6.1.2-03	CTS 4.6.1.3 **footnote	L.4	CTS 4.6.1.3 footnote "**" allows that the inner door need not be opened to demonstrate OPERABILITY of the primary containment airlock interlock when the primary containment is inserted. ITS 3.6.1.2, Required Actions A.3 and B.3, allow the air lock door to be verified locked, closed by administrative means, if they are located in a high radiation area or access is limited due to inerting. Verification that a door is locked closed are RAs if a door or interlock are inoperable. This footnote only applies to demonstration of airlock interlock mechanism OPERABILITY and does not apply to verifying a locked airlock door.	Provide justification and documentation for adding notes to RA A.3 and B.3	DOC L.4 will be revised to address what changes are being made and why they are being made.	Closed-PP&L will provide revised DOC L.4.

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3.6.1.2-04	CTS 4.6.1.2, footnote **, ITS SR 3.6.1.2.2	L.4 JFD P.4 and P.5	ITS SR 3.6.1.2.2 requires verifying OPERABILITY of the air lock interlock every 24 months. CTS 4.6.1.3c requires verifying OPERABILITY of the air lock interlock every 6 months. STS SR 3.6.1.2.2 requires verifying OPERABILITY of the air lock interlock every 184 days. This change increases the frequency from the CTS and deviates from the STS. No discussion is provided for increasing the frequency from the CTS. In addition, the NOTE associated with ITS SR 3.6.1.2.2 has been modified. The justification for the deviations are based on TSTF-17. The ITS and Associated Bases are not in conformance with TSTF 17.	Licensee to update submittal to conform with TSTF 17 or provide additional justifications for any deviation.	Will review TSTF 17 and make appropriate changes.	Closed-PP&L will provide M/U of SSES ITS.
3.6.1.2-05	ITS B3.6.1.2 Bases Actions	JFD P.3	The licensee has modified the descriptive wording to ACTION Note 2 and RA Note 2 to clarify the meaning of the Notes. The modifications do not clarify the current STS wording and in the care of the RA Note changes the meaning to allow unlimited time to repair the air lock door.	The STS wording should be retained.	PP&L will provide revised M/U of the SSES ITS Bases.	Closed--PP&L will provide M/U of SSES ITS Bases.

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3.6.1.3	Primary Containment Isolation Valves (PCIVs)					
3.6.1.3-01	CTS Table 3.6.3-1 *footnote	A.2	Unit 1 CTS Table 3.6.3-1* footnote provides an OPERABILITY restriction on valve number HPCI HV-155FOO2 between May 23, 1987 and September 12, 1987. Justification A2 deletes this footnote on the basis that it is no longer applicable for Unit 1. Unit 2 Table 3.6.3-1 has a similar type of footnote for valve number RWCU HV-244 FOO1. This note is shown as deleted and marked A.2. However, no justification is provided for this deletion.	Provide a justification for the deletion of Unit 2 Table 3.6.3-1 * footnote	3.6.1.3 DOC A.2 will be modified to address Unit 2 footnote.	Closed-PP&L to provide revised DOC.
3.6.1.3-02	CTS 3.6.3	A.7	CTS 3.6.3, ACTION b, identifies that provisions of CTS 3.0.3 are not applicable. ITS 3.6.1.3 ACTION C does not contain this provision. The justification provided is that ITS 3.0.3 is only applicable in MODES 1, 2, and 3. However, CTS 3.6.3 is also applicable in MODES 1, 2, and 3. The justification is inadequate, confusing, and seems to be a more restrictive change.	Provide additional justification for this change.	DOC A.7 will be revised to eliminate the statements concerning Modes 1, 2, and 3 and identify that the statement is only restating the motherhood statements that if the Required Actions are completed no entry into 3.0.3 is required.	Closed-PP&L will provide revised DOC.
3.6.1.3-03	CTS 3.6.1.2 ITS SR 3.6.1.3.12 Note	M.1 JFD P.3	CTS 3.6.1.2 indicates that ITS SR 3.6.1.3.12 Note is added. This change is designated M1. The note is added to conform to the Bases description for this surveillance. The description for the change provided in M1 does not correspond to this change.	Provide adequate justification for adding this more restrictive change.	M/U incorrect no 3.6.1.3.12 Note was added. CTS M/U will be revised to remove reference. PP&L will provide new DOC A.11 and revised CTS M/U.	Closed-PP&L will provide revised DOCs and CTS M/U.
3.6.1.3-04	CTS 3.6.1.2 Actions	M.1	The ACTIONS for CTS 3.6.1.2 require that with the conditions of the LCO not met, one restore the conditions "Prior to increasing reactor coolant system temperature above 200 F." This change is designated as more restrictive and only applies to CTS 3.6.1.1. This is in error. Because the ACTION statements apply not only to containment but to PCIVs as well, this justification needs to be included in this section.	Revise the DOCs for ITS 3.6.1.3 to include this more restrictive change.	SSES ITS Submittal will be revised to include DOC M.4 with 3.6.1.3.	Closed-PP&L will provide revised DOC.

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3.6.1.3-05	CTS 3.6.3 APPLICABILITY and ACTIONS	M.1	CTS 3.6.3 adds ITS 3.6.1.3 APPLICABILITY--"When associated instrumentation is required to be OPERABLE per LCO 3.3.6.1, Primary Containment Isolation Instrumentation," which adds a MODE 4 and 5 requirement to the RHR Shutdown Cooling System isolation valves. In addition, ITS 3.6.1.3, ACTION G, is added to identify appropriate actions when these valves cannot be isolated or restored within the applicable Completion Time, and the unit is already in MODE 4 or 5. These changes are shown for Unit 1; however, for Unit 2, the ACTION Statement is shown as ACTION F.	Correct this discrepancy	CTS M/U for Unit 2 will be corrected to address the omission.	Closed-PP&L will provide revised CTS M/U.
3.6.1.3-06	CTS 3/4.6.3 ITS SR 3.6.1.3.10	M.3	CTS 3/4.6.3 adds ITS SR 3.6.1.3.10 which requires removal and testing of the explosive squib from each shear isolation valve of the TIP system. STS 3.6.1.3.11 requires this test on an [18] month frequency. No justification has been provided to justify the change in frequency from 18 months to 24 months in ITS 3.6.1.3.10.	Provide additional justification to justify this change in frequency.	New requirement no justification required. PP&L will add statement that frequency is consistent with IST testing requirements.	Closed-PP&L will provide M/U of DOC.
3.6.1.3-07	CTS 3.6.1.2.b, Action b	LA.1/LA.3	See item number 3.6.1.1-6	See item number 3.6.1.1-6	See item number 3.6.1.1-6	See item number 3.6.1.1-6
3.6.1.3-08	CTS 3.6.1.2	LA.3 JFD P.3	CTS 3.6.1.2 ACTION C requires the MSIVs to be restored to <= 11.5 scfh for any MSIV that exceeds 100 scfh. ITS 3.6.1.3 ACTIONS require the MSIVs to be restored to OPERABLE status, but does not impose further restoration requirements. The discussion states that the requirement to restore the MSIV leakage to <= 11.5 Scfh is a commitment beyond the ITS and CTS OPERABILITY requirements for MSIVs. This is incorrect. License Amendment 151 for Unit 1 and 121 for Unit 2 and the associated SE dated August 15, 1995, implemented this change. This change was found acceptable as an alternative to the recommendations in Regulatory Guide 1.96 and therefore it is a commitment that must be met.	This change constitutes a beyond scope of review for the conversion. Revise the ITS to conform to the CTS.	PP&L will incorporate limit into SSES ITS Bases.	Closed-PP&L will provide M/U of DOC and SSES ITS.

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3.6.1.3-09	CTS 4.6.1.2.f	LB.3	CTS 4.6.1.2.f requires leak testing the MSIVs on an 18 month frequency. This was changed in Amendment 158 for Unit 1 and 129 for Unit 2, dated July 2, 1996, to be in accordance with the Primary Containment Leakage Rate Program. This change is not shown anywhere in the CTS markup for ITS 3.6.1.3. There is a CTS markup section after ITS 3.6.1.1 which shows CTS 4.6.1.2.f being relocated but with no frequency changes.	Provide the appropriate CTS marked up pages in the appropriate sections and provide any additional justifications that may be necessary for these markups.	DOC will be revised to eliminate LB.3.	Closed-PP&L will provide M/U of DOCs.
3.6.1.3-10	CTS 4.6.1.2.g	LB.4	CTS 4.6.1.2.g requires leak testing of PCIVs in hydrostatically tested lines on an 18 month frequency. This was changed in Amendment 158 for Unit 1 and 129 for Unit 2, dated July 2, 1996 to be in accordance with the Primary Containment Leakage Rate Program. This change is not shown anywhere in the CTS markup for ITS 3.6.1.3. There is a CTS markup section after ITS 3.6.1.1 which shows CTS 4.6.1.2.g being relocated but with no frequency changes.	Provide the appropriate CTS marked up pages in the appropriate sections and provide any additional justifications that may be necessary for these markups.	DOC will be revised to eliminate LB.4.	Closed-PP&L will provide M/U of DOCs.

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3.6.1.3-11	CTS 3.6.1.2.d, Action d	L.1 and JFD P.3	CTS 3.6.1.2.d and CTS 4.6.1.2.f specify that the main steam line drains to be leak tested to verify that the leakage is less than 1.2 scfh when tested at 45.0 psig every 18 months. CTS 3.6.1.2 ACTION d specifies the actions to be taken when this leakage is exceeded. CTS 3.6.1.2 *footnote states that this is an exemption to 10 CFR 50 Appendix J. Amendments 151 for Unit 1 and 121 for Unit 2 modified the limits for MSIV leakage but did not change the leakage limits for the drain lines. Amendments 158 for Unit 1 and 129 for Unit 2 changed the frequency to the Primary Containment Leak Rate Testing Program, but did not change the drain line leakage limit. ITS SR 3.6.1.3.12 identifies that the main steam line drain valve leakage is part of the MSIV total allowed leakage of # 100 scfh and requires the combined leakage from the main steam line drains and MSIVs is # 300 scfh. This change increases the allowed leakage through the main steam line drains to be equivalent to the changes made in Amendments 151 and 121 for the MSIVs. Since main steam line drain leakage is an exemption to 10 CFR 50, Appendix J, this change is a beyond scope of review for the conversion.	Change is beyond the scope of review for a conversion. Therefore, provide the appropriate ITS Actions, SRs and justifications to account for the addition of this plant specific requirement to the ITS.	PP&L does not consider the change being made as Out of Scope. SSES CTS does not contain a requirement for Secondary Containment Bypass Leakage. NUREG 1433 adds an SR to require testing for Secondary Bypass Leakage. Under SSES CTS 3.6.1.2, the only requirement which in the past had been considered secondary containment bypass leakage, was the main steam line drain valves. Other secondary containment bypass leakage pathways identified over the last several years, through NRC Information Notices and plant reviews, have been controlled by PP&L through internal testing and administrative controls. Furthermore, the SSES FSAR identifies the sources of this leakage. With the incorporation of the MSIV Alternate Leakage Pathway, the accident Dose term is now comprised of three different sources. These sources are as follows: 1) Primary containment leakage which goes through Secondary Containment filteration, 2) MSIV Alternate Leakage Pathway, and 3) Secondary Bypass Leakage. To ensure proper control is placed on these leakage pathways it is necessary to establish where the components/systems being tested contribute there leakage to. As defined, the MS Drain Lines actually drain into the MSIV Alternate Leakage Pathway. Because of this change, the MS Line Drains should now be included with the MSIVs as a leakage source into the MSIV Alternate Drain Pathway. If this is not incoporated, then the risk would be that the combined leakage from the MSIVs and the MS Line Drains would exceed the leakage assumed in the	Closed-PP&L will provide revised ITS Bases and DOC.

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					Dose Calculation for the MSIV Alternate Drain Pathway. The remaining sources for secondary containment bypass leakage should be identified in SSES ITS SR 3.6.1.3.11. Based on the above discussion, it is PP&L's position that the described changes are required to ensure that the SSES ITS properly reflects the SSES design. Alternative to having this item OOS is place in the SSES ITS bases that MS Line Drain Leakage will be controlled to be less than 1.2 SCFH.	
3.6.1.3-12	CTS 4.6.3.4 ITS SR 3.6.1.3.9	L.6 and JFD P.8	CTS 4.6.3.4 requires testing of the EFCV. ITS SR 3.6.1.3.9 requires the same testing but is modified by a note which allows 6 hours to perform the testing without entering the associated instrument's ACTIONS, provided the associated trip function is maintained. The Bases for the note are Topical Reports NEDC-31677P-A and NEDC-30815P-A. While these topical reports were approved as applicable to RCS and ECCS instrumentation testing, they were not approved for valve testing. Therefore, the change is disapproved. In addition, this change would also be considered as a generic change.	Delete change to ITS.	Proposed change is being withdrawn.	Closed-PP&L will provide M/U of SSES ITS.
3.6.1.3-13	ITS 3.6.1.3	JFD P.2	See Item Number 3.6.1.1-1	See Item Number 3.6.1.1.-1	See Item Number 3.6.1.1.-1	See Item Number 3.6.1.1.-1
3.6.1.3-14	ITS SR 3.6.1.3.11	JFD P.2	ITS SR 3.6.1.3.11 substitutes 6 scfh and Pa for the bracketed leakage rates and test pressure for secondary containment bypass leakage. The CTS does not show these numbers.	Provide justification for the use of the numbers.	Testing for secondary Containment Bypass Leakage is a new requirement not defined in SSES CTS. This was not properly justified in SSES Submittal. A M.x DOC will be added to SSES CTS M/U to capture this change.	Closed-PP&L will provide revised DOC and CTS M/U.

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3.6.1.3-15	STS SR 3.6.1.3.1	JFD P.4	STS SR 3.6.1.3.1 requires verification that primary containment purge valves are sealed closed on a 31 day frequency. The APPLICABLE SAFETY ANALYSIS section of the Bases has a paragraph on sealed purged valves. This STS SR and Bases paragraph apply to purge valves that cannot or are unable to close upon receipt of a containment isolation signal. The ITS deletes STS SR 3.6.1.3.1, retains the paragraph on sealed closed valves and makes a modification which refers to ITS SR 3.6.1.3.1 (STS SR 3.6.1.3.2). The CTS states that the valves are not sealed closed and the balance of the ITS Bases states the same.	Delete Applicable Safety Analysis paragraph or reinstate STS SR 3.6.1.3.1. Provide any justification for the changes.	PP&L will revise JFD P.9 is written to identify why the change is being made.	Closed-PP&L will provide M/U of JFD and revised NUREG M/U.
3.6.1.3-16	ITS 3.6.1.3 RA E.1, E.2 and E.3	JFD P.4	STS 3.6.1.3 RA E.1, E.2 and E.3 state the actions to be taken when one or more purge valves are not within leakage limits. The ITS deletes RA E.1, E.2 and E.3 and changes RA E.1 to restore valve to operable status. No justification is provided for this more conservative RA.	Provide an appropriate justification for this more restrictive change.	This is a bracketed change. It is PP&L's understanding that wording in bracketed statements is not necessary to justify. The reason for the change is that for SSES, the individual containment purge valves can not be tested on line. A JFD P.9 has been added to capture the change to NUREG.	Closed-PP&L will provide M/U of JFDs.
3.6.1.3-17	ITS Bases SR 3.6.1.3.9	JFD P.4	The changes made to ITS Bases SR 3.6.1.3.9 correspond to the changes made to ITS SR 3.6.1.3.9 which are designated P7. P4 deals with editorial and clarification changes not technical changes. Also, see Item Number 3.6.1.3-18	Correct this discrepancy. Also see item Number 3.6.1.3-18	NUREG 1433 M/U will be changed to identify JFD P.7.	Closed-PP&L will provide revised NUREG M/U.
3.6.1.3-18	ITS SR 3.6.1.3.9	JFD P.7	ITS SR 3.6.1.3.9 verifies that each reactor instrumentation line EFCV actuates to the isolation position on a simulated instrument line break. CTS 4.6.3.4 verifies that the EFCVs checks flow. The ITS change does not reflect the CTS requirement. Actuating to the isolation position does not necessarily check the flow, there could be some leakage.	Provide justification for the proposed change or conform to the STS or CTS.	PP&L concurs that the CTS requirement does not require leak tight criteria. It was PP&L's position the wording adopted provided the correct interpretation, based on the design requirement. PP&L will review the wording to determine the best presentation.	Closed-PP&L will provide NRC with revised SSES ITS Bases wording.
3.6.1.3-19	ITS 3.6.1.3	None	ITS 3.6.1.3 CONDITION A and B have bracketed items, no indication is given that the bracketed item should	Remove brackets or provide justification for the deletion	NUREG 1433 M/U will be revised to remove brackets.	Closed-PP&L will provide

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3.6.1.3-20	ITS Condition G	None	The licensee modified CONDITION G by deleting "or during operations with a potential for draining the reactor vessel (OPDRVs)." Yet RA G.1 which deals with this condition is retained. No justification is provided for this generic change.	Retain the STS wording or provide adequate plant specific justification for this change.	PP&L will revise SSES ITS to maintain NUREG wording.	Closed-PP&L will provide M/U of SSES ITS.

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3.6.1.6	Suppression Chamber-to-Drywell Vacuum Breaker					
3.6.1.6-01	CTS Actions	A.3 and JFD P.1	ITS 3.6.1.6, CONDITION B adds a note that allows separate entry condition for each vacuum breaker. CTS 3.6.4 and STS 3.6.1.8 do not contain this note. The discussions for A3 and P1 do not provide adequate justification for this change. In addition, the staff has determined that this addition is generic, and beyond the scope of review for a conversion.	Delete this generic change.	Not a generic change. SSES designed with two vacuum breakers in series. NUREG design is for one vacuum breaker. ITS modified to be more consistent with CTS and recognize difference of SSES design as compared to NUREG 1433.	Open-NRC to review.
3.6.1.6-02	CTS 3.6.4 Action C	L.A.1	CTS 3.6.4, ACTION C, requires action for an inoperable vacuum breaker position indicator. CTS 4.6.4.b.2 and b.3.b require determining the OPERABILITY of the vacuum breaker position indicators. ITS 3.6.1.6 does not provide requirements to verify the OPERABILITY of the vacuum breaker position indicator or ACTIONS of a vacuum breaker position indicator is inoperable. The deletion of the ACTIONS and Surveillance Requirements is a less restrictive change and not just a removal of detail. In addition, there is no discussion of how the TRM addresses these requirements and if changes to the TRM are controlled.	Provide discussion and justification for these changes deleting CTS requirements. Provide discussion and justifications of how changes to the TRM are controlled.	Position indicators do not serve safety function. They only provide indication of the vacuum breaker position. Therefore, they can be removed because they do not meet the screening criteria. This is supported by the fact that NUREG 1433 does not require vacuum breaker position indicator Operability. Finally, a commitment will be made that the TRM will be part of the FSAR.	Closed
3.6.1.6-03	CTS 3.6.4 Action b and ITS 3.6.1.6	L.3 and JFD P.1	CTS 3.6.3, ACTION b, requires verification the other vacuum breaker in a pair is shut within 2 hours if one vacuum breaker is open. No specific action is given if both vacuum breakers are open, therefore, CTS 3.0.3 requires initiation of shutdown within one hour. ITS 3.6.1.6, RA C.1 allows 2 hours to close a vacuum breaker if both vacuum breakers in a pair are open. STS 3.6.1.8 does not address both vacuum breakers being open. This change is a deviation from the STS and a change to the current licensing Bases. Thus the change has been deemed to be generic, and beyond the scope of review for a conversion.	Delete this generic change.	See NRC RAI 3.6.1.6-1.	Closed--See resolution of NRC RAI 3.6.1.6-1.

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3.6.1.6-04	CTS 4.6.4.b.3.a	L4 and JFD P.1	CTS 4.6.4.b.3.a requires verifying that the suppression chamber-to-drywell vacuum breakers setpoint is set at 0.5 psid +/- 5%. ITS SR 3.6.1.6.3 requires verifying that the suppression chamber-to-drywell vacuum breakers setpoint is set at > 0.25 and < 0.75 psid. This change increases the setpoint of the suppression chamber-to-drywell vacuum breakers, and is based on ITS consistency with and conservative to the assumptions in the event analysis which require the vacuum breakers to open. The discussion does not state whether the event analysis is the one used to determine the original setpoint (0.5 psid " 5%) or a new analysis. In any event, the staff would need to review the event analysis to verify the new setpoint/tolerances are acceptable. This change would be considered a beyond the scope of review for a conversion.	Delete this change and change ITS SR 3.6.1.6.3 to conform to CTS 4.6.4.b.3.a	This change was determined to be necessary for PP&L based on the difficulty in establishing the tighter tolerance. The larger range was determined to be acceptable based on the plant analysis.	Open-NRC technical branch to review change.
3.6.1.6-05	CTS 3.6.4 Action	JFD P.1	CTS 3.6.4, ACTION a, requires action if one or more vacuum breakers in one pair of vacuum breakers is inoperable for opening. ITS 3.6.1.6, ACTION A, requires action if one vacuum breaker pair is inoperable for opening. The discussing does not provide justification that these requirements are equivalent.	Provide discussion and justification for this change.	These requirements are intended to be equivalent. DOC A.6 has been added to identify that the statements are equivalent.	Closed-PP&L will provide M/U of DOC.
3.6.1.6-06	STS SR 3.6.1.8.1	JFD P.2	STS SR 3.6.1.8.1 requires verifying each vacuum breaker is closed within 2 hours after any operation that causes the Drywell-to-Suppression Chamber differential pressure be reduced by > [0.5] psid which would cause the vacuum breaker to open. ITS SR 3.6.1.6.1 deletes this requirement. The basis for the deletion is that normal operation will not typically result in suppression chamber to drywell pressure of 0.5 psid and differential pressure is not a parameter normally monitored by SSES operations. This justification is inadequate. If normal operation will not typically result in valve opening, then this would be a generic change which is beyond the scope of review for a conversion. The surveillance does not require monitoring pressure differential, but it requires verification that a valve performing its intended function has reclosed which is the prudent and safe thing to do. Current Licensing Bases (ACTION B) would require this.	Provide additional justification for the STS deviation based on current licensing basis, system design, or operational constraints	SSES operation does not and has not tracked as a parameter the drywell differential pressure during varying plant conditions. This change was determined to result in potential non-compliances because different plant operations such as containment inerting could potentially result in this condition. Furthermore, this requirement is not part of current licensing basis. Therefore, it was determined that the associated Frequency would not be added. JFD will be modified to indicate that there is no direct method to monitor this parameter in the control room.	Closed-PP&L will provide M/U of JFD.

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3.6.2.1	Suppression Pool Average Temperature					
3.6.2.1-01	3/4.6.2.1 #footnote	A.2	The # Footnote referring to Specification 3.6.3 for ECCS requirements applies to all of CTS 3/46.2.1 not just to the pressure part. Both specifications are applicable in MODES 1 and 2 and CTS 3.6.3 refers through a footnote back to 3/4.6.2.1. However, the footnote is designated as change A2 and is only supposed to apply to ITS 3.6.2.2. This change applies also to ITS 3.6.2.1.	Provide the appropriate justification and designations for this change in ITS 3.6.2.1	SSES ITS submittal will be modified to provide the correct DOCs for all sections.	Closed-PP&L to provide revised CTS M/U and new DOC A.4.
3.6.2.1-02	CTS 4.6.2.1.c	LA.1	See Item Number 3.6.2.2-3	See Item Number 3.6.2.2-3	See Item Number 3.6.2.2-3	Closed-See Item Number 3.6.2.2-3 for resolution.
3.6.2.1-03	CTS 3.6.2.1 Actions c and d	LA.1	CTS 3.6.2.1, ACTION c and d, and CTS 4.6.2.1.c establish OPERABILITY requirements, ACTIONS and Surveillance Requirements for the instrumentation used to monitor Suppression Pool level and temperature. The ITS moves these requirements to the Technical Requirements Manual (TRM). No discussion of controls for the TRM is provided.	Provide description of controls for TRM.	The TRM will be a part of the SSES FSAR.	Closed
3.6.2.1-04	CTS 3.6.2.1, Action b.2.b	LA.2	CTS 3.6.2.1, ACTION b.2.b, requires the Reactor Mode Switch placed in shutdown position and operation of "at least one residual heat removal loop in the suppression pool cooling mode" when Suppression Poll average temperature exceeds 110E F. ITS 3.6.2.1, RA D.1 requires the Mode Switch be placed in shutdown. The suppression pool cooling requirement is moved to plant procedures. The justification does not specify which procedures or control of these procedures.	Provide procedure references and describe procedure controls.	Procedures will be controlled under 50.59.	Closed
3.6.2.1-05	CTS 4.6.2.1.d	L.1	CTS 4.6.2.1.d has a change marked L.1. CTS 4.6.2.1.d deals with drywell to suppression chamber bypass leakage which is addressed in ITS 3.6.1.1. ITS 3.6.2.1 L1 does not have anything to do with this change. See Item Number 3.6.1.1-2 and 3.6.2.2-5.	See Item Number 3.6.1.1-2	CTS M/U will be changed to reflect the correct DOC A.5.	Closed-PP&L to provide revised CTS M/U.

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3.6.2.1-06	ITS LCO 3.6.2.1 and Associated Bases	JFD P.1	The LCO states that suppression pool average temperature shall be within stated limits based on the Intermediate Range Monitor (IRM) channel. The Bases adds a statement that other techniques may be used if the IRM is inoperable. The Bases change deviates from the STS Bases and from the LCO requirement. No justification if provided for this change. However, the staff considers this change as generic and beyond the scope of a conversion.	Delete this generic change	The statement will be removed from SSES ITS Bases.	Closed-PP&L will provide a M/U of the SSES ITS.

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3.6.2.2	Suppression Pool Water Level					
3.6.2.2-01	3/4.6.2.1 #Footnote	A.2	See Item Number 3.6.2.1-1	See Item Number 3.6.2.1-1	See Item Number 3.6.2.1-1	Closed-New 3.6.2.1 DOC A.4 provided for NRC RAI 3.6.2.1-1, original 3.6.2.2 DOC A.2 maintained for this specification.
3.6.2.2-02	CTS 4.6.3.1.a.2	M.2	Because of the interrelationship between CTS 3.6.3 and CTS 3.6.2.1 as a result of the #Footnote in both specifications (See item numbers 3.6.2.1-1 and 3.6.2.2-1), CTS 4.6.3.1.a applies for both specifications because of the water level requirement of 22' 0". Thus any changes to CTS 4.6.3.1.a.2 must be described also in this section. Therefore, either CTS 4.6.3.1a.2 must be incorporated in ITS 3.6.2.2, incorporated but modified, or deleted. In any event, the M2 designation and change which now only applies to ITS 3.6.2 may apply to ITS 3.6.2.2 or may change to a less restrictive requirements.	Provide a discussion and justification for incorporation modification or deletion of CTS 4.6.3.1.a.2 into ITS 3.6.2.2	SSES ITS submittal will be revised for an 'L' DOC to be added to section 3.6.2.2 to delete the requirement CTS 4.6.3.1.a.2 for Modes 1, 2, and 3.	Closed-PP&L will provide M/U of DOC.
3.6.2.2-03	CTS 4.6.2.1.c	LA.1	CTS 4.6.2.1.c provides surveillance requirements for the suppression chamber water temperature indicators as well as the water level indicators. The specification is being relocated to the TRM and the change is designated as LA1. However, the discussion and justification provide for LA1 in ITS 3.6.2.2 differs from LA1 in ITS 3.6.2.1, particularly in the reference to CTS 4.6.6.2.1.c. The discussions and justifications in both section should be the same.	Provide any additional discussion and justification necessary to make LA.1 sections consistent.	3.6.2.2 DOC LA.1 will be modified to add cross reference to CTS 4.6.2.1.c.	Closed-PP&L will provide M/U of DOC.
3.6.2.2-04	CTS 3.6.2.1 Actions c and d	LA.1	See Item Number 3.6.2.1-3	See Item Number 3.6.2.1-3	See Item Number 3.6.2.1-3	Closed- See Item Number 3.6.2.1-3.

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3.6.2.2-05	CTS 4.6.2.1.d	L.1	See Item Numbers 3.6.1.1-2 and 3.6.2.1-5	See Item Numbers 3.6.1.1-2 and 3.6.2.1-5	See Item Numbers 3.6.1.1-2 and 3.6.2.1-5	Closed-PP&L will provide revised CTS M/U.
3.6.2.3	Residual Heat Removal (RHR) Suppression Pool Cooling					
3.6.2.3-01	CTS 4.6.2.3.b	A.5	CTS 4.6.2.3.b requires verifying each of the required RHR pumps develops a flow of 10,000 +0, -250 gpm on recirculation flow through the RHR heat exchanger and the Suppression Pool. ITS SR 3.6.2.3.2 requires this verification be performed at a flow rate greater than 9750 gpm. This is a less restrictive change in that the upper tolerance (10,000 +0) is deleted.	Provide discussion and justification for the less restrictive change.	3.6.2.3 DOC A.5 will be changed to an L.x DOC.	Closed-PP&L will provide M/U of DOC and revised CTS M/U.
3.6.2.3-02	CTS 3.6.2.3 Action b.	L.2 and JFD P.1	CTS 3.6.2.3, ACTION b, requires that the reactor be in MODE 3 within 12 hours and MODE 4 within 36 hours if both suppression pool cooling loops are inoperable. Under the same conditions, ITS 3.6.2.3, RA B.1, allows 8 hours to attempt to restore at least one inoperable suppression pool cooling subsystem to OPERABLE status before a plant shutdown must be initiated. STS 3.6.2.3 ACTION B requires an immediate shutdown on loss of cooling function. The justification for this change is consistency with other STS specifications. This is an inadequate justification for this change. In addition, the staff has determined that this change is generic and beyond the scope of review for this conversion.	Delete this generic change	Proposed TSTF rejected. Change request withdrawn.	Closed-PP&L will provide M/U of SSES ITS.

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3.6.2.4	Residual Heat Removal (RHR) Suppression Pool Spray					
3.6.2.4-01	CTS 4.6.2.2.b	A.6	See Item Number 3.6.2.3-1	See Item Number 3.6.2.3-1	See Item Number 3.6.2.3-1	Closed-See Item Number 3.6.2.3-1 for resolution.
3.6.2.4-02	CTS 4.6.2.2.b, ITS SR 3.6.2.4.2	A.6 and JFD P.1	CTS 4.6.2.2.b requires the pump test be performed per CTS 4.6.2.3.b which has the system recirculating the flow through the RHR heat exchanger and the suppression pool (STS/ITS-suppression pool cooling mode). STS SR 3.6.2.4.2 requires the pump test be done in the suppression pool spray mode. Insufficient information is provided in the justification or ITS Bases for ITS 3.6.2.4 to determine why this test cannot be performed in the spray mode of operation in accordance with the STS frequency. Also see Item Number 3.6.2.4-3.	Provide additional discussion and justification to show why STS SR 3.6.2.4.2 should not be performed.	A new JFD P.3 will be developed to specifically address this issue. SSES cannot perform a water flow test of the Suppression Pool Spray subsystems because there is equipment in the suppression pool which would be potentially damaged due to the water spray. Therefore, SSES performs an air test currently every 5 years. It is requested that the 5 year frequency be extended to 10 years based on the passive design of the spray nozzles. The test is very difficult and somewhat hazardous because it requires an individual to monitor each nozzle in the Suppression Pool from a raft in the suppression pool.	Closed-PP&L will provide new JFD.
3.6.2.4-03	CTS 4.6.2.2.c	L.3 and JFD P.1	CTS 4.6.2.2.c requires a flow test through the spray header and nozzles to verify an unobstructed flow path on a 5 year frequency. The STS verified this requirement by performing STS SR 3.6.2.4.2. See Item Number 3.6.2.4-2.	See item number 3.6.2.4-2	See item number 3.6.2.4-2	Closed-See item number 3.6.2.4-2 for resolution.
3.6.2.4-04	CTS 4.6.2.2.c	L.3 and JFD P.1	CTS 4.6.2.2.c requires verification every 5 years that each Suppression Pool Spray nozzle is unobstructed. ITS SR 3.6.2.4.2 requires the verification every 10 years thateach Suppression Pool Spray nozzle is unobstructed. L3 justifies this change on the passive design of the nozzle system. This is insufficient justification to allow the frequency to change from 5 years to 10 years.	Provide additonal justification for this less restrictive frequency based on operational data, nozzle design, or operational contraints.	Being a five year test, no real historical data is available. Because of this the argument really falls to the passive nozzle design. Additional arguments can be made as to the difficulty of performing the test, but this is not a specific safety concern. DOC will be revised to include arguments based on similar plant designs and allowed Frequency.	Closed-PP&L to provide revised DOC.

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3.6.2.4-05	ITS B.3.6.2.4 Bases	None (JFD P.1)	The Bases for STS B.3.6.2.4 RA B.1 states that the Completion Time of 8 hours to restore one RHR Suppression Pool Subsystem is acceptable "due to the low probability of a DBA" and because alternative methods to remove heat from primary containment are available." The Bases for ITS B.3.6.2.4 RA B.1 deletes the Bases justification "and because...are available." No justification or designation is provided for this deletion. Normally a total loss of function would by TS require an immediate shutdown or entry into STS/ITS LCO 3.0.3. A low probability of a DBA is not a valid justification to extend the restoration time to OPERABLE status from 0 to 1 hour (LCO 3.03); additional conditions, or system designs are necessary to extend the AOT. In this case, it is, by the STS discussion, the availability of alternative methods of primary containment heat removal.	Either return the sentence to the original STS wording or provide discussion and justification for the STS deviation based on current licensing basis, system design, or operational contraints and correct the Bases accordingly, or delete the entir Action B.	After further review, it has been determined that SSES can restore the words by taking credited for alternate decay heat removal cooling the Suppression Pool. SSES ITS will be revised to incorporate wording.	Closed-PP&L will provide M/U of SSES ITS.

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3.6.3.1	Primary Containment Hydrogen Recombiners					
3.6.3.1-01	CTS 4.6.6.1.b.1	LA.1	CTS 4.6.6.1.b.1, requires hydrogen recombiner OPERABLE and specifically requires the performance of CHANNEL CALIBRATION of all recombiner operating instrumentation and control circuits. The ITS moves this requirement to the TRM. No discussion of controls for the TRM is provided.	Provide description of controls for the TRM	TRM will be part of the SSES FSAR.	Closed
3.6.3.1-02	CTS 4.6.6.1.b.3	LA.3	CTS 4.6.6.1.b.3 requires the performance of a visual examination and details what to examine during a visual examination. ITS SR 3.6.3.1.2 requires a visual examination be performed, but moves the details to plant procedures. The justification does not specify which procedures or control of these procedures.	Provide procedure references and describe procedure controls.	SSES ITS submittal will be revised to relocate this information to the SSES ITS 3.6.3.1.2 Bases.	Closed-PP&L will provide M/U of DOC and SSES ITS.
3.6.3.1-03	CTS 3.6.6.1	LA.4 and JFD P.1	CTS 3.6.6.1 contains details defining the primary containment hydrogen recombiner system. The justification provided describes removal of these details to the Bases. These details remain in ITS 3.6.3.1, so the DOC file describes a CTS change which was not made. In addition, the terms "Primary Containment" and "Drywell and Suppression Chamber" are used interchangeably throughout the specification without thought to the actual system design. See Item Number 3.6.3.1-4.	Provide additional justification, discussion, and changes to address the actual intent of the change. Also see Item Number 3.6.1.3-4	DOC LA.4 will be deleted because there is no change.	Closed-PP&L will provide revised DOC and CTS M/U.
3.6.3.1-04	ITS 3.6.3.1	JFD P.1	ITS 3.6.3.1 Conditions A and B have been modified from STS 3.6.3.1 Conditions A and B to reflect the design of the Hydrogen Recombiner System. Based on a review of the Hydrogen Recombiner System in the ITS Bases, the proposed modifications do not reflect the intent of STS 3.6.3.1 ACTIONS A and B. For example, successful completion of STS 3.6.3.1 RA B.1 and B.2 within the stated Completion Times would result in exiting STS 3.6.3.1 Condition B and reentering Condition A. However, successful completion of ITS 3.6.3.1 RA B.1 and B.2 within the stated Completion Times will not necessarily result in an exiting of ITS 3.6.3.1 Condition B. See Item Number 3.6.3.1-3.	Licensee to reevaluate proposed changes and modify to accurately reflect system design. Provide additional justification and discussion on the changes made. Also see Item Number 3.6.3.1-3	Required Action 3.6.3.1 B.2 will be modified to ensure Condition B will be exited upon completion of Required Action.	Closed-PP&L will provide M/U of SSES ITS.

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3.6.4.1	Secondary Containment					
3.6.4.1-01	CTS 4.6.5.1.c	LA.4	CTS 4.6.5.1.c establishes requirements for verifying secondary containment by establishing limits on the maximum time allowed to draw down and the maximum flow rate allowed to maintain secondary containment for several different secondary containment configurations. ITS 3.6.4.1 moves the limits for maximum draw down time and maximum flow rates to maintain vacuum to the TRM. No discussion of controls for the TRM is provided. See Item Number 3.6.4.1-2.	Provide description of controls for the TRM	Commitment will be made that TRM is part of SSES FSAR.	Closed
3.6.4.1-02	CTS 4.6.5.1.c	LA.4 and JFD P.2	CTS 4.5.1.c establishes requirements for verifying secondary containment by establishing limits on the maximum time allowed to draw down and the maximum flow rate allowed to maintain secondary for several different containment configurations. ITS SR 3.6.4.1.4 and SR 3.6.4.1.5 require the same demonstrations of secondary containment operability, but moves the limits for maximum draw down time and maximum flow rates to maintain vacuum to the TRM. STS SR 3.6.4.1.4 and SR 3.6.4.1.5 specify these limits in the SR. Because of the secondary containment design configuration specifying these operability parameters in the ITS SRs would not conform readily to the STS format. However, since these parameters are operability parameters, the STS format would require these parameters to be specified in the Bases discussion for the SR. This would be consistent with other operability parameters in which the STS/ITS SR states "within limits" and the	Revise the Bases descriptions for ITS SR 3.6.4.1.4 and SR 3.6.4.1.5 to specify the parameters with their associated secondary containment design configuration. Provide additional justification and discussion to support this change.	PP&L will revise SSES ITS to incorporate restrictions.	Closed-PP&L will provide M/U SSES ITS and DOC.
3.6.4.1-03	ITS B3.6.4.1 Bases	JFD P.2	ITS B3.6.4.1 Bases for SR 3.6.4.1.2 and SR 3.6.4.1.3 makes modifications to the STS wording to conform the description to the BWR Mark II containment configuration. Two of the changes are the addition of "in each access opening" to the first sentence and the deletion of "normal transient" from the sentence beginning with "Maintaining secondary containment OPERABILITY..." These two changes were part of TSTF 18 which was rejected by the staff.	Provide additional justification and discussion to show that these two TSTF 18 changes are applicable based on current licensing Basis, system design, or operation constraints.	The term "in each access opening" was incorporated simply because it provides greater clarity for the requirement. The term "normal transient" was removed because it was determined to open up questions as to what is "normal transient", which could lead to problems with TS interpretations.	Closed

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3.6.4.2	Secondary Containment Isolation Valves (SCIVs)					
3.6.4.2-01	CTS Page 3/4.3-32	None	ITS 3.6.4.2 has CTS page 3/4.3-32 as the first marked up page in this section. CTS page 3/4.3-32 deals with ECCS actuation instrumentation setpoints which has nothing to do with secondary containment isolation valves. The correct page should be CTS page 3/4.6.32.	Correct the discrepancy	SSES ITS submittal will be corrected to remove this page from this section and provide correct page.	Closed-PP&L will provide correct page which was missing.
3.6.4.2-02	CTS 4.6.5.2.c	A.6	CTS 4.6.5.2.c requires the verifying of the SCIVs isolation time is within limits on a 92 day frequency. The "once per 92 day" frequency is designated as administrative change "A6". A6 discusses and justifies the distinction between SCIVs and "required" SCIVs, and has nothing to do with the isolation time frequency of 92 days.	Provide justification and discussion for this administrative change to CTS 4.6.5.2.c	CTS M/U page 3/4 6-34 will be revised to eliminate reference to DOC A.6.	Closed-PP&L will provide revised CTS M/U.
3.6.4.2-03	CTS 3.6.5.2 Actions.	M? and JFD P.1	CTS 3.6.5.2 ACTIONS specify the remedial actions to be taken for any inoperable SCIV. ITS 3.6.4.2 Condition A has a note which restricts the remedial actions for ACTION A to only those penetration flow paths with two SCIVs. ITS 3.6.4.2 RA.2 verifies the affected flow path is isolated on a 31 day frequency. These changes are not indicated in the CTS markup and are more restrictive. Also see Item Number 3.6.4.2-6.	Provide justification and discussion for this more restrictive change. See item number 3.6.4.2-6	See CTS M/U page 3/4 6-31a CTS 4.6.5.1.b.3 and DOCs L.1 and L.2.	Closed
3.6.4.2-04	CTS 3.6.5.2 Actions	M?	CTS 3.6.5.2 ACTIONS specify the remedial actions to be taken for any inoperable SCIV. ITS 3.6.4.2 ACTION B is added to cover penetrations with two inoperable SCIVs in the flow path and has RAs and Completion Times that are different from CTS 3.6.5.2 ACTIONS. This change is not indicated in the CTS markup and is more restrictive.	Provide justification and discussion for this more restrictive change.	See CTS M/U page 3/4 6-31a, 4.6.5.1.b.2.	Closed
3.6.4.2-05	CTS 3.6.5.2 Actions	M? and JFD P.1	CTS 3.6.5.2 ACTIONS specify the remedial actions to be taken for any inoperable SCIV. ITS 3.6.4.2 ACTION C is added to cover those penetration flow paths with one SCIV, and has RAs and completion times that are different from CTS 3.6.5.2 ACTIONS. This change is not indicated in the CTS markup and is more restrictive. Also, see Item Number 3.6.4.2-6.	Provide justification and discussion for this more restrictive change. See item number 3.6.4.2-6	CTS M/U in error. Revised CTS M/U page 3/4-32 provided to indicate Action C.	Closed-PP&L will provide revised CTS M/U

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3.6.4.2-06	STS 3.6.4.2 Action A	JFD P.1	STS 3.6.4.2 ACTION A provides the remedial measures to be taken for penetration flow paths with one SCIV inoperable, irregardless of whether flow path has one or two SCIVs. The Completion Time given for RA A.1 reflects the relative importance/safety significance of secondary containment as compared to primary containment. ITS 3.6.4.2 modifies STS 3.6.4.2 ACTION A to restrict it to penetration flow paths with two SCIVs and adds ACTION C for those flow paths with one SCIV. This is done for consistency with STS/ITS 3.6.1.3 primary containment isolation valves. Insufficient information is provided in the discussion and justification (P1) to determine that this SCIV design has unique characteristics which would necessitate these changes. Based on the information provided the staff's determination of the changes is that it is a generic change applicable to all BWRs and would be beyond the scope of review for this conversion.	Provide additional justification and discussion to show that these changes are applicable based on current licensing basis, system design or operational contraints, or delete this potential generic change.	The reason for the change is during plant operation when one Unit is in an Outage, it is possible and likely to have system breaches which result in a single valve or blind flange becoming the isolation point for Secondary Containment. These configurations would result in single valve isolations for secondary containment, and therefore, would be required for secondary containment Operability. The above discussion will be added to the JFD.	Closed-PP&L will provide revised JFD.
3.6.4.2-07	STS B3.6.4.2 Bases LCO	JFD P.2	STS B3.6.4.2 Bases for the LCO describes when normally closed valves should be considered OPERABLE. The description states that for normally closed automatic SCIVs to be considered OPERABLE they must be in their closed position and de-activated and secured. The intent of the STS wording is that the valve is in its isolation position and will not inadvertently, or automatically change its position. ITS B3.6.4.2 Bases for the LCO deletes the words "de-activated and secured." The deletion of these words radically changes the definition of OPERABLE normally closed automatic isolation valves. This change is unacceptable.	Return the Bases wording to the STS wording.	See NUREG 1433 M/U page 3.6-53. SR 3.6.4.2.1 does not require normally closed valves to be closed and deactivated. Therefore, NUREG Bases wording places an additional restriction which is not required by TS. This was considered to be a contradiction within the NUREG eliminated by the change to the NUREG Bases.	Open-PP&L to review with the NRC.
3.6.4.2-08	ITS B3.6.4.2 Bases	JFD P.2	ITS SR 3.6.4.2.2 verifies the isolation times of the SCIVs. The Bases description for ITS SR 3.6.4.2.2 states that "The isolation times for required SCIVs are located in the Technical Requirements Manual (Ref 4)." CTS Table 3.6.5.2-1 which contains the isolation times for the automatic SCIVs has been relocated per LA1 to the Bases as ITS Table B3.6.4.2-1. No mention is made in LA1 that the table is also relocated to the TRM. Also, ITS B3.6.4.2 references do not include Reference 4 TRM.	Correct the Bases description for ITS SR 3.6.4.2.2 to refer to ITS Table B3.6.4.2.1 rather than the TRM.	Submittal document will be revised to address comment.	Closed-PP&L will provide revised NUREG M/U.

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3.6.4.3	Standby Gas Treatment (SGT) System					
3.6.4.3-01	CTS 4.6.5.3.d.2	A.2	CTS 4.6.5.3.d.2 requires that the SGT filter train starts and associated dampers open on both a manual initiation from the control room and a simulated automatic initiation signal. ITS SR 3.6.4.3.3 only requires starting by an actual or simulated automatic initiation signal. The deletion of the system start requirement by manual initiation from the control room has not been justified and is a less restrictive change. Also, see Item Number 3.6.4.3-2.	Provide justification and discussion for this less restrictive change. See item number 3.6.4.3-2	SSES CTS M/U page 3/4 6-35 has been changed to indicate SR 3.3.6.2.5. Per previous discussions, no "A" DOC is necessary for requirements which have been relocated within the specifications, because there is no change in the requirements. The change in location is covered under DOC "A.1".	Closed-PP&L will provide revised CTS M/U page.
3.6.4.3-02	CTS 4.6.5.3.b	None	CTS 4.6.5.3.b, 4.6.5.3.c, 4.6.5.3.d.1, 4.6.5.3.d.4, 4.6.5.3.e, and 4.6.5.3.f have all been relocated to ITS 5.5.7. CTS 4.6.5.3.d.2.a and 4.6.5.3.d.2.b have been relocated to ITS SR 3.3.6.2.3. No justification or discussion is provided for these administrative changes.	Closed-Provide justification and discussion for these administrative changes.	Section 5.5 is still a section of the SSES TSs. The change in location within the SSES TS is not considered a unique change simply a change necessary to adopt the format of NUREG 1433. This type of change is covered by DOC A.1.	Closed
3.6.4.3-03	CTS 4.6.5.3.a	LA.2	CTS 4.6.5.3.a includes test methodology details associated with the testing of the SGT System. The ITS moves these details to plant procedures. Procedure references and associated controls are not provided.	Closed-Provide additional discussion and justification pertaining to the procedures and associated controls.	The plant procedures will be controlled under 50.59.	Closed
3.6.4.3-04	CTS 4.6.4.3.d.3	LB.1	CTS 4.6.5.3.d.3 establishes 18 months as the required frequency to verify the filter cooling bypass and outside air dampers open and the fan starts on filter cooling initiation. ITS SR 3.6.4.3.4 performs the same test but the required frequency is extended to 24 months. LB1 refers to CTS 4.6.5.3.d.3 but incorrectly cites ITS SR 3.6.4.3.3. The 18 to 24 month frequency change is a beyond scope of review for this conversion.	Correct the discrepancy. Since the change is a beyond scope of review for conversion, it has been assigned to the appropriate staff Technical Branch for review. Inclusion of this change in the conversion will depend on the results of that review.	3.6.4.3 DOC LB.1 will be revised to include ITS SR 3.6.3.4.	Open-NRC technical branch is reviewing changes. PP&L will provide M/U of DOC.

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ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.6.4.3-05	CTS 4.6.5.3.d.2	LB.1	CTS 4.6.5.3.d.2 establishes 18 months as the required frequency to verify that the filter train starts and associated dampers open on manual initiation and simulated automatic initiation signals. ITS SR 3.6.4.3.3 performs virtually the same test but the required frequency is extended to 24 months. No justification has been provided for this less restrictive change. LB1 in the CTS markup refers to this change but it references CTS 4.6.5.3.d.3 not CTS 4.6.5.3.d.2. The 18 to 24 month frequency change is a beyond scope of review for this conversion.	Correct the discrepancy. Since the change is a beyond scope of review for conversion, it has been assigned to the appropriate staff Technical Branch for review. Inclusion of this change in the conversion will depend on the results of that review.	LB.1 will be revised to correct references.	Open-NRC technical branch is reviewing change. PP&L will provide M/U of DOC.
3.6.4.3-06	STS 3.6.4.3	JFD P.2	ITS 3.6.4.3 RA C.1, ITS SR 3.6.4.3.1 and Associated Bases change the STS wording from "SGT subsystem" to "SGT filter train." The change is designated P2 which states that the changes are made for clarity. The change does not improve clarity since ITS LCO 3.6.4.3, ITS 3.6.4.3 Condition A and RA A.1, ITS 3.6.4.3 Condition D and RA D.1, ITS 3.6.4.3 Condition E, ITS SR 3.6.4.3.3 and the Associated Bases all refer to the STS wording "SGT Subsystem."	Return the wording of ITS 3.6.4.3 RA C.1, ITS SR 3.6.4.1.3, and their assolcated bases to the STS wording "SGT Subsystem."	SSES ITS Background section wording will be modified to more clearly define filter train and how many fans are required to be Operable. Also JFD will identify that changing wording is necessary to only start the fan that is necessary for operation.	Closed-PP&L will provide M/U of SSES ITS and JFD.
3.6.4.3-07	STS SR 3.6.4.3.1	JFD P.2	STS SR 3.6.4.3.1 states the following: "Operate each SGT subsystem for > [10] continuous hours with heaters operating." ITS SR 3.6.4.3.1 changes "operating" to "OPERABLE". This change does not meet the intent of the STS SR. The change would allow the SR to be performed without the heaters on. The change is unacceptable.	Return the wording to "operating"	SSES ITS will maintain NUREG wording.	Closed-PP&L will provide M/U of SSES ITS.
3.6.4.3-08	CTS 4.6.5.3.d.3	JFD P.3	CTS 4.6.5.3.d.3 verifies that the filter cooling bypass and outside air dampers open and the fan start on filter cooling initiation. ITS SR 3.6.4.3.4 performs the same test but initiation is by high charcoal temperature. The CTS requirement of "on filter cooling initiation" would allow for manual as well as any associated automatic initiation. The Bases changes associated with this change are designated P3 which is a general editorial/clarity justification. The CTS markup does not show this change. No justification or designation has been provided for this more restrictive change	Provide justification discussion, and appropriate CTS markups for this more restrictive change.	This interpretation would be captured in the LSFT performed as required in SSES ITS 3.3.6.2. DOC will be added to clarify wording change between SSES CTS and ITS.	Closed-PP&L will provide revised CTS M/U and DOC.

SECTION 3.6 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.6.4.3-09	CTS 4.6.5.3.d.3	JFD P.3	CTS 4.6.5.3.d.3 verifies that the filter cooling bypass and outside air dampers open on filter cooling initiation. ITS SR 3.6.4.3.4 performs the same test with the exact same wording for filter cooling bypass and outside air dampers. The Bases for ITS SR 3.6.4.3.4 uses the words "filter train cooling and cross tie dampers". No justification is provided as to why the Bases differs from the CTS or the ITS SR, other than P3 which is a generalized editorial/clarity justification. In this case P3 does not apply here.	Provide justification and discussion for this change and make the ITS consistent	SSES ITS will be revised to use consistent terminology for describing tested function.	Closed-PP&L will provide M/U of SSES ITS.
3.6.4.3-10	STS B3.6.4.3 Bases Background	None and JFD P.3	STS 3.6.4.3 Bases BACKGROUND section states that the SGT system consists of duct work and other components. ITS B3.6.4.3 Bases BACKGROUND section and LCO section insert B.3-110-1 do not mention duct work as part of the system or consider it as required for SGT system operability.	Provide justification and discussion for why the SGT duct work is not considered required for system operability based on current licensing basis, system design, or operational contraints.	See NUREG M/U page B3.6-109. The NUREG statement conveys that the ductwork is independent for each SGT System. This is not correct for SSES therefore, this statement was removed. No discussion of ductwork appears in the NUREG 1433 LCO discussion. Above discussion will be added to JFD.	Closed-PP&L will provide M/U of JFD.
3.6.4.3-11	STS B3.6.4.3 Bases Background	None and JFD P.3	STS B3.6.4.3 Bases BACKGROUND section states that the SGT system consists of a charcoal filter train and other components. It then describes the components in the charcoal filter train. ITS B3.6.4.3 Bases BACKGROUND and LCO section insert B.3-110-1 deletes the word "charcoal" from "charcoal filter train" except for the paragraph which describes the components which constitutes the charcoal filter train.	Provide a discussion as to why the word "charcoal" was deleted from "charcoal filter train" in the Bases for B3.6.4.3 except for this one paragraph in the Background section	This was done because the SGT System filter train contains both charcoal filters and HEPA filters. SSES ITS will be revised to correct inconsistency in terminology.	Closed-PP&L will provide M/U of SSES ITS.

B 3.6 CONTAINMENT SYSTEMS

B 3.6.1.1 Primary Containment

LOSS OF COOLANT

BASES

BACKGROUND

The function of the primary containment is to isolate and contain fission products released from the Reactor Primary System following a Design Basis Accident (DBA) and to confine the postulated release of radioactive material. The primary containment consists of a steel lined, reinforced concrete vessel, which surrounds the Reactor Primary System and provides an essentially leak tight barrier against an uncontrolled release of radioactive material to the environment.

The isolation devices for the penetrations in the primary containment boundary are a part of the containment leak tight barrier. To maintain this leak tight barrier:

a. All penetrations required to be closed during accident conditions are either:

   1. capable of being closed by an OPERABLE automatic containment isolation system, or

   2. closed by manual valves, blind flanges, or de-activated automatic valves secured in their closed positions, except as provided in LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)";

b. The primary containment air lock is OPERABLE, except as provided in LCO 3.6.1.2, "Primary Containment Air Lock"; and

c. All equipment hatches are closed.

Design Basis Accident

This Specification ensures that the performance of the primary containment, in the event of a DBA, meets the assumptions used in the safety analyses of References 1 and 2. SR 3.6.1.1.1 leakage rate requirements are in conformance with 10 CFR 50, Appendix J, Option B and supporting documents (Ref. 3, 4 and 5), as modified by approved exemptions.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1.1 (continued)

to meet these SRs must be evaluated against the Type A, B, and C acceptance criteria of the Primary Containment Leakage Rate Testing Program. As left leakage prior to ~~each~~ the first startup after performing a required leakage test is required to be < 0.6 L_a for combined Type B and C leakage, and ≤ 0.75 L_a for overall Type A leakage. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of ≤ 1.0 L_a. At ≤ 1.0 L_a the offsite dose consequences are bounded by the assumptions of the safety analysis. The Frequency is required by the Primary Containment Leakage Rate Testing Program

following an outage or a shutdown that included Type A testing.

SR 3.6.1.1.2

Maintaining the pressure suppression function of primary containment requires limiting the leakage from the drywell to the suppression chamber. Thus, if an event were to occur that pressurized the drywell, the steam would be directed through the downcomers into the suppression pool. This SR measures drywell to suppression chamber leakage to ensure that the leakage paths that would bypass the suppression pool are within allowable limits.

Satisfactory performance of this SR can be achieved by establishing a known differential pressure between the drywell and the suppression chamber and determining the leakage. The leakage test is performed when the 10 CFR 50, Appendix J, Type A test is performed in accordance with the Primary Containment Leakage Rate Testing Program. This testing Frequency was developed considering this test is performed in conjunction with the Integrated Leak rate test and also in view of the fact that component failures that might have affected this test are identified by other primary containment SRs. Two consecutive test failures, however, would indicate unexpected primary containment degradation; in this event, as the Note indicates, increasing the Frequency to once every 24 months is required until the situation is remedied as evidenced by passing two consecutive tests.

(continued)

BASES (continued)

APPLICABLE SAFETY ANALYSES

The DBA that postulates the maximum release of radioactive material within primary containment is a LOCA. In the analysis of this accident, it is assumed that primary containment is OPERABLE, such that release of fission products to the environment is controlled by the rate of primary containment leakage. The primary containment is designed with a maximum allowable leakage rate (L_a) of 1.0% by weight of the containment air per 24 hours at the calculated maximum peak containment pressure (P_a) of 45 psig (Ref. 3). This allowable leakage rate forms the basis for the acceptance criteria imposed on the SRs associated with the air lock.

Primary containment air lock OPERABILITY is also required to minimize the amount of fission product gases that may escape primary containment through the air lock and contaminate and pressurize the secondary containment.

The primary containment air lock satisfies Criterion 3 of the NRC Policy Statement. (Ref. 4)

LCO

As part of the primary containment pressure boundary, the air lock's safety function is related to control of containment leakage rates following a DBA. Thus, the air lock's structural integrity and leak tightness are essential to the successful mitigation of such an event.

The primary containment air lock is required to be OPERABLE. For the air lock to be considered OPERABLE, the air lock interlock mechanism must be OPERABLE, the air lock must be in compliance with the Type B air lock leakage test, and both air lock doors must be OPERABLE. The interlock allows only one air lock door to be opened at a time. This provision ensures that a gross breach of primary containment does not exist when primary containment is required to be OPERABLE. Closure of a single door in each air lock is sufficient to provide a leak tight barrier following postulated events. Nevertheless, both doors are kept closed when the air lock is not being used for normal entry ~~and~~ OR exit from primary containment.

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.3.3 (continued)

blind flanges located in high radiation areas to be verified by use of administrative controls. Allowing verification by administrative controls is considered acceptable since the primary containment is inerted and access to these areas is typically restricted during MODES 1, 2, and 3 for ALARA reasons. Therefore, the probability of misalignment of these PCIVs, once they have been verified to be in their proper position, is low. A second Note has been included to clarify that PCIVs that are open under administrative controls are not required to meet the SR during the time that the PCIVs are open.

SR 3.6.1.3.4

The traversing incore probe (TIP) shear isolation valves are actuated by explosive charges. Surveillance of explosive charge continuity provides assurance that TIP valves will actuate when required. Other administrative controls, such as those that limit the shelf life of the explosive charges, must be followed. The 31 day Frequency is based on operating experience that has demonstrated the reliability of the explosive charge continuity.

SR 3.6.1.3.5

Verifying the isolation time of each power operated and each automatic PCIV is within limits is required to demonstrate OPERABILITY. MSIVs may be excluded from this SR since MSIV full closure isolation time is demonstrated by SR 3.6.1.3.7. The isolation time test ensures that the valve will isolate in a time period less than or equal to that assumed in the Final Safety Analyses Report. The isolation time and Frequency of this SR are in accordance with the requirements of the Inservice Testing Program.

SR 3.6.1.3.6

Option B,

For primary containment purge valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J (Ref. 3), is required to ensure OPERABILITY. Operating experience has demonstrated that

(continued)

5.5 Programs and Manuals

5.5.11 (continued)

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

5.5.12 Primary Containment Leakage Rate Testing Program

A program shall be established, implemented, and maintained to comply with the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program", dated September 1995.

The peak calculated containment internal pressure for the design basis loss of coolant accident, Pa, is 45.0 psig.

The maximum allowable primary containment leakage rate, La, at Pa, shall be 1% of the primary containment air weight per day.

Leakage Rate Acceptance Criteria are:

a. Primary Containment leakage rate acceptance criterion is ≤ 1.0 La. During ~~each~~ the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are ≤ 0.60 La for Type B and Type C tests and ≤ 0.75 La for Type A tests;

b. Air lock testing acceptance criteria are:

   1) Overall air lock leakage rate is ≤ 0.05 La when tested at ≥ Pa,

   2) For each door, leakage rate is ≤ 5 scfh when pressurized to ≥ 10 psig.

The provisions of SR 3.0.2 do not apply to the test frequencies specified in the Primary Containment Leakage Rate Testing Program.

The provisions of SR 3.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.

NRC RAI 3.6.1.1-2 Specification 3.6.1.1
3.6.2.1-05 (See DOC 3.6.1.1 unless indicated)
3.6.2.1-07 Specification 3.6.2.2
Specification 3.6.2.1

SURVEILLANCE REQUIREMENTS (Continued)

c. By verifying at least two suppression chamber water level indicators and at least sixteen surface water temperature indicators, at least one pair in each suppression pool sector, OPERABLE by performance of a:

1. CHANNEL CHECK at least once per 24 hours,
2. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
3. CHANNEL CALIBRATION at least once per 18 months,

with the water level and temperature alarm setpoint for: LA.1

1. High water level ≤ 23'9", 3.6.2.1
2. Low water level ≥ 22'3", and 3.6.2.2
3. High water temperature:
   a) First setpoint, ≤ 90°F,
   b) Second setpoint, ≤ 105°F,
   c) Third setpoint, ≤ 110°F, and
   d) Fourth setpoint, ≤ 120°F.

at the same frequency as... TSCR 96001

SR 3.6.1.1.2 By conducting a drywell-to-suppression chamber bypass leak test at an initial differential pressure of at least 4.3 psi and verifying that the A/√k calculated from the measured leakage is within the specified limit. The bypass leak test shall be conducted at 40 ± 10 month intervals during shutdown, during each 10 year service period. If any drywell-to-suppression chamber bypass leak test fails to meet the specified limit, the test schedule for subsequent tests shall be reviewed and approved by the Commission. If two consecutive tests fail to meet the specified limit, a test shall be performed at least every 18 months until two consecutive tests meet the specified limit, at which time the above test schedule may be resumed. A5

SR 3.6.1.1.2 Note refueling TSCR 96001

SR 3.6.1.1.3 By conducting a leakage test on the drywell-to-suppression chamber vacuum breakers at a differential pressure of at least 4.3 psi and verifying that the total leakage area $A/(k)^{1/2}$ contributed by all vacuum breakers is less than or equal to 30% of the specified limit and the leakage area for an individual set of vacuum breakers is less than or equal to 12% of the specified limit. The vacuum breaker leakage test shall be conducted during each refueling outage for which the drywell-to-suppression chamber bypass leak test in Specification 4.6.2.1.d is not conducted.

SR 3.6.1.1.3 Note. LA1

TSCR 96001

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.1.1	Perform required visual examinations and leakage rate testing except for primary containment air lock testing, in accordance with the Primary Containment Leakage Rate Testing Program.	In accordance with the Primary Containment Leakage Rate Testing Program.
SR 3.6.1.1.2	Verify that the drywell-to-suppression chamber bypass leakage is less than the acceptable A/√K design value of 0.0535 ft^2 at an initial differential pressure of ≥ 4.3 psi.	When performing 10 CFR 50 Appendix J, Type A testing, in accordance with the Primary Containment Leakage Rate Testing Program. AND -----Note----- Only required after two consecutive tests fail and continues until two consecutive tests pass ---------- 24 months

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.1.1.3	----------Note---------- Satisfied by the performance of SR 3.6.1.1.2. ---------- Verify that the total drywell-to-suppression chamber vacuum breaker leakage is less than or equal to ~~30%~~ of ~~the acceptable A/√k design value of 0.0535 ft²~~ .001605 ft² and the leakage area for each set of vacuum breakers is less than or equal to ~~12% of the acceptable A/√k design value of 0.0535 ft²~~ .000642 ft² at an initial differential pressure of ≥ 4.3 psi.	24 months

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1.1 (continued)

to meet these SRs must be evaluated against the Type A, B, and C acceptance criteria of the Primary Containment Leakage Rate Testing Program. As left leakage prior to ~~each~~ the first startup after performing a required leakage test is required to be < 0.6 L_a for combined Type B and C leakage, and ≤ 0.75 L_a for overall Type A leakage. At all other times between required leakage rate tests, the acceptance criteria is based on an overall Type A leakage limit of ≤ 1.0 L_a. At ≤ 1.0 L_a the offsite dose consequences are bounded by the assumptions of the safety analysis. The Frequency is required by the Primary Containment Leakage Rate Testing Program

Following an outage or a shutdown that included Type A testing.

SR 3.6.1.1.2

Maintaining the pressure suppression function of primary containment requires limiting the leakage from the drywell to the suppression chamber. Thus, if an event were to occur that pressurized the drywell, the steam would be directed through the downcomers into the suppression pool. This SR measures drywell to suppression chamber leakage to ensure that the leakage paths that would bypass the suppression pool are within allowable limits.

Satisfactory performance of this SR can be achieved by establishing a known differential pressure between the drywell and the suppression chamber and determining the leakage. The leakage test is performed when the 10 CFR 50, Appendix J, Type A test is performed in accordance with the Primary Containment Leakage Rate Testing Program. This testing Frequency was developed considering this test is performed in conjunction with the Integrated Leak rate test and also in view of the fact that component failures that might have affected this test are identified by other primary containment SRs. Two consecutive test failures however, would indicate unexpected primary containment degradation; in this event, as the Note indicates, increasing the Frequency to once every 24 months is required until the situation is remedied as evidenced by passing two consecutive tests.

The allowable limit is 10% of the acceptable SSES A/√K design value. For SSES, the A/√K design value is .0535.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.1.1.3

Maintaining the pressure suppression function of primary containment requires limiting the leakage from the drywell to the suppression chamber. Thus, if an event were to occur that pressurized the drywell, the steam would be directed through downcomers into the suppression pool. This SR measures suppression chamber-to-drywell vacuum breaker leakage to ensure the leakage paths that would bypass the suppression pool are within allowable limits.

The leakage is determined by establishing a 4.3 psi differential pressure across the drywell-to-suppression chamber vacuum breakers and verifying the leakage. The leakage test is performed every 24 months. The 24 month Frequency was developed considering the surveillance must be performed during a unit outage. A Note is provided which allows this Surveillance not to be performed when SR 3.6.1.1.2 is performed. This is acceptable because SR 3.6.1.1.2 ensures the OPERABILITY of the pressure suppression function including the suppression chamber-to-drywell vacuum breakers.

REFERENCES

1. FSAR, Section 6.2.
2. FSAR, Section 15.
3. 10 CFR 50, Appendix J, Option B.
4. Nuclear Energy Institute, 94-01
5. ANSI/ANS 56.8-1994
6. Final Policy Statement on Technical Specifications Improvements July 22, 1993 (58 FR 39132)

The total allowable leakage limit is 30% of the SR 3.6.1.1.2 limit. The allowable leakage per set is 12% of the SR 3.6.1.1.2 limit.

 NRC RAI 9.6.1.1-4

ADMINISTRATIVE (continued)

Option B, for visual inspection prior to each Type A containment leakage rate test. These regulations require licensee compliance, cannot be revised by the licensee, and are addressed by direct reference in both the SSES CTS and SSES ITS. Therefore, the details of the regulations within the SSES CTS are unnecessary.

In addition, SSES CTS 4.6.1.5.2, the structural integrity reporting requirement and drywell-to-suppression chamber leakage reporting requirement are a duplication of requirements in 10 CFR 50.73 and 10 CFR 50, Appendix J. Therefore, SSES ITS 3.6.1.1 does not identify these requirements. The only potential difference is the timing of the report, if the degradation is not serious. 10 CFR 50, Appendix J requires only that this information be provided with the ILRT Report. If the principal safety barrier, i.e., the primary containment is seriously degraded, a 30 day report is required by 10 CFR 50.73. SSES CTS 4.6.1.5.2 identifies that only "abnormal degradation of the primary containment structure" is required to be reported within 30 days. The term "abnormal degradation" has been determined to be consistent with serious degradation of the primary containment and therefore, the requirements are the same. Since the special report requirement of the SSES CTS duplicates the 10 CFR 50 requirements, it is unnecessary and is deleted.

Therefore, retaining the requirement to meet the requirements of 10 CFR 50 Appendix J, Option B, and eliminating the Technical Specification details that are found in 10 CFR 50.73 and 10 CFR 50 Appendix J, Option B, is considered a presentation preference in SSES ITS which is consistent with the BWR STS NUREG 1433, Revision 1. Therefore, the changes outlined above are administrative with no impact on safety.

A.6 SSES CTS 3.6.2.1.b requirement for maintaining the drywell-to-suppression chamber bypass leakage within limits is addressed by SSES ITS SR 3.6.1.1.2 and SSES ITS SR 3.6.1.1.3 as supporting Surveillances for Primary Containment Operability. SSES ITS SR 3.6.1.1.2, verification that bypass leakage is within limits is essential to ensure the capability of the primary containment to perform its pressure suppression function which in turn ensures that primary containment design pressure is not exceeded. Therefore, the actual LCO statement is not needed since it is part of Primary Containment Operability. Since the intent of SSES CTS and SSES ITS are consistent, this is an administrative change with no impact on safety.

Insert A.7

NRC RAI 3.6.1.1-4

INSERT 3.6.1.1 DOC:

A.7 SSES CTS 3.6.2.1, Action e, specifically requires that if drywell to suppression chamber leakage exceeds limits restore limits prior to exceeding 200 F. SSES ITS does not have the same specific requirement, but does specifically require leakage limits to be met through SR 3.6.1.1.2 and SR 3.6.1.1.3. Therefore, although SSES ITS does not contain the same specific requirements, the intent of the specifications is the same and therefore, this is an administrative change with no impact on safety.

3.6.1.3-
3.6.1.3-
3.6.1.3-
3.6.1.1-c
3.6.1.3-c

ADMINISTRATIVE (continued)

this requirement to perform post maintenance testing although this requirement is applicable. Even though the SSES ITS does not explicitly require post maintenance testing the requirement is maintained. Therefore, this change does not result in a change in the requirements only a change to ensure consistency with NUREG 1433, Revision 1. Based on the above discussion, the change is considered an administrative change with no impact on safety.

Insert A.11

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES ITS 3.6.1.3 adds an Applicability--"When associated instrumentation is required to be OPERABLE per LCO 3.3.6.1, Primary Containment Isolation Instrumentation," which adds a MODE 4 and 5 requirement to the RHR Shutdown Cooling System isolation valves. SSES ITS 3.6.1.3, Action G, has been added to identify appropriate actions when these valves cannot be isolated or restored within the applicable Completion Time, and the unit is already in MODE 4 or 5. Additionally, since all SRs for SSES ITS LCO 3.6.1.3 would apply in this new condition, exceptions to SRs that are not applicable to RHR-SDC are indicated in the applicable SR. This change is more restrictive on plant operation. The addition of an applicable restriction in Modes 4 and 5 has no negative impact on safety.

M.2 SSES ITS adds a new Surveillance Requirement to SSES CTS 3/4.6.18 SSES ITS SR 3.6.1.3.1 verifies the 18 and 24 inch purge valves are closed every 31 days. This SR is an additional restriction on plant operation. This additional SRs ensure the assumptions of the safety analyses are met and therefore, has no negative impact on safety.

M.3 SSES ITS SR 3.6.1.3.10 is added to SSES CTS 3/4.6.3 to remove and test the explosive squib from each shear isolation valve of the TIP System. This test is performed to ensure the Operability of the explosive squib valve and is consistent with tests performed on the Standby Liquid Control squib valves. This more restrictive change will have no negative impact on safety.

M.4 Insert

M.5 Insert

The SR frequency is consistent with the Inservice Testing requirements.

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 3.6.3 requires Primary Containment Isolation Valves to be Operable and SSES CTS Table 3.6.3-1 identifies all Primary Containment Isolation Valves. SSES ITS 3.6.1.3 requires all Primary Containment Isolation Valves to be Operable but does not specifically identify each PCIV. This is acceptable because the listing of each PCIV does not impact the SSES ITS requirement that the PCIVs are maintained Operable. Furthermore, the design information, valve functions and numbers, isolation time, and

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

isolation signals, does not ensure the Operability of the primary containment, therefore, it can be removed from the SSES ITS. Therefore, these details can be adequately defined and controlled in SSES ITS Bases (for design details) and the ~~Technical Requirements Manual (TRM)~~ (for program Notes). ~~which requires change control in accordance with SSES ITS 5.5.10, Bases Control Program.~~ The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the PCIVs Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

Primary Containment Leakage Rate Testing Program

TS Bases is controlled in accordance with SSES ITS 5.5.10, Bases Control Program, while Primary Containment Leakage Rate Testing Program is controlled under 50.59.

LA.2 SSES CTS 3.6.1.2, Action e, requires hydrostatically tested lines to be maintained Operable within a specified limit. SSES ITS SR 3.6.1.3.13 requires that the hydrostatically tested lines be tested within limits and does not specify the limit. This is acceptable because the specified limit does not impact the SSES ITS requirement to maintain the hydrostatically tested lines Operable. Therefore, this specified limit can be adequately defined and controlled in SSES ITS Bases which requires change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the hydrostatically tested valves Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

The information maintained in SSES ITS Bases provides sufficient information for plant operation while program information is maintained in the Primary Containment Leakage Rate testing program

LA.3 SSES CTS 3.6.1.2, Action c, requires the MSIVs to be restored to Operable status and requires that the leakage rate be restored to ≤ 11.5 scfh for any main steam isolation valve that exceeds 100 scfh. SSES ITS 3.6.1.3, Actions, require the MSIVs to be restored to Operable status, but does not impose further restoration requirements. This is acceptable because this requirement does not impact the SSES ITS requirement to maintain the MSIV leakage to within specified limits. The requirement to restore the MSIV leakage to ≤ 11.5 scfh is a commitment beyond the SSES ITS and SSES CTS Operability requirements for the MSIVs. The requirement to repair the valves to original design condition is not an assumption in the plant design basis. Therefore, this requirement can be adequately defined and controlled in ~~plant procedures~~ SSES ITS Bases. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the MSIVs Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to

Specification 3.6.1.1
(See 3.6.1.1 Doc. unless indicated
Specification 3.6.1

100 SCF per hour for any one main steam isolation valve and a combined maximum pathway leakage rate ≤ 300

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

~~3.6.1.2~~ Primary containment leakage rates shall be limited to:

SR 3.6.1.1.1 ~~a.~~ An overall integrated leakage rate (Type A test) (B) ~~of less than or equal to L_a, 1.0 percent by weight of the containment air per 24 hours at P_a, 45.0 psig.~~ | TSCR 96

b. A combined leakage rate (C) TSCR 196-003 ~~of less than or equal to 0.60 L_a~~ (LA.1) 3.6.1.3 for all penetrations and all valves ~~(listed in Table 3.6.3-1)~~, except for main steam line isolation valves*, main steam line drain valves* and valves which are hydrostatically leak tested ~~per Table 3.6.3-1~~ subject to Type B and C tests, ~~when pressurized to P_a, 45.0 psig.~~ | TSCR 96-003 (and HS Line drain) (A.1) 3.6.1.3

SR 3.6.1.3.12 c. *Less than or equal to ~~46~~ scf per hour for all four main steam lines through the isolation valves when tested at P_t, 22.5 psig. (or P_a)

SR 3.6.1.3.11 d. *Less than or equal to 1.2 scf per hour for any one main steam line drain valve when tested ~~at P_a, 45.0 psig.~~ (B) | TSCR 96-003 (L.1) 3.6

SR 3.6.1.3.13 e. A combined leakage rate of less than or equal to 3.3 gpm for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment, when tested at 1.10 Pa ~~49.5 psig.~~ (LA.3) 3.6.1.3 (Limit) TSCR 96-

APPLICABILITY: When PRIMARY CONTAINMENT INTEGRITY is required per Specification 3.6.1.1. (A.1)

ACTION: Add SR 3.6.1.3.12 Note (A.11) 3.6.1.3 Add SR 3.6.1.3.12 Note (A.1) 3.6.1.3 Add Actions Note (A.3) 3.6.1.3

With:

3.6.1.1 COND A

~~a.~~ The measured overall integrated primary containment leakage rate (Type A) ~~exceeding 0.75 L_a~~ not (A), or | TSCR 96-003 (LA.1) 3.6

~~b.~~ The measured combined leakage rate for all penetrations and all valves ~~(listed in Table 3.6.3-1)~~ except for main steam line isolation valves*, main steam line drain valves* and valves which are hydrostatically leak tested ~~per Table 3.6.3-1~~, subject to Type B and C tests ~~exceeding 0.60 L_a~~ not (C), or | TSCR 96-003

3.6.1.3 COND D.

~~c.~~ The measured leakage rate exceeding ~~46~~ scf per hour for all four main steam lines through the isolation valves, or (and HS Line drain)

~~d.~~ The measured leak rate exceeding 1.2 scf per hour for any one main steam line drain valve, or (L.1) 3.6

~~e.~~ The measured combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment exceeding 3.3 gpm. (Limit) (LA.2) 3.6.1.3 TSCR 96-002

SR 3.6.1.1.1 *Exemption to Appendix "J" of 10 CFR 50.

100 SCF per hour for any one main steam isolation valve or a total maximum pathway leakage rate of > 300

TSCR 96-002
TSCR 96-003

NRC RAI 3.6.1.1-2 Specification 3.6.1.1
3.6.2.1-05 (See DOC 3.6.1.1 unless indicated)
3.6.2.1-07 Specification 3.6.2.2
3.6.2.2-05 Specification 3.6.2.1

SURVEILLANCE REQUIREMENTS (Continued)

c. By verifying at least two suppression chamber water level indicators and at least sixteen surface water temperature indicators, at least one pair in each suppression pool sector, OPERABLE by performance of a:

1. CHANNEL CHECK at least once per 24 hours,
2. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
3. CHANNEL CALIBRATION at least once per 18 months,

with the water level and temperature alarm setpoint for: LA.1

1. High water level ≤ 23'9", 3.6.2.1
2. Low water level ≥ 22'3", and 3.6.2.2
3. High water temperature:
   a) First setpoint, ≤ 80°F,
   b) Second setpoint, ≤ 105°F,
   c) Third setpoint, ≤ 110°F, and
   d) Fourth setpoint, ≤ 120°F.

at the same frequency as... TSCR 96001

SR 3.6.1.1.2 By conducting a drywell-to-suppression chamber bypass leak test at an initial differential pressure of at least 4.3 psi and verifying that the $A/\sqrt{k}$ calculated from the measured leakage is within the specified limit. The bypass leak test shall be conducted at 40/± 10 month intervals during shutdown, during each 10 year service period. If any drywell-to-suppression chamber bypass leak test fails to meet the specified limit, the test schedule for subsequent tests shall be reviewed and approved by the Commission. If two consecutive tests fail to meet the specified limit, a test shall be performed at least every 18 months until two consecutive tests meet the specified limit, at which time the above test schedule may be resumed. A5

SR 3.6.1.1.2 Note refueling TSCR 96001

SR 3.6.1.1.3 By conducting a leakage test on the drywell-to-suppression chamber vacuum breakers at a differential pressure of at least 4.3 psi and verifying that the total leakage area $A/(k)^{1/2}$ contributed by all vacuum breakers is less than or equal to 30% of the specified limit and the leakage area for an individual set of vacuum breakers is less than or equal to 12% of the specified limit. The vacuum breaker leakage test shall be conducted during each refueling outage for which the drywell-to-suppression chamber bypass leak test in Specification 4.6.2.1.d is not conducted.

SR 3.6.1.1.3 Note. LA1

TSCR 96601

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

A.1

LCO 3.6.1.2

~~3.6.1.3~~ Each primary containment air lock shall be OPERABLE with:

~~a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and~~ L.A.1

SR 3.6.1.2.1 ~~b.~~ An overall air lock leakage rate ~~of less than or equal to 0.05 L_a at P_a, 15.0 psig.~~ 6

APPLICABILITY: OPERATIONAL CONDITIONS 1, ~~2~~ and 3. A.2

TSCR 96-00

ACTION: Add 3.6.1.2 Action Note 1 L.1

Add 3.6.1.2 Action Note 2 A.3

Action A ~~a.~~ With one primary containment air lock door inoperable: add Note 1 to Req Act A A.5

~~1.~~ Maintain at least the OPERABLE air lock door closed and ~~either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.~~ A.4 M.1 add to Req Act A.6

~~2.~~ Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days. A.6 L.3 A.7

Action D ~~b.~~ Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Action C ~~b.~~ With the primary containment air lock inoperable, except as a result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. A.4 add Figure Act C.1 A.3

Action D

Add SGES ITS 3.6.1.2 Action B L.2

TSCR 96-003

*~~See Special Test Exception 3.10.1.~~ A.2

NRC RAI 3.6.1.2-02

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 The format of the SSES ITS does not include cross references. The SSES CTS 3.6.1.3 reference to "See Special Test Exception 3.10.1" serves no purpose, and therefore its removal is an administrative change with no impact on safety.

A.3 SSES ITS SR 3.6.1.2.1, Note, SSES ITS 3.6.1.2, Actions Note 2, and SSES ITS 3.6.1.2 Required Action C.1 are added. This additional information facilitates the use and understanding of the requirements. The additional information is outlined as follows:

- SR 3.6.1.2.1, Note, provides that an inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. Since the inoperability affects only one door, the barrel and the other Operable door provide a sufficient containment barrier. Even though the overall test could not be satisfied (SR 3.0.1 would normally require this to result in declaring the LCO not met - possibly requiring SSES ITS 3.6.1.2 Condition C (SSES CTS ACTION b) to be entered), the Note clarifies the intent that the previous test <u>not</u> be considered "not met."

- Actions Note 2 considers the primary containment inoperable in the event air lock leakage results total leakage exceeding the Appendix J acceptance criteria.

- Required Action C.1 ensures that the primary containment overall leakage is evaluated against the Appendix J acceptance criteria if an air lock is inoperable.

These clarifications are consistent with the intent and interpretation of the SSES CTS, and are therefore administrative changes with no impact on safety.

A.4 ~~In SSES CTS 3.6.1.3, Action a.1 and Action b, the word "maintain" has been changed to "verify", and a 1 hour time added to SSES ITS 3.6.1.2 Required Action A.1, to be consistent with the Primary Containment LCO. This change is consistent with the BWR STS NUREG 1433, Revision 1. The intent of both the SSES CTS and the SSES ITS is consistent, therefore, this change is administrative with no impact on safety.~~

Not used

NRC RAI 3.6.1.2-01

ADMINISTRATIVE (continued)

A.5 SSES ITS 3.6.1.2 adds Required Action A.1 Note 1. "Required Actions...are not applicable if...Condition C is entered". to provide more explicit instructions for proper application of the Actions for Technical Specification compliance. In conjunction with the SSES ITS 1.3. "Completion Times." these Actions provide direction consistent with the intent of the SSES CTS Actions for one inoperable air lock door in the air lock. In the SSES ITS 3.6.1.2 Required Actions A.1 Note 1. there is a recognition that if both doors in the air lock are inoperable (Condition C is entered). then an "OPERABLE" door does not exist to be closed. Therefore. Required Actions A.1. A.2. and A.3. cannot be met. This change is an administrative change since it is consistent with the intent of the SSES CTS and is only provided to ensure the Required Actions are correctly understood. This is an administrative change with have no impact on safety.

A.6 SSES CTS 3.6.1.3. Action a.1. details explicit actions to restore Operability. SSES ITS 3.6.1.2 presentation of Actions (based on the BWR STS. NUREG-1433. Revision 1) does not explicitly detail options to "restore...to OPERABLE status" or "return...to service." These actions are always an option. and are implied in all Actions. Therefore. this change is administrative with no impact on safety.

A.7 The SSES CTS 3.6.1.3. Action a.2. requirement for performing the overall air lock leakage test is a requirement of 10 CFR 50 Appendix J. This requirement is embodied in SSES ITS SR 3.6.1.2.1. It is possible that the test would not be able to be performed with an inoperable air lock door. and a plant shutdown would be required due to the inability to perform the required surveillance. However. this restriction on continued operation need not be specified - it exists inherently as a result of the required Appendix J testing. Therefore. no change in operation requirements or intent is made. and the proposed revision to eliminate a specific restriction on continued operation. is an administrative change with no impact on safety

TECHNICAL CHANGES - MORE RESTRICTIVE

~~None~~ Insert M.1

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 3.6.1.3.a. requires the primary containment airlock to be Operable and defines what comprises Operability of the air lock. SSES ITS 3.6.1.2 requires the primary containment airlock to be Operable but does not define the details of Operability. This is acceptable because these details do not impact the SSES ITS

Insert

M.1 In SSES CTS 3.6.1.3, Action a.1 and Action b, the word "maintain" has been changed to "verify", and a 1 hour time added to SSES ITS 3.6.1.2 Required Action A.1, to be consistent with the Primary Containment LCO. This change is consistent with the BWR STS NUREG 1433, Revision 1. This more restrictive change is acceptable because it establishes a definitive period of time (one hour) to ensure the airlock door is shut compared to no time requirement in SSES CTS. Therefore, this change is a more restrictive change with no negative impact on safety.

NRC RAI 3.6.1.2-2
NRC RAI 3.6.1.2-03

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

Operable doors can be closed. Therefore, this less restrictive change will have negligible impact on safety.

L.2 SSES ITS 3.6.1.2 Action B is added to address a situation where the air lock interlock mechanism is inoperable. ~~The Required Actions for this condition are consistent with those specified in SSES CTS 3.6.1.2, Action a.~~ With the air lock mechanism inoperable the air lock door is not Operable for normal exit and entry, but the doors can still be closed to maintain the primary containment Operable. Therefore, this less restrictive change will have a minimal impact on safety.

L.3 SSES ITS 3.6.1.2 Required Action A, Note 2, is added to allow entry through a closed and/or locked Operable air lock door (for reasons other than repairs) for a limited period of time (i.e., 7 days). Although one Operable air lock door locked closed is sufficient to maintain containment integrity function and allow continued operation, entry and exit during operation may be necessary to perform maintenance and inspections as well as allowing access for operational considerations, such as preventative maintenance, etc. Should the air lock become inoperable and access not be allowed, a plant shutdown could be forced in a short period of time due to failure to attend to these activities.

The allowance is proposed to have strict administrative controls, which are detailed in the Bases. A dedicated (i.e., not involved with any repair or other maintenance effort) individual will be assigned to ensure: 1) the door is opened only for the period of time required to gain entry or exit from the air lock, and 2) the Operable door is re-locked prior to the departure of the dedicated individual.

Therefore, allowing the Operable door to be opened (temporarily allowing loss of containment integrity) for brief moments during a 7 day period, is an acceptable exchange in risk: the risk of an event during the brief period of Operable door opening for access (which is limited to 7 days), versus the risk associated with the transient of the plant shutdown that would follow from not attending to required activities within the containment. This provision is consistent with the BWR STS, NUREG-1433, Revision 1. Based on the above discussion, this less restrictive change will have a minimal impact on safety.

L.4 SSES CTS 4.6.1.3 footnote "**" provides the primary containment airlock interlock does not need to be verified when the primary containment is inerted. SSES ITS 3.6.1.2, Required Actions A.3 and B.3, allow the air lock door to be verified closed, if they are located in a high radiation area. This change is acceptable because the isolation devices are initially verified to be in the

But does not provide the allowance for the st
This change is made necessary to provide an allow for an inope airlock door

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3. AND D.2 Be in MODE 4.	12 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.2.1	----------NOTE---------- 1. An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. 2. Results shall be evaluated against acceptance criteria acceptable to SR 3.6.1.1.1. ---------- Perform required primary containment air lock leakage rate testing in accordance with the Primary Containment Leakage Rate Testing Program.	In accordance with the Primary Containment Leakage Rate Testing Program
SR 3.6.1.2.2	~~----------NOTE----------~~ ~~Only required to be performed upon entry into primary containment.~~ ~~----------~~ Verify only one door in the primary containment air lock can be opened at a time.	24 months

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.2.1 (continued)

criteria were established based on engineering judgement and industry operating experience. The periodic testing requirements verify that the air lock leakage does not exceed the allowed fraction of the overall primary containment leakage rate. The Frequency is required by the Primary Containment Leakage Rate Testing Program.

The SR has been modified by two Notes. Note 1 states that an inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. This is considered reasonable since either air lock door is capable of providing a fission product barrier in the event of a DBA. Note 2 requires the results of airlock leakage tests be evaluated against the acceptance criteria of the Primary Containment Leakage Testing Program, 5.5.12. This ensures that the airlock leakage is properly accounted for in determining the combined Type B and C primary containment leakage.

SR 3.6.1.2.2

The air lock interlock mechanism is designed to prevent simultaneous opening of both doors in the air lock. Since both the inner and outer doors of an air lock are designed to withstand the maximum expected post accident primary containment pressure, closure of either door will support primary containment OPERABILITY. Thus, the interlock feature supports primary containment OPERABILITY while the air lock is being used for personnel transit in and out of the containment. Periodic testing of this interlock demonstrates that the interlock will function as designed and that simultaneous inner and outer door opening will not inadvertently occur. Due to the purely mechanical nature of this interlock, and given that the interlock mechanism is ~~only~~ challenged when primary containment is ~~entered~~, this test is only required to be performed ~~upon entering primary containment but is not required more frequently than once every 24 months when primary containment is de-inerted~~. The 24 month Frequency is based on engineering judgment and is considered adequate ~~in view of other administrative controls.~~

Not normally

Since the interlock is not challenged during use of the airlock

Every 24 Months.

The 24 month Frequency is based on the need to perform this Surveillance under conditions that apply during a plant outage, and the potential for loss of primary containment OPERABILITY, if the Surveillance were performed with the reactor at power. The 24 Month Frequency for the interlock is justified based on generic operating experience.

Used for entry and exit (procedures require strict adherence to single door opening)

(continued)

BASES

ACTIONS

A.1, A.2, and A.3 (continued)

Completion Time. The 24 hour Completion Time is considered reasonable for locking the OPERABLE air lock door, considering that the OPERABLE door is being maintained closed.

Required Action A.3 ensures that the air lock with an inoperable door has been isolated by the use of a locked closed OPERABLE air lock door. This ensures that an acceptable primary containment leakage boundary is maintained. The Completion Time of once per 31 days is based on engineering judgment and is considered adequate in view of the low likelihood of a locked door being mispositioned and other administrative controls. Required Action A.3 is modified by a Note that applies to air lock doors located in high radiation areas or areas with limited access due to inerting and allows these doors to be verified locked closed by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted. Therefore, the probability of misalignment of the door, once it has been verified to be in the proper position, is small.

The Required Actions have been modified by two Notes. Note 1 ensures that only the Required Actions and associated Completion Times of Condition C are required if both doors in the air lock are inoperable. With both doors in the air lock inoperable, an OPERABLE door is not available to be closed. Required Actions C.1 and C.2 are the appropriate remedial actions. The exception of Note 1 does not affect tracking the Completion Time from the initial entry into Condition A; only the requirement to comply with the Required Actions. Note 2 allows use of the air lock for entry and exit for 7 days under administrative controls for reasons other than making repairs. Primary containment entry may be required to perform Technical Specifications (TS) Surveillances and Required Actions, as well as other activities on equipment inside primary containment that are required by TS or activities on equipment that support TS-required equipment. This Note is not intended to preclude performing other activities (i.e., non-TS-related activities) if the primary containment was entered, using the inoperable air lock, to perform an allowed activity

(continued)

NRC RAI 3.6.1.3-01

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 ~~(Unit 1 only)~~ SSES CTS Table 3.6.3-1 Footnote "*" is eliminated in SSES ITS. The footnote provides ~~a~~ one time allowances for ~~the HV-155F002 valve~~ Isolation Valve to be considered Operable ~~with its current minimum torque switch setting for the period ending September 12, 1987~~. This allowance is no longer applicable, therefore, it is an administrative change with no impact on safety.

A.3 SSES ITS 3.6.1.3, Actions Note 2, "Separate Condition entry is allowed for each penetration flow path," is added to provide explicit instructions for proper application of the Actions for Technical Specification compliance. In conjunction with the SSES ITS Specification 1.3, "Completion Times," this Note provides direction consistent with the intent of the SSES CTS Actions for inoperable isolation valves. Therefore, this change is administrative with no impact on safety.

A.4 SSES ITS 3.6.1.3, Actions, includes two new notes, Notes 3 and 4. These Notes facilitate the use and understanding of the SSES ITS. Any system made inoperable by inoperable PCIVs is inoperable and its Actions also apply. This requirement is currently located in SSES CTS 3.6.3 Action b.2, but it does not cover all situations. Therefore, Note 3 has been added to cover all situations. Note 4 clarifies that these "systems" include the primary containment. With the SSES ITS LCO 3.0.6, this intent would not necessarily apply. The clarification is consistent with the intent and interpretation of the SSES CTS, and is therefore, an administrative with no impact on safety.

A.5 SSES CTS 3.6.3, Action a and 3.4.7 Action a.1, requirement to maintain at least one isolation valve Operable in each affected penetration that is open, is deleted. SSES ITS Condition A applies if the affected penetration has two valves, and only one is inoperable. This inherently ensures maintaining "at least one isolation valve OPERABLE." In the case of containment penetrations designed with only one isolation valve (SSES ITS Condition C), the system boundary is considered an adequate barrier and the penetration is not considered "open" when the single isolation valve is open. The changes are a change in presentation for the SSES ITS and therefore, is an administrative change with no impact on safety.

ADMINISTRATIVE (continued)

A.6 SSES CTS 3.6.3. Action a.1 and b.1. and SSES CTS 3.4.7. Action a.1.a. identify the option to restore inoperable valve(s) to Operable status. SSES ITS Actions (based on the BWR STS. NUREG-1433. Rev. 1) do not explicitly detail options to "restore...to OPERABLE status." These Actions are always an option. and are implied in all Actions. Omitting this action is an administrative change with no impact on safety.

A.7 SSES CTS 3.6.3. Action b. identifies that provisions of Specification 3.0.3 are not applicable. SSES ITS removes this provision because SSES ITS LCO 3.0.3 is revised to only be applicable in Modes 1. 2. and 3. This administrative change is made in conjunctions with relocating all SSES CTS exceptions to LCO 3.0.3 for specification whose applicability is other than Modes 1. 2. or 3 to be encompassed by the SSES ITS LCO 3.0.3. This change is made to adopt the NUREG 1433 format and therefore is an admin change with no impact on safe

A.8 SSES CTS 3/4.4.7 and SSES CTS 3/4.6.1.8 identify the requirements. provisions and actions for MSIVs and purge valves in Specifications separate from all other primary containment isolation valves. The SSES ITS 3.6.1.3 incorporates these requirements and associated restoration times into the primary containment isolation valve specification. In addition. the 3/4.6.1.8 footnote "*" is deleted because the SSES ITS SR 3.6.1.3.1 clearly differentiates between the bypass line and the larger purge valves. In addition. SSES CTS 3.6.1.8 allowance that the drywell and suppression chamber purge system may be in operation is contained in SSES ITS SR 3.6.1.3.1. Note 2. These changes are a presentation preference. except as noted by other comments. Therefore. this is an administrative change with no impact on safety.

A.9 SSES CTS 4.6.3.2 requires that each PCIV actuates to the isolation position on an test signal. In SSES ITS SR 3.6.1.3.8. "actual or simulated" test signal has been added for verifying that the Primary Containment Isolation Valves (PCIVs) actuates on an initiation signal. This allows satisfactory automatic PCIV actuations for other than Surveillances to be used to fulfill the SR. Operability is adequately demonstrated in either case since the PCIVs cannot discriminate between an "actual" or "test" signal. Therefore. this is an administrative change with no impact on safety.

A.10 SSES CTS 4.6.3.1 requires that any time the Operability of a PCIV is affected by repair. maintenance or replacement of a component. post maintenance testing is required to demonstrate Operability of the system or component. SSES ITS 3.6.1.3 requires the Operability of equipment. but does not direct the performance of testing when repair activities have been performed. The requirement to perform post maintenance testing is applicable to all plant equipment. The majority of SSES CTS LCOs do not contain

100 SCF per hour for any one main steam isolation valve and a combined maximum pathway leakage rate ≤ 300

(See 3.6.1.1 Doc. unless indicated specification 3.6.1.

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT LEAKAGE

NRC RAI 3.6.1.1-03

LIMITING CONDITION FOR OPERATION

~~3.6.1.2~~ Primary containment leakage rates shall be limited to:

SR 3.6.1.1.1 ~~a.~~ An overall integrated leakage rate (Type A test) ~~of less than or equal to L_a 1.0 percent by weight of the containment air per 24 hours at P_a, 48.0 psig.~~ | TSCR

b. A combined leakage rate ~~of less than or equal to 0.60 L_a~~ for all penetrations and all valves ~~listed in Table 3.6.3-1~~, except for main steam line isolation valves*, main steam line drain valves* and valves which are hydrostatically leak tested ~~per Table 3.6.3-1~~ subject to Type B and C tests. ~~when pressurized to P_a, 48.0 psig.~~ TSCR 96-003 TSCR 96-003 LA.1 3.6.1.3

SR 3.6.1.3.12 c. *Less than or equal to ~~46~~ scf per ~~hour for all four main steam~~ (and MSL drain) lines through the isolation valves when tested at P_t, 22.5 psig. (or P_a) L.1 3.6.1.

SR 3.6.1.3.11 d. *Less than or equal to 1.2 scf per hour for any one main steam line drain valve when tested ~~at P_a, 48.0 psig.~~ (b) | TSCR 96-003 L.1 3.6.1.

SR 3.6.1.3.13 e. A combined leakage rate of less than or equal to 3.3 gpm for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment, when tested at 1.10 P_a ~~48.5 psig~~ Limit LA.2 3.6.1.3

APPLICABILITY: When PRIMARY CONTAINMENT INTEGRITY is required per Specification 3.6.1.1. A.1 A.11

ACTION: Add SR 3.6.1.3.12 Note Add SR 3.6.1.3.12 Note NA 3.6.1.3 Add Action Note A.3 3.6.1.3

With:

3.6.1.1 COND A

~~a.~~ The measured overall integrated primary containment leakage rate (Type A test) ~~exceeding 0.75 L_a~~ not (b), or | TSCR 96-003

b. The measured combined leakage rate for all penetrations and all valves ~~listed in Table 3.6.3-1~~, except for main steam line isolation valves*, main steam line drain valves* and valves which are hydrostatically leak tested ~~per Table 3.6.3-1~~ subject to Type B and C tests ~~exceeding 0.60 L_a~~ not (b), or | TSCR 96-003 LA.1

3.6.1.3 COND D.

~~d.~~ The measured leakage rate exceeding ~~46~~ scf per hour for all four main steam lines through the isolation valves, or (and MSL drain)

~~d.~~ The measured leak rate exceeding 1.2 scf per hour for any one main steam line drain valve, or L.1

~~e.~~ The measured combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment exceeding 3.3 gpm. Limit LA.2 3.6.1.3

TSCR 96-003

SR 3.6.1.1.1 *Exemption to Appendix "J" of 10 CFR 50.

100 SCF per hour for any one main steam isolation valve or a total maximum pathway leakage rate of > 300

Amendment No. 29
TSCR 96-002
TSCR 96-003

ADMINISTRATIVE (continued)

this requirement to perform post maintenance testing although this requirement is applicable. Even though the SSES ITS does not explicitly require post maintenance testing the requirement is maintained. Therefore, this change does not result in a change in the requirements only a change to ensure consistency with NUREG 1433, Revision 1. Based on the above discussion, the change is considered an administrative change with no impact on safety.

Insert A.11

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES ITS 3.6.1.3 adds an Applicability--"When associated instrumentation is required to be OPERABLE per LCO 3.3.6.1, Primary Containment Isolation Instrumentation," which adds a MODE 4 and 5 requirement to the RHR Shutdown Cooling System isolation valves. SSES ITS 3.6.1.3, Action G, has been added to identify appropriate actions when these valves cannot be isolated or restored within the applicable Completion Time, and the unit is already in MODE 4 or 5. Additionally, since all SRs for SSES ITS LCO 3.6.1.3 would apply in this new condition, exceptions to SRs that are not applicable to RHR-SDC are indicated in the applicable SR. This change is more restrictive on plant operation. The addition of an applicable restriction in Modes 4 and 5 has no negative impact on safety.

M.2 SSES ITS adds a new Surveillance Requirement to SSES CTS 3/4.6.18. SSES ITS SR 3.6.1.3.1 verifies the 18 and 24 inch purge valves are closed every 31 days. This SR is an additional restriction on plant operation. This additional SRs ensure the assumptions of the safety analyses are met and therefore, has no negative impact on safety.

M.3 SSES ITS SR 3.6.1.3.10 is added to SSES CTS 3/4.6.3 to remove and test the explosive squib from each shear isolation valve of the TIP System. This test is performed to ensure the Operability of the explosive squib valve and is consistent with tests performed on the Standby Liquid Control squib valves. This more restrictive change will have no negative impact on safety.

M.4 Insert M.5 Insert

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 3.6.3 requires Primary Containment Isolation Valves to be Operable and SSES CTS Table 3.6.3-1 identifies all Primary Containment Isolation Valves. SSES ITS 3.6.1.3 requires all Primary Containment Isolation Valves to be Operable but does not specifically identify each PCIV. This is acceptable because the listing of each PCIV does not impact the SSES ITS requirement that the PCIVs are maintained Operable. Furthermore, the design information, valve functions and numbers, isolation time, and

INSERT A.11 (NRC RAI 3.6.1.3-03)

A.11 A Note is added to SR 3.6.1.3.12 to identify that the SR is only required to be met in MODES 1, 2 and 3. This is necessary to establish when the SR is required to be met consistent with the SSES CTS. This is an administrative change with no impact on safety because the change is being made to be consistent with NUREG 1433 formating and is not a change from the SSES CTS.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

restore:

3.6.1.1 Req. a. The overall integrated leakage rate to ~~less than or equal to 0.75 L_a~~ be L_a and

Act. A.1

b. The combined leakage rate for all penetrations and all valves listed in Table 3.6.3-1 except for main steam line isolation valves*, main steam line drain valves* and valves which are hydrostatically leak tested per Table 3/6.3-1, subject to Type B and C tests to ~~less than or equal to 0.60 L_a~~ be L_a, and

SR 3.6.1.2.12 c. The leakage rate to less than or equal to 46 scf per hour for all four main steam lines through the isolation valves, and

SR 3.6.1.3.11 d. The leakage rate to less than or equal to 1.2 scf per hour for any one main steam line drain valve, and

3.6.1.1 Req. e. The combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment to less than or equal to 3.3 gpm,

Act. A.1

prior to increasing reactor coolant system temperature above 200°F.

SURVEILLANCE REQUIREMENTS

SR 3.6.1.1.1 ~~4.6.1.2~~ The primary containment leakage rates shall be demonstrated ~~at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4 - 1972:~~

~~a. Three Type A Overall Integrated Containment Leakage Rate tests shall be conducted at 40 ± 10 month intervals during shutdown at P_a, 45.0 psig, during each 10-year service period.*~~

~~b. If any periodic Type A test fails to meet .75 L_a, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet .75 L_a, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet .75 L_a, at which time the above test schedule may be resumed.~~

~~c. The accuracy of each Type A test shall be verified by a supplemental test which:~~

~~1. Confirms the accuracy of the test by verifying that the difference between the supplemental data and the Type A test data is within 0.25 L_a.~~

~~2. Has duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.~~

~~3. Requires the quantity of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 25 percent of the total measured leakage at P_a, 45.0 psig.~~

~~* Exemption to Appendix J of 10CFR50.~~

TSCR 96-003
TSCR 96-002

NRC RAI 3.6.1.3-01
3.6.1.3-02
3.6.1.3-11
3.6.1.1-06
3.6.1.3-06

ADMINISTRATIVE (continued)

...this requirement to perform post maintenance testing although this requirement is applicable. Even though the SSES ITS does not explicitly require post maintenance testing the requirement is maintained. Therefore, this change does not result in a change in the requirements only a change to ensure consistency with NUREG 1433, Revision 1. Based on the above discussion, the change is considered an administrative change with no impact on safety.

Insert A.11

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES ITS 3.6.1.3 adds an Applicability--"When associated instrumentation is required to be OPERABLE per LCO 3.3.6.1, Primary Containment Isolation Instrumentation," which adds a MODE 4 and 5 requirement to the RHR Shutdown Cooling System isolation valves. SSES ITS 3.6.1.3, Action G, has been added to identify appropriate actions when these valves cannot be isolated or restored within the applicable Completion Time, and the unit is already in MODE 4 or 5. Additionally, since all SRs for SSES ITS LCO 3.6.1.3 would apply in this new condition, exceptions to SRs that are not applicable to RHR-SDC are indicated in the applicable SR. This change is more restrictive on plant operation. The addition of an applicable restriction in Modes 4 and 5 has no negative impact on safety.

M.2 SSES ITS adds a new Surveillance Requirement to SSES CTS 3/4.6.18. SSES ITS SR 3.6.1.3.1 verifies the 18 and 24 inch purge valves are closed every 31 days. This SR is an additional restriction on plant operation. This additional SRs ensure the assumptions of the safety analyses are met and therefore, has no negative impact on safety.

M.3 SSES ITS SR 3.6.1.3.10 is added to SSES CTS 3/4.6.3 to remove and test the explosive squib from each shear isolation valve of the TIP System. This test is performed to ensure the Operability of the explosive squib valve and is consistent with tests performed on the Standby Liquid Control squib valves. This more restrictive change will have no negative impact on safety.

The SR frequency is consistent with the Inservice Testing requirements.

M.4 Insert

M.5 Insert

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 3.6.3 requires Primary Containment Isolation Valves to be Operable and SSES CTS Table 3.6.3-1 identifies all Primary Containment Isolation Valves. SSES ITS 3.6.1.3 requires all Primary Containment Isolation Valves to be Operable but does not specifically identify each PCIV. This is acceptable because the listing of each PCIV does not impact the SSES ITS requirement that the PCIVs are maintained Operable. Furthermore, the design information, valve functions and numbers, isolation time, and

INSERT (NRC RAI 3.6.1.3-04)

M.4 SSES ITS 3.6.1.3, Actions, require a plant shutdown to Mode 4, if leakage rates are discovered outside established limits and cannot be corrected within one hour. Furthermore, SSES ITS LCO 3.0.4 will not allow a reactor startup to commence with containment leakages outside limits.

Under the same conditions, SSES CTS 3.6.1.2 and SSES CTS 3.6.2.1 Actions only restrict reactor coolant heatup beyond 200 F which would allow a startup and control rod withdrawal from cold conditions (e.g., < 200 F). Furthermore, if Primary Containment leakages above established limits were discovered while operating, the SSES CTS Actions are non-specific as to the appropriate required actions. SSES ITS 3.6.1.3 Actions provide the appropriate operational restrictions, which are consistent with the limitation and Completion Times of the SSES CTS LCO 3.0.3. SSES ITS 3.6.1.3 is more restrictive but provides appropriate Actions to ensure the plant is placed in a configuration consistent with the design basis. Therefore, this change will result in an improvement in plant safety and has no potential for a negative impact on safety.

NRC RAI 3.6.1.3-05
Specification 3.6.1.3

CONTAINMENT SYSTEMS

3/4.6.3 PRIMARY CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

LCO 3.6.1.3 ~~3.6.3~~ ~~The~~ Each primary containment isolation valves and the reactor instrumentation line excess flow check valves shown in Table 3.6.3-1 shall be OPERABLE with isolation times less than or equal to those shown in Table 3.6.3-1.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION: Add Actions Note 2 Add Second Add Actions Notes 3 & 4

Actions A and C

~~a.~~ With one or more of the primary containment isolation valves shown in Table 3.6.3-1 inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and within 4 hours either:

1. Restore the inoperable valve(s) to OPERABLE status, or

2. Isolate each affected penetration by use of at least one deactivated automatic valve secured in the isolated position,* or

3. Isolate each affected penetration by use of at least one closed manual valve or blind flange,* or check valve with flow security.

Action F Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Add 3.6.1.3 Action F

~~b.~~ With one or more of the reactor instrumentation line excess flow check valves shown in Table 3.6.3-1 inoperable, operation may continue and the provisions of Specification 3.0.3 are not applicable provided that within 4 hours either: 12

Action C

1. The inoperable valve is returned to OPERABLE status, or

2. The instrument line is isolated and the associated instrument is declared inoperable.

Actions Note 3

Action F Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Add 3.6.1.3 Action G

*Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under administrative control.

3.6.1.3 Actions Note 1

NRC RAI 3.6.1.3-0
3.6.1.3-0
3.6.1.3-1
3.6.1.1-0
3.6.1.3-0

ADMINISTRATIVE (continued)

this requirement to perform post maintenance testing although this requirement is applicable. Even though the SSES ITS does not explicitly require post maintenance testing the requirement is maintained. Therefore, this change does not result in a change in the requirements only a change to ensure consistency with NUREG 1433, Revision 1. Based on the above discussion, the change is considered an administrative change with no impact on safety.

Insert A.11

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES ITS 3.6.1.3 adds an Applicability--"When associated instrumentation is required to be OPERABLE per LCO 3.3.6.1, Primary Containment Isolation Instrumentation," which adds a MODE 4 and 5 requirement to the RHR Shutdown Cooling System isolation valves. SSES ITS 3.6.1.3, Action G, has been added to identify appropriate actions when these valves cannot be isolated or restored within the applicable Completion Time, and the unit is already in MODE 4 or 5. Additionally, since all SRs for SSES ITS LCO 3.6.1.3 would apply in this new condition, exceptions to SRs that are not applicable to RHR-SDC are indicated in the applicable SR. This change is more restrictive on plant operation. The addition of an applicable restriction in Modes 4 and 5 has no negative impact on safety.

M.2 SSES ITS adds a new Surveillance Requirement to SSES CTS 3/4.6.18 SSES ITS SR 3.6.1.3.1 verifies the 18 and 24 inch purge valves are closed every 31 days. This SR is an additional restriction on plant operation. This additional SRs ensure the assumptions of the safety analyses are met and therefore, has no negative impact on safety.

M.3 SSES ITS SR 3.6.1.3.10 is added to SSES CTS 3/4.6.3 to remove and test the explosive squib from each shear isolation valve of the TIP System. This test is performed to ensure the Operability of the explosive squib valve and is consistent with tests performed on the Standby Liquid Control squib valves. This more restrictive change will have no negative impact on safety.

The SR frequency is consistent with the Testing Requirements

M.4 Insert

M.5 Insert

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 3.6.3 requires Primary Containment Isolation Valves to be Operable and SSES CTS Table 3.6.3-1 identifies all Primary Containment Isolation Valves. SSES ITS 3.6.1.3 requires all Primary Containment Isolation Valves to be Operable but does not specifically identify each PCIV. This is acceptable because the listing of each PCIV does not impact the SSES ITS requirement that the PCIVs are maintained Operable. Furthermore, the design information, valve functions and numbers, isolation time, and

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

isolation signals, does not ensure the Operability of the primary containment, therefore, it can be removed from the SSES ITS. Therefore, these details can be adequately defined and controlled in SSES ITS Bases (for design details) and the Technical Requirements Manual (TRM) (for program Notes) which requires change control in accordance with SSES ITS 5.5.10, Bases Control Program. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the PCIVs Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.2 SSES CTS 3.6.1.2, Action e, requires hydrostatically tested lines to be maintained Operable within a specified limit. SSES ITS SR 3:6.1.3.13 requires that the hydrostatically tested lines be tested within limits and does not specify the limit. This is acceptable because the specified limit does not impact the SSES ITS requirement to maintain the hydrostatically tested lines Operable. Therefore, this specified limit can be adequately defined and controlled in SSES ITS Bases which requires change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the hydrostatically tested valves Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.3 SSES CTS 3.6.1.2, Action c, requires the MSIVs to be restored to Operable status and requires that the leakage rate be restored to ≤ 11.5 scfh for any main steam isolation valve that exceeds 100 scfh. SSES ITS 3.6.1.3, Actions, require the MSIVs to be restored to Operable status, but does not impose further restoration requirements. This is acceptable because this requirement does not impact the SSES ITS requirement to maintain the MSIV leakage to within specified limits. The requirement to restore the MSIV leakage to ≤ 11.5 scfh is a commitment beyond the SSES ITS and SSES CTS Operability requirements for the MSIVs. The requirement to repair the valves to original design condition is not an assumption in the plant design basis. Therefore, this requirement can be adequately defined and controlled in ~~plant procedures~~ SSES ITS Bases. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the MSIVs Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.3.12 (continued)

SR which states that these valves are only required to meet this leakage limit in MODES 1, 2, and 3. In the other conditions, the Reactor Coolant System is not pressurized and specific primary containment leakage limits are not required. The Frequency is required by the Primary Containment Leakage Rate Testing Program.

If leakage from the MSLs requires internal work away MSIV. The leakage will be reduced for the affected MSIV to ≤ 11.5 scfh. Leakage from MS line drain valves will be ≤ 1.2 scfh

SR 3.6.1.3.13

Surveillance of hydrostatically tested lines provides assurance that the calculation assumptions of Reference 2 are met. The acceptance criteria for the combined leakage of all hydrostatically tested lines is 3.3 gpm when tested at 1.1 P_a, (49.5 psig). The combined leakage rates must be demonstrated in accordance with the leakage rate test Frequency required by the Primary Containment Leakage Testing Program.

This SR has been modified by a Note that states that these valves are only required to meet the combined leakage rate in MODES 1, 2, and 3, since this is when the Reactor Coolant System is pressurized and primary containment is required. In some instances, the valves are required to be capable of automatically closing during MODES other than MODES 1, 2, and 3. However, specific leakage limits are not applicable in these other MODES or conditions.

REFERENCES

1. FSAR, Chapter 15.
2. Final Policy Statement on Technical Specifications Improvements, July 22, 1993 (58 FR 39132).
3. 10 CFR 50, Appendix J, Option B.
4. FSAR, Section 6.2.
5. NEDO-30851-P-A, "Technical Specification Improvement Analyses for BWR Reactor Protection System," March 1988.

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

isolation signals, does not ensure the Operability of the primary containment, therefore, it can be removed from the SSES ITS. Therefore, these details can be adequately defined and controlled in SSES ITS Bases (for design details) and the ~~Technical~~ Requirements Manual ~~(TRM)~~ (for program Notes). ~~which requires change control in accordance with SSES ITS 5.5.10, Bases Control Program.~~ The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the PCIVs Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

Primary Containment Leakage Rate Testing Program

TS Bases control in accordance with SSES ITS 5.5.10 Bases Control Program, while Primary Containment Leakage Rate Test Frequency is control under 5.5.9.

LA.2 SSES CTS 3.6.1.2, Action e, requires hydrostatically tested lines to be maintained Operable within a specified limit. SSES ITS SR 3.6.1.3.13 requires that the hydrostatically tested lines be tested within limits and does not specify the limit. This is acceptable because the specified limit does not impact the SSES ITS requirement to maintain the hydrostatically tested lines Operable. Therefore, this specified limit can be adequately defined and controlled in SSES ITS Bases which requires change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the hydrostatically tested valves Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

The information maintained in SSES ITS Bases provides sufficient information for plant operation while program information is maintained in the Primary Containment Leakage Rate Testing Program

LA.3 SSES CTS 3.6.1.2, Action c, requires the MSIVs to be restored to Operable status and requires that the leakage rate be restored to ≤ 11.5 scfh for any main steam isolation valve that exceeds 100 scfh. SSES ITS 3.6.1.3, Actions, require the MSIVs to be restored to Operable status, but does not impose further restoration requirements. This is acceptable because this requirement does not impact the SSES ITS requirement to maintain the MSIV leakage to within specified limits. The requirement to restore the MSIV leakage to ≤ 11.5 scfh is a commitment beyond the SSES ITS and SSES CTS Operability requirements for the MSIVs. The requirement to repair the valves to original design condition is not an assumption in the plant design basis. Therefore, this requirement can be adequately defined and controlled in ~~plant procedures~~ SSES ITS Bases. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the MSIVs Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to

NRC RAI 3.6.1.3-09
3.6.1.3-10

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

for a maximum interval of 30 months including the 25% grace period. This SR ensures that each EFCV will check excess flow to provide assurance that predicted radiological consequences will not be exceeded during a postulated instrument line break. All instrument lines are seismically mounted and evaluated to withstand an design basis seismic event. Based on the design of the EFCV and the design of the instrumentation line tubing, the impact, if any, of this change on system availability is small.

A review of the surveillance test history was performed to validate the above conclusion. This historical review of the surveillance test history demonstrates that there are no failures that would invalidate the conclusion that the impact on system availability, if any, is small.

LB.3 SSES CTS 4.6.1.2.d requires that the Main Steam Isolation Valves (MSIVs) be leak tested in accordance with the Primary Containment Leakage Rate Program. In SSES ITS SR 3.6.1.3.12, the frequency is also defined as in accordance with the Primary Containment Leakage Rate Testing Program, but with the change to a 24 month operating cycle, the surveillance interval of this SR is being increased from once every 18 Months to once every 24 months for a maximum interval of 30 months including the 25% grace period. This SR ensures that the MSIVs are capable of maintaining an essentially leak tight barrier. The MSIVs were designed and tested for closure in the event of a main steam line break and to provide an isolation barrier to maintain primary containment following a design basis accident. As such, the valves were designed to close during emergency steam flow conditions following rupture of the main steam line downstream of the valve. Furthermore, the valves were designed for the limiting SSES system pressure and temperature. Finally, SSES is designed with two MSIVs which ensure no active single failure will result in a loss of component capability. Based on the redundant design the MSIVs, the impact, if any, from this change on component and system availability is small.

A review of the surveillance test history was performed to validate the above conclusion. This review of the surveillance test history demonstrates that there are no failures that would invalidate the conclusion that the impact on system availability if any, is small.

LB.4 SSES CTS 4.6.1.2.e requires that the hydrostatically tested valves be leak tested in accordance with the Primary Containment Leakage Rate Program. In SSES ITS SR 3.6.1.3.13, the frequency is also defined as in accordance with the Primary Containment Leakage Rate Testing Program, but with the change to a 24 month operating cycle, the surveillance interval of this SR is being increased from once every 18 Months to once every 24 months for a maximum

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

interval of 30 months including the 25% grace period. This SR ensures that these isolation valves are capable of maintaining an essentially leak tight barrier. Valves are typically designed to isolate flow with little or no leakage. The valves tested are required to isolate flow for a maximum of 3.3 gpm. Degradation of these isolation valves to the point at which leakage would exceed the design limit is unlikely. Based on the design of the valves, the impact, if any, from this change on component and system availability is small.

A review of the surveillance test history was performed to validate the above conclusion. This review of the surveillance test history demonstrates that there are no failures that would invalidate the conclusion that the impact on system availability, if any, is small.

L.1 SSES CTS 3.6.1.2, Action d, requires main steam line drains to be leak tested to verify that the leakage is less than 1.2 scfh. SSES ITS SR 3.6.1.3.12 identifies that the main steam line drain valve leakage is part of the MSIV total allowed leakage. SSES ITS is less restrictive than SSES CTS since it allows MS Line Drain Valve leakage to be added to the MSIV total leakage which has a limit of ≤ 300 scfh. This is acceptable because MS Line Drain leakage flows into the MSIV leakage holdup volume which has a separate radiological calculation to determine the impact on calculated dose limits. The results are added to the primary containment leakage calculated dose term and the secondary containment bypass leakage dose term. Therefore, the SSES ITS SR verify the assumptions in the dose calculation and the change will have a negligible impact on safety.

Not used

L.2 SSES CTS 4.6.1.1.b and SSES CTS 3.6.3, Action a.3, lists some, but not all, possible acceptable isolation devices that may be used to isolate a penetration with an inoperable isolation valve. SSES ITS 3.6.1.3, Action A, provides a complete list of acceptable isolation devices. Since the result of the Action continues to be an acceptably isolated penetration for continued operation, the change does not result in a significant impact on safety.

Many penetrations are designed with check valves as acceptable isolation barriers. With forward flow in the line secured, a check valve is equivalent to a closed manual valve. For those penetrations designed with check valves as acceptable isolation devices, this proposed change provides an equivalent level of safety. For penetrations not designed with check valves for isolation, the proposed change does not affect the requirements to isolate with a closed deactivated automatic valve or closed manual valve.

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

Insert LA.4

LB.1 SSES CTS 4.6.3.2 specify the frequency for primary containment isolation valve functional testing as once every 18 months. In SSES ITS SR 3.6.1.3.8, the frequency for the PCIV functional testing is specified as once every 24 months. The Surveillance Test Interval of this SR is being increased from once every 18 months to once every 24 months for a maximum interval of 30 months including the 25% grace period. This SR ensures that each automatic PCIVs will actuate to its isolation position on a primary containment isolation signal. Some PCIVs are stroke tested on a more frequent basis during the operating cycle in accordance with the Inservice Testing Program. The stroke testing of these PCIVs tests a significant portion of the PCIVs circuitry and will detect failures of this circuitry. The PCIVs including the actuating logic are designed to be single failure proof and therefore, are highly reliable. Furthermore, as stated in the NRC Safety Evaluation Report (dated August 2, 1993) relating to extension of the Peach Bottom Atomic Power Station surveillance intervals from 18 to 24 months:

> "Industry reliability studies for boiling water reactors (BWRs), prepared by the BWR Owners Group (NEDC-30936P) show that the overall safety systems' reliabilities are not dominated by the reliabilities of the logic system, but by that of the mechanical components, (e.g., pumps and valves), which are consequently tested on a more frequent basis. Since the probability of a relay or contact failure is small relative to the probability of mechanical component failure, increasing the logic system functional test interval represents no significant change in the overall safety system unavailability."

Based on the above discussion, the impact, if any, of this change on system availability is small.

A review of the surveillance test history was performed to validate the above conclusion. This review of the surveillance test history, documented in "24 Month Surveillance Test History Study," demonstrates that there are no failures that would invalidate the conclusion that the impact on system availability, if any, is small from a change to SSES CTS 4.6.3.2 as implemented in SSES ITS SR 3.6.1.3.8.

LB.2 SSES CTS 4.6.3.4 specifies the frequency for excess flow check valve (EFCV) testing as once every 18 months. In SSES ITS SR 3.6.1.3.9, the frequency for the EFCV testing is specified as once every 24 months. The Surveillance Test Interval of this SR is being increased from once every 18 months to once every 24 months

INSERT (NRC RAI 3.6.1.3-11)

LA.4 SSES CTS 3.6.1.2 Action D requires main steam line drains valve leakage to be less than or equal to 1.2 scf per hour. SSES ITS SR 3.6.1.3.12 requires verification that "leakage rate through each MSIV is ≤ 100 scfh and ≤ 300 scfh for the combined maximum pathway leakage including the leakage from the MS Line Drains." This is acceptable because the requirement to limit the leakage of the Main Steam Line Drains to 1.2 scf per hour does not impact the Technical Specification requirement to maintain total leakage ≤ 300 scfh. Therefore, the detail of limiting the Main Steam Line Drain valve leakage to less than or equal to 1.2 scf per hour can be adequately defined and controlled in SSES ITS Bases which requires change control in accordance with SSES ITS 5.5.10, Bases Control Program. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the total leakage through the combined maximum pathway. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.3.12 (continued)

SR which states that these valves are only required to meet this leakage limit in MODES 1, 2, and 3. In the other conditions, the Reactor Coolant System is not pressurized and specific primary containment leakage limits are not required. The Frequency is required by the Primary Containment Leakage Rate Testing Program.

If leakage from the MSLs requires isolation of any MSIV, the leakage will be reduced for the affected MSIV to ≤ 11.5 scfh. Leakage from MS line drain valves will be ≤ 1.2 scfh.

SR 3.6.1.3.13

Surveillance of hydrostatically tested lines provides assurance that the calculation assumptions of Reference 2 are met. The acceptance criteria for the combined leakage of all hydrostatically tested lines is 3.3 gpm when tested at 1.1 P_a, (49.5 psig). The combined leakage rates must be demonstrated in accordance with the leakage rate test Frequency required by the Primary Containment Leakage Testing Program.

This SR has been modified by a Note that states that these valves are only required to meet the combined leakage rate in MODES 1, 2, and 3, since this is when the Reactor Coolant System is pressurized and primary containment is required. In some instances, the valves are required to be capable of automatically closing during MODES other than MODES 1, 2, and 3. However, specific leakage limits are not applicable in these other MODES or conditions.

REFERENCES

1. FSAR, Chapter 15.
2. Final Policy Statement on Technical Specifications Improvements, July 22, 1993 (58 FR 39132).
3. 10 CFR 50, Appendix J, Option B.
4. FSAR, Section 6.2.
5. NEDO-30851-P-A, "Technical Specification Improvement Analyses for BWR Reactor Protection System," March 1988.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.1.3.6	----------NOTE---------- Only required to be met in MODES 1, 2 and 3. ---------- Perform leakage rate testing for each primary containment purge valve with resilient seals.	184 days
SR 3.6.1.3.7	Verify the isolation time of each MSIV is ≥ 3 seconds and ≤ 5 seconds.	In accordance with the Inservice Testing Program
SR 3.6.1.3.8	Verify each automatic PCIV actuates to the isolation position on an actual or simulated isolation signal.	24 months
SR 3.6.1.3.9	~~----------NOTE----------~~ ~~When an instrument channel is placed in an inoperable status solely for performance of this surveillance, entry into associated conditions and Required Actions for the associated instrument channel may be delayed for up to 6 hours provided the associated Function maintains trip/initiation capability.~~ ~~----------~~ Verify each reactor instrumentation line EFCV actuates to the isolation position on a simulated instrument line break.	24 months

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.3.8 (continued)

of these Surveillances be performed only during a unit outage since isolation of penetrations could eliminate cooling water flow and disrupt the normal operation of some critical components. Operating experience has shown that these components usually pass this Surveillance when performed at the 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.6.1.3.9

This SR requires a demonstration that each reactor instrumentation line excess flow check valve (EFCV) is OPERABLE by verifying that the valve actuates to the isolation position on a simulated instrument line break. This SR provides assurance that the instrumentation line EFCVs will perform its design function to isolate. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass this Surveillance when performed at the 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

No specific valve leakage limits are specified because no specific leakage limits are defined in the FSAR.

~~The Surveillance is modified by a Note to indicate that when an instrument channel is placed in an inoperable status solely for performance of this Surveillance, entry into associated Conditions and Required Actions may be delayed for up to 6 hours, provided the associated Function maintains trip/initiation capability. Upon completion of the Surveillance, or expiration of the 6 hour allowance, the channel must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This Note is based on the reliability analysis (Ref. 5) assumption of the average time required to perform channel Surveillance. That analysis demonstrated that the 6 hour testing allowance does not significantly reduce the probability that the associated instrument will trip when necessary.~~

(continued)

100 SCF per hour for any one main steam isolation valve and a combined maximum pathway leakage rate ≤ 300

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT LEAKAGE

NRC RAI 3.6.1.3-03

LIMITING CONDITION FOR OPERATION

3.6.1.3 - 14

~~3.6.1.2~~ Primary containment leakage rates shall be limited to:

SR 3.6.1.1.1

~~a.~~ An overall integrated leakage rate (Type A test) (6) ~~of less than or equal to L_a, 1.0 percent by weight of the containment air per 24 hours at P_a, 45.0 psig.~~ | TSCR 9

b. A combined leakage rate (C) TSCR 196-003 ~~of less than or equal to 0.60 L_a~~ (LA.1) 3.6.1.3 for all penetrations and all valves ~~listed in Table 3.6.3-1~~, except for main steam line isolation valves*, main steam line drain valves* and valves which are hydrostatically leak tested ~~per Table 3.6.3-1~~ subject to Type B and C tests. ~~when pressurized to P_a, 45.0 psig~~ TSCR 96-003

SR 3.6.1.3.12 c. *Less than or equal to ~~46~~ scf per hour ~~for all four main steam~~ (and MSL line drain) (L.1) 3.6.1 lines through the isolation valves when tested at P_t, 22.5 psig. (or P_a)

SR 3.6.1.3.11 d. *Less than or equal to 1.2 scf per hour for any one main steam line drain valve when tested ~~at P_a, 45.0 psig.~~ (6) | TSCR 96-003 (L.2) 3.6

SR 3.6.1.3.13 e. A combined leakage rate of less than or equal to 3.3 gpm for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment, when tested at 1.10 Pa ~~48.5 psig~~ (M.5) | TSCR 96- (Limit) (LA.3) 3.6.1.3

APPLICABILITY: When PRIMARY CONTAINMENT INTEGRITY is required per Specification 3.6.1.1. (A.1)

ACTION: Add SR 3.6.1.3.12 Note (A.4) Add SR 3.6.1.3.12 Note (A.4) 3.6.1.3

Add Action Note (A.5) 3.6.1.3

With:

3.6.1.1 COND A

~~a.~~ The measured overall integrated primary containment leakage rate (Tyn A test) ~~exceeding 0.75 L_a~~ or | TSCR 96-003 (not (A))

~~b.~~ The measured combined leakage rate for all penetrations and all valves ~~listed in Table 3.6.3-1~~ except for main steam line isolation valves*, main steam line drain valves* and valves which are hydrostatically leak tested ~~per Table 3.6.3-1~~ subject to Type B and C tests ~~exceeding 0.60 L_a~~, or | TSCR 96-003 (not (C)) (LA) 3.6

3.6.1.3 COND D.

~~c.~~ The measured leakage rate exceeding ~~46~~ scf per hour for all four main steam lines through the isolation valves, or (and MSL drain)

~~d.~~ The measured leak rate exceeding 1.2 scf per hour for any one main steam line drain valve, or (L.1) 3.6

~~e.~~ The measured combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment exceeding 3.3 gpm. (Limit) (LA.2) 3.6.1.3

TSCR 96-002

SR 3.6.1.1.1 *Exemption to Appendix "J" of 10 CFR 50.

100 SCF per hour for any one main steam isolation valve or a total maximum pathway leakage rate of > 300

Amendment No. 29
TSCR 96-002
TSCR 96-003

ADMINISTRATIVE (continued)

this requirement to perform post maintenance testing although this requirement is applicable. Even though the SSES ITS does not explicitly require post maintenance testing the requirement is maintained. Therefore, this change does not result in a change in the requirements only a change to ensure consistency with NUREG 1433, Revision 1. Based on the above discussion, the change is considered an administrative change with no impact on safety.

Insert A.11

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES ITS 3.6.1.3 adds an Applicability--"When associated instrumentation is required to be OPERABLE per LCO 3.3.6.1, Primary Containment Isolation Instrumentation," which adds a MODE 4 and 5 requirement to the RHR Shutdown Cooling System isolation valves. SSES ITS 3.6.1.3, Action G, has been added to identify appropriate actions when these valves cannot be isolated or restored within the applicable Completion Time, and the unit is already in MODE 4 or 5. Additionally, since all SRs for SSES ITS LCO 3.6.1.3 would apply in this new condition, exceptions to SRs that are not applicable to RHR-SDC are indicated in the applicable SR. This change is more restrictive on plant operation. The addition of an applicable restriction in Modes 4 and 5 has no negative impact on safety.

M.2 SSES ITS adds a new Surveillance Requirement to SSES CTS 3/4.6.18. SSES ITS SR 3.6.1.3.1 verifies the 18 and 24 inch purge valves are closed every 31 days. This SR is an additional restriction on plant operation. This additional SRs ensure the assumptions of the safety analyses are met and therefore, has no negative impact on safety.

M.3 SSES ITS SR 3.6.1.3.10 is added to SSES CTS 3/4.6.3 to remove and test the explosive squib from each shear isolation valve of the TIP System. This test is performed to ensure the Operability of the explosive squib valve and is consistent with tests performed on the Standby Liquid Control squib valves. This more restrictive change will have no negative impact on safety.

M.4 Insert M.5 Insert

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 3.6.3 requires Primary Containment Isolation Valves to be Operable and SSES CTS Table 3.6.3-1 identifies all Primary Containment Isolation Valves. SSES ITS 3.6.1.3 requires all Primary Containment Isolation Valves to be Operable but does not specifically identify each PCIV. This is acceptable because the listing of each PCIV does not impact the SSES ITS requirement that the PCIVs are maintained Operable. Furthermore, the design information, valve functions and numbers, isolation time, and

INSERT (NRC RAI 3.6.1.3-14)

M.5 SSES ITS SR 3.6.1.3.11 is added to SSES CTS 3/4.6.3 to verify the combined leakage rate for all secondary containment bypass leakage paths is $\leq$ 9 scfh when pressurized to $\geq P_a$. This test provides assurance that the assumptions in the radiological evaluations of FSAR Section 6.2 are met. The potential secondary containment bypass leakage pathways are defined in the Bases for SSES ITS SR 3.6.1.3.11. The defined pathways and leakage limits maintain the assumptions of the SSES radiological evaluations and therefore, this more restrictive change will have no negative impact on safety.

ACTIONS (continued) <CTS>

CONDITION	REQUIRED ACTION	COMPLETION TIME
G ~~Y~~. Required Action and associated Completion Time of Condition A, B, C, D, or E not met for PCIV(s) required to be OPERABLE during MODE 4 or 5 or during operations with a potential for draining the reactor vessel (OPDRVs)	G ~~Y~~.1 Initiate action to suspend (OPDRVs) Operations with a potential for draining the reactor vessel.	Immediately
	OR	
	~~1~~.2 G. Initiate action to restore valve(s) to OPERABLE status.	Immediately <DOC M.1>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.3.1	----------NOTE---------- Only required to be met in MODES 1, 2, and 3. ---------- Verify each [18] inch primary containment purge valve is sealed closed except for one purge valve in a penetration flow path while in Condition E of this LCO.	31 days

P ~~7~~ 10

(continued)

SURVEILLANCE REQUIREMENTS (continued) <CTS>

SURVEILLANCE	FREQUENCY
SR 3.6.1.3.~~2~~1 ----------NOTES---------- 1. Only required to be met in MODES 1, 2, and 3. 2. Not required to be met when the [18] and 24 inch primary containment purge valves are open for inerting, de-inerting, pressure control, ALARA or air quality considerations for personnel entry, or Surveillances that require the valves to be open. ---------- Verify each [18] inch primary containment purge valve is closed.	31 days
SR 3.6.1.3.~~1~~2 ----------NOTES---------- 1. Valves and blind flanges in high radiation areas may be verified by use of administrative means. 2. Not required to be met for PCIVs that are open under administrative controls. ---------- Verify each primary containment isolation manual valve and blind flange that is located outside primary containment and is required to be closed during accident conditions is closed.	<4.6.1.1.b footnote *a> <3.6.3 footnote *> 31 days <4.6.1.1.b>

(continued)

BASES

ACTIONS

G.1, H.1, I.1, and I.2 (continued)

immediately initiate action to restore the valve(s) to OPERABLE status. This allows RHR to remain in service while actions are being taken to restore the valve.

SURVEILLANCE REQUIREMENTS

SR 3.6.1.3.1

Each [18] inch primary containment purge valve is required to be verified sealed closed at 31 day intervals. This SR is designed to ensure that a gross breach of primary containment is not caused by an inadvertent or spurious opening of a primary containment purge valve. Detailed analysis of the purge valves failed to conclusively demonstrate their ability to close during a LOCA in time to limit offsite doses. Primary containment purge valves that are sealed closed must have motive power to the valve operator removed. This can be accomplished by de-energizing the source of electric power or removing the air supply to the valve operator. In this application, the term "sealed" has no connotation of leak tightness. The 31 day Frequency is a result of an NRC initiative, Generic Issue B-24 (Ref. 4), related to primary containment purge valve use during unit operations.

This SR allows a valve that is open under administrative controls to not meet the SR during the time the valve is open. Opening a purge valve under administrative controls is restricted to one valve in a penetration flow path at a given time (refer to discussion for Note 1 of the ACTIONS) in order to effect repairs to that valve. This allows one purge valve to be opened without resulting in a failure of the Surveillance and resultant entry into the ACTIONS for this purge valve, provided the stated restrictions are met. Condition E must be entered during this allowance, and the valve opened only as necessary for effecting repairs. Each purge valve in the penetration flow path may be alternately opened, provided one remains sealed closed, if necessary, to complete repairs on the penetration.

The SR is modified by a Note stating that primary containment purge valves are only required to be sealed closed in MODES 1, 2, and 3. If a LOCA inside primary

(continued)

BASES

SURVEILLANCE REQUIREMENTS

~~SR 3.6.1.3.1 (continued)~~

~~containment occurs in these MODES, the purge valves may not be capable of closing before the pressure pulse affects systems downstream of the purge valves or the release of radioactive material will exceed limits prior to the closing of the purge valves. At other times when the purge valves are required to be capable of closing (e.g., during handling of irradiated fuel), pressurization concerns are not present and the purge valves are allowed to be open.~~

SR 3.6.1.3.~~2~~ 1

This SR ensures that the primary containment purge valves are closed as required or, if open, open for an allowable reason. If a purge valve is open in violation of this SR, the valve is considered inoperable. If the inoperable valve is not otherwise known to have excessive leakage when closed, it is not considered to have leakage outside of limits. ~~[~~The SR is also modified by ~~a Note (~~Note 1~~)~~, stating that primary containment purge valves are only required to be closed in MODES 1, 2, and 3. If a LOCA inside primary containment occurs in these MODES, the purge valves may not be capable of closing before the pressure pulse affects systems downstream of the purge valves, or the release of radioactive material will exceed limits prior to the purge valves closing. At other times when the purge valves are required to be capable of closing (e.g., during handling of irradiated fuel), pressurization concerns are not present and the purge valves are allowed to be open.~~]~~ The SR is modified by ~~a Note (~~Note 2~~)~~ stating that the SR is not required to be met when the purge valves are open for the stated reasons. The Note states that these valves may be opened for inerting, de-inerting, pressure control, ALARA or air quality considerations for personnel entry, or Surveillances that require the valves to be open. The Vent and ~~[18] inch~~ purge valves are capable of closing in the environment following a LOCA. Therefore, these valves are allowed to be open for limited periods of time. The 31 day Frequency is consistent with other PCIV requirements discussed in SR 3.6.1.3.3.

(continued)

DISCUSSION OF DEVIATIONS FROM NUREG 1433
ITS: SECTION 3.6.1.3 - PRIMARY CONTAINMENT ISOLATION VALVES (PCIVs)

NON-BRACKETED PLANT SPECIFIC CHANGES (continued)

P.6 NUREG 1433 3.6.1.3 Bases are modified to identify the specific bases for the design of the SSES purge and vent lines. The change does not represent a significant or generic deviation from NUREG 1433 because it reflects a unique design detail for SSES.

P.7 NUREG 1433 SR 3.6.1.3.9 and Bases are modified to identify the specific bases for the design of the SSES excess flow check valves. The change does not represent a significant or generic deviation from NUREG 1433, since it reflects a unique design detail for SSES.

P.8 SSES ITS 3.6.1.3.9, the verification of each reactor instrumentation line EFCV actuates to the isolation position on a simulated instrument line break every 24 months, is modified by the following note: "When an instrument channel is placed in an inoperable status solely for performance of this surveillance, entry into associated conditions and Required Actions for the associated instrument channel may be delayed for up to 6 hours provided the associated Function maintains trip/initiation capability." This change is intended to reduce the administrative burden on plant operators during the performance of required testing. Without this allowance, plant operators would declare affected instrumentation inoperable and enter appropriate Conditions and Required Actions prior to performing tests of EFCVs. This change will have no affect on plant safety because the only difference will be the administrative control used to limit the amount of time an instrument is out of service for testing. The 6 hour allowable performance time is within the allowable out of service time for the instruments affected and this allowance is consistent with the allowance provided for the instruments affected by the excess flow valves being tested.

Insert P.9

INCORPORATED GENERIC CHANGES TO NUREG-1433, REV. 1

Insert P.10

None

INSERT (NRC RAI 3.6.1.3-16)

P.9 NUREG 1433 Condition E and Bases have been modified in SSES ITS to require that the valve leakage be restored to within valve leakage limits within 24 hours. This was necessary to reflect the SSES design which does not allow individual valve testing on-line. The change does not represent a significant or generic deviation from NUREG 1433, because it reflects a unique design detail for SSES.

INSERT (NRC RAI 3.6.1.3-15)

P.10 NUREG 1433, 3.6.1.3, Applicable Safety Analyses Bases identify two bracketed statements concerning the primary containment purge valves. SSES ITS adopts both bracketed statements and modifies the second paragraph to clearly present the allowances defined in SSES ITS. The change is acceptable because it reflects the design of the SSES containment purge valves and more clearly defines the allowances specified in the SSES ITS. The design of the SSES Containment Purge Valve was reviewed and approved by the NRC as documented in FSAR 18.1.29. Therefore, the change to NUREG 1433 does not represent a significant or generic change because it reflects a unique SSES design.

NRC RAI 3.6.1.3-15

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME <CTS>
E. One or more penetration flow paths with one or more containment purge valves not within purge valve leakage limits.	E.1 Isolate the affected penetration flow path by use of at least one [closed and de-activated automatic valve, closed manual valve, or blind flange].	24 hours <3.6.1.8 action b>
	AND	
	E.2 ----NOTE---- Isolation devices in high radiation areas may be verified by use of administrative means. ---------- Verify the affected penetration flow path is isolated.	Once per 31 days for isolation devices outside containment AND Prior to entering MODE 2 or 3 from MODE 4 if not performed within the previous 92 days for isolation devices inside containment
	AND	

Restore valve leakage to within valve leakage limit

P.9

(continued)

BASES

ACTIONS

D.1 (continued)

to be the lesser actual pathway leakage of the two devices. The 4 hour Completion Time is reasonable considering the time required to restore the leakage by isolating the penetration and the relative importance of secondary containment bypass leakage to the overall containment function.

E.1, E.2, and E.3

In the event one or more containment purge valves are not within the purge valve leakage limits, purge valve leakage must be restored to within limits. ~~or the affected penetration must be isolated.~~ The method of isolation must be by the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a [closed and de-activated automatic valve, closed manual valve, and blind flange]. If a purge valve with resilient seals is utilized to satisfy Required Action E.1, it must have been demonstrated to meet the leakage requirements of SR 3.6.1.3.7. The ~~specified~~ Completion Time is reasonable, considering that one containment purge valve remains closed so that a gross breach of containment does not exist.

P.9

24 hours

~~In accordance with Required Action E.2, this penetration flow path must be verified to be isolated on a periodic basis. The periodic verification is necessary to ensure that containment penetrations required to be isolated following an accident, which are no longer capable of being automatically isolated, will be in the isolation position should an event occur. This Required Action does not require any testing or valve manipulation. Rather, it involves verification that those isolation devices outside containment and potentially capable of being mispositioned are in the correct position. For the isolation devices inside containment, the time period specified as "prior to entering MODE 2 or 3 from MODE 4 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.~~

(continued)

BASES

ACTIONS

~~E.1, E.2, and E.3~~ (continued)

~~For the containment purge valve with resilient seal that is isolated in accordance with Required Action E.1, SR 3.6.1.3.7 must be performed at least once every [ ] days. This provides assurance that degradation of the resilient seal is detected and confirms that the leakage rate of the containment purge valve does not increase during the time the penetration is isolated. The normal Frequency for SR 3.6.1.3.7 is 184 days. Since more reliance is placed on a single valve while in this Condition, it is prudent to perform the SR more often. Therefore, a Frequency of once per [ ] days was chosen and has been shown to be acceptable based on operating experience.~~

P.9

E.1 and E.2

If any Required Action and associated Completion Time cannot be met in MODE 1, 2, or 3, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

G.1 ~~H.1, I.1, and I.2~~ and G.2

If any Required Action and associated Completion Time cannot be met, the unit must be placed in a condition in which the LCO does not apply. If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies must be immediately suspended. Suspension of these activities shall not preclude completion of movement of a component to a safe condition. Also, if applicable, action must be immediately initiated to suspend operations with a potential for draining the reactor vessel (OPDRVs) to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until OPDRVs are suspended and valve(s) are restored to OPERABLE status. If suspending an OPDRV would result in closing the residual heat removal (RHR) shutdown cooling isolation valves, an alternative Required Action is provided to

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.1.3.~~8~~ 8

Automatic PCIVs close on a primary containment isolation signal to prevent leakage of radioactive material from primary containment following a DBA. This SR ensures that each automatic PCIV will actuate to its isolation position on a primary containment isolation signal. The LOGIC SYSTEM FUNCTIONAL TEST in SR ~~3.3.6.3.7~~ 3.3.6.5 overlaps this SR to provide complete testing of the safety function. The ~~[18]~~ 24 month Frequency was developed considering it is prudent that ~~this~~ some of these Surveillances be performed only during a unit outage since isolation of penetrations ~~would~~ could eliminate cooling water flow and disrupt the normal operation of ~~many~~ some critical components. Operating experience has shown that these components usually pass this Surveillance when performed at the ~~[18]~~ 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.6.1.3.~~10~~ 9

This SR requires a demonstration that each reactor instrumentation line excess flow check valve (EFCV) is OPERABLE by verifying that the valve ~~[reduces flow to ≤ 1 gph~~ actuates to the isolation position on a simulated instrument line break~~]~~. This SR provides assurance that the instrumentation line EFCVs will perform ~~so that predicted radiological consequences will not be exceeded during the postulated instrument line break event evaluated in Reference 6.~~ its design function to isolate. The ~~[18]~~ 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass this Surveillance when performed at the ~~[18]~~ 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

Insert: B 3.6-29-01 P.8

SR 3.6.1.3.~~12~~ 10

The TIP shear isolation valves are actuated by explosive charges. An in place functional test is not possible with this design. The explosive squib is removed and tested to provide assurance that the valves will actuate when

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.1.3.8 (continued)

of these Surveillances be performed only during a unit outage since isolation of penetrations could eliminate cooling water flow and disrupt the normal operation of some critical components. Operating experience has shown that these components usually pass this Surveillance when performed at the 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

SR 3.6.1.3.9

This SR requires a demonstration that each reactor instrumentation line excess flow check valve (EFCV) is OPERABLE by verifying that the valve actuates to the isolation position on a simulated instrument line break. This SR provides assurance that the instrumentation line EFCVs will perform its design function to isolate. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass this Surveillance when performed at the 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

No specific valve leakage limits are specified because no specific leakage limits are defined in the FSAR.

The Surveillance is modified by a Note to indicate that when an instrument channel is placed in an inoperable status solely for performance of this Surveillance, entry into associated Conditions and Required Actions may be delayed for up to 6 hours, provided the associated Function maintains trip/initiation capability. Upon completion of the Surveillance, or expiration of the 6 hour allowance, the channel must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This Note is based on the reliability analysis (Ref. 5) assumption of the average time required to perform channel Surveillance. That analysis demonstrated that the 6 hour testing allowance does not significantly reduce the probability that the associated instrument will trip when necessary.

(continued)

3.6 CONTAINMENT SYSTEMS

3.6.1.3 Primary Containment Isolation Valves (PCIVs) <CTS>

LCO 3.6.1.3 Each PCIV, except reactor building-to-suppression chamber vacuum breakers, shall be OPERABLE. (P.1) <3.6.3>

APPLICABILITY: MODES 1, 2, and 3,
When associated instrumentation is required to be OPERABLE per LCO 3.3.6.1, "Primary Containment Isolation Instrumentation." <Doc M.1>

ACTIONS

STCT

----------NOTES----------

1. Penetration flow paths ~~[except for purge valve penetration flow paths]~~ may be unisolated intermittently under administrative controls. <3.6.3 footnote>
2. Separate Condition entry is allowed for each penetration flow path. <Doc A.1>
3. Enter applicable Conditions and Required Actions for systems made inoperable by PCIVs. <Doc A.2>
4. Enter applicable Conditions and Required Actions of LCO 3.6.1.1, "Primary Containment," when PCIV leakage results in exceeding overall containment leakage rate acceptance criteria in MODES 1, 2, and 3.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. ----------NOTE---------- Only applicable to penetration flow paths with two PCIVs. ---------- One or more penetration flow paths with one PCIV inoperable ~~[except for purge valve leakage not within limit]~~	A.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured. <3.6.1> <3.6.1>	4 hours except for main steam line <3.6.1> <3.6.1> AND 8 hours for main steam line <3.6.1>
	AND	(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
B. ---------NOTE--------- Only applicable to penetration flow paths with two PCIVs. ---------- One or more penetration flow paths with two PCIVs inoperable [except for purge valve leakage not within limit].	B.1	Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.	1 hour
C. ---------NOTE--------- Only applicable to penetration flow paths with only one PCIV. ---------- One or more penetration flow paths with one PCIV inoperable.	C.1	Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.	[4] hours except for excess flow check valves (EFCVs) <3.6.3 Action b> AND 12 hours [for EFCVs] <Doc L.4>
	AND		
	C.2	--------NOTE-------- Isolation devices in high radiation areas may be verified by use of administrative means. ----------	<4.6.1.1 footnote a>
		Verify the affected penetration flow path is isolated.	Once per 31 days <4.6.1.1.b>
[D. Secondary containment bypass leakage rate not within limit.]	D.1	Restore leakage rate to within limit.	[4 hours]

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
E. One or more penetration flow paths with one or more containment purge valves not within purge valve leakage limit.	E.1	Restore the valve leakage to within valve leakage limit.	24 hours
F. Required Action and associated Completion Time of Condition A, B, C, D or E not met in MODE 1, 2, or 3.	F.1	Be in MODE 3.	12 hours
	AND		
	F.2	Be in MODE 4.	36 hours
G. Required Action and associated Completion Time of Condition A, B, C, D or E not met for PCIV(s) required to be OPERABLE during MODE 4, or 5.	G.1	Initiate action to suspend Operations with the potential for draining the reactor vessel (OPDRVs). OPDRVs	Immediately
	OR		
	G.2	Initiate action to restore valve(s) to OPERABLE status.	Immediately

RAI 3.6.1.6-01

3.6 CONTAINMENT SYSTEMS

3.6.1.6 Suppression Chamber-to-Drywell Vacuum Breakers

LCO 3.6.1.6 Five suppression chamber-to-drywell vacuum breaker pairs shall be OPERABLE and closed, except when performing their intended function.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One suppression chamber-to-drywell vacuum breaker pair inoperable for opening.	A.1 Restore the vacuum breaker pair to OPERABLE status.	72 hours
B. ~~------Note------ Separate Condition entry is allowed for each suppression chamber-to-drywell vacuum breaker pair. ----------~~ One suppression chamber-to-drywell vacuum breaker not closed.	B.1 Close the open vacuum breaker.	72 hours
	B.2 Verify the other vacum breaker closed in the pair is AND	2 hours
C. Both Suppression Chamber-to-Drywell vacuum breakers in one vacuum breaker pair not closed.	C.1 Close one open vacuum breaker in the affected vacuum breaker pair.	2 hours

continued

BASES

ACTIONS

B.1 (continued)

between the drywell and the suppression chamber airspace. However, overall system reliability is reduced because a single failure in the one remaining vacuum breaker could result in direct communication between the drywell and the suppression chamber airspace, and, as a result, there is the potential for suppression chamber overpressurization due to this bypass leakage if a LOCA were to occur. Therefore, with one of the two vacuum breakers in a pair not closed, 72 hours is allowed to close the open vacuum breaker so that plant conditions are consistent with those assumed for the design basis analysis. If the vacuum breaker position indication is not reliable, an alternate method of verifying that the vacuum breaker is closed is to verify that a differential pressure of 0.5 psid between the drywell and suppression chamber is maintained for 1 hour without make-up. The 72 hour Completion Time is considered acceptable due to the low probability of an event in which the remaining vacuum breaker capability would not be adequate.

and the other verified closed within 2 hours

~~A Note has been added to provide clarification that, for the purpose of this Condition, separate Condition entry is allowed for each vacuum breaker pair. This is acceptable, since the Required Actions for this Condition provide appropriate compensatory actions for each inoperable vacuum breaker pair. Complying with the Required Actions may allow for continued operation and subsequent inoperable vacuum breaker pairs are governed by subsequent Condition entry and application of associated Required Actions.~~

C.1

Two open vacuum breakers in a vacuum breaker pair allows communication between the drywell and suppression chamber airspace, and, as a result, there is the potential for containment overpressurization due to the loss of the pressure suppression function. Therefore, one open vacuum breaker must be closed. A short time is allowed to close the vacuum breaker due to the low probability of an event that would pressurize primary containment. If vacuum breaker position indication is not reliable, an alternate method of verifying that the vacuum breakers are closed is to verify that a differential pressure of 0.5 psid between

(continued)

NRC EA/2 3.6.1.6-05

Specification 3.6.1.6

CONTAINMENT SYSTEMS

3/4.6.4 VACUUM RELIEF

LIMITING CONDITION FOR OPERATION

A.1

LCO 3.6.16 ~~3.6.4~~ Each pair of five A.2 suppression chamber - drywell vacuum breakers shall be OPERABLE and closed except when performing intended function. A.2

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

A.5

Action A a. With one or more vacuum breakers in one pair of suppression chamber - drywell vacuum breakers inoperable for opening but known to be closed, restore the inoperable pair of vacuum breakers to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Action D

Add Condition B note A.3

Action C b. With one suppression chamber - drywell vacuum breaker open, verify the other vacuum breaker in the pair to be closed within 2 hours. L.3 A.4

Action B Restore the open vacuum breaker to the closed position within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Action D

c. With one position indicator of any suppression chamber - drywell vacuum breaker inoperable: L.A.1

1. Verify the other vacuum breaker in the pair to be closed within 2 hours and at least once per 15 days thereafter, or A.4

2. Verify the vacuum breaker(s) with the inoperable position indicator to be closed by conducting a test which demonstrates that the ΔP is maintained at greater than or equal to 0.7 psi for one hour without makeup within 24 hours and at least once per 15 days thereafter. L.A.1

Action D Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

NRC RAI 3.6.1.6-05

DISCUSSION OF CHANGES
ITS: SECTION 3.6.1.6 - REACTOR BUILDING TO SUPPRESSION CHAMBER VACUUM BREAKERS

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 SSES CTS 3.6.4 has been modified in SSES ITS 3.6.1.6 to state that the vacuum breakers do not have to be closed when performing their intended function (i.e., that 5 vacuum breakers are required to be Operable to relieve vacuum). A Note has been added to SSES ITS SR 3.6.1.6.1 to state that the vacuum breakers do not have to be closed when performing required Surveillances (i.e., SR 3.6.1.6.2 and SR 3.6.1.6.3). These additions provide specific SSES ITS direction which is consistent with the intent of the SSES CTS and therefore, these changes are administrative with no impact on safety.

A.3 SSES ITS 3.6.1.6 Condition B Note ("Separate Condition entry is allowed for each suppression chamber-to-drywell vacuum breaker") provides explicit instructions for proper application of the Actions. In conjunction with the SSES ITS 1.3, "Completion Times," this Note provides direction consistent with the intent of the SSES ITS and CTS, and therefore, is an administrative change with no impact on safety.

A.4 SSES CTS 3.6.4, Action b and Action c.1, require with one position indicator inoperable or the vacuum breaker open, verify the other vacuum breaker in the closed position within 2 hours and at least once every 15 days thereafter. SSES ITS 3.6.1.6 Actions do not specifically provide Required Actions for loss of position indication or when the valve is found open to verify the position of the other valve. These requirements are addressed in the SSES ITS Surveillance Requirements, however. Specifically, SSES ITS SR 3.6.1.6.1 requires that the valves be verified closed every 14 days. This requires the vacuum breakers to be maintained shut unless plant condition require the valve to be open. If any valves are found not shut, the Actions for SSES ITS 3.6.1.6 are entered and appropriate Required Actions taken. In the SSES ITS Bases for both the Actions and the SR, an allowance is provided which allows the position to be verified by a pressure test. Based on the above discussion, the intent of the SSES CTS actions and the SSES ITS requirements are the same. Therefore, the deletion of the identified Actions is an administrative change with no impact on safety.

Insert A.5

INSERT (NRC RAI 3.6.1.6-05)

A.5 SSES CTS 3.6.4 Action a specifies "With one or more vacuum breakers in one pair of suppression – drywell vacuum breakers inoperable for opening but known to be closed. . . ". SSES ITS Condition A specifies "One suppression chamber-to-drywell vacuum breaker pair inoperable for opening". These two statements are equivalent in that both statements establish the condition of having one of the venting paths unable to function. Because both statements are equivalent, there is no change to the allowances and therefore, this is an administrative change with no impact on safety.

NON-BRACKETED PLANT SPECIFIC CHANGES

P.1 NUREG 1433 3.6.1.6 is modified to reflect the design of the SSES Suppression Chamber-to-Drywell Vacuum Breakers. SSES is designed with five pairs of suppression chamber-to-drywell vacuum breakers which provides redundant closing capability. This configuration required the development of Conditions and modification to the bases. This change is needed to ensure that SSES Improved Technical Specifications account for the SSES design and/or that the SSES design is accurately and completely described in the Bases. Therefore, this change is not a significant or generic deviation from NUREG 1433.

P.2 NUREG 1433 SR 3.6.1.6.1 is modified to eliminate the requirement to verify the vacuum breakers closed following any operation that causes the drywell-to-suppression chamber differential pressure to be reduced by ≥ 0.5 psid. This requirement has been deleted because normal operation will not typically result in a suppression chamber to drywell pressure of 0.5 psid and differential pressure is not a parameter ~~normally monitored~~ by SSES Operation. Furthermore, this surveillance requirement is not required by SSES CTS. Therefore, the change does not represent a significant or generic deviation from NUREG 1433 and it reflects current licensing basis of SSES.

which can be [illegible]

P.3 Editorial changes and additional design detail are incorporated as necessary to more precisely describe SSES current practice or design. These changes are self explanatory. This change provides additional detail and is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

P.4 NUREG LCO 3.6.1.9, MSIV LCS, is not incorporated into SSES ITS. SSES design does not require an MSIV Leakage Control System. Therefore, the change does not represent a significant or generic deviation from NUREG 1433, since it reflects the design of SSES.

INCORPORATED GENERIC CHANGES TO NUREG-1433, REV. 1

None

(NLC KAI 3.6.2.1-01)
Specification 3.6.2.1
(See Doc 3.6.2.1 unless indicated)
Specification 3.6.2.2
Specification 3.6.1.1

A.1

CONTAINMENT SYSTEMS

3/4.6.2 DEPRESSURIZATION SYSTEMS

SUPPRESSION CHAMBER#

LIMITING CONDITION FOR OPERATION

LCO 3.6.2.1 ~~3.6.2.1~~ The suppression chamber shall be OPERABLE with:

a. The pool water:

LCO 3.6.2.2 1. Volume between 121,540 ft³ and 122,410 ft³, equivalent to a level between 24'0" and 22'0", and a — LA.2 — 3.6.2.2

LCO 3.6.2.1.a 2. Maximum average temperature of 90°F during OPERATIONAL CONDITION 1 or 2, except that the maximum average temperature may be permitted to increase to:

LCO 3.6.2.1.b a) 105°F during testing which adds heat to the suppression chamber. — A.2

LCO 3.6.2.1.c b) 110°F with THERMAL POWER less than or equal to 1% of RATED THERMAL POWER. — A.3

Condition E c) 120°F with the main steam line isolation valves closed following a scram. — M.1

SR 3.6.1.1.2 b. Drywell-to-suppression chamber bypass leakage less than or equal to 10% of the acceptable A/√K design value of 0.0535 ft². — A6 — 3.6.1

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

LCO 3.6.2.2 Action A / Action B a. With the suppression chamber water level outside the above limits, restore the water level to within the limits within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. — 2 — L1 — 3.6.2.2

3.6.2.1 Action A / Action B b. In OPERATIONAL CONDITION 1 or 2 with the suppression chamber average water temperature greater than 90°F, restore the average temperature to less than or equal to 90°F within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, except as permitted above: — A.2

Action C / Action A / Action B c. With the suppression chamber average water temperature greater than 105°F during testing which adds heat to the suppression chamber, stop all testing which adds heat to the suppression chamber and restore the average temperature to less than 90°F within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. — F.2

d. With the suppression chamber average water temperature greater than:

Action B 1) 90°F for more than 24 hours and THERMAL POWER greater than 1% of RATED THERMAL POWER, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. — A.1 — A.2

#See Specification 3.6.3 for ECCS requirements. — A.2 — 3.6.2.2

A.4

NRC RAI 3.6.2.1-01

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 SSES CTS 3.6.2.1, Actions, require the reactor be shutdown within 12 hours if the 90°F and 105°F limits are exceeded. Under the same conditions, SSES ITS 3.6.2.1, Required Action B.1, requires reducing Thermal Power to less than 1% RTP. This change is made because SSES CTS 3.6.2.1.a.2, suppression pool average temperature requirements, establishes 4 different limits for the suppression pool average temperature depending on the plant conditions. Although not explicitly stated in SSES CTS 3.6.2.1.a.2, the 90°F and 105°F limits apply only when Rated Thermal Power (RTP) is greater than 1% because SSES CTS 3.6.2.1.a.2.b establishes a limit of 110°F when less than 1% RTP. If the 90°F and 105°F limits are exceeded, SSES CTS 3.6.2.1 would not be Applicable if Thermal Power was reduced to less than 1% RTP. For this reason, the Actions in SSES CTS 3.6.2.1, Actions b, b.1, and b.2.a, which require that the reactor be shutdown within 12 hours if the 90°F and 105°F limits are exceeded would never be implemented because as soon as RTP is less than 1 % then the limits of 90°F and 105°F are no longer applicable. Therefore, SSES ITS 3.6.2.1, Required Action B.1, only requires reducing Thermal Power to less than 1% RTP if the 90°F and 105°F limits are exceeded. This is an administrative change with no impact on safety because the requirements of both SSES CTS 3.6.2.1 and SSES ITS 3.6.2.1 are satisfied by reducing Thermal power to less than 1% RTP if suppression pool average temperature limits are exceeded. (Note that SSES Unit 1 CTS 3.6.2.1.a.2 contains a typographical error and should state that the 90°F limit is Applicable during Operational Condition 1 or 2.)

A.3 SSES CTS 3.6.2.1.a.2.b and SSES CTS 3.6.2.1, Action b.2.a, use a value of 1% RTP as a proxy for the point of adding heat, i.e., the power level where heat input is approximately equal to normal system heat losses. SSES ITS 3.6.2.1 uses 25/40 divisions of full scale on IRM Range 7 as a less ambiguous proxy for the point of adding heat. There is no change to the intent that different requirements must be applied above and below the point of adding heat. This is an administrative change with no impact on safety because there is no change to the existing requirements.

Insert A.4

INSERT (NRC RAI 3.6.2.1-01)

A.4 SSES CTS 3.5.3 and SSES CTS 3.6.2.1 are each marked with a footnote indicating that these specifications have overlapping requirements for suppression pool level. SSES ITS is organized so that SSES ITS 3.6.2.2 establishes requirements for suppression pool level in Modes 1, 2 and 3 to support the pressure suppression function which envelope the requirements needed to support ECCS Operability in these Modes. SSES ITS 3.5.2 establishes requirements for suppression pool level in Modes 4 and 5 to support ECCS Operability in these Modes. Therefore, there is no need for these cross references. Elimination of this cross reference is an administrative change with no impact on safety.

NRC RAI 3.6.1.1-2 Specification 3.6.1.1
3.6.2.1-05 (See DOC 3.6.1.1 unless indicated)
Specification 3.6.2.2
Specification 3.6.2.1

SURVEILLANCE REQUIREMENTS (Continued)

c. By verifying at least two suppression chamber water level indicators and at least sixteen surface water temperature indicators, at least one pair in each suppression pool sector, OPERABLE by performance of a:

1. CHANNEL CHECK at least once per 24 hours,
2. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
3. CHANNEL CALIBRATION at least once per 18 months,

with the water level and temperature alarm setpoint for: LA.1

1. High water level ≤ 23'9", 3.6.2.1
2. Low water level ≥ 22'3", and 3.6.2.2
3. High water temperature:
   a) First setpoint, ≤ 80°F,
   b) Second setpoint, ≤ 105°F,
   c) Third setpoint, ≤ 110°F, and
   d) Fourth setpoint, ≤ 120°F.

at the same frequency as... TSCR 96027

SR 3.6.1.1.2 By conducting a drywell-to-suppression chamber bypass leak test at an initial differential pressure of at least 4.3 psi and verifying that the A/√k calculated from the measured leakage is within the specified limit. The bypass leak test shall be conducted at 40 ± 10 month intervals during shutdown, during each 10 year service period. If any drywell-to-suppression chamber bypass leak test fails to meet the specified limit, the test schedule for subsequent tests shall be reviewed and approved by the Commission. If two consecutive tests fail to meet the specified limit, a test shall be performed at least every 18 months until two consecutive tests meet the specified limit, at which time the above test schedule may be resumed. A5

SR 3.6.1.1.2 Note

refueling TSCR 96031

SR 3.6.1.1.3 By conducting a leakage test on the drywell-to-suppression chamber vacuum breakers at a differential pressure of at least 4.3 psi and verifying that the total leakage area $A/(k)^{1/2}$ contributed by all vacuum breakers is less than or equal to 30% of the specified limit and the leakage area for an individual set of vacuum breakers is less than or equal to 12% of the specified limit. The vacuum breaker leakage test shall be conducted during each refueling outage for which the drywell-to-suppression chamber bypass leak test in Specification 4.6.2.1.d is not conducted.

SR 3.6.1.1.3 Note

LB.1

TSCR 96601

BASES

LCO (continued)

c. Average temperature ≤ 110°F when all OPERABLE IRM channels are ≤ 25/40 divisions of full scale on Range 7 with IRMs fully inserted. This requirement ensures that the unit will be shut down at > 110°F. The pool is designed to absorb decay heat and sensible heat but could be heated beyond design limits by the steam generated if the reactor is not shut down.

Note that 25/40 divisions of full scale on IRM Range 7 is a convenient measure of when the reactor is producing power essentially equivalent to 1% RTP. At this power level, heat input is approximately equal to normal system heat losses. Other techniques to verify the reactor is producing power greater than 1% RTP can be used to satisfy this requirement when IRMs are not fully inserted (e.g., Average Power Range Monitors).

APPLICABILITY

In MODES 1, 2, and 3, a DBA could cause significant heatup of the suppression pool. In MODES 4 and 5, the probability and consequences of these events are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining suppression pool average temperature within limits is not required in MODE 4 or 5.

ACTIONS

A.1 and A.2

With the suppression pool average temperature above the specified limit when not performing testing that adds heat to the suppression pool and when above the specified power indication, the initial conditions exceed the conditions assumed for the References 1 and 2 analyses. However, primary containment cooling capability still exists, and the primary containment pressure suppression function will occur at temperatures well above those assumed for safety analyses. Therefore, continued operation is allowed for a limited time. The 24 hour Completion Time is adequate to allow the suppression pool average temperature to be restored below the limit. Additionally, when suppression pool temperature is > 90°F, increased monitoring of the suppression pool temperature is required to ensure that it remains ≤ 110°F. The once per hour Completion Time is

(continued)

Specification 3.6.2.2
(See Doc 3.6.2.2 unless indicated)

Specification 3.5.2

A.1

EMERGENCY CORE COOLING SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

c. With only one suppression chamber water level indicator OPERABLE, restore at least two indicators to OPERABLE status within 7 days or verify the suppression chamber water level to be greater than or equal to 22'0" or 20' 0", as applicable, at least once per 12 hours by local indication.

d. With no suppression chamber water level indicators OPERABLE, restore at least one inoperable indicator to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours and verify the suppression chamber water level to be greater than or equal to 22'0" or 20' 0", as applicable, at least once per 12 hours by at least one alternate method.

LA.1

SURVEILLANCE REQUIREMENTS

~~4.5.3.1~~ The suppression chamber shall be determined OPERABLE by verifying:

~~a.~~ The water level to be greater than or equal to 22'0" or 20'0", as applicable:

LCO 3.5.2
LCO 3.6.2.2

SR 3.6.2.2.1 ~~1.~~ At least once per 24 hours.

SR 3.5.2.1 ~~2.~~ At least once per 12 hours when no level alarm indicator is ~~OPERABLE.~~ M.2

SR 3.5.2.2.a

~~b.~~ At least two suppression chamber water level alarm indicators OPERABLE with the low water level alarm setpoint > 22'0" or 20'0", as applicable, and at least two water level indicators OPERABLE by performance of a: LA.1

1. CHANNEL CHECK at least once per 24 hours,

2. CHANNEL FUNCTIONAL TEST at least once per 31 days, and

3. CHANNEL CALIBRATION at least once per 18 months.

SR 3.5.2.2.b ~~4.5.3.2~~ With the suppression chamber level less than the above limit or drained in OPERATIONAL CONDITION 4 or 5*, at least once per 12 hours: A.6 3.5.2

~~a.~~ Verify the required conditions of Specification 3.5.3.b to be satisfied, or

~~b.~~ Verify footnote conditions * to be satisfied. A.5 3.5.2

NRC RAI 3.6.2.2-02

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

LA.2 SSES CTS 3.6.2.1.a.1 establishes limits for both the level and volume of water in the suppression pool. These volume and level limits are equivalent and interchangeable; however, only the suppression pool level information is directly available to the plant operators. SSES ITS 3.6.2.2 establishes the limits in level only. This is acceptable because the information contained in the SSES CTS has no impact on the SSES ITS requirements. Therefore, the suppression pool volumes which correspond to the level limits are being moved to the Bases for SSES ITS 3.6.2.2 which requires change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain suppression pool level. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on the margin of safety.

L.1 SSES CTS 3.6.2.1, Action a, and SSES CTS 3.5.3, Action a, both require that when suppression pool water level is not within required limits in Modes 1, 2 and 3 that it must be restored "within 1 hour" or the reactor must be shutdown within the following 12 hours. Under the same conditions, SSES ITS 3.6.2.2, Required Action A.1, allows 2 hours to restore suppression pool water levels to within limits or the reactor must be shutdown within the following 12 hours. An unplanned change in suppression pool level requires that the cause be identified and addressed and us of the appropriate system to raise or lower the pool level. These activities may require longer than 1 hour to accomplish. This change is acceptable because if water level is below the minimum level, the pressure suppression function still exists as long as the main vents are covered, HPCI and RCIC turbine exhausts are covered, and S/RV quenchers are covered. If suppression pool level is above the maximum level, protection against overpressurization still exists to the extent that there is margin in the peak containment pressure analysis coupled with the capability of the drywell spray system. Therefore, continued operation for a limited time is allowed. The 2 hour Completion Time is sufficient to restore suppression pool water level to within limits. Also, it takes into account the low probability of an event impacting the suppression pool water level occurring during this interval.

Insert L.2

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.6.2.2 consistent with the BWR STS, NUREG-1433, Rev. 1.

INSERT (NRC RAI 3.6.2.2-02)

L.2 SSES CTS 4.5.3.1.a.2 requires that when no level alarm indicator is OPERABLE, suppression chamber water level will be verified every 12 hours. Under the same conditions, SSES ITS 3.6.2.2 will only require monitoring level every 24 hours. This is considered acceptable because during Modes 1, 2 or 3 suppression pool water level does not vary significantly and risk of inadvertent change in suppression pool water level is negligible. Therefore, this change will have a negligible impact on safety.

NRC RAI 3.6.2.2-03

DISCUSSION OF CHANGES
ITS: SECTION 3.6.2.2 - Suppression Pool Water Level

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 SSES CTS 3.5.3 and SSES CTS 3.6.2.1 are each marked with a footnote indicating that these specifications have overlapping requirements for suppression pool level. SSES ITS is organized so that SSES ITS 3.6.2.2 establishes requirements for suppression pool level in Modes 1, 2 and 3 to support the pressure suppression function which envelope the requirements needed to support ECCS Operability in these Modes. SSES ITS 3.5.2 establishes requirements for suppression pool level in Modes 4 and 5 to support ECCS Operability in these Modes. Therefore, there is no need for these cross references. Elimination of this cross reference is an administrative change with no impact on safety.

TECHNICAL CHANGES - MORE RESTRICTIVE

None

TECHNICAL CHANGES - LESS RESTRICTIVE

4.5.2.1.b and 4.6.2.1.c

LA.1 SSES CTS 3.6.2.1, Actions c and d establish Operability Requirements, Actions and Surveillance Requirements for the instrumentation used to monitor suppression pool level and temperature. This instrumentation performs an alarm-only or indication-only function, performs no automatic function and not assumed in any event that depends on operator action. Additionally, alarm-only and indication-only functions do not necessarily relate directly to the Operability of the related systems. SSES ITS 3.6.2.2 require that the suppression pool level be maintained, but do not specify the requirements for the instrumentation. This is acceptable because the monitoring instrumentation, as described above, does not impact the requirement to maintain suppression pool level. Therefore, these requirements can be adequately defined and controlled in the Technical Requirements Manual. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain suppression pool water temperature. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

NRC RAI 3.6.1.1-2 Specification 3.6.1.1
3.6.2.1-05 (See DOC 3.6.1.1 unless indicated)
3.6.2.1-07 Specification 3.6.2.2
3.6.2.2-05 Specification 3.6.2.1

SURVEILLANCE REQUIREMENTS (Continued)

c. By verifying at least two suppression chamber water level indicators and at least sixteen surface water temperature indicators, at least one pair in each suppression pool sector, OPERABLE by performance of a:

1. CHANNEL CHECK at least once per 24 hours,
2. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
3. CHANNEL CALIBRATION at least once per 18 months,

with the water level and temperature alarm setpoint for:

1. High water level ≤ 23'9",
2. Low water level ≥ 22'3", and
3. High water temperature:
   a) First setpoint, ≤ 90°F,
   b) Second setpoint, ≤ 105°F,
   c) Third setpoint, ≤ 110°F, and
   d) Fourth setpoint, ≤ 120°F.

LA.1 3.6.2.1 3.6.2.2

at the same frequency as... TSCR 96001

SR 3.6.1.1.2 By conducting a drywell-to-suppression chamber bypass leak test at an initial differential pressure of at least 4.3 psi and verifying that the A/√k calculated from the measured leakage is within the specified limit. The bypass leak test shall be conducted at 40 ± 10 month intervals during shutdown, during each 10 year service period. If any drywell-to-suppression chamber bypass leak test fails to meet the specified limit, the test schedule for subsequent tests shall be reviewed and approved by the Commission. If two consecutive tests fail to meet the specified limit, a test shall be performed at least every 18 months until two consecutive tests meet the specified limit, at which time the above test schedule may be resumed.

SR 3.6.1.1.2 Note

LA.1

refueling TSCR 96001

SR 3.6.1.1.3 By conducting a leakage test on the drywell-to-suppression chamber vacuum breakers at a differential pressure of at least 4.3 psi and verifying that the total leakage area $A/(k)^{1/2}$ contributed by all vacuum breakers is less than or equal to 30% of the specified limit and the leakage area for an individual set of vacuum breakers is less than or equal to 12% of the specified limit. The vacuum breaker leakage test shall be conducted during each refueling outage for which the drywell-to-suppression chamber bypass leak test in Specification 4.6.2.1.d is not conducted.

SR 3.6.1.1.3 Note

LA.1

TSCR 96001
Amendment No. 29, 129

Specification 3.6.2.3:

NRC RAI 3.6.2.3-01

CONTAINMENT SYSTEMS

SUPPRESSION POOL COOLING

A.1

LIMITING CONDITION FOR OPERATION

LCO 3.6.2.3 The suppression pool cooling mode of the residual heat removal (RHR) system shall be OPERABLE with two independent loops, each loop consisting of:

a. One OPERABLE RHR pump; and

b. An OPERABLE flow path capable of recirculating water from the suppression chamber through an RHR heat exchanger.

LA.1

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

Action A ~~a.~~ With one suppression pool cooling loop inoperable, restore the inoperable loop to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

7 days — L.1

Action C — L.2

Action B ~~b.~~ With both suppression pool cooling loops inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN* within the next 24 hours.

restore one subsystem to Operable within 7 hours

Action C

SURVEILLANCE REQUIREMENTS

~~4.6.2.3~~ The suppression pool cooling mode of the RHR system shall be demonstrated OPERABLE:

SR 3.6.2.3.1 ~~a.~~ At least once per 31 days by verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position. or can be adjusted to the correct position

A.4

SR 3.6.2.3.2 b. By verifying that each of the required RHR pumps develops a flow of 10,000 +0, -250 gpm on recirculation flow through the RHR heat exchanger and the suppression pool when tested pursuant to Specification 4.0.5.

>9750 — L.3 — ~~A.5~~

*Whenever both RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

A.2

#During the installation of the RHRSW modifications in the Susquehanna SES Unit 2 Fourth Refueling and Inspection Outage, this time is extended to 7 days.

A.3

ADMINISTRATIVE (continued)

permissible for this systems" valves to be in the non-accident position and still be considered Operable. This is an administrative change with no impact on safety because it is consistent with a reasonable interpretation of the existing requirements.

A.5 ~~SSES CTS 4.6.2.3.b requires verifying that each of the required RHR pumps develops a flow of 10.000 +0, -250 gpm on recirculation flow through the RHR heat exchanger and the suppression pool. SSES ITS SR 3.6.2.3.2 requires that this verification be performed at a flow rate greater than 9750 gpm. This change is acceptable because demonstrating that the pump can develop the minimum required flow ensures that pump performance has not degraded to the point that it cannot perform its required function. This is an administrative change with no impact on safety.~~

TECHNICAL CHANGES - MORE RESTRICTIVE

None

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS LCO 3.6.2.3 includes details relating to system design, function, and Operability for the suppression pool cooling mode of the residual heat removal system. SSES ITS 3.6.2.3 includes only a requirement for Operability and moves details of system design and specific Operability requirements to the Bases. This is acceptable because these details do not impact the SSES ITS requirement to maintain the system Operable. These details can be adequately defined and controlled in the Bases which require change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the system Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

L.1 SSES CTS 3.6.2.3, Action a, requires restoration of an inoperable suppression pool cooling loop within 72 hours. Under the same conditions, SSES ITS 3.6.2.3, Required Action A.1, allows 7 days to restore an inoperable suppression pool cooling subsystem. This change makes the allowable out of service time for an inoperable suppression pool cooling subsystem consistent with the allowable out of service time for an inoperable LPCI subsystem. This change is acceptable because even with one inoperable suppression pool

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

cooling subsystem, the remaining RHR suppression pool cooling subsystem is adequate to perform the primary containment cooling function. However, the overall reliability is reduced because a single failure in the Operable subsystem could result in a loss of primary containment cooling capability. Therefore, this change has a negligible affect on safety.

L.2 SSES CTS 3.6.2.3, Action b, requires that the reactor be in Mode 3 within 12 hours and mode 4 within 36 hours if both suppression pool cooling loops are inoperable. Under the same conditions, SSES ITS 3.6.2.3, Required Action B.1, allows 8 hours to attempt to restore at least one inoperable suppression pool cooling subsystem to Operable status before a plant shutdown must be initiated. The additional 8 hours allowed to attempt restoration provides the benefit of potentially avoiding a plant transient (reactor shutdown and cool down) with less than the full complement of emergency systems. This change has minimal impact on safety because of the low probability of a DBA during this additional 8 hour period.

Insert L.3

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.6.2.3 consistent with the BWR STS, NUREG-1433, Rev. 1.

INSERT (NRC RAI 3.6.2.3-01)

L.3 SSES CTS 4.6.2.3.b requires verifying that each of the required RHR pumps develops a flow of 10,000 +0, -250 gpm on recirculation flow through the RHR heat exchanger and the suppression pool. SSES ITS SR 3.6.2.3.2 requires that this verification be performed at a flow rate greater than 9750 gpm. This change is acceptable because demonstrating that the pump can develop the minimum required flow ensure that pump performance has not degraded to the point that it cannot perform its required function. Therefore, this less restrictive change will have no impact on safety.

3.6 CONTAINMENT SYSTEMS

3.6.2.3 Residual Heat Removal (RHR) Suppression Pool Cooling

LCO 3.6.2.3 Two RHR suppression pool cooling subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One RHR suppression pool cooling subsystem inoperable.	A.1 Restore RHR suppression pool cooling subsystem to OPERABLE status.	7 days
~~B.~~ Two RHR suppression pool cooling subsystems inoperable.	~~B.1 Restore one RHR Suppression pool cooling subsystem to OPERABLE Status~~	~~8 hours~~
D ~~C~~. Required Action and associated Completion Time ~~of Condition A or B~~ not met. OR	B ~~C~~.1 Be in MODE 3. AND ~~C~~.2 B Be in MODE 4.	12 hours 36 hours

BASES

ACTIONS

A.1 (continued)

pool cooling capabilities afforded by the OPERABLE subsystem and the low probability of a DBA occurring during this period.

~~B.1~~

~~With two RHR suppression pool cooling subsystems inoperable, one subsystem must be restored to OPERABLE status within 8 hours. In this condition, there is a substantial loss of the primary containment pressure and temperature mitigation function. The 8 hour Completion Time is based on this loss of function and is considered acceptable due to the low probability of a DBA.~~

~~C.1 and C.2~~

or if two RHR suppression pool cooling subsystems are inoperable

If the Required Action and associated Completion Time of Conditions A ~~or B~~ cannot be met within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.2.3.1

Verifying the correct alignment for manual, power operated, and automatic valves in the RHR suppression pool cooling mode flow path provides assurance that the proper flow path exists for system operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position since these valves were verified to be in the correct position prior to locking, sealing, or securing. A valve is also allowed to be in the nonaccident position provided it can be aligned to the accident position within the time assumed in the accident analysis. This is acceptable since the RHR suppression pool cooling mode is manually initiated. This SR does not require any testing

(continued)

NRC RAI 3.6.2.4-02

SURVEILLANCE REQUIREMENTS

<STS>

SURVEILLANCE		FREQUENCY
SR 3.6.2.4.1	Verify each RHR suppression pool spray subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position or can be aligned to the correct position.	31 days <4.6.2.2.c>
SR 3.6.2.4.2	~~Verify each RHR pump develops a flow rate ≥ [400] gpm through the heat exchanger while operating in the suppression pool spray mode.~~	~~In accordance with the Inservice Testing Program or 92 days~~ 10 years <4.6.2.2.b> <4.6.2.2.c>

Verify each suppression pool spray nozzle is unobstructed. P.3

NRC RAI 3624-02

NON-BRACKETED PLANT SPECIFIC CHANGES

P.1 NUREG 1433 3.6.2.4 Bases are modified to add editorial changes and additional design detail as necessary to more precisely describe SSES current practice or design. These changes are self explanatory. This change provides additional detail and is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

P.2 NUREG Specification 3.6.2.5, Drywell-to-Suppression Chamber Differential Pressure is not incorporated into SSES ITS because SSES design does not require the maintenance of a Drywell-to-Suppression Chamber Differential Pressure. Therefore, the change does not represent a significant or generic deviation from NUREG 1433, since it reflects the design of SSES.

Insert P.3

INCORPORATED GENERIC CHANGES TO NUREG-1433, REV. 1

None

INSERT (NRC RAI 3.6.2.4-02):

P.3 NUREG 1433 SR 3.6.2.4.2 has been modified to reflect SSES design which does not allow verification of RHR Suppression Pool Spray because of sensitive equipment in the Suppression Pool (Hydrogen Recombiners). Therefore, the change does not represent a significant or generic deviation from NUREG 1433, since it reflects the design of SSES.

NRC RAI 3.6.2.4

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

suppression pool spray subsystem consistent with the allowable out of service time for an inoperable ECCS subsystem. This change is acceptable because even with one inoperable suppression pool spray subsystem, the remaining RHR suppression pool spray subsystem is adequate to perform the primary containment spray function. However, the overall reliability is reduced because a single failure in the Operable subsystem could result in reduced primary containment spray capability. The 7 day Completion Time is acceptable because of the redundant RHR suppression pool spray capabilities afforded by the Operable subsystem and the low probability of a DBA occurring during this period.

L.2 SSES CTS 3.6.2.2. Action b. requires that the reactor be in Mode 3 within 12 hours and Mode 4 within 36 hours if both suppression pool spray loops are inoperable. Under the same conditions, SSES ITS 3.6.2.4, Required Action B.1, allows 8 hours to attempt to restore at least one inoperable suppression pool spray subsystem to Operable status before a plant shutdown must be initiated. The additional 8 hours allowed to attempt restoration provides the benefit of potentially avoiding a plant transient (reactor shutdown and cool down) with less than the full complement of emergency systems. This change has minimal impact on safety because of the low probability of a DBA during this additional 8 hour period.

L.3 SSES CTS 4.6.2.2.c requires verification every 5 years that each suppression pool spray nozzle is unobstructed. SSES ITS SR 3.6.2.4.2 requires the verification every 10 years that each suppression pool spray nozzle is unobstructed. This is acceptable because of the passive design of the nozzle system. Therefore, this increased surveillance test interval will have a minimal impact on safety.

Furthermore, [illegible] of this surveillance [illegible] no [illegible]

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.6.2.4 consistent with the BWR STS, NUREG-1433, Rev. 1.

BASES

ACTIONS

A.1 (continued)

However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in reduced primary containment bypass mitigation capability. The 7 day Completion Time was chosen in light of the redundant RHR suppression pool spray capabilities afforded by the OPERABLE subsystem and the low probability of a DBA occurring during this period.

B.1

With both RHR suppression pool spray subsystems inoperable, at least one subsystem must be restored to OPERABLE status within 8 hours. In this Condition, there is a substantial loss of the primary containment bypass leakage mitigation function. The 8 hour Completion Time is based on this loss of function and is considered acceptable due to the low probability of a DBA and alternate means to remove heat from primary containment are available.

C.1 and C.2

If the inoperable RHR suppression pool spray subsystem cannot be restored to OPERABLE status within the associated Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.2.4.1

Verifying the correct alignment for manual, power operated, and automatic valves in the RHR suppression pool spray mode flow path provides assurance that the proper flow paths will exist for system operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position since these valves were verified to be in the correct position prior to locking, sealing, or securing. A

(continued)

NRC RAI 3.6.3.1-02
3.6.3.1-03

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

change in the requirement to perform the Surveillance Requirement. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.3 SSES CTS 4.6.6.1.b.3 requires the performance of a visual examination and details what to examine during a visual examination. SSES ITS SR 3.6.3.1.2 requires a visual examination to be performed, but does not define what is to be examined. This is acceptable because the SSES CTS information does not impact the SSES ITS requirement to perform the examination. The information provided in this section provides guidance to an inspector of what constitutes abnormal conditions in the hydrogen recombiner. This criteria provides qualitative criteria which is not directly related to the Operability of the hydrogen recombiner. Therefore, this information can be adequately defined and controlled in ~~plant procedures~~ SSES ITS Bases. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to perform the examination. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.4 SSES CTS 3.6.6.1 details defining the primary containment hydrogen recombiner system are relocated SSES ITS Bases. The information provided in this section, defines what constitutes a primary containment hydrogen recombiner. This information is not directly related to the Operability of the hydrogen recombiner. Therefore, this information can be relocated. These requirements can be adequately defined and controlled in the Bases change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the recombiners Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LB.1 SSES CTS 4.6.6.1.b.2, verification of heater circuit Operability and SSES CTS 4.6.6.1.b.3, visual examination of the hydrogen recombiner for evidence of abnormal conditions, specify the frequency of the SRs as once per 18 months. In SSES ITS SR 3.6.3.1.1, SR 3.6.3.1.2, and SR 3.6.3.1.3, the frequency for the hydrogen recombiner testing is once every 24 months. The Surveillance Test Interval of these SRs is being increased from

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.3.1.2

This SR ensures there are no physical problems that could affect recombiner operation. Since the recombiners are mechanically passive they are subject to only minimal mechanical failure. The only credible failures involve loss of power or blockage of the internal flow path, missile impact, etc.

A visual inspection is sufficient to determine abnormal conditions that could cause such failures. Operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

The visual inspection will include looking for loose wiring or structural connections, deposits of foreign materials, etc.

SR 3.6.3.1.3

This SR requires performance of a resistance to ground test of each heater phase to make sure that there are no detectable grounds in any heater phase. This is accomplished by verifying that the resistance to ground for any heater phase is ≥ 10,000 ohms.

Operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

REFERENCES

1. 10 CFR 50.44.
2. 10 CFR 50, Appendix A, GDC 41.
3. Regulatory Guide 1.7, Revision 1.
4. FSAR, Section 6.2.5.
5. Final Policy Statement on Technical Specifications Improvements, July 22, 1993 (58 FR 39132).

CONTAINMENT SYSTEMS

3/4.6.6 PRIMARY CONTAINMENT ATMOSPHERE CONTROL

DRYWELL AND SUPPRESSION CHAMBER HYDROGEN RECOMBINER SYSTEMS

Delete A.1

LIMITING CONDITION FOR OPERATION

Primary Containment LA.4

LCO 3.6.3.1 ~~3.6.6.1~~ Two drywell and the suppression chamber hydrogen recombiner systems shall be OPERABLE.

STST

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

ACTION:

Add SSES ITS 3.6.3.1 Required Action A.1 Note L.1

Action A With one drywell and/or one suppression chamber hydrogen recombiner system inoperable, restore the inoperable system to OPERABLE status within 30 days or

Action C be in at least HOT SHUTDOWN within the next 12 hours.

Add 3.6.3.1 Action B L.2

SURVEILLANCE REQUIREMENTS

~~4.6.6.1~~ Each drywell and suppression chamber hydrogen recombiner system shall be demonstrated OPERABLE:

SR 3.6.3.1.1 a. At least once per 6 months by energizing the recombiner system to at least 10 kw for > 5 minutes. 24 L.3

b. At least once per 18 months by: 24 LA.1

1. Performing a CHANNEL CALIBRATION of all recombiner operating instrumentation and control circuits. LA.1

SR 3.6.3.1.3 2. Verifying the integrity of all heater electrical circuits by performing a resistance to ground test following the above required energization. The resistance to ground for any heater phase shall be greater than or equal to 10,000 ohms. LA.2

SR 3.6.3.1.2 3. Verifying through a visual examination that there is no evidence of abnormal conditions within the recombiner enclosure: i.e. loose wiring or structural connections, deposits of foreign materials, etc. LA.3

NRC RAI 3.6.3.1-02
3.6.3.1-03

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

change in the requirement to perform the Surveillance Requirement. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.3 SSES CTS 4.6.6.1.b.3 requires the performance of a visual examination and details what to examine during a visual examination. SSES ITS SR 3.6.3.1.2 requires a visual examination to be performed, but does not define what is to be examined. This is acceptable because the SSES CTS information does not impact the SSES ITS requirement to perform the examination. The information provided in this section provides guidance to an inspector of what constitutes abnormal conditions in the hydrogen recombiner. This criteria provides qualitative criteria which is not directly related to the Operability of the hydrogen recombiner. Therefore, this information can be adequately defined and controlled in ~~plant procedures~~ SSES ITS Bases. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to perform the examination. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.4 SSES CTS 3.6.6.1 details defining the primary containment hydrogen recombiner system are relocated SSES ITS Bases. The information provided in this section, defines what constitutes a primary containment hydrogen recombiner. This information is not directly related to the Operability of the hydrogen recombiner. Therefore this information can be relocated. These requirements can be adequately defined and controlled in the Bases change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the recombiners Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LB.1 SSES CTS 4.6.6.1.b.2, verification of heater circuit Operability and SSES CTS 4.6.6.1.b.3, visual examination of the hydrogen recombiner for evidence of abnormal conditions, specify the frequency of the SRs as once per 18 months. In SSES ITS SR 3.6.3.1.1, SR 3.6.3.1.2, and SR 3.6.3.1.3, the frequency for the hydrogen recombiner testing is once every 24 months. The Surveillance Test Interval of these SRs is being increased from

3.6 CONTAINMENT SYSTEMS

3.6.3.1 Primary Containment Hydrogen Recombiners

LCO 3.6.3.1 Two drywell and two suppression chamber hydrogen recombiners shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One drywell or one suppression chamber hydrogen recombiner inoperable OR One drywell and one suppression chamber hydrogen recombiner inoperable.	A.1 --------NOTE-------- LCO 3.0.4 is not applicable. ---------- Restore the inoperable hydrogen recombiners to OPERABLE status.	30 days
B. Two drywell or two suppression chamber hydrogen recombiners inoperable. OR Any three or more hydrogen recombiners inoperable.	B.1 Verify by administrative means that the alternate hydrogen control function is maintained. AND B.2 Restore the required recombiners to ensure that at least one drywell and one suppression chamber hydrogen recombiner to OPERABLE status.	1 hour AND Once per 12 hours thereafter 7 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.6.4.1.4	----------NOTE---------- The maximum time allowed for secondary containment draw down is dependent on the secondary containment configuration. ----------	-- NOTE --- Once every ~~72~~ 60 months testing will be performed in three zone configurat
	Verify each standby gas treatment (SGT) subsystem will draw down the secondary containment to ≥ 0.25 inch of vacuum water gauge in less than or equal to the maximum time allowed for the secondary containment configuration that is OPERABLE.	24 months on a STAGGERED TEST BASIS
SR 3.6.4.1.5	----------NOTE---------- The maximum flow allowed for maintaining secondary containment vacuum is dependent on the secondary containment configuration. ----------	--- NOTE --- Once every ~~72~~ 60 months testing will be performed in three zone configuration
	Verify each SGT subsystem can maintain ≥ 0.25 inch of vacuum water gauge in the secondary containment for at least 1 hour at a flow rate less than or equal to the maximum flow rate permitted for the secondary containment configuration that is OPERABLE.	24 months on a STAGGERED TEST BASIS

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.4.1.4 and SR 3.6.4.1.5

The SGT System exhausts the secondary containment atmosphere to the environment through appropriate treatment equipment. To ensure that all fission products are treated.
SR 3.6.4.1.4 verifies that the SGT System will rapidly establish and maintain a pressure in the secondary containment that is less than the pressure external to the secondary containment boundary. This is confirmed by demonstrating that one SGT subsystem will draw down the secondary containment to ≥ 0.25 inches of vacuum water gauge in less than or equal to the maximum time allowed for the secondary containment configuration that is OPERABLE. The maximum times allowed for the draw down of each secondary containment configuration is d~~etailed in the SSES Technical Requirements Manual (Ref. 5)~~. This cannot be accomplished if the secondary containment boundary is not intact.

defined in Table B 3.6.4.1-1, but only one of the three configurations need to be tested to confirm the secondary containment OPERABLE.

SR 3.6.4.1.5 demonstrates that one SGT subsystem can maintain ≥ 0.25 inches of vacuum water gauge for at least 1 hour at less than or equal to the maximum flow rate permitted for the secondary containment configuration that is OPERABLE. The maximum flow rate permitted for the secondary containment configuration is ~~detailed in the SSES Technical Requirements Manual (Ref.~~ 5). The 1 hour test period allows secondary containment to be in thermal equilibrium at steady state conditions. Therefore, these two tests are used to ensure secondary containment boundary integrity. Since these SRs are secondary containment tests, they need not be performed with each SGT subsystem. The SGT subsystems are tested on a STAGGERED TEST BASIS, however, to ensure that in addition to the requirements of LCO 3.6.4.3, either SGT subsystem will perform this test. Operating experience has shown these components usually pass the Surveillance when performed at the 24 month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

A note is added to the Frequency specifying that once every 60 months the three zone test must be performed. This is required to ensure that the most limiting configuration is tested. The 60 month frequency is acceptable because operating experience has shown that these components usually pass the surveillance and all active components are tested more frequently.

REFERENCES

1. FSAR, Section 6.2.3.
2. FSAR, Section 15.6.
3. FSAR, Section 15.7.4.

(continued)

BASES

REFERENCES (continued)

4. Final Policy Statement on Technical Specifications Improvements, July 22, 1993 (58 FR 39132).

5. SSES Technical Requirements Manual.

Insert B3.6-88-1

NRC RAI 3.6.4.1-02

INSERT B3.6-88-1

TABLE B3.6.4.1-1
Secondary Containment Configurations TS Limits

SECONDRAY CONTAINMENT CONFIGURATION	MAXIMUM DRAWDOWN TIME AS DEFINED IN TS SR 3.6.4.1.4 (seconds)	MAXIMUM FLOW RATE DEFINED IN TS SR 3.6.4.1.5 (cfm)
1. Three Zone operation with Zone II OPERABLE.	≤ 15 (Zone I and III)	≤ 2885 (from Zone I and III)[1]
2. Three Zone operation with Zone I, II, and III.	≤ 92 (Zone I, II and III)	≤ 4000 (from Zone I, II and III)
3. Two Zone operation with Unit 2 shutdown and Zone II isolated.	≤ 83 (Zone I and III)	≤ 2885 (from Zone I and III)

[1] Performing this test Secondary Containment Operability must be verified by calculation that maximum flow rate from Zone I, II, and III is ≤ 4000 cfm.

NRC RAI 3.6.4.1-02

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain Secondary Containment Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.4 SSES CTS 4.6.5.1.c establishes requirements for verifying secondary containment by establishing limits on the maximum time allowed to draw down and the maximum flow rate allowed to maintain secondary containment for several different secondary containment configurations. SSES ITS SR 3.6.4.1.4 and SSES ITS SR 3.6.4.1.5 require the same demonstrations of secondary containment Operability but moves the limits for maximum draw down time and maximum flow rates to maintain vacuum to the Technical Requirements Manual. This change is acceptable because the requirement to perform the test and the specific value for the vacuum that must be achieved and maintained is retained in Technical Specifications. These elements of the test are sufficient to demonstrate that the secondary containment boundary is intact and that SGT subsystem capacity is sufficient to maintain the secondary containment vacuum assumed in the safety analysis. The time required to complete the draw down and the flow rate required to maintain secondary containment vacuum are dependent on secondary containment configuration and are indicators of potential degradation of either the secondary containment boundary or SGT subsystem. Therefore, those portions of the test essential for demonstrating that secondary containment boundary is intact and that SGT subsystem performance is adequate are maintained in Technical Specifications. Aspects of the tests dependent on secondary containment configuration are moved to the ~~TRM~~. These details can be adequately defined and controlled in the ~~TRM~~ TS Bases. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain Secondary Containment Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LB.1 SSES CTS 4.6.5.1.c establishes 18 months as the required Frequency for performance of SRs that verify the secondary containment can be drawn down and maintained at the required vacuum. SSES ITS 3.6.4.1.4 and SSES ITS 3.6.4.1.5 perform the same tests but the required Frequency is extended to 24 months. Therefore, the Surveillance Test Interval of these SRs is being increased from once every 18 months to once every 24 months for a maximum interval of 30 months including the 25% grace period.

NRC RAI 3.6.4.1-02

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

The purpose of these tests is to ensure secondary containment boundary integrity by demonstrating that secondary containment vacuum assumed in the safety analysis can be maintained. Extending the surveillance interval for this verification of secondary containment integrity is acceptable because all active components associated with Secondary Containment Operability are designed to be single failure proof and highly reliable. Therefore, based on the design of the Secondary Containment support systems the impact, if any, on system availability will be small as a result of the change in Surveillance Frequency.

A review of the surveillance test history for each of these Surveillance requirements was performed to validate the above conclusion. This historical review of the surveillance test history demonstrates that there are no failures that would invalidate the conclusion that the impact of this change, if any, on system availability is small

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.6.4.1 consistent with the BWR STS, NUREG-1433, Rev. 1.

Specification 3.6.4.1

NRC RAI 3.6.4.1-02

b. Operating one standby gas treatment subsystem for 1 hour and maintaining greater than or equal to 0.25 inch of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 4000 cfm from Zone I, Zone II, and Zone III, or

3. For two zone operation with Unit 2 shutdown and Zone II isolated from Zone I and Zone III:

a. Verifying that one standby gas treatment subsystem will draw down the secondary containment (Zone I and Zone III) to greater than or equal to 0.25 inch of vacuum water gauge in less than or equal to 83 seconds, and

b. Operating one standby gas treatment subsystem for 1 hour and maintaining greater than or equal to 0.25 inch of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 2585 cfm from Zone I and Zone III.

LA1

SR 3.6.4.1.5
3.6.4.1.4
Frequency Note

c. At least once per 60 months:

1. Verifying that one standby gas treatment subsystem will draw down the secondary containment (Zone I, Zone II and Zone III) to greater than or equal to 0.25 inch of vacuum water gauge in less than or equal to 92 seconds, and

2. Operating one standby gas treatment subsystem for 1 hour and maintaining greater than or equal to 0.25 inch of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 4000 cfm from Zone I, Zone II, and Zone III.

LA4

NRC RAI 3.6.4.2-01

Specifications 3.6.4.2

LA.1

TABLE 3.6.5.2-1

SECONDARY CONTAINMENT VENTILATION SYSTEM AUTOMATIC ISOLATION DAMPERS

DAMPER FUNCTION	MAXIMUM ISOLATION TIME (Seconds)
1. Reactor Building Zone I Supply System Dampers (HD-17586 A&B)	7.5
2. Reactor Building Zone I Filtered Exhaust System Dampers (HD-17524 A&B)	5.0
3. Reactor Building Zone I Unfiltered Exhaust System Dampers (HD-17576 A&B)	3.0
4. Reactor Building Zone II Supply System Dampers (HD-27586 A&B)	7.5
5. Reactor Building Zone II Filtered Exhaust System Dampers (HD-27524 A&B)	5.0
6. Reactor Building Zone II Unfiltered Exhaust System Dampers (HD-27576 A&B)	3.0
7. Reactor Building Zone III Supply System Dampers (HD-17564 A&B)	14.0
8. Reactor Building Zone III Filtered Exhaust System Dampers (HD-17514 A&B)	6.5
9. Reactor Building Zone III Unfiltered Exhaust System Dampers (HD-17502 A&B)	6.0
10. Reactor Building Zone III Supply System Dampers (HD-27564 A&B)	14.0
11. Reactor Building Zone III Filtered Exhaust System Dampers (HD-27514 A&B)	6.5
12. Reactor Building Zone III Unfiltered Exhaust System Dampers (HD-27502 A&B)	6.0

RLC RAI 3.6.4.2-01
Specification 3.6.4.1
(See Doc 3.6.4.1 unless indicated.
Specification 3.6.4.2

SURVEILLANCE REQUIREMENTS (Continued)

SR 3.6.4.1.3
- ~~2a.~~ At least one door in each access to the secondary containment zones is closed.
- ~~2b.~~ At least one door in each access between secondary containment zones is closed.*

SR 3.6.4.2.1 — add Note 2 to SR 3.6.4.2.1 — L.1 — 3.6.4.2
LCO 3.6.4.2, Req Act A.2

~~3.~~ All secondary containment penetrations** not capable of being closed by OPERABLE secondary containment automatic isolation dampers and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic dampers secured in position. — add Note LCO 3.6.4.2, Req Action A.2 and SR 3.6.4.2.1, Note 1 — L.2 — 3.6.4.2

SR 3.6.4.1.2
- ~~4a.~~ The truck bay hatch is closed.
- ~~4b.~~ The truck bay door (No. 102) is closed unless Zone II is isolated from Zones I and III. — LA.1

~~c.~~ At least once per 18 months: — 24 — LB.1
on a staggered test basis

~~5.~~ For three zone operation with Zone II OPERABLE: — M.1

SR 3.6.4.1.4
- ~~a.~~ Verifying that one standby gas treatment subsystem will draw down the secondary containment (Zone I and Zone III) to greater than or equal to 0.25 inches of vacuum water gauge in less than or equal to 15 seconds, and

SR 3.6.4.1.5
- ~~b.~~ Operating one standby gas treatment subsystem for one hour and maintaining greater than or equal to 0.25 inches of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 2885 cfm from Zone I and Zone III, and
- c. Verifying by calculation that one standby gas treatment subsystem will maintain greater than or equal to 0.25 inches of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 4000 cfm from Zone I, Zone II, and Zone III, or — LA.4

~~6.~~ For three zone operation:
- a. Verifying that one standby gas treatment subsystem will draw down the secondary containment (Zone I, Zone II and Zone III) to greater than or equal to 0.25 inches of vacuum water gauge in less than or equal to 92 seconds, and

*Personnel ingress and egress through doors within the secondary containment is not prohibited by this specification. — LA.3
**Penetration between secondary containment zones, penetrations to no-zones, and penetrations to the outside atmosphere. — LA.1 — 3.6.4.3

NRC RAI 3.6.4.2-01

Specification 3.6.4.1
(See Loc 3.6.4.
unless indicated)
Specification 3.6.4.2

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

SR 3.6.4.3

~~2a.~~ At least one door in each access to the secondary containment zones is closed.

~~2b.~~ At least one door in each access between secondary containment zones is closed.*

Add Note to SR 3.6.4.2.1 — L.1

3.6.4.2

SR 3.6.4.2.1
LCO 3.6.4.2 Req. Act. A.2

~~3.~~ All secondary containment penetrations** not capable of being closed by OPERABLE secondary containment automatic isolation dampers and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic dampers secured in position. (Add Note LCO 3.6.4.2, Req. Action A.2 and SR 3.6.4.2.1, Note 1) — L.2

3.6.4.2

SR 3.6.4.2

~~4.~~ The truck bay hatch is closed.

~~5.~~ The truck bay door (No. 102) is closed unless Zone II is isolated from Zones I and III.

c. At least once per 18 months: (24) — LB.1

(on a staggered test basis.) M1

~~1.~~ For three zone operation with Zone I OPERABLE:

SR 3.6.4.14

~~a.~~ Verifying that one standby gas treatment subsystem will draw down the secondary containment (Zone II and Zone III) to greater than or equal to 0.25 inches of vacuum water gauge in less than or equal to 15 seconds, and

SR 3.6.4.5

~~b.~~ Operating one standby gas treatment subsystem for one hour and maintaining greater than or equal to 0.25 inches of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 2960 cfm from Zone II and Zone III, and

c. Verifying by calculation that one standby gas treatment subsystem will maintain greater than or equal to 0.25 inches of vacuum water gauge in the secondary containment at a flow rate of less than or equal to 4000 cfm from Zone I, Zone II, and Zone III, or

LA 4

~~2.~~ For three zone operation:

a. Verifying that one standby gas treatment subsystem will draw down the secondary containment (Zone I, Zone II and Zone III) to greater than or equal to 0.25 inches of vacuum water gauge in less than or equal to 92 seconds, and

*Personnel ingress and egress through doors within the secondary containment is not prohibited by this specification. — LA.3

**Penetration between secondary containment zones, penetrations to no-zones, and penetrations to the outside atmosphere. — LA.1

3.6.4.2

NRC RAI 3.6.4.2-01
3.6.4.2-02
Specification 3.6.4.2

CONTAINMENT SYSTEMS

SECONDARY CONTAINMENT AUTOMATIC ISOLATION DAMPERS

LIMITING CONDITION FOR OPERATION

LCO 3.6.4.2 ~~3.6.5.2~~ ~~The~~ secondary containment ventilation system automatic isolation dampers shown in Table 3.6.5.2-1 shall be OPERABLE with isolation times less than or equal to the times shown in Table 3.6.5.2-1.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, and *.

ACTION:

With one or more of the secondary containment ventilation system automatic isolation dampers shown in Table 3.6.5.2-1 inoperable, maintain at least one isolation damper OPERABLE in each affected penetration that is open and within 8 hours either:

Action A

a. Restore the inoperable damper to OPERABLE status, ~~or~~

~~b.~~ Isolate each affected penetration by use of at least one deactivated damper secured in the isolation position, or

~~c.~~ Isolate each affected penetration by use of at least one closed manual valve or blind flange.

Action B. Otherwise, in OPERATIONAL CONDITION 1, 2, or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Action E, Action E Note. Otherwise, in Operational Condition *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.6.5.2 Each secondary containment ventilation system automatic isolation damper shown in Table 3.6.5.2-1 shall be demonstrated OPERABLE:

a. ~~Prior to returning the damper to service after maintenance, repair, or replacement work is performed on the damper or its associated actuator, control or power circuit by cycling the damper through at least one complete cycle of full travel and verifying the specified isolation time.~~

SR 3.6.4.2.3 b. At least once per 18 months by verifying that on a containment isolation test signal each isolation damper actuates to its isolation position.

SR 3.6.4.2.4 c. At least once per 92 days by verifying the isolation time to be within its limit.

*For Zone III dampers when irradiated fuel is being handled in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

NRC RAI 3.6.4.2-02 Specification 3.6.4.2

NRC RAI 3.6.4.2-05

A.1

CONTAINMENT SYSTEMS

SECONDARY CONTAINMENT AUTOMATIC ISOLATION DAMPERS

LIMITING CONDITION FOR OPERATION

Each required — A.6

LCO 3.6.4.2 ~~3.6.5.2~~ The secondary containment ventilation system automatic isolation dampers shown in Table 3.6.5.2-1 shall be OPERABLE with isolation times less than or equal to the times shown in Table 3.6.5.2-1. — LA.1

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3 and *. Add Actions Note 1 — L.1

ACTION: Add Actions Note 2 & 3 — A.2

With one or more of the secondary containment ventilation system automatic isolation dampers shown in Table 3.6.5.2-1 inoperable, maintain at least one isolation damper OPERABLE in each affected penetration that is open and within 8 hours either: — LA.1 — A.3

Action A + Action C

a. Restore the inoperable damper to OPERABLE status, or — A.4

~~b.~~ Isolate each affected penetration by use of at least one deactivated damper secured in the isolation position, or

~~c.~~ Isolate each affected penetration by use of at least one closed manual valve or blind flange.

add LCO 3.6.4.2, Cond B — L.3

Action D Otherwise, in OPERATIONAL CONDITION 1, 2 or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Action E Otherwise, in Operational Condition *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

Action E. Note

SURVEILLANCE REQUIREMENTS required — A.6

4.6.5.2 Each secondary containment ventilation system automatic isolation damper shown in Table 3.6.5.2-1 shall be demonstrated OPERABLE: — LA.1

a. ~~Prior to returning the damper to service after maintenance, repair or replacement work is performed on the damper or its associated actuator, control or power circuit by cycling the damper through at least one complete cycle of full travel and verifying the specified isolation time.~~ — A.7

SR 3.6.4.2.3 b. At least once per 18 months by verifying that on a containment isolation test signal, each isolation damper actuates to its isolation position. — 24 — LB.

SR 3.6.4.2.2 c. At least once per 92 days by verifying the isolation time to be within its limit. — A.5

Applicability *For Zone III dampers when irradiated fuel is being handled in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel. — LA.2

NRC RAI 3.6.4.2-06

DISCUSSION OF DEVIATIONS FROM NUREG 1433
ITS: SECTION 3.6.4.2 - SECONDARY CONTAINMENT ISOLATION VALVES

NON-BRACKETED PLANT SPECIFIC CHANGES

P.1 NUREG 1433 3.6.4.2 Actions are modified to add Conditions to reflect the design of some SSES SCIV penetrations and the configuration of the SSES secondary containment. SSES secondary containment penetration designs are similar to the primary containment penetration designs and therefore, Conditions similar to those provided for in NUREG LCO 3.6.1.3 have been added to SSES ITS 3.6.4.2. Furthermore, SSES secondary containment is designed with three zones. In certain plant configurations not all SCIVs will be required. Therefore, the word "required" has been added to the LCO and Action statements. This change is needed to ensure that SSES Improved Technical Specifications account for the SSES design and/or that the SSES design is accurately and completely described in the Bases. Therefore, this change is not a significant or generic deviation from NUREG 1433.

Furthermore, during outage periods when systems are bracketed reliance on only one closed valve may be necessary to maintain secondary containment integrity

P.2 SSES ITS 3.6.4.2 Bases are modified to add details to ensure the SSES ITS requirements and the Bases for those requirements are clearly stated. This change provides additional detail and is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

P.3 SSES ITS 3.6.4.2 Bases has been modified to include a list of all secondary containment isolation valves and the associated maximum isolation time. This list is intended to facilitate access to this information by the plant staff. This change provides additional detail and is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

INCORPORATED GENERIC CHANGES TO NUREG-1433, REV. 1

None

BASES (continued)

SURVEILLANCE REQUIREMENTS

SR 3.6.4.2.1

This SR verifies that each secondary containment manual isolation valve and blind flange that is required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the {secondary} containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification that those SCIVs in {secondary} containment that are capable of being mispositioned (required) are in the correct position.

Since these SCIVs are readily accessible to personnel during normal operation and verification of their position is relatively easy, the 31 day Frequency was chosen to provide added assurance that the SCIVs are in the correct positions.

Two Notes have been added to this SR. The first Note applies to valves and blind flanges located in high radiation areas and allows them to be verified by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, and 3 for ALARA reasons. Therefore, the probability of misalignment of these SCIVs, once they have been verified to be in the proper position, is low.

A second Note has been included to clarify that SCIVs that are open under administrative controls are not required to meet the SR during the time the SCIVs are open.

SR 3.6.4.2.2 (required) (P.1)

Verifying that the isolation time of each power operated and each automatic SCIV is within limits is required to demonstrate OPERABILITY. The isolation time test ensures that the SCIV will isolate in a time period less than or equal to that assumed in the safety analyses. The isolation time and Frequency of this SR ~~are {in accordance with the Inservice Testing Program or~~ 92 days~~}~~ is.

The isolation times for SCIVs are located in the ~~Technical Requirements Manual (Ref. 4).~~ Table B 3.6.4.2-1 (P.2) (required)

(continued)

NRC RAI 3.6.4.2-02 Specification 3.6.4.2

NRC RAI 3.6.4.2-05

H.1

CONTAINMENT SYSTEMS

SECONDARY CONTAINMENT AUTOMATIC ISOLATION DAMPERS

LIMITING CONDITION FOR OPERATION (Each required) A.6

LCO 3.6.4.2 ~~3.6.5.2~~ The secondary containment ventilation system automatic isolation dampers shown in Table 3.6.5.2-1 shall be OPERABLE with isolation times less than or equal to the times shown in Table 3.6.5.2-1. LA.1

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3 and *. (Add Actions Note 1) L1 (Add Actions Note 2 & 3) A.2

ACTION:

With one or more of the secondary containment ventilation system automatic isolation dampers shown in Table 3.6.5.2-1 inoperable, maintain at least one isolation damper OPERABLE in each affected penetration that is open and within 8 hours either: LA.1 L.3

Action A + Action C

a. Restore the inoperable damper to OPERABLE status, or A.4

~~b.~~ Isolate each affected penetration by use of at least one deactivated damper secured in the isolation position, or

~~c.~~ Isolate each affected penetration by use of at least one closed manual valve or blind flange. (add LCO 3.6.4.2, Cond B) L.3

Action D Otherwise, in OPERATIONAL CONDITION 1, 2 or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Action E Otherwise, in Operational Condition *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

Action E. Note

SURVEILLANCE REQUIREMENTS (required) A.6

4.6.5.2 Each secondary containment ventilation system automatic isolation damper shown in Table 3.6.5.2-1 shall be demonstrated OPERABLE: LA.1

a. Prior to returning the damper to service after maintenance, repair or replacement work is performed on the damper or its associated actuator, control or power circuit by cycling the damper through at least one complete cycle of full travel and verifying the specified isolation time. A.7

SR 3.6.4.2.3 b. At least once per 18 months by verifying that on a containment isolation test signal, each isolation damper actuates to its isolation position. 24 LB.1

SR 3.6.4.2.2 c. At least once per 92 days by verifying the (actuator) isolation time to be within its limit. A.5

*For Zone III dampers when irradiated fuel is being handled in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel. LA.2

Applicability

NRC RAI 3.6.4.3-08
NRC RAI 3.6.4.3-01
Specification 5.5
(See DOC for 5.5 unless indicated)
Specification 3.6.4.3
Specification 3.3.6.2

~~CONTAINMENT SYSTEMS~~

~~SURVEILLANCE REQUIREMENTS (Continued)~~ A.1

A.7 Add SSES ITS 5.5.7

~~b.~~ At least once per ~~18~~ months 24 ~~(2)~~ (LB.2) after any structural maintenance on the HEPA filter or charcoal adsorber housings, ~~or~~ and (2) following painting, fire or chemical release in any ventilation zone communicating with the subsystem by: A.1

5.5.7

~~1.~~ Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 10,100 cfm ± 10%.

5.5.7a

5.5.7.b

~~2.~~ Verifying ~~within 31 days after removal~~ that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%; and LA

5.5.7.c

~~3.~~ Verifying a subsystem flow rate of 10,100 cfm ± 10% during system operation when tested in accordance with ANSI N510-1975.

5.5.7.d

5.5.7 ~~c.~~ After every 720 hours of charcoal adsorber operation by verifying ~~within 31 days after removal~~ that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%. LA

5.5.7e

~~d.~~ At least once per ~~18~~ months by: 24 (LB.2) 5.5 (L.B.1) 3.6.4.3

~~1.~~ Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 13 inches Water Gauge while operating the filter train at a flow rate of 10,100 cfm ± 10%.

5.5.7d

SR 3.6.4.3.3

~~2.~~ Verifying that the filter train starts and associated dampers open on each of the following test signals:

SR 3.3.6.2.7 5

a. Manual initiation from the control room, and actual or simulated A.2

b. Simulated automatic initiation signal. 3.6

SR 3.6.4.3.4

~~3.~~ Verifying that the filter cooling bypass and outside air dampers open and the fan start on filter cooling initiation high charcoal temperature A.6

5.5.7e

~~4.~~ Verifying that the temperature differential across each heating coil is ≥ 17°F when tested in accordance with ANSI N510-1975 at a flow rate ≥ 9,090 and ≤ 11,110 A.1

NRC RAI 3.6.4.3-07
3.6.4.3-45

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

because there is no change in the requirement to perform the Surveillance Test. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no ~~impact on safety~~.

LB.1 SSES CTS 4.6.5.3.d.2 and 4.6.5.3.d.3 establishes 18 months as the required Frequency for performance of SRs that verify the each SGT filter train starts and that associated dampers open on an initiation signal. SSES ITS 3.6.4.3.3 perform the same tests but the required Frequency is extended to 24 months. Therefore, the Surveillance Test Interval of these SRs is being increased from once every 18 months to once every 24 months for a maximum interval of 30 months including the 25% ~~grace period~~.

Extending the surveillance interval for ~~this verification~~ 3.6.4.3.4 and 3.6.4.3.1 is acceptable because the system is operated every 31 days to satisfy the requirements of SSES ITS 3.6.4.3.1. This test will detect significant failures affecting system operation that would be detected by conducting the 18 month surveillance test. In addition the SGTS system active components and power supplies are designed with redundancy to meet the single active failure criteria, which will ensure system availability in the event of a failure of one of the system components. Based on the redundancy capability and the above discussion, it is concluded that the impact, if any, on system availability is small as a result of the change to the subject SGTS test intervals.

A review of the surveillance test history for each of these Surveillance requirements was performed to validate the above conclusion. This historical review of the surveillance test history demonstrates that there are no failures that would invalidate the conclusion that the impact of this change, if any, on system availability is small.

L.1 SSES CTS 3.6.5.3 requires that the applicable activities must be suspended immediately if a standby gas treatment subsystem cannot be returned to Operable status within 7 days while movement of irradiated fuel assemblies, Core Alterations, or operations with the potential for draining the reactor vessel are in progress. Under the same conditions, SSES ITS 3.6.4.3, Required Action C.1, allows these applicable activities to continue if the Operable subsystem of SGT is in operation. This new option is acceptable because the action ensures that the remaining subsystem is operable, one subsystem is sufficient for any accident, no failures that could prevent automatic actuation can occur and any other failure will be readily detected. Therefore, this change does not significantly affect safety.

B 3.6 CONTAINMENT SYSTEMS

B 3.6.4.3 Standby Gas Treatment (SGT) System

BASES

BACKGROUND

The SGT System is required by 10 CFR 50, Appendix A, GDC 41, "Containment Atmosphere Cleanup" (Ref. 1). The safety function of the SGT System is to ensure that radioactive materials that leak from the primary containment into the secondary containment following a Design Basis Accident (DBA) are filtered and adsorbed prior to exhausting to the environment.

The SGT System consists of two redundant subsystems, each with its own set of dampers, filter train, and controls. and associated dampers

Each filter train consists of (components listed in order of the direction of the air flow): Recirculation Fans

a. A demister;

b. An electric heater;

c. A prefilter;

d. A high efficiency particulate air (HEPA) filter;

e. A charcoal adsorber;

f. A second HEPA filter; and

g. A centrifugal fan.

The sizing of the SGT System equipment and components is based on handling an incoming air mixture at a maximum of 125°F. The internal pressure of the SGT System boundary region is maintained at a negative pressure of 0.25 inches water gauge when the system is in operation. Maintenance of a negative pressure precludes direct outleakage.

The demister is provided to remove entrained water in the air, while the electric heater reduces the relative humidity of the airstream to less than 70% (Ref. 2). The prefilter removes large particulate matter, while the HEPA filter removes fine particulate matter and protects the charcoal from fouling. The charcoal adsorber removes gaseous

(continued)

BASES

BACKGROUND (continued)

elemental iodine and organic iodides, and the final HEPA filter collects any carbon fines exhausted from the charcoal adsorber.

The SGT System automatically starts and operates in response to actuation signals indicative of conditions or an accident that could require operation of the system. Following initiation in each division, the associated ~~charcoal~~ filter train fan starts. Upon verification that both subsystems are operating, the redundant subsystem may be shut down.

APPLICABLE SAFETY ANALYSES

The design basis for the SGT System is to mitigate the consequences of a loss of coolant accident and fuel handling accidents (Ref. 2). For all events analyzed, the SGT System is shown to be automatically initiated to reduce, via filtration and adsorption, the radioactive material released to the environment.

The SGT System satisfies Criterion 3 of the NRC Policy Statement (Ref. 3).

LCO

Following a DBA, a minimum of one SGT subsystem is required to maintain the secondary containment at a negative pressure with respect to the environment and to process gaseous releases. Meeting the LCO requirements for two OPERABLE subsystems ensures operation of at least one SGT subsystem in the event of a single active failure. A SGT subsystem is considered OPERABLE when it has an OPERABLE set of dampers, filter train, recirculation fan, and associated controls. and associated dampers

APPLICABILITY

In MODES 1, 2, and 3, a DBA could lead to a fission product release to primary containment that leaks to secondary containment. Therefore, SGT System OPERABILITY is required during these MODES.

In MODES 4 and 5, the probability and consequences of these events are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining the SGT System in OPERABLE status is not required in MODE 4 or 5.

(continued)

NRC RAI 3.6.4.3-06
3.6.4.3-10

DISCUSSION OF DEVIATIONS FROM NUREG 1433
ITS: SECTION 3.6.4.3 - STANDBY GAS TREATMENT SYSTEM

NON-BRACKETED PLANT SPECIFIC CHANGES

P.1 NUREG 1433 3.6.4.3. Required Action D.1 has been modified to allow four hours to restore a SGT subsystem to OPERABLE status. This is acceptable because the probability of an event occurring requiring the SGT system is small and the 4 hours provides a period of time to correct the problem commensurate with the importance of maintaining the SGT System Operable. Furthermore, the allowance is consistent with SSES CTS Actions. Therefore, the change does not represent a significant or generic deviation from NUREG 1433 and it reflects current licensing basis of SSES.

P.2 NUREG 1433 3.6.4.3. Required Action C.1 and SR 3.6.4.3.1, are modified to clarify the requirements. Each of these requirements specifies that the SGT filter train, which includes the SGT fan, be placed in operation but does not require that secondary containment be established. The change is made to ensure the proper actions are taken by plant operators, and is intended to avoid potential confusion by SSES operators. This change is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

For R.A.C.1 only the SGTS filter train fan is required to operate in these modes of operation

P.3 NUREG 1433 3.6.4.3. Bases has been modified to provide additional detail and is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

For example, in background Section the word ductwork was removed from the standard wording because carbon ductwork is used for SSES design.

INCORPORATED GENERIC CHANGES TO NUREG-1433, REV. 1

None

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. (continued)	F.2 Suspend CORE ALTERATIONS.	Immediately
	AND	
	F.3 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.3.1	Operate each SGT filter train for ≥ 10 continuous hours with heaters ~~OPERABLE~~. operating.	31 days
SR 3.6.4.3.2	Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.6.4.3.3	Verify each SGT subsystem actuates on an actual or simulated initiation signal.	24 months
SR 3.6.4.3.4	Verify each SGT filter cooling bypass and outside air damper open and the fan started on high charcoal temperature.	24 months

NRC RAI 3.6.4.3-08
NRC RAI 3.6.4.3-01
Specification 5.5
(See DOC for 5.5 unless indicated)
Specification 3.6.4.3
Specification 3.3.6.2

~~CONTAINMENT SYSTEMS~~

~~SURVEILLANCE REQUIREMENTS (Continued)~~

A.7 Adds SES ITS 5.5.7

A.1

~~b.~~ At least once per ~~18~~ months ~~or~~ (24) (LB.2) after any structural maintenance on the HEPA filter or charcoal adsorber housings, ~~or~~ (24) (LB.2) and (A.1) following painting, fire or chemical release in any ventilation zone communicating with the subsystem by:

5.5.7

~~1.~~ Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 10,100 cfm ± 10%.

5.5.7a

5.5.7b

~~2.~~ Verifying ~~within 31 days after removal~~ that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%; and (LA 4)

5.5.7c

~~3.~~ Verifying a subsystem flow rate of 10,100 cfm ± 10% during system operation when tested in accordance with ANSI N510-1975.

5.5.7d

5.5.7 ~~c.~~ After every 720 hours of charcoal adsorber operation by verifying ~~within 31 days after removal~~ that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%. (LA.)

5.5.7e

~~d.~~ At least once per ~~18~~ months by: (24) (LB.2) 5.5 (L.B.1) 3.6.4.3

~~1.~~ Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 13 inches Water Gauge while operating the filter train at a flow rate of 10,100 cfm ± 10%.

5.5.7d

SR 3.6.4.3.3 ~~2.~~ Verifying that the filter train starts and associated dampers open on each of the following test signals:

SR 3.3.6.2.7 (5)

a. Manual initiation from the control room, and actual or simulated (A2) 3.6.4

b. Simulated automatic initiation signal.

SR 3.6.4.3.4 ~~3.~~ Verifying that the filter cooling bypass and outside air dampers open and the fan start on filter cooling initiation. (A3) 2

5.5.7e ~~e.~~ Verifying that the temperature differential across each heating coil is ≥ 17°F when tested in accordance with ANSI N510-1975. high charcoal temperature (A6)

at a flow rate ≥ 9,090 and ≤ 11,110 (A.1)

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 SSES CTS 4.6.5.3.d.2 requires that SGT be started by a test signal. SSES ITS SR 3.6.4.3.3 permits SGT actuation by either a test or actual signal for the test that verifies that each subsystem actuates throughout its emergency operating sequence. This allows satisfactory automatic system initiations to be used to fulfill the Surveillance requirements. Operability is adequately demonstrated in either case since the subsystem itself can not discriminate between signals from "actual" conditions or "test" signals. The Logic System Functional Test in SR 3.3.6.2.6 overlaps this SR to provide complete testing of the safety function. This is an administrative change because it is a reasonable interpretation of the existing requirement with no impact on safety.

Insert 3.6.4-3-08

TECHNICAL CHANGES - MORE RESTRICTIVE

None

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS LCO 3.6.5.3 contains details relating to system design, function, and Operability for the Standby Gas Treatment (SGT) System. SSES ITS 3.6.5.3 includes only a requirement for Operability and moves details of system design and specific Operability requirements to the Bases. These details can be adequately defined and controlled in the Bases which require change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirements. NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.2 SSES CTS 4.6.5.3.a includes performance details associated with the testing of the SGT System. These details are moved to plant procedures. This is acceptable because the requirement to perform the Surveillance Test is not affected by these details. The level of safety of facility operation is unaffected by the change

INSERT (NRC RAI 3.6.4.3-08)

A.3 SSES-CTS 4.6.5.3.d.3 requires verification "that the filter cooling bypass . . . on filter cooling initiation." SSES ITS SR 3.6.4.3.4 requires the same verification, but identifies the specific initiation signal of high charcoal temperature. This is acceptable because both tests require the same verification. The SSES ITS only explicitly defines the signal that causes the initiation. Therefore, because both tests are equivalent, this change is an administrative change with no impact on safety.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.4.3.1 (continued)

temperature) for ≥ 10 continuous hours every 31 days eliminates moisture on the adsorbers and HEPA filters. The 31 day Frequency is consistent with the requirements of Reference 4.

SR 3.6.4.3.2

This SR verifies that the required SGT filter testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The SGT System filter tests are in accordance with Regulatory Guide 1.52 (Ref. 4). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 3.6.4.3.3

This SR verifies that each SGT subsystem starts on receipt of an actual or simulated initiation signal. While this Surveillance can be performed with the reactor at power, operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency. The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.6.2.5 overlaps this SR to provide complete testing of the safety function. Therefore, the Frequency was found to be acceptable from a reliability standpoint.

SR 3.6.4.3.4

This SR verifies that the filter ~~train~~ cooling bypass and ~~cross tie~~ outside air dampers open and the fan starts on high charcoal temperature. This ensures that the cooling mode of SGT System operation is available. While this Surveillance can be performed with the reactor at power, operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was found to be acceptable from a reliability standpoint.

(continued)

NRC RAI 3.6.4.3-06
3.6.4.3-10

DISCUSSION OF DEVIATIONS FROM NUREG 1433
ITS: SECTION 3.6.4.3 - STANDBY GAS TREATMENT SYSTEM

NON-BRACKETED PLANT SPECIFIC CHANGES

P.1 NUREG 1433 3.6.4.3. Required Action D.1 has been modified to allow four hours to restore a SGT subsystem to OPERABLE status. This is acceptable because the probability of an event occurring requiring the SGT system is small and the 4 hours provides a period of time to correct the problem commensurate with the importance of maintaining the SGT System Operable. Furthermore, the allowance is consistent with SSES CTS Actions. Therefore, the change does not represent a significant or generic deviation from NUREG 1433 and it reflects current licensing basis of SSES.

P.2 NUREG 1433 3.6.4.3. Required Action C.1 and SR 3.6.4.3.1. are modified to clarify the requirements. Each of these requirements specifies that the SGT filter train, which includes the SGT fan, be placed in operation but does not require that secondary containment be established. The change is made to ensure the proper actions are taken by plant operators, and is intended to avoid potential confusion by SSES operators. This change is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

For R.A.C.1 only the SGTS filter train fan is required to operate in these modes of operation

P.3 NUREG 1433 3.6.4.3. Bases has been modified to provide additional detail and is intended to improve clarity and ensure the requirement is fully understood and consistently applied. There are no technical changes to requirements as specified in NUREG 1433, Revision 1; therefore, this change is not a significant or generic deviation from NUREG 1433.

For example, in background section the word ductwork was removed from the statement indicated because common ductwork is used in SSES designs.

INCORPORATED GENERIC CHANGES TO NUREG-1433, REV. 1

None

BASES

BACKGROUND (continued)

elemental iodine and organic iodides, and the final HEPA filter collects any carbon fines exhausted from the charcoal adsorber.

The SGT System automatically starts and operates in response to actuation signals indicative of conditions or an accident that could require operation of the system. Following initiation in each division, the associated ~~charcoal~~ filter train fan starts. Upon verification that both subsystems are operating, the redundant subsystem may be shut down.

APPLICABLE SAFETY ANALYSES

The design basis for the SGT System is to mitigate the consequences of a loss of coolant accident and fuel handling accidents (Ref. 2). For all events analyzed, the SGT System is shown to be automatically initiated to reduce, via filtration and adsorption, the radioactive material released to the environment.

The SGT System satisfies Criterion 3 of the NRC Policy Statement (Ref. 3).

LCO

Following a DBA, a minimum of one SGT subsystem is required to maintain the secondary containment at a negative pressure with respect to the environment and to process gaseous releases. Meeting the LCO requirements for two OPERABLE subsystems ensures operation of at least one SGT subsystem in the event of a single active failure. A SGT subsystem is considered OPERABLE when it has an OPERABLE set of dampers, filter train, recirculation fan, and associated controls.

APPLICABILITY

In MODES 1, 2, and 3, a DBA could lead to a fission product release to primary containment that leaks to secondary containment. Therefore, SGT System OPERABILITY is required during these MODES.

In MODES 4 and 5, the probability and consequences of these events are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining the SGT System in OPERABLE status is not required in MODE 4 or 5.

(continued)

SECTION 3.7 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.7	PLANT SYSTEMS					
3.7 R-1	LA.1	CTS 3.7.4	Details of the Snubber inspection requirements located in CTS 3/4.7.4 are removed. This is a relocation to the TRM, not a less restrictive administrative change.	PRovide revised discussion and justification for the relocation to the TRM.	Commitment will be made that TRM is a part of FSAR.	Closed (5/20/97)
3.7.1	Residual Heat Removal Service Water (RHRSW) System					
3.7.1-1	L.1, L.2, L.3, P.2	CTS 3.7.1	CTS 3.7.1.1 Actions a. and b. require restoring the inoperable RHRSW subsystem to operable within 72 hours when one RHRSW subsystem is inoperable, or shutdown within 12 hours if both RHRSW subsystems are inoperable. ITS 3.7.1 Actions A, B, and C extend these allowed outage times to 30 and 7 days if the other unit RHRSW subsystems are available, or 8 hours if the other unit RHRSW subsystems are not available. These times are relaxations to the CTS times. ITS conditions are significantly different from STS conditions (which do not recognize availability of an opposite unit's RHRSW Systems).	The changes to the CTS Allowed Outage Times need additional justification (such as PRA supporting data) to permit relaxation.	See NUREG M/U page 3.7-1. SSES design includes 4 RHRSW pumps which can supply both Units. Only require 2 pumps for DBA. This design is equivalent to NUREG design which allows 30 days. Change in format to NUREG was necessary because pumps are unitized. Therefore, SSES is simply adopting NUREG AOTs.	Closed. (5/20/97)
3.7.1-2	L.4 P.1	CTS 3.7.1.3	CTS 4.7.1.3.b requires the water level at the overflow weir verified every 12 hours. ITS 3.7.2.1 requires the water level at the overflow weir verified every 24 hours.	This change to the CTS Surveillance Test Frequency needs futher justification (i.g., PRA Data)	See NUREG 1433 M/U page 3.7-5. Equivalent SRs are performed at similar Frequencies. Adopting NUREG frequencies. PP&L will remain at a Frequency of 12 hours.	Closed-PP&L will provide M/U of SSES ITS.
3.7.2	Emergency Service Water (ESW)] System and Ultimate Heat Sink (UHS)					
3.7.2-1	L.1, L.2	CTS 3.7.1.2	CTS 3.7.1.2 Actions a.2. and a.3 require restoring at least one inoperable ESW pump to operable within 72 hours when two ESW pumps are inoperable or one ESW loop is inoperable. ITS 3.7.2 Actions A and B extend these allowed outage times to 7 days.	This change to the CTS Allowed Outage Time needs additional justification.	Consistent with the NUREG established practice, AOTs are established for supporting systems based on the shortest AOT for supported systems made inoperable. Therefore, SSES change adopts NUREG convention based on plant design.	Closed. (5/20/97)

SECTION 3.7 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.7.3	CREOAS System					
3.7.3-01	None	3.7.3	SSES CTS M/U indicates that 4.7.2.D.2 is being separated into three different surveillances SR 3.3.7.1.5, SR 3.7.3.3, and SR 3.7.3.4. All of these SRs are going from 18 Month Surveillance Frequencies to 24 Month Surveillance Frequencies, but only SR 3.3.7.1.5 has a justification.		PP&L will provide a new DOC to address this ommission.	Closed-PP&L will provide M/U of DOCs and revised CTS M/U.
3.7.4	Control Room Floor Cooling System					
3.7.4-1	M.1	STS SR 3.7.5.1	STS SR 3.7.5.1 requires verifying the control room floor cooling system can remove the assumed heat load every 18 months. ITS SR 3.7.4.1 changes the frequency to 24 months.	This change ot CTS Surveillance Test Interval is under review.	New requirement. No justification for 24 month required.	Closed. (5/20/97)
3.7.6	Main Turbine Bypass System					
3.7.6-1A	P.4	CTS 4.7.8 ITS 3.7.6	ITS wording of CONDITION A differs editorially from STS wording. JFD recognizes need to submit TSTF.	TSTF needs to be submitted and approved.	After further review. PP&L proposes this is a bracketed change to NUREG 1433 for clarity. It is recommended that no generic changes are necessary.	Open-NRC to review revised resolution.
3.7.6-2	L.3	CTS 4.7.8	CTS 4.7.8.a requires that the main turbine bypass system be demonstrated Operable every 7 days. ITS SR 3.7.6.1 extends this SR Frequency from 7 days to 31 days. Per NUREG-1433. Based upon evaluation that extension not safety significant.	Provide info on evaluation of data that shows frequency extension is not safety significant.	See 3.7.6 DOC L.3. DOC states that the test normally passes, and manufacturer concurs with change. Furthermore, NUREG (see NUREG M/U page 3.7-18) identifies a Frequency of 31 days.	Closed.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Both Unit 1 RHRSW subsystems inoperable.	B.1 Restore one Unit 1 RHRSW subsystem to OPERABLE status.	8 hours with one or both Unit 2 RHRSW subsystems not capable of supporting associated Unit 1 RHRSW subsystem AND 7 days
C. Required Action and associated Completion Time not met. OR UHS inoperable	C.1 Be in MODE 3. AND C.2 Be in MODE 4.	12 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.1.1	Verify the water level at the overflow weir is greater than or equal to 678 feet 1 inch above Mean Sea Level.	~~24~~ 12 hours
SR 3.7.1.2	Verify the average water temperature of the UHS is ≤ 88°F.	24 hours

(continued)

BASES

ACTIONS

B.1 (continued)

respective Unit 1 RHRSW subsystem, if no additional failures occur which impact the RHRSW System, the remaining OPERABLE Unit 2 subsystems and flow paths provide adequate heat removal capacity following a design basis LOCA. However, capability for this alignment is not assumed in long term containment response analysis and an additional single failure in the RHRSW System could reduce the system capacity below that assumed in the safety analysis. Therefore, continued operation is permitted only for a limited time. One inoperable subsystem is required to be restored to OPERABLE status within 7 days. The 7 day Completion Time for restoring one inoperable RHRSW subsystem to OPERABLE status is based on engineering judgment, considering the level of redundancy provided, and the low probability of a DBA with concurrent worst case single failure.

C.1 and C.2

If the RHRSW subsystems cannot be restored to OPERABLE status within the associated Completion Times, or the UHS is determined to be inoperable, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE REQUIREMENTS

SR 3.7.1.1

This SR verifies the water level to be sufficient for the proper operation of the RHRSW pumps (net positive suction head and pump vortexing are considered in determining this limit). The ~~24~~ 12 hour Frequency is based on operating experience related to trending of the parameter variations during the applicable MODES.

(continued)

NRC RAI 3.7.3-01
Specification 5.5
(See DOC for 5.5 unless indicated)
Specification 3.3.7.1
Specification 3.7.3

(A)

~~PLANT SYSTEMS~~

~~SURVEILLANCE REQUIREMENTS (Continued)~~

~~2.~~ Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 5810 cfm ± 10%. 5.5.7.a 5.5.7.b

~~c.~~ Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%; and 5.5.7.c (LA.4)

~~3.~~ Verifying a subsystem flow rate of 5810 cfm ± 10% during subsystem operation when tested in accordance with ANSI N510-1975.

~~e.~~ After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Positon C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%. (LA.4) (LB.1) 3.3.7.1

5.5.7 ~~d.~~ At least once per 18 (24) months by: (LB.3)

~~1.~~ Verifying that the pressure drop across the combined prefilter, upstream and downstream HEPA filters and charcoal adsorber banks is less than 9.1 inches Water Gauge while operating the subsystem at a flow rate of 5810 cfm ± 10%. 5.5.7.d

~~2. Verifying that on the below isolation mode actuation test signal, the subsystem automatically switches to the isolation mode of operation and the isolation dampers close within 8 seconds:~~ TSCR 95-012

~~a) Outside air intake chlorine - high.~~

SR 3.3.7.15 ~~3.~~ Verifying that on each of the below pressurization mode actuation test signals, the subsystem automatically switches to the pressurization mode of operation and the control structure is maintained at a positive pressure of 1/8 inch W.G. relative to the outside atmosphere during subsystem operation at a flow rate less than or equal to 5810 cfm: (A.4) 3.7.3 actual or Simulated

SR 3.7.3.3

SR 3.7.3.4

Table 3.3.7.1-1

a) Reactor Building isolation, and
b) Outside air intake radiation - high.

5.5.7.f ~~4.~~ Verifying that the heaters dissipate 30 ± 3.0 Kw when tested in accordance with ANSI N510-1975. (A.6)

TSCR 95-012

NRC RAI 3.7.3-01

DISCUSSION OF CHANGES
ITS: SECTION 3.7.3 - CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY (CREOAS) SYSTEM

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 3.7.2 requires the CREOAS system to be Operable and identifies what components are required for the CREOAS system. SSES ITS 3.7.3 requires the CREOAS system to be Operable, but does not define what equipment is required. This is acceptable because these details do not impact the SSES ITS requirement to maintain the CREOAS system Operable. Therefore, this information can be adequately defined and controlled in the SSES ITS Bases which require change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to maintain the CREOAS system Operable. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on the margin of safety.

LA.2 SSES CTS 4.7.2.a requires that testing be performed on the CREOAS system and details that the testing should be initiated from the control room, on a Staggered Test Basis and flow should be put through the HEPA filters and charcoal adsorbers. SSES ITS SR 3.7.3.1 maintains the requirement to perform the surveillance test, but does not detail the methods to perform the surveillance test. This is acceptable because the information/requirements identified do not impact the SSES ITS requirement to perform the surveillance test. Therefore, these requirement can be adequately defined and controlled in the SSES ITS SR 3.7.3.1 Bases which require change control in accordance with SSES ITS 5.5.10, Bases Control Program. It should be noted that the wording "Staggered Test Basis" has been changed in the SSES ITS Bases, because the term is defined differently in the SSES ITS. The presentation in the SSES ITS Bases maintains the same requirements as the SSES CTS. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to perform the surveillance. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on the margin of safety.

Insert LB.1

L.1 SSES CTS 3.7.2 Applicability is revised in SSES ITS 3.7.3 to exclude Modes 4 and 5 if no activities (i.e., Core Alterations or OPDRVS) are being conducted which may lead to a need for control room isolation. In Modes 4 and 5, the probability and consequences of a design basis accident are significantly reduced due to pressure and temperature limitations in these Modes. However, some activities (i.e., Core Alterations and OPDRVs) could lead to the necessity for control room isolation, and these are retained in the Applicability. In addition, the SSES ITS 3.7.3

INSERT (NRC RAI 3.7.3-01):

LB.1 SSES CTS 4.7.2.d.3 establishes 18 months as the required Frequency for performance of SRs that verify that the Main Control Room can be initially pressurized and maintained pressurized by CREOAS. SSES ITS SR 3.7.3.3 and SSES ITS SR 3.7.3.4 perform the same tests but the required Frequency is extended to 24 months. Therefore, the Surveillance Test Interval of these SRs is being increased from once every 18 months to once every 24 months for a maximum interval of 30 months including the 25% grace period.

The purpose of these tests is to ensure Main Control Room boundary integrity by demonstrating that a positive pressure assumed in the safety analysis can be maintained and test the capability of the CREOAS System. Extending the surveillance interval for this verification of Main Control Room boundary integrity is acceptable because all active components associated with CREOAS Operability are designed to be single failure proof and highly reliable and most of the active components are tested on a more frequent basis. Therefore, based on the design of the CREOAS support systems and the passive design of the Main Control Room boundary the impact, if any, on system availability will be small as a result of the change in Surveillance Frequency.

A review of the surveillance test history for each of these Surveillance requirements was performed to validate the above conclusion. This historical review of the surveillance test history demonstrates that there are no failures that would invalidate the conclusion that the impact of this change, if any, on system availability is small.

SECTION 3.9 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.9.1	Refueling Equipment Interlocks					
3.9.1-1	A.5	CTS 3.9.1	CTS 3.9.1 b.4. specifies fuel grapple position as one of the required Refuel Position Interlocks, and CTS 4.9.1.2 refers to the specification for the interlocks which require testing. ITS SR 3.9.1.1 deletes this interlock.	A5 does not address fuel grapple deletion. Provide justification for the STS deviation based on current licensing basis, system design, or operational constraints.	An "A" DOC will be added.	Closed-PP&L will provide M/U of DOCs.
3.9.1-2	Gen	Gen	Some justifications in this section are based on reliance on ITS SR 3.0.4, which is not applicable in MODE 5.	Justifications based on ITS SR 3.0.4 need additional justification.	All "LC" DOCs will be corrected, consistent to the justification used for WNP-2.	Closed-PP&L will provide M/U of revised DOC.
3.9.2	Refuel Position One-Rod-Out Interlock					
3.9.2-2	LC.1	CTS 4.9.1.2	CTS 4.9.1.2 requires a Functional Test of the Reactor Mode Switch Refuel Position Interlocks "within 24 hours prior to the start of" and once per 7 days during control rod withdrawal or CORE ALTERATIONS. ITS SR 3.9.2.2 eliminates the requirement that verifications be performed "within 24 hours prior to the start of" control rod withdrawal or CORE ALTERATIONS.	The justification is based on reliance on ITS SR 3.0.4 which is not applicable in MODE 5. Provide additional justification.	All "LC" DOCs will be corrected, consistent to the justification used for WNP-2.	Closed-PP&L will provide revised LC DOC.
3.9.6	Reactor Pressure Vessel (RPV) Water Level - Irradiated Fuel					
3.9.6-1	None	CTS 3.9.8	CTS 4.9.8 refers to movement of irradiated fuel assemblies and so does the ITS 3.9.6.	STS intended to refer to "irradiated" in Applicability.	The word "irradiated" will be added back into SSES ITS 3.9.6 "Applicability".	Closed-PP&L will provide M/U of SSES ITS.

NRC RAI 3.9.1-1

Specification 3.9.1

(See DOC 3.9.1 unless indicated

Specification 3.9.2

A.1

~~3/4.9~~ REFUELING OPERATIONS

~~3/4.9.1~~ REACTOR MODE SWITCH

LIMITING CONDITION FOR OPERATION

A.2 3.9.2 A.3 3.9

LCO 3.9.2 and Applicability

~~3.9.1~~ The reactor mode switch shall be OPERABLE and locked in the Shutdown or Refuel position. When the reactor mode switch is locked in the Refuel position: A.3 3.9

a. A control rod shall not be withdrawn unless the Refuel position one-rod-out interlock is OPERABLE.

LCO 3.9.1 and Applicability

~~b.~~ CORE ALTERATIONS shall not be performed using equipment associated with a Refuel position interlock unless at least the following associated Refuel position interlocks are OPERABLE for such equipment.

SR 3.9.1.1

a 1. All rods in.

b 2. Refuel platform position.

c, d, e 3. Refuel platform hoists fuel-loaded. A.

~~4. Fuel grapple position.~~ ~~A.5~~ A.6

f 5. Service platform hoist fuel-loaded.

APPLICABILITY: OPERATIONAL CONDITION 5* A.5

ACTION: A.2 3.9.2 A.3 3.9.2

LCO 3.9.2, Action A

a. With the reactor mode switch not locked in the Shutdown or Refuel position as specified, suspend CORE ALTERATIONS and lock the reactor mode switch in the Shutdown or Refuel position. L.1

b. With the one-rod-out interlock inoperable, lock the reactor mode switch in the Shutdown position.

LCO 3.9.1, Action A

~~c.~~ With any of the above required Refuel position equipment interlocks inoperable, suspend CORE ALTERATIONS with equipment associated with the inoperable Refuel position equipment interlock. A.2

~~*See Special Test Exceptions 3.10.1 and 3.10.3.~~ A.4

3.9.

3.9.

DISCUSSION OF CHANGES
ITS: SECTION 3.9.1 - Refueling Equipment Interlocks

ADMINISTRATIVE (continued)

A.5 SSES CTS 4.9.1.3 requires that any time the Operability of a system or component is affected by repair, maintenance or replacement of a component, post maintenance testing is required to demonstrate Operability of the system or component. SSES ITS requires the Operability of equipment, but does not direct the performance of testing when repair activities have been performed. The requirement to perform post maintenance testing is applicable to all plant equipment. The majority of SSES CTS LCOs do not contain this requirement to perform post maintenance testing although this requirement is applicable. Even though the SSES ITS does not explicitly require post maintenance testing, the requirement is maintained. Therefore, this change does not result in a change in the requirements only a change to ensure consistency with NUREG 1433, Revision 1. Based on the above discussion, the change is considered an administrative change with no impact on safety.

Insert A.6

TECHNICAL CHANGES - MORE RESTRICTIVE

None

TECHNICAL CHANGES - LESS RESTRICTIVE

Insert

LC.1 SSES CTS 4.9.1.2 requires a Functional Test of the reactor mode switch refuel position interlocks "within 24 hours prior to the start of" and once per 7 days during control rod withdrawal or Core Alterations. SSES ITS eliminates the requirement that verifications be performed "within 24 hours prior to the start of" control rod withdrawal or Core Alterations. This will allow the verification to be performed up to 7 days prior to any control rod withdrawal or Core Alterations. This change is acceptable because the requirement that the reactor mode switch refuel position interlocks are Operable whenever control rod withdrawal or Core Alterations are in progress is unchanged. Elimination of the requirement to perform this verification within 24 hours prior to the activity is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed since ITS SR 3.0.4 requires only that a Surveillance be performed within the required Frequency prior to entering the applicable Mode or Condition. The normal 7 day Surveillance Frequency provides adequate assurance that the LCO requirements are satisfied. If any Surveillance has not been performed within this interval, control rod withdrawal and Core Alterations may not be performed. This ensures the requirements are adequately checked prior to and during these activities.

INSERT (NRC RAI 3.9.1-1)

A.6 SSES CTS 3.9.1 specifies that the "Fuel grapple position" interlock be Operable. SSES ITS removes this requirement, because it does not exist at SSES. This is an administrative change with no impact on safety because it removes a reference to a component that does not exist on the SSES Refueling Bridge and therefore, is not required.

NRC RAI 3.9.1-1
3.9.1-2

ADMINISTRATIVE (continued)

A.5 SSES CTS 4.9.1.3 requires that any time the Operability of a system or component is affected by repair, maintenance or replacement of a component, post maintenance testing is required to demonstrate Operability of the system or component. SSES ITS requires the Operability of equipment, but does not direct the performance of testing when repair activities have been performed. The requirement to perform post maintenance testing is applicable to all plant equipment. The majority of SSES CTS LCOs do not contain this requirement to perform post maintenance testing although this requirement is applicable. Even though the SSES ITS does not explicitly require post maintenance testing, the requirement is maintained. Therefore, this change does not result in a change in the requirements only a change to ensure consistency with NUREG 1433, Revision 1. Based on the above discussion, the change is considered an administrative change with no impact on safety.

Insert A.6

TECHNICAL CHANGES - MORE RESTRICTIVE

None

TECHNICAL CHANGES - LESS RESTRICTIVE

Insert

LC.1 SSES CTS 4.9.1.2 requires a Functional Test of the reactor mode switch refuel position interlocks "within 24 hours prior to the start of" and once per 7 days during control rod withdrawal or Core Alterations. SSES ITS eliminates the requirement that verifications be performed "within 24 hours prior to the start of" control rod withdrawal or Core Alterations. This will allow the verification to be performed up to 7 days prior to any control rod withdrawal or Core Alterations. This change is acceptable because the requirement that the reactor mode switch refuel position interlocks are Operable whenever control rod withdrawal or Core Alterations are in progress is unchanged. Elimination of the requirement to perform this verification within 24 hours prior to the activity is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed since ITS SR 3.0.4 requires only that a Surveillance be performed within the required Frequency prior to entering the applicable Mode or Condition. The normal 7 day Surveillance Frequency provides adequate assurance that the LCO requirements are satisfied. If any Surveillance has not been performed within this interval; control rod withdrawal and Core Alterations may not be performed. This ensures the requirements are adequately checked prior to and during these activities.

INSERT (NRC RAI 3.9.1-2):

LC.1 SSES CTS 4.9.1.2 requires a Functional Test of the reactor mode switch refuel position interlocks "within 24 hours prior to the start of" and once per 7 days during control rod withdrawal or Core Alterations. SSES ITS eliminates the requirement that verifications be performed "within 24 hours prior to the start of" control rod withdrawal or Core Alterations. This will allow the verification to be performed up to 7 days prior to any control rod withdrawal or Core Alterations. This change is acceptable because the requirement that the reactor mode switch refuel position interlocks are Operable whenever control rod withdrawal or Core Alterations are in progress is unchanged. Elimination of the requirement to perform this verification within 24 hours prior to the activity is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed since ITS SR 3.0.1 requires that SRs must be met during the applicable Mode or other specified condition. The 7 day Surveillance Frequency provides adequate assurance that the LCO requirements are satisfied. If any Surveillance has not been performed within this interval, control rod withdrawal and Core Alterations may not be performed. This ensures the requirements are adequately checked prior to and during these activities.

INSERT (NRC RAI 3.9.2-1):

LC.1 SSES CTS 4.9.1.2 requires a Functional Test of the reactor mode switch refuel position interlocks "within 24 hours prior to the start of" and once per 7 days during control rod withdrawal or Core Alterations. SSES ITS eliminates the requirement that verifications be performed "within 24 hours prior to the start of" control rod withdrawal or Core Alterations. This will allow the verification to be performed up to 7 days prior to any control rod withdrawal or Core Alterations. This change is acceptable because the requirement that the reactor mode switch refuel position interlocks are Operable whenever control rod withdrawal or Core Alterations are in progress is unchanged. Elimination of the requirement to perform this verification within 24 hours prior to the activity is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed since ITS SR 3.0.1 requires that SRS must be met during the applicable Mode or other specified condition. The 7 day Surveillance Frequency provides adequate assurance that the LCO requirements are satisfied. If any Surveillance has not been performed within this interval, control rod withdrawal and Core Alterations may not be performed. This ensures the requirements are adequately checked prior to and during these activities.

NRC RAI 3.9.2-1

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

requirements are satisfied. If any Surveillance has not been performed within this interval, control rod withdrawal and Core Alterations may not be performed. This ensures the requirements are adequately checked prior to and during these activities.

L.1 SSES CTS 3.9.1, Action a, requires suspending Core Alterations and locking the reactor mode switch in the Shutdown or Refuel position if the reactor mode switch is found not locked in the Shutdown or Refuel position. SSES CTS 3.9.1, Action b, requires locking the reactor mode switch in the Shutdown position when the one-rod-out interlock is inoperable. SSES ITS 3.9.2 requires only that the refuel position one-rod-out interlock be Operable; therefore, SSES ITS 3.9.2, Required Actions A.1 and A.2, only requires suspending control rod withdrawal and initiating action to insert all insertable control rods in core cells containing one or more fuel assemblies if the one-rod-out interlock is inoperable. The SSES ITS Required Actions compensate for an inoperable one-rod-out interlock and provide adequate protection against potential reactivity excursions without having to reposition the reactor mode switch (ensuring a scram signal is inserted) and without the requirement that the mode switch be locked in position. Additionally, ensuring that rods are inserted by moving the mode switch to the shutdown position causes an unnecessary pressure transient on the control rod drive system. Therefore, SSES ITS 3.9.2, Required Actions A.1 and A.2, do not result in a reduction in the level of safety when the one-rod-out interlock is determined to be inoperable.

L.2 SSES CTS 4.9.1.2 requires a Functional Test of the reactor mode switch refuel position interlocks every 7 days. SSES ITS 3.9.2.2 maintains this requirement but adds a Note that permits this test to be deferred until one hour after any control rod is withdrawn. This change establishes explicit recognition that a control rod must be withdrawn to properly perform a test of the one-rod-out interlock. The new Note provides an exception to SSES CTS 4.0.4 (SSES ITS SR 3.0.4) which prohibits entry into the Applicability of an LCO unless its required Surveillances are performed. The new Note provides an explicit allowance to enter the LCO's Applicability for a short period of time that is adequate to perform the required Surveillance. This additional time is not significant because there is an implicit assumption that the interlocks are Operable before any rod is withdrawn to perform the test and procedural controls on control rod withdrawals and indications available in the control room are adequate to prevent challenging the one-rod-out interlock for the short period of time required to complete the test.

3.9 REFUELING OPERATIONS

3.9.6 Reactor Pressure Vessel (RPV) Water Level

LCO 3.9.6 RPV water level shall be ≥ 22 ft above the top of the RPV flange.

APPLICABILITY: During movement of irradiated fuel assemblies within the RPV.

During movement of new or irradiated fuel assemblies or handling of control rods within the RPV, when irradiated fuel assemblies are seated within the RPV.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. RPV water level not within limit.	A.1 Suspend movement of fuel assemblies and handling of control rods within the RPV.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.6.1	Verify RPV water level is ≥ 22 ft above the top of the RPV flange.	24 hours

SECTION 3.10 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
3.10.4	Single Control Rod Withdrawal Cold Shutdown					
3.10.4-1	LC.1	CTS 4.9.10.1	CTS 4.9.10.1 requires verifications associated with single control rod removal performed "within 4 hours prior to the start of removal" and at least every 24 hours thereafter. ITS SR 3.10.4 eliminates the verifications performed "within 4 hours prior to the start of removal." Deleting this surveillance requirement is based on reliance on ITS SR 3.0.4, which is not applicable in Mode 4.	NOTE needs to be added making SR 3.0.4 applicable.	All"LC" DOCs will be corrected, consistent to the justification used for WNP-2.	Closed-PP&L will provide revised LC DOC.
3.10.5	Single Control Rod Drive (CRD) Removal Refueling					
3.10.5-1	LC.1	CTS 4.9.10.1	CTS 4.9.10.1 requires verifications associated with single control rod removal "within 4 hours prior to the start of removal" and at least every 24 hours thereafter. ITS SR 3.10.5 eliminates the verifications "within 4 hours prior to the start of removal." Deleting this surveillance requirement is based on reliance on ITS SR 3.0.4, which is not applicable in Mode 5.	NOTE needs to be added making SR 3.0.4 applicable.	All"LC" DOCs will be corrected, consistent to the justification used for WNP-2.	Closed-PP&L will provide revised LC DOC.
3.10.6	Multiple Control Rod Withdrawal Refueling					
3.10.6-1	LC.1	CTS 4.9.10.2.1	CTS 4.9.10.2.1 requires that verifications associated with multiple control rod removal be performed "within 4 hours prior to the start of removal" and at least every 24 hours thereafter. ITS SR 3.10.6 eliminates the requirement that verifications be performed "within 4 hours prior to the start of removal." Deleting this surveillance requirement is based on reliance on ITS SR 3.0.4, which is not applicable in Mode 5.	NOTE needs to be added making SR 3.0.4 applicable.	All"LC" DOCs will be corrected, consistent to the justification used for WNP-2.	Closed-PP&L will provide revised LC DOC.
3.10.8	SHUTDOWN MARGIN (SDM) Test Refueling					
3.10.8-1A	P.2	CTS 4.10.3	Condition C removed, duplicates action A.1	Need to submit TSTF.	Generic Change pending BWROG-19.	Open-TSTF pending (BWROG-19).
3.10.8-2	LC.1	CTS 4.10.3	CTS 4.10.3 requires performance of CTS 4.10.3.b (RWM Operability verification) and 4.10.3.c (verification no CORE ALTERATIONS in progress) "within 30 minutes prior to" as well as every 12 hours during SDM testing. ITS SR 3.10.8.2 requires RWM SRs current during SDM testing. The justification is based on reliance on ITS SR 3.0.4, which is not applicable in MODE 5.	NOTE needs to be added making SR 3.0.4 applicable. (Submit TSTF?)	All"LC" DOCs will be corrected, consistent to the justification used for WNP-2.	Closed-PP&L will provide revised LC DOC.

DISCUSSION OF CHANGES
ITS: SECTION 3.10.4 - Single Control Rod Withdrawal Cold Shutdown

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 3.9.10.1 Actions requires "completion of the movement of the component to a safe conservative position" prior to suspending removal of the control rod or CRD mechanism. SSES ITS 3.10.4 requires that the removal of the control rod or CRD mechanism be suspended but does not specify that the movement can be completed to a safe conservative position. This is acceptable because the stipulation about "completion of the movement of the component to a safe conservative position" does not impact the requirement to suspend the activity. Therefore, this requirement can be adequately defined and controlled in the SSES ITS Bases which require change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to suspend the activity. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.2 SSES CTS 3.9.10.1.d and 4.9.10.1.d specifies that control rod be disarmed and specifies how--"electrically or hydraulically." SSES ITS 3.10.4 require the control rods to be disarmed, but does not specify how they are to be disarmed. This is acceptable because the method of disarming the control rods does not impact the requirement to disarm the control rods. Therefore, these details can be adequately defined and controlled in the SSES ITS Bases which require change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to disarm the control rods. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

Insert

LC.1 ~~SSES CTS 4.9.10.1 requires that verifications associated with single control rod removal be performed "within 4 hours of the start of removal" and at least every 24 hours thereafter. SSES ITS eliminates the requirement that verifications be performed "within 4 hours of the start of removal." This will allow the verification to be performed up to 24 hours prior to the start of withdrawal or removal of the control rod or drive. This change is acceptable because the requirement that the requirements of SSES ITS 3.10.4 be maintained whenever control rods are withdrawn or removed is unchanged. Elimination of the requirement to perform this verification within 4 hours prior to the removal is not significant because the normal periodic Surveillance Frequency is~~

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

~~being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed since ITS SR 3.0.4 requires only that a Surveillance be performed within the required Frequency prior to entering the applicable Mode or condition. The 24 hour Surveillance Frequency provides adequate assurance that the LCO requirements are satisfied. If any Surveillance has not been performed within this interval, control rod withdrawal and CRD removal may not be performed. This ensures the requirements are adequately checked prior to and during control rod withdrawal operations.~~

L.1 SSES ITS 3.10.4, governing control rod withdrawal in Mode 4, allows a new option in place of the requirements for SDM and disarming all control rods five-by-five array if a control rod is withdrawn (but the CRD is not removed) in Mode 4. The alternative requirements are that LCO 3.9.5, Control Rod Operability - Refueling, be met and that the Mode 5 Reactor Protection System Functions to be Operable. Therefore, the new alternative to establishing conditions that ensure a reactivity excursion will not occur is to ensure that if an reactivity excursion does occur, the RPS will initiate a scram and the withdrawn control rod will insert. However, adopting this alternative requires that in addition to the Mode 5 RPS Functions already required by SSES CTS Table 3.3.1-1, SSES ITS 3.10.4 adds the requirement that the scram discharge volume level functions are Operable because this Function is needed to ensure control rods will insert if a scram signal occurs. SSES CTS Table 3.3.1-1, Functions 8.a and 8.b which govern scram discharge volume level functions, although required to be Operable in Mode 5 with any control rod withdrawn, are not required if the control rod is withdrawn in accordance with SSES CTS 3.9.10.1 (or SSES CTS 3.9.10.2) because the RPS Operability option for controlling reactivity excursions during single control rod withdrawal is not permitted in the SSES CTS.

New Surveillances have also been added to perform the applicable SRs for the required LCOs (proposed SR 3.10.4.1) if RPS Functions and control rod Operability requirements are chosen, and to verify every 24 hours that a control rod withdrawal block is inserted (proposed SR 3.10.4.4) if the block is the chosen requirement.

L.2 SSES CTS Table 1.2, Note "***" for Modes 3 and 4, allows the reactor mode switch to be placed in Refuel and a control rod withdrawn in Modes 3 and 4 if the one-rod-out-interlock is Operable. This allowance is intended to permit recoupling a control rod. SSES ITS 3.10.3 and 3.10.4 formally incorporate this allowance and extend it to include any control rod withdrawal--not just to "recouple" a control rod. The allowance is acceptable because reactivity excursions are prevented by a combination of the SDM and the one-rod-out interlock because the SDM will

NRC RAI 3.10.4-1

3.10.4 LC.1 INSERT:

SSES CTS 4.9.10.1 requires that verifications associated with single control rod removal be performed "within 4 hours of the start of removal" and at least every 24 hours thereafter. SSES ITS eliminates the requirement that verifications be performed "within 4 hours of the start of removal." This will allow the verification to be performed up to 24 hours prior to the start of withdrawal or removal of the control rod or drive. This change is acceptable because the requirement that the requirements of SSES ITS 3.10.4 be maintained whenever control rods are withdrawn or removed is unchanged. Elimination of the requirement to perform this verification within 4 hours prior to the removal is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed because ITS SR 3.0.1 requires that SRs must be met during the applicable Mode or other specified condition. The 24 hour Surveillance Frequency provides adequate assurance that the LCO requirements are satisfied. If any Surveillance has not been performed within this interval, control rod withdrawal and CRD removal may not be performed. This ensures the requirements are adequately checked prior to and during control rod withdrawal operations.

NRC RAI 3.10.5-1

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

in the SSES ITS Bases which require change control in accordance with SSES ITS 5.5.10, Bases Control Program. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of facility operation is unaffected by the change because there is no change in the requirement to disarm a control rod. Furthermore, NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LC.1 SSES CTS 4.9.10.1 (a through e) requires that verifications associated with single control rod removal be performed "within 4 hours of the start of removal" and at least every 24 hours thereafter. SSES ITS SRs maintain the frequency of at least every 24 hours but do not include the requirement that verifications be performed "within 4 hours of the start of removal." This will allow the verification to be performed up to 24 hours prior to the start of withdrawal or removal of the control rod or drive. This change is acceptable because the requirement that the requirements of SSES ITS 3.10.4 be maintained whenever control rods are withdrawn or removed is unchanged. Elimination of the requirement to perform this verification within 4 hours prior to the removal is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed since ITS SR 3.0.4 requires only that a Surveillance be performed within the required Frequency prior to entering the applicable Mode or condition. The 24 hour Surveillance Frequency provides adequate assurance that the LCO requirements are satisfied. If any Surveillance has not been performed within this interval, control rod withdrawal and CRD removal may not be performed. This ensures the requirements are adequately checked prior to and during control rod withdrawal operations.

Insert

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.10.5 consistent with the BWR STS, NUREG-1433, Rev. 1.

NRC RAI 3.10.5-1

INSERT 3.10.5 LC.1:

LC.1 SSES CTS 4.9.10.1 (a through e) requires that verifications associated with single control rod removal be performed "within 4 hours of the start of removal" and at least every 24 hours thereafter. SSES ITS SRs maintain the frequency of at least every 24 hours but do not include the requirement that verifications be performed "within 4 hours of the start of removal." This will allow the verification to be performed up to 24 hours prior to the start of withdrawal or removal of the control rod or drive. This change is acceptable because the requirement that the requirements of SSES ITS 3.10.4 be maintained whenever control rods are withdrawn or removed is unchanged. Elimination of the requirement to perform this verification within 4 hours prior to the removal is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed because ITS SR 3.0.1 requires that SRs must be met during the applicable Mode or other specified condition. If any Surveillance has not been performed within this interval, control rod withdrawal and CRD removal may not be performed. This ensures the requirements are adequately checked prior to and during control rod withdrawal operations.

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

LC.1 SSES CTS 4.9.10.2.1 (a through e) requires that verification of requirements for removal of multiple control rods or control rod drives be completed "within 4 hours of the start of removal" and at least every 24 hours thereafter. SSES ITS SR 3.10.6.1 and 3.10.6.2 eliminate the requirement that these verifications be performed "within 4 hours prior to" removal or withdrawal of the first control rod or control rod drive. This will allow the verification to be performed up to 24 hours prior to the start of withdrawal or removal of the control rod or drive. Elimination of the requirement to perform this verification within 4 hours prior to the removal is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed since ITS SR 3.0.4 requires only that a Surveillance be performed within the required Frequency prior to entering the applicable Mode or condition.

Insert

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.10.6 consistent with the BWR STS, NUREG-1433, Rev. 1.

NRC RAI 3.10.6-1

INSERT 3.10.6 LC.1:

LC.1 SSES CTS 4.9.10.2.1 (a through e) requires that verification of requirements for removal of multiple control rods or control rod drives be completed "within 4 hours of the start of removal" and at least every 24 hours thereafter. SSES ITS SR 3.10.6.1 and 3.10.6.2 eliminate the requirement that these verifications be performed "within 4 hours prior to" removal or withdrawal of the first control rod or control rod drive. This will allow the verification to be performed up to 24 hours prior to the start of withdrawal or removal of the control rod or drive. Elimination of the requirement to perform this verification within 4 hours prior to the removal is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed because ITS SR 3.0.1 requires that SRs must be met during the applicable Mode or other specified condition.

DISCUSSION OF CHANGES
ITS: SECTION 3.10.8 - SHUTDOWN MARGIN (SDM) Test Refueling

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

plant procedures. (The shorting links are not required to be removed if a control rod or CRD is removed under SSES CTS 3.9.10.1 or 3.9.10.2 because the scram protection provided by removing shorting links is not effective if control rods or CRDs are removed.) The relocation to the TRM of requirements to "remove RPS shorting links" is withdrawn while in Mode 5 is acceptable because scram function provided by the "shorting links" is not the primary mechanism for preventing a reactivity excursion when control rods are withdrawn while in Mode 5. If a single control rod is withdrawn, the one-rod-out interlock and SDM are sufficient to prevent a reactivity excursion. Additionally, the RPS Functions 1.a, 2.a and 2.d, coupled with requirements that the withdrawn control rod are Operable provide backup scram protection. If multiple control rods are withdrawn in Mode 5 for SDM testing, protection from reactivity excursions is provided by requirements that either the RWM or a second qualified person limits the control rod pattern to that necessary to perform the SDM test. Because of the reliability of SDM calculations, enforcement of the rod pattern consistent with these calculations provides a high degree of protection against a reactivity excursion. Additional protection is provided by limiting the rate of reactivity addition by requiring that SDM test rod withdrawals are performed using "notch out mode." Finally, the RPS Functions 2.a and 2.d, coupled with requirements that the withdrawn control rods are Operable (coupled and charging header pressure available) provide backup scram protection. Therefore, moving requirements for removal of shorting links to plant procedures has no impact on safety.

LC.1 SSES CTS 4.10.3 requires performance of SSES CTS 4.10.3.b (RWM Operability verification) and 4.10.3.c (verification no Core Alterations in progress) "within 30 minutes prior to" as well as every 12 hours during SDM testing. SSES CTS 4.10.3.b (RWM Operability verification) is replaced by SSES ITS SR 3.10.8.2 which requires that RWM SRs are current during SDM testing. SSES ITS SR 3.10.8.2 provides assurance of RWM Operability that is equivalent to SSES CTS 4.10.3.b because SSES CTS 4.10.3.b could be performed by an administrative check within 30 minutes prior to initiation of SDM testing that the applicable RWM SRs have been accomplished within the required frequency. Requiring that this type of administrative check be performed within 30 minutes prior to the start of an activity provides no additional assurance that requirements are satisfied. I

SSES CTS 4.10.3.c (verification of no Core Alterations in progress) is replaced by SSES ITS SR 3.10.8.4 which eliminates the requirement that the verification of no Core Alterations in progress be completed "within 30 minutes prior to" SDM testing

NRC RAI 3.10.8.2

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

~~during SDM testing is unchanged. Elimination of the requirement to perform this verification within 30 minutes prior to the SDM test is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed since ITS SR 3.0.4 requires only that a Surveillance be performed within the required Frequency prior to entering the applicable Mode or condition.~~

L.1 SSES CTS 3.1.3.6.b (uncoupled rod in Mode 5) specifies that a uncoupled control rod be fully inserted and disarmed within 2 hours. SSES ITS 3.10.8, Actions A and C, allow 3 hours to insert and an additional 1 hour to disarm an uncoupled control rod while in Mode 5. The new Completion Times are based on operating experience and recognize the amount of time required to attempt recoupling and/or insert and disarm the control rod if the recoupling is not successful. An uncoupled control rod during SDM testing in Mode 5 could be very significant because of the potential for a control rod drop accident when the rod sequence creates the potential for very high control rod worths. Therefore, CRDA analyses assume that the reactor operator follows prescribed withdrawal sequences. However, for some sequences developed for the SDM testing, the control rod patterns assumed in the safety analyses for a CRDA in Mode 2 may not be met. Therefore, special CRDA analyses, performed in accordance with an NRC approved methodology, are required to demonstrate the SDM test sequence will not result in unacceptable consequences should a CRDA occur during SDM testing while in Mode 5. This combination of the low probability of a CRDA during the short time period that the uncoupled rod is withdrawn and special rod sequences that limit control rod worth to acceptable levels make this change acceptable.

TECHNICAL SPECIFICATION BASES

The Bases of the SSES CTS for this Specification have been replaced by Bases that reflect the format and applicable content of SSES ITS 3.10.8 consistent with the BWR STS, NUREG-1433, Rev. 1.

NRC RAI 3.10.8-2.

INSERT 3.10.8 LC.1:

LC.1 SSES CTS 4.10.3 requires performance of SSES CTS 4.10.3.b (RWM Operability verification) and 4.10.3.c (verification no Core Alterations in progress) "within 30 minutes prior to" as well as every 12 hours during SDM testing. SSES CTS 4.10.3.b (RWM Operability verification) is replaced by SSES ITS SR 3.10.8.2 which requires that RWM SRs are current during SDM testing. SSES ITS SR 3.10.8.2 provides assurance of RWM Operability that is equivalent to SSES CTS 4.10.3.b because SSES CTS 4.10.3.b could be performed by an administrative check within 30 minutes prior to initiation of SDM testing that the applicable RWM SRs have been accomplished within the required Frequency. Requiring that this type of administrative check be performed within 30 minutes prior to the start of an activity provides no additional assurance that requirements are satisfied.

SSES CTS 4.10.3.c (verification of no Core Alterations in progress) is replaced by SSES ITS SR 3.10.8.4 which eliminates the requirement that the verification of no Core Alterations in progress be completed "within 30 minutes prior to" SDM testing. This will allow the verification to be performed up to 12 hours prior to the start of SDM testing. This change is acceptable because the requirement that no Core Alterations are in progress during SDM testing is unchanged. Elimination of the requirement to perform this verification within 30 minutes prior to the SDM test is not significant because the normal periodic Surveillance Frequency is established to provide adequate assurance that requirements are being met. . If the Surveillance has been performed within the normal specified interval, reliance on the results is allowed because ITS SR 3.0.1 requires that SRs must be met during the applicable Mode or other specified condition.

SECTION 4.0 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
4.0	DESIGN FEATURES					
4.0-01	LA.1 P.1	CTS 5.3.1 ITS 4.2.1	CTS 5.3.1 second to last sentence to last sentence, "Each fuel rod shall have a nominal active fuel length of 150 inches." Is indicated removed, although, this requirement is included in ITS 4.2.1. The sentence is removed from the CTS and then added to the ITS.	3/6/97 Correct the markup, the ITS, and LA.2 as applicable.	CTS M/U page 5-6 will be corrected to eliminate LA.2 and deletion of statement.	Closed-PP&L will provide revised CTS M/U.
4.0-02	None	CTS 5.3.1	CTS 5.3.1 last sentence, "Reload fuel shall have a maximum average enrichment of 4.0 weight percent U-235." Is not indicated to be removed but is not included in the ITS 4.2.1.	3/6/97 Provide discussion and justification for this change.	CTS M/U will be corrected.	Closed-PP&L will provide revised CTS M/U.
4.0-3	None	CTS 5.6.1.1	A new requirement is added to ITS 4.3 Fuel storage, as 4.3.2.1 that addresses "new fuel storage racks." ITS 4.3.1.2 requires new fuel storage racks designed and maintained with keff <= 0.95 and 7.0 inch center to center distance between assemblies. There is no discussion or justification for the More Restrictive change.	3/6/97 Provide discussion and justification for this change.	CTS M/U page 5-7 will be modified and new M.x DOC written.	Closed-PP&L will provide revised CTS M/U and M/U of DOC.

NRC RAI -540-01
4.0-02

Chapter 4.0

A.1

~~5.3~~ REACTOR CORE

4.2.1 FUEL ASSEMBLIES

~~5.3.1~~ The reactor core shall contain 764 fuel assemblies. Each assembly consists of a matrix of Zircaloy clad fuel rods with an initial composition of non-enriched or slightly enriched uranium dioxide as fuel material and water rods. Limited substitutions of Zirconium alloy filler rods for fuel rods, in accordance with NRC-approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with applicable NRC staff-approved codes and methods, and shown by test or analyses to comply with all fuel safety design bases. A limited number of lead use assemblies that have not completed representative testing may be placed in non-limiting core regions. Each fuel rod shall have a nominal active fuel length of 150 inches. Reload fuel shall have a maximum average enrichment of 4.0 weight percent U-235.

4.3.1.1.a
4.3.1.2.a

LA.2

"Retore statement"

CONTROL ROD ASSEMBLIES

4.2.2 ~~5.3.2~~ The reactor core shall contain 185 cruciform shaped control rod assemblies. The control material shall be boron carbide powder (B_4C), and/or Hafnium metal. The control rod shall have a nominal axial absorber length of 143 inches. Control rod assemblies shall be limited to those control rod designs approved by the NRC for use in BWRs.

LA.2

~~5.4 REACTOR COOLANT SYSTEM~~

~~DESIGN PRESSURE AND TEMPERATURE~~

~~5.4.1 The reactor coolant system is designed and shall be maintained:~~

~~a. In accordance with the code requirements specified in Section 5.2 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements,~~

~~b. For a pressure of:~~

~~1. 1250 psig on the suction side of the recirculation pumps.~~

~~2. 1500 psig from the recirculation pump discharge to the jet pumps.~~

~~c. For a temperature of 575°F.~~

LA.2

~~VOLUME~~

~~5.4.2 The total water and steam volume of the reactor vessel and recirculation system is approximately 22,400 cubic feet at a nominal T_{ave} of 532°F.~~

NRC RAI 4.0-03
Chapter 4.0
(see Doc 4.0 unless indicated)
Specification 5.5

A.1

5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be located as shown on Figure 5.1.1-1. LA.3

4.3 ~~5.6~~ FUEL STORAGE

4.3.1 CRITICALITY

~~5.6.1.1~~ The spent fuel storage racks and new fuel racks are designed and shall be maintained with: M.1

4.3.1.1.b ~~a.~~ A k_{eff} equivalent to less than or equal to 0.95 when flooded with unborated water, which includes all calculational biases and uncertainties as described in Section 9.1.2 of the FSAR.

4.3.1.1.c ~~b.~~ A nominal 6.625 inch center-to-center distance between fuel assemblies placed in the storage racks.

~~5.6.1.2 The k_{eff} for new fuel for the first core loading stored dry in the spent fuel storage racks shall not exceed 0.98 when aqueous foam moderation is assumed.~~ A.2

4.3.2 DRAINAGE

5.6.2 The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 816'9".

CAPACITY

4.3.3.1 ~~5.6.3.1~~ The spent fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 2840 fuel assemblies.

4.3.3.2 ~~5.6.3.2~~ A multi-purpose storage rack may be used to store up to 10 sound and/or defective fuel assemblies and/or other reactor internals.

5.5.5 5.7 COMPONENT CYCLIC OR TRANSIENT LIMIT

5.7.1 The components identified in Table 5.7.1-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.7.1-1. LA.7

5.5 Doc

NRC RAI 4.0-03

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 CTS 5.6.1.2 includes the requirement that the keff for new fuel for the first core loading stored dry in the spent fuel storage racks shall not exceed 0.98 when aqueous foam moderation is assumed. This requirement is no longer applicable because the first core loading was completed. Therefore, this requirement is deleted.

TECHNICAL CHANGES - MORE RESTRICTIVE

None ← Insert M.1

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 5.1.3 and associated Maps (Figure 5.1.3-1a and 5.1.3-1b) provide information regarding Unrestricted Area for radioactive gaseous and liquid effluents that is not contained in the SSES ITS because it does not meet the criteria in 10 CFR 50.36(c)(4) for inclusion in the Technical Specifications as a Design Feature. The specific boundary for the Unrestricted Area is detailed in the FSAR, Section 2.1.1.3. This requirement can be adequately defined and controlled in plant controlled documents. The level of safety of facility operation is unaffected by the change because there is no change in the requirements. NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive change with no impact on safety.

LA.2 SSES CTS 5.2, Containment, SSES CTS 5.3.1, Fuel Assemblies, SSES CTS 5.3.2, Control Rod Assemblies, and SSES CTS 5.4, Reactor Coolant System, include design information that is contained in the SSES FSAR and is not included in the SSES ITS. Sufficient detail relating to these features exists in LCOs to ensure any changes which may affect safety would require prior NRC review and approval. Therefore, removing these details from the Technical Specifications, while maintaining the detail in the FSAR, will not impact safe operation of the facility. This design information can be adequately defined and controlled in the FSAR which require change control in accordance with 10 CFR 50.59. This approach provides an effective level of regulatory control and provides for a more appropriate change control process. The level of safety of

INSERT (NRC RAI 4.0-03):

M.1 SSES CTS 5.6.1.1 identifies the requirements for the spent fuel storage racks. SSES ITS 4.3.1 identifies the criticality requirements for the spent fuel storage racks and the new fuel racks. This change simply delineates the requirements for these racks in the SSES ITS. Therefore, this more restrictive change will have no negative impact on safety.

SECTION 5.0 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
5.1	Responsibility					
5.1-1	LA.1	CTS Table 6.2.2-1 Notation	CTS Table 6.2.2-1 Notation defines the requirements for shift manning and requires during any absence of the Shift Supervisor from the control room in MODES 1, 2, or 3, an individual "other than the Shift Technical Advisor" (STA) with a valid Senior Operator license shall be designated to assume the function.ITS 5.1.2 deletes the exception to the STA, but requires "an individual with an active Senior Reactor Operator (SRO) license" be designated to assume the Control Room Command function in MODES 1, 2, or 3 and a SRO license or Reactor Operator license in MODES 4 or 5.The discussion and justification state that the STA restriction is controlled and defined in plant procedures. The specific plant procedure is not identified. Deleting the exception to the STA is not adequately discussed or justified.	Identify the specific plant procedure and how the procedure is controlled. Provide additional discussion and justification for chang, if procedures to include change.	Commitment will be made that procedures will be controlled by 10 CFR 50.59.	Closed.

SECTION 5.0 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
5.2	Organization					
5.2-1	None	CTS 6.2.1.a	CTS 6.2.1.a identifies the specific section of the FSAR (Section 13.1) where the lines or authority, responsibility, and communication will be documented.ITS 5.2.1.a only identifies the FSAR.There is no discussion or justification for the removal of detail.	Provide discussion and justification for removing specific FSAR paragraph.	This change is considered to be covered by DOC A.1 which is adopting of NUREG format.	Closed.
5.2-2	P.2	STS 5.2.2.b	STS 5.2.2.b was modified to add the statement "This individual may be qualified on both units and serving in this capacity on both units."There is inadequate discussion and justification for this STS deviation.	Provide additional justification. Statement is in conflict with 10 CFR 50.54(m) table and requirements.	Current Licensing Basis.	Closed
5.2-3	LA.3	CTS Table 6.2.2-1 Notation	CTS Table 6.2.2-1 Notation prohibits any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent. This requirement is not maintained in ITS 5.2.There is no discussion and justification for this removal of detail.	Provide discussion and justification for the Less Restrictive change.	See CTS M/U page 6-5 and 5.2 DOC LA.3.	Closed
5.2-5	LA.1	CTS 6.2.3	CTS 6.2.2.e and Footnote requires an onsite Fire Brigade of at least 5 members which does not include the SS or 2 other members of the minimum shift crew necessary for a safe shutdown.This requirement is not retained in ITS 5.2.There is no discussion or justification for the removal of detail. The deletion is annotated with TSCR-95-009.	Provide discussion and justification for the Less Restrictive Change.	If TSCR is completed prior to ITS, no additional DOC required.	Closed
5.2-5	LA.1	CTS 6.2.3	CTS 6.2.3 states functions, composition, responsibilities, and authority requirements of the Nuclear Safety Assessment Group (NSAG).These requirements are not retained in ITS 5.2.This requirement is being moved to the Technical Requirements Manual (TRM).	Move CTS 6.2.3 NSAG requirements to the QA Program.	DOC LA.1 will identify relocation to the QA Program.	Closed

SECTION 5.0 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
5.4	Procedures					
5.4-1	LA.1		CTS 6.8.2 and 6.8.3 states the procedure review and approval requirements and temporary changes to procedure requirements.These requirements are not retained in ITS 5.4.This requirement is being moved to the Technical Requirements Manual (TRM).	Review and Audit Requirements are to be moved to the QA Program.	DOC LA.1 will identify relocation to the QA Program.	Closed
5.4-2A	LA.3	CTS 6.10	Record Retention is moved to TRM.	Record retention requirements are to be moved to QA Program.	DOC LA.3 will identify relocation to the QA Program.	Closed
5.4-3A	LA.5	CTS 6.8.1 d & e	PCP change control process and requirements to be moved to plant procedures.	PCP requirements to be moved to QA Program.	PP&L will review and determine whether the change control process for the PCP should be controlled via the QA Program.	Closed-PP&L will incorporate this requirement in the QA Manual.
5.4-4A	LA.2	CTS 6.8.1 d & e	Emergency Plan and Security Plan implementation procedures to be deleted (duplicate requirements)	Emergency & Security Plan implementation procedures to be relocated to respective plan.	DOC LA.2 will identify relocation to the appropriate plan.	Closed

SECTION 5.0 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
5.5	Programs and Manual (General)					
5.5-10A	P.1	CTS 6.14.2 & STS 5.5.1	CTS 6.14.2.c requires that ODCM changes be reviewed and approved by the PORC and the Manager-Nuclear Technology.STS 5.5.1 requires that ODCM changes be reviewed and approved by the [onsite review function] and the [Plant Superintendent].The ITS only requires review and approval by the Plant Manager-Susquehanna SES.	Provide justification for this beyond scope change.	NUREG convention. Except in this location NUREG does not include onsite review function. Therefore, to ensure consistency all onsite review functions were eliminated.	Closed
5.5-11A	None	CTS 6.8.4.c	CTS 6.8.4.c requires post accident sampling for radioactive "Iodines" and particulates in plant gaseous effluents.ITS 5.5.3 requires post accident sampling for radioactive "gases" and particulates in plant gaseous effluents.Iodine is just one of the gases and as such this is a More Restrictive change because all gases must be sampled.	Provide discussion and justification for the More Restrictive change.	SSES current practice is to sample all gases. Therefore, no change in plant practice.	Closed
5.5-1A	A.3, P.5, M.3 LA.8	CTS 4.8.1.1.2 &.3	The CTS and the STS provide references to specific ASTM 2D fuel oil requirements, referencing ASTM D-2276. These references are not retained in ITS 5.5.9, ("anticipating approval of pending changes").	Provide additional discussion and justification for the CTS change, or retain ASTM reference.	As stated, standards are being relocated to minimize future changes and regulatory burden in anticipation of changes in future testing standards. Review by PP&L determined that the new standard is not immediately available. Therefore, PP&L will provide revised SSES ITS to identify standard.	Closed-PP&L to provide markup of SSES ITS with applicable standards incorporated.
5.5-2A	A.9 P.3	CTS 3.11.1.4 and 3.11.2.6 and STS 5.5.1	CTS 3.11.1.4 governs radioactive material in any outside temporary tanks and CTS 3.11.2.6 governs the concentration of hydrogen and oxygen in main condenser offgas treatment system.ITS 5.5.8.b controls the quantity of radioactivity contained in unprotected outdoor liquid storage tanks and controls for potentially explosive gas.The program does not address the methodology followed in determining radioactive/radwaste quantities (not included per STS).	Provide methodology utilized in determining radioactive/radwaste quantities, as required by ITS.	SSES ITS 5.5.8 description will be revised to include methodology description.	Closed-PP&L will provide M/U of SSES ITS.
5.5-6A	LA.4	CTS 4.7.2.d.2	CTS 4.6.5.3.b.1, 4.6.5.3.c, 4.7.2.b.2, and 4.7.2.c state within 31 days after removal. This requirement is not retained in ITS 5.5.7.The discussion and justification do not address this change.	Provide additional discussion and justification for this Less Restrictive change.	See NUREG M/U pages 5.0-11 to 5.0-13. NUREG does not include this level of detail. Therefore, consistent with NUREG relocated testing detail.	Closed

SECTION 5.0 NRC RAIs -- SSES Improved Technical Specifications

ITEM #:	DOC/JFD:	TS LCO:	DESCRIPTION OF ISSUE:	NRC COMMENTS:	SSES RESOLUTION:	STATUS
5.5-7A	None	CTS 4.7.2.d.2	CTS 4.7.2.d.2 requires verification that on an isolation MODE actuation test signal the system switches...This requirement is not retained in ITS 5.5.7.The justification for the removal of detail is TSCR 95012.	Acceptance of this change is contingent upon NRC approval of TSCR 95012. NRC hoas not seen as TSTF yet.	TSCR will change requirement.	Closed
5.5-8A	P.6	CTS 6.8.5	CTS 6.8.5, Primary Containment Leakage Rate Testing Program, is a new requirement with no discussion or justification for the More Restrictive change.TSTF-52 (WOG-42) & TSCR 96-003 is used as justification for the change.	Acceptance of this change is contingent upon NRC approval of TSTF-52. NRC has not yet approved TSTF-52.	Current licensing basis. TSTF-52 has been reviewed, see NRC RAI 3.6.1.1-1 for changes to be incorporated into SSES ITS.	Closed-See NRC RAI 3.6.1.1-1 for final changes.
5.5-9A	M.1	CTS 6.14.2	CTS 6.14.2 identifies two "inserts" that should be included. The inserts are 5.5-1 and 5.5-2 respectively.	Provide the inserts for incorporation in the CTS.	Inserts will be provided.	Closed-PP&L will provide inserts.
5.6	Reporting Requirements					
5.6-1	None	CTS Table 3.3.7.5-1 Action 81	CTS Table 3.3.7.5-1 ACTION 81 requires preparing and submitting a special report outlining the action taken. ITS 5.6.7 requires preparing and submitting a special report outlining the preplanned alternate method of monitoring.There is no discussion of justification for the change.	Provide discussion and justification for the change.	DOCs will be revised to address change in the requirement.	Closed-PP&L will provide revised CTS M/U and M/U of DOC.
5.6-2	None	CTS 6.9.3.2.1.9 and STS 5.6.5	CTS 6.9.3.2.19, PL-NF-84-005-P-A, "Technical Basis for SPC 9x9-2 Extended Fuel Exposure at Susquehanna SES," January, 1995 has been deleted from the ITS without discussion or justification.	Closed-Provide discussion and justification for the removal of detail change. NRC reviewing COLR references.	The change was made to reflect the documents which will be in affect at the time of implementation. SSES CTS has been revised to reflect this change. The final submittal of SSES ITS conversion package will contain the appropriate documents which will be consistent with the revised SSES CTS. Therefore, no additional changes are required.	Open-PP&L will provide references with revision 0B submittal.

NRC RAI 5.2-05

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 The STA requirements of SSES CTS 6.3 are modified to reference the Commission Policy Statement on Engineering Expertise on Shift in SSES ITS 5.2. Since the policy statement encompasses the current requirements, this change is administrative with no impact on safety.

A.3 The SSES CTS Table 6.2.2-1 does not permit minimum shift crew composition to be one less than the minimum requirement if the Shift Supervisor is the person missing from the minimum requirements. This allowance is eliminated because it cannot be enforced. The only time this exception would apply is if a member of the shift crew became seriously ill or incapacitated while on shift. If the Shift Supervisor became incapacitated, the exception would not be enforced if it would prevent the Shift Supervisor from receiving appropriate attention. The second SRO on shift would assume the duties of the Shift Supervisor. Because this exception is unenforceable, this change is administrative with no impact on safety.

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES CTS 6.2.2.f, governing working hours, adds the requirement that any deviations must be authorized by the appropriate level of management. SSES ITS 6.2.2.e adds the requirement that the approval must be in advance of any deviation, and thus, is a more restrictive change with no negative impact on safety.

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 6.2.3 Nuclear Safety Assessment Group (NSAG) requirements are being moved to the ~~Technical Requirements Manual.~~ Program Requirements for the NSAG Group are not necessary to ensure the safe operation of the facility and therefore, are not required to be retained in the SSES ITS. These requirements can be adequately defined and controlled in ~~plant documents~~ the QA Manual Program. The level of safety of facility operation is unaffected by the change because there is no change in the requirements. NRC and PP&L resources associated with processing license amendments to these requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

NRC RAI 5.4-02

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specifications (ITS) development certain wording preferences or conventions are adopted which resulted in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with the Boiling Water Reactor (BWR) Standard Technical Specifications (STS) NUREG-1433, Rev. 1.

A.2 The procedures required by SSES CTS 6.8.1.b, 6.8.1.c, and 6.8.1.g are also required by SSES CTS 6.8.1.a (SSES ITS 5.4.1.a) which references Regulatory Guide 1.33. Therefore, it is not necessary to identify each type of procedure. Since the requirements are not changed, this is an administrative change with no impact on safety.

A.3 SSES CTS 6.8.1.h requires written procedures for ODCM implementation. SSES ITS 5.4.1.e requires written procedures for all Programs and Manuals. Therefore, it is not necessary to specifically identify each program. Since the requirement remains, this is an administrative change with no impact on safety.

TECHNICAL CHANGES - MORE RESTRICTIVE

M.1 SSES ITS 5.4.1.e is added to define the procedural requirements for SSES ITS Specification 5.5 programs. SSES ITS 5.5 contains twelve programs that require procedures to be implemented and maintained. This is an additional restriction on plant operation in that these procedural requirements become Technical Specifications requirements. The addition of procedural requirements for programs has no negative impact on safety.

M.2 SSES ITS 5.4.1.b is added so that the emergency operating procedures required by NUREG-0737 and NUREG-0737, Supplement 1, have written procedures. These written procedures are required to be implemented and maintained. This is an additional restriction on plant operation in that the requirement for procedures is a Technical Specification requirement. The addition of procedural requirements for emergency operating procedures has no negative impact on safety.

TECHNICAL CHANGES - LESS RESTRICTIVE

LA.1 SSES CTS 6.8.2 and 6.8.3, procedure review and approval requirements and temporary changes to procedure requirements, are moved to the ~~Technical Requirements Manual~~ QA Manual Program. Defining the requirements for the procedure review and approval and temporary changes are not necessary to ensure the safe operation of the

TECHNICAL CHANGES - LESS RESTRICTIVE (continued)

facility and therefore, are not required to be retained in the SSES ITS. These requirements can be adequately defined and controlled in ~~plant documents~~ the QA Manual Program. The level of safety of facility operation is unaffected by the change because there is no change in the requirements. Furthermore, NRC and PP&L resources associated with processing license amendments to these Administrative Control requirements will be reduced. This change is a less restrictive administrative change with no impact on safety.

LA.2 SSES CTS 6.8.1.d and 6.8.1.e require procedures to implement the Emergency Plan and the Security Plan. These procedures are required by 10 CFR 50, Appendix E and 10 CFR 50.54(p). Since conformance with 10 CFR Chapter I is a license condition and the Emergency Plan, Security Plan, Fire Protection Program, and QA Program are required by 10 CFR Chapter I, specific identification of these plans in SSES ITS is unnecessary duplication. Since the requirements are not changed, this change is a less restrictive administrative change with no impact on safety.

5.5 Programs and Manuals

5.5.8 Explosive Gas and Storage Tank Radioactivity Monitoring Program (continued)

surveillance program to ensure the limits are maintained. Such limits shall be appropriate to the system's design criteria (i.e., whether or not the system is designed to withstand a hydrogen explosion):

b. A surveillance program to ensure that the quantity of radioactivity contained in all outdoor liquid radwaste tanks that are not surrounded by liners, dikes, or walls, capable of holding the tanks' contents and that do not have tank overflows and surrounding area drains connected to the Liquid Radwaste System is less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Explosive Gas and Storage Tank Radioactivity Monitoring Program surveillance frequencies.

5.5.9 Diesel Fuel Oil Testing Program

A diesel fuel oil testing program to implement required testing of both new fuel oil and stored fuel oil shall be established. The program shall include sampling and testing requirements, and acceptance criteria, ~~all in accordance with~~ applicable ASTM Standards. The purpose of the program is to establish the following: (following the guidelines of the)

a. Acceptability of new fuel oil for use prior to addition to storage tanks by determining that the fuel oil has:

1. an API gravity or an absolute specific gravity within limits,

2. a flash point and kinematic viscosity within limits, and

3. a clear and bright appearance or water and sediment content within limits;

(For ASTM 2D fuel oil Required)

b. Other properties specified for new fuel oil are within limits within 31 days following addition to storage tanks; and (of the new fuel oil)

(verify that the properties of the new fuel oil, other than those addressed in a above are within limits for ASTM 2D fuel oil)

(continued)

5.5 Programs and Manuals

5.5.7 Ventilation Filter Test Program (continued)

d. Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters, the prefilters, and the charcoal adsorbers is less than the value specified below when tested at the system flowrate specified below:

ESF Ventilation System	Delta P (inches wg)	Flowrate (cfm)
Standby Gas Treatment System	< 13	9,090 to 11,110
Control Room Emergency Outside Air Supply System	< 9.1	5,229 to 6,391

e. Demonstrate that the temperature differential in the air flow across the heating coils for each of the ESF system is greater than or equal to the value specified below when tested in accordance with ASME N510-1975:

ESF Ventilation System	Delta T (°F)	Flowrate (cfm)
Standby Gas Treatment System	≥ 17	9,090 to 11,110

f. Demonstrate that the heaters for each of the ESF system dissipate the value specified below when tested in accordance with ANSI N510-1975:

ESF Ventilation System	Wattage (kW)
Control Room Emergency Outside Air Supply System	27 to 33

5.5.8 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the Main Condenser Offgas Treatment System and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks. The program shall include:

Insert 5.5-02A

a. The limits for concentrations of hydrogen and oxygen in the Main Condenser Offgas Treatment System and a

(continued)

INSERT (NRC RAI 5.5-2A):

The liquid radwaste quantities shall be determined in accordance with Standard Review Plan, Section 15.7.3, "Postulated Radioactive Release due to Tank Failures".

NRC RAI 5.5-9A

SPECIFICATION 5.5

INSERT 5.5-1

b. The ODCM shall also contain the radioactive effluent controls and radiological environmental monitoring activities and descriptions of the information that should be included in the Annual Radiological Environmental Operating, and Radioactive Effluent Release, reports required by Specification 5.6.2 and 5.6.3. M.1

INSERT 5.5-2

"maintain the levels of radioactive effluent control required by 10 CFR 20.1302, 40 CFR 190, 10 CFR 50.36a, and 10 CFR 50, Appendix I, and" M.1

NRC RAI 3.3.3.1-2
5.6-1
Specification 3.3.3.1
(See DOC 3.3.3.1 unless indic
Specification 5.6

A.1

TABLE 3.3.7.5-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

ACTION STATEMENT

L.1

Add Action E

~~ACTION 80~~ -

Action A ~~a.~~ With the number of OPERABLE accident monitoring instrumentation channels less than the Required Number of Channels shown in Table 3.3.7.5-1, restore the inoperable channel(s) to OPERABLE status within 7 days ~~or be in at least HOT SHUTDOWN within the next 12 hours.~~ 30 L.2

Action C ~~b.~~ With the number of OPERABLE accident monitoring instrumentation channels less than the Minimum Channels OPERABLE requirements of Table 3.3.7.5-1, restore the inoperable channel(s) to OPERABLE status within ~~48 hours~~ 7 days L.2 or be in at least HOT SHUTDOWN within the next 12 hours.

Action E

~~ACTION 81~~ - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours and: 7 days L.6

Action F

Action C

Add Ac A+B

~~1.~~ either restore the inoperable channel(s) to OPERABLE status within 7 days of the event, or

Action F/5.6.7 ~~2.~~ prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.

Preplanned Alternative method of monitoring A.6

~~ACTION 82~~ -

Action A ~~a.~~ With the number of OPERABLE channels one less than the required Number of Channels shown in Table 3.3.7.5-1, restore the inoperable channel to OPERABLE status within 30 days ~~or be in at least HOT SHUTDOWN within the next 12 hours.~~

Add Action B

Action C ~~b.~~ With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirements of Table 3.3.7.5-1, restore at least one channel to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

Action E

L.1

Add Action D A.4

NRC RAI 5.6-01

ADMINISTRATIVE

A.1 During the Susquehanna Steam Electric Station (SSES) Improved Technical Specification (ITS) development certain wording preferences or conventions are adopted which result in no technical changes (either actual or interpretational) to the SSES current Technical Specifications (CTS). Editorial changes and a new numbering system are adopted to make SSES ITS consistent with Boiling Water Reactor (BWR) Standard Technical Specifications (STS), NUREG-1433, Rev 1.

SSES ITS 5.6, "Reporting Requirements," does not use the SSES CTS subtitles "Routine Reports," "Annual Reports," or "Special Reports." The SSES ITS names each individual report rather than grouping reports under subtitles. This change does not change reporting requirements and affects only the format of the Technical Specifications. Therefore, this change is administrative.

A.2 SSES CTS requires reports to be submitted to several offices of the NRC. The SSES ITS requires submittal of reports in accordance with 10 CFR 50.4. The SSES ITS do not need to give report submittal details since this material is subject to change and would require a change to the TS. The SSES ITS reports' submittal requirements are sufficient without including unnecessary details. This change does not impact the technical requirements of the reports and therefore is an administrative change with no impact on safety.

A.3 The initial report requirements in SSES CTS 6.9.1.4 and 6.9.1.8 for the Annual Report are being deleted. This initial report has been submitted on a one-time basis; therefore, the deletion is an administrative change with no impact on safety.

A.4 SSES CTS 6.9.3.1 has cross references to SSES CTS sections which are modified in the SSES ITS. The changes are necessary to ensure the proper SSES ITS sections are referenced. These changes are administrative and have no impact on safety.

A.5 The SSES CTS 6.9.2 requirement to submit special reports within the time period specified for each report is not retained in the SSES ITS. Each special report contains requirements for submittal. This change deletes duplicate requirements in the Technical Specifications and therefore is an administrative change and have no impact on safety.

Insert A.6

TECHNICAL CHANGES - MORE RESTRICTIVE

None

INSERT (NRC RAI 5.6-1):

A.6 SSES CTS Table 3.3.7.5-1 Action 81.2 requires that a Special Report be submitted. . . the action taken. . .". SSES ITS 5.6.7 requires the same actions, but specifically identifies that the report describe the preplanned alternative method of monitoring. The action taken if the normal instruments are not Operable would be an alternative method of monitoring, therefore, this change is an administrative change with no impact on safety.