123 Main Street
White Plains, New York 10601
914 681.6950
914 287.3309 (Fax)

James Knubel
Senior Vice President and
Chief Nuclear Officer

April 27, 2000
JPN-00-010

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, DC 20555

SUBJECT: James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
Proposed Change to Trip Level Settings and Surveillance Test Intervals for Residual Heat Removal and Core Spray Pump Start Interlock Timers and Automatic Depressurization System Auto-Blowdown Timers (JPTS-99-010)

Reference: 1. NYPA letter, J. Knubel to USNRC dated March 31, 1999 (JPN-99-008) regarding "Proposed Technical Specification Change (License Amendment) Conversion to Improved Standard Technical Specifications"

Dear Sir:

This proposed change to the James A. FitzPatrick Nuclear Power Plant (JAF) Technical Specifications changes the Trip Level Settings for the Residual Heat Removal (RHR) and Core Spray (CS) Pump Start Timers as well as the Automatic Depressurization System (ADS) Auto-Blowdown Timer. This proposed change also extends the Logic System Functional Test surveillance test intervals for the RHR, CS and ADS systems from six months to 24 months. This proposed change is consistent with changes proposed in the Authority's application for conversion to Improved Standard Technical Specifications (Reference 1).

The signed original of the Application for Amendment to the Operating License is enclosed for filing. Attachment I contains the proposed new TS pages and Attachment II is the Safety Evaluation for the proposed changes. A markup of the affected TS pages is included as Attachment III.

A copy of this application and the associated attachments are being provided to the designated New York State official in accordance with 10 CFR 50.91.

A001

There are no new commitments made by the Authority in this letter. If you have any questions, please contact Ms. C. D. Faison.

Very truly yours,

J. Knubel
Senior Vice President and
Chief Nuclear Officer

Att: as stated

cc: Regional Administrator
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Office of the Resident Inspector
U. S. Nuclear Regulatory Commission
P.O. Box 136
Lycoming, NY 13093

Mr. G. Vissing, Project Manager
Project Directorate I
Division of Licensing Project Management
U. S. Nuclear Regulatory Commission
Mail Stop OWFN 8C2
Washington, DC 20555

Mr. F. William Valentino, President
New York State Energy Research and Development Authority
Corporate Plaza West
296 Washington Avenue Extension
Albany, NY 12203-6399

BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
NEW YORK POWER AUTHORITY	)	Docket No. 50-333
James A. FitzPatrick Nuclear Power Plant	)	

APPLICATION FOR AMENDMENT TO OPERATING LICENSE

The New York Power Authority requests an amendment to the Technical Specifications (TS) contained in Appendix A and B to Facility Operating License DPR-59 for the James A. FitzPatrick Nuclear Power Plant. This application is filed in accordance with Section 10 CFR 50.90 of the Nuclear Regulatory Commissions regulations.

This proposed change to the James A. FitzPatrick Nuclear Power Plant (JAF) Technical Specifications changes the Trip Level Settings for the RHR and CS Pump Start Timers as well as the ADS Auto-Blowdown Timer. This proposed change also extends the Logic System Functional Test surveillance test intervals for the RHR, CS, and ADS systems from six months to 24 months. This proposed change is consistent with changes proposed in the Authority's application for conversion to Improved Standard Technical Specifications (Reference 1).

The signed original of the Application for Amendment to the Operating License is enclosed for filing. Attachment I contains the proposed new TS pages and Attachment II is the Safety Evaluation for the proposed changes. A markup of the affected TS pages is included as Attachment III.

EILEEN E. O'CONNOR
Notary Public, State of New York
No. 4991062
Qualified in Westchester County
Commission Expires January 21, 2002

STATE OF NEW YORK
COUNTY OF WESTCHESTER
Subscribed and sworn to before me
this 27th day of April 2000.

New York Power Authority

J. Knubel
Senior Vice President and
Chief Nuclear Officer

Attachment I to JPN-00-010

REVISED TECHNICAL SPECIFICATION PAGES

Change to Trip Level Settings and Surveillance Test Intervals for Residual Heat Removal and Core Spray Pump Start Interlock Timers and Automatic Depressurization System Auto-Blowdown Timers

(JPTS-99-010)

New York Power Authority
JAMES A. FITZPATRICK NUCLEAR POWER PLANT
Docket No. 50-333
DPR-59

TABLE 3.2-2 (Cont'd)

CORE AND CONTAINMENT COOLING SYSTEM INITIATION AND CONTROL INSTRUMENTATION OPERABILITY REQUIREMENTS

Item No.	Minimum No. of Operable Instrument Channels Per Trip System	Trip Function	Trip Level Setting	Total Number of Instrument Channels Provided by Design for Both Trip Systems	Remarks
7	1 (Notes 3, 11)	Reactor Low Level	$\geq$ 177 in. above TAF	2	Confirmatory low water level for ADS actuation.
8	2 (Notes 1, 2, 11)	Drywell High Pressure	$\leq$2.7 psig	4	Initiates Core Spray, RHR (LPCI), HPCI and SGTS.
9	2 (Notes 6, 11)	Reactor Low Pressure	$\geq$ 450 psig	4	Permits opening Core Spray and RHR (LPCI) injection valves.
10	1 (Notes 2, 12)	Reactor Low Pressure	50 $\leq$ p $\leq$ 75 psig	2	Permits closure of RHR (LPCI) injection valves while in shutdown cooling in conjunction with PCIS signal.
11	1 (Notes 7, 11)	Core Spray Pump Start Timer (each loop)	11 $\pm$ 1.34 sec.	1 (Note 16)	Initiates starting of core spray pump. (each loop)
12	1 (Notes 7, 11)	RHR (LPCI) Pump Start Timer			
		1st Pump (A Loop)	1.25 $\pm$ 0.26 sec.	1 (Note 16)	Starts 1st Pump (A Loop)
		1st Pump (B Loop)	1.25 $\pm$ 0.26 sec.	1 (Note 16)	Starts 1st Pump (B Loop)
		2nd Pump (A Loop)	6.0 $\pm$ 0.73 sec.	1 (Note 16)	Starts 2nd Pump (A Loop)
		2nd Pump (B Loop)	6.0 $\pm$ 0.73 sec.	1 (Note 16)	Starts 2nd Pump (B Loop)

TABLE 3.2-2 (Cont'd)

CORE AND CONTAINMENT COOLING SYSTEM INITIATION AND CONTROL INSTRUMENTATION OPERABILITY REQUIREMENTS

Item No.	Minimum No. of Operable Instrument Channels Per Trip System	Trip Function	Trip Level Setting	Total Number of Instrument Channels Provided by Design for Both Trip Systems	Remarks
13	1 (Notes 8, 11)	Auto Blowdown Timer	$\leq$ 134 sec.	2	Initiates ADS (if not inhibited by ADS override switches).
14	4 (Notes 8, 11)	RHR (LPCI) Pump Discharge Pressure Interlock	125 psig $\pm$ 20 psig	8	Permits ADS actuation.
15	2 (Notes 8, 11)	Core Spray Pump Discharge Pressure Interlock	100 psig $\pm$ 10 psig	4	Permits ADS actuation.
16	2 (Notes 9, 11)	Condensate Storage Tank Low Level	$\geq$ 59.5 in. above tank bottom (= 15,600 gal. avail)	2 (Note 16)	Transfers RCIC pump suction to suppression chamber.
17	2 (Notes 9, 11)	Condensate Storage Tank Low Level	$\geq$ 59.5 in. above tank bottom (= 15,600 gal. avail)	2 (Note 16)	Transfers HPCI pump suction to suppression chamber.
18	2 (Notes 9, 11)	Suppression Chamber High Level	$\leq$ 6 in. above normal level	2 (Note 16)	Transfers HPCI pump suction to suppression chamber.

TABLE 4.2-2 (Cont'd)

CORE AND CONTAINMENT COOLING SYSTEM INSTRUMENTATION TEST AND CALIBRATION REQUIREMENTS

	Logic System Functional Test	Frequency
1)	Core Spray Subsystem	R (Notes 7 & 9)
2)	Low Pressure Coolant Injection Subsystem	R (Notes 7 & 9)
3)	Containment Cooling Subsystem	R
4)	HPCI Subsystem	R (Notes 7 & 9)
5)	ADS Subsystem	R (Notes 7 & 9)

NOTE: See notes following Table 4.2-5.

Attachment II to JPN-00-010

SAFETY EVALUATION

Change to Trip Level Settings and Surveillance Test Intervals for Residual Heat Removal and Core Spray Pump Start Interlock Timers and Automatic Depressurization System Auto-Blowdown Timers

(JPTS-99-010)

New York Power Authority
JAMES A. FITZPATRICK NUCLEAR POWER PLANT
Docket No. 50-333
DPR-59

SAFETY EVALUATION

I. DESCRIPTION

This proposed change to the James A. FitzPatrick Nuclear Power Plant (JAF) Technical Specifications changes the Trip Level Settings for the Residual Heat Removal (RHR) and Core Spray (CS) Pump Start Timers as well as the ADS Auto-Blowdown Timer. This proposed change also extends the Logic System Functional Test surveillance test intervals for the RHR, CS, and ADS systems from six months to 24 months. This proposed change is consistent with changes proposed in the Authority's application for conversion to Improved Standard Technical Specifications (Reference 3).

The specific changes proposed are as follows:

TABLE 3.2-2, CORE AND CONTAINMENT COOLING SYSTEM INITIATION AND CONTROL INSTRUMENTATION OPERABILITY REQUIREMENTS

Change From:

Item No.	Trip Function	Trip Level Setting
11	Core Spray Pump Start Timer (each loop)	11 $\pm$ 0.6 sec.
12	RHR (LPCI) Pump Start Timer	
	1st Pump (A Loop)	1.0 + 0.5 (-) 0 sec.
	1st Pump (B Loop)	1.0 + 0.5 (-) 0 sec.
	2nd Pump (A Loop)	6.0 $\pm$ 0.5 sec.
	2nd Pump (B Loop)	6.0 $\pm$ 0.5 sec.
13	Auto Blowdown Timer	120 sec. $\pm$ 5 sec.

Change To:

Item	Trip Function	Trip Level Setting
11	Core Spray Pump Start Timer (each loop)	11 $\pm$ 1.34 sec.
12	RHR (LPCI) Pump Start Timer	
	1st Pump (A Loop)	1.25 $\pm$ 0.26 sec.
	1st Pump (B Loop)	1.25 $\pm$ 0.26 sec.
	2nd Pump (A Loop)	6.0 $\pm$ 0.73 sec.
	2nd Pump (B Loop)	6.0 $\pm$ 0.73 sec.
13	Auto Blowdown Timer	$\leq$134 sec.

SAFETY EVALUATION

TABLE 4.2-2, CORE AND CONTAINMENT COOLING SYSTEM INSTRUMENTATION TEST AND CALIBRATION REQUIREMENTS

Change From

	Logic System Functional Test	**Frequency**
1)	Core Spray Subsystem	SA (Notes 7&9)
2)	Low Pressure Coolant Injection	SA (Notes 7&9)
.....	.....	.....
5)	ADS Subsystem	SA (Notes 7&9)

Change To

	Logic System Functional Test	**Frequency**
1)	Core Spray Subsystem	R (Notes 7&9)
2)	Low Pressure Coolant Injection	R (Notes 7&9)
.....	.....	.....
5)	ADS Subsystem	R (Notes 7&9)

Note that in the Frequency column:

- An "SA" designation corresponds to an interval of "Semiannually or every 6 months" with a frequency of "At least once per 184 days" as defined by Section 1.0.T., "Definitions" of the FitzPatrick Technical Specifications.

- An "R" designation corresponds to an interval of "Operating Cycle" with a frequency of "At least once per 24 months (731 days)" as defined by Section 1.0.T., "Definitions" of the FitzPatrick Technical Specifications.

II. PURPOSE OF THE PROPOSED CHANGE

FitzPatrick has experienced surveillance test failures due to as-found out-of-tolerance conditions for the RHR and CS pump start timers. As corrective action for these surveillance test failures, a very narrow as-left tolerance band has been established for these timers. Calibrating these timers in accordance with this new tolerance band presents field technicians with a considerable challenge due to the physical resolution of the hardware involved. Licensee Event Report 99-007-01 (Reference 1) describes this condition in greater detail.

The long-term corrective action to the these surveillance test failures is to increase the tolerance limit for the RHR and CS pump start timers specified in Table 3.2-2 of the FitzPatrick Technical Specifications. Increasing the tolerance limit in the Technical Specifications allows a wider, more achievable, as-left calibration

tolerance band for field technicians.

Analysis (Reference 2) performed to support the Authority's application for approval of Improved Technical Specifications (Reference 3) has determined that, given the channel uncertainties inherent in the RHR and CS pump start timer circuits, the Trip Level Settings and calibration interval can be revised as described above.

Additional analysis (Reference 4) performed to support the Authority's application for approval of Improved Technical Specifications (Reference 3) has determined that, given the channel uncertainties inherent in the ADS interlock timer circuits, the Trip Level Settings and calibration interval can also be revised as described above.

Revising the Trip Level Setting for these timer relays as described above will result in a wider, more achievable, as-left calibration tolerance band for field technicians and will significantly reduce the frequency of these "high risk" surveillance tests from once every six months to once-per-cycle.

III. SAFETY IMPLICATIONS OF THE PROPOSED CHANGE

The RHR and CS pump start interlock timers function to:

- Ensure that the RHR and CS pumps (large 4KV loads) are started sequentially so, that under a Loss of Offsite Power (LOOP) scenario concurrent with the design basis Loss-of-Coolant Accident (LOCA), the Emergency Diesel Generators (EDG) are not overloaded.

- Ensure that the RHR and CS pumps achieve rated speed/flow within the time period assumed in the FitzPatrick LOCA analysis (Reference 5).

The Reference 2 uncertainty analysis for the RHR and CS pump start interlock timers assumed a Voltage and Frequency recovery time which envelopes the maximum allowable recovery time after motor loading as specified in Table 16.3-7 of the FitzPatrick UFSAR (Reference 6). The proposed Trip Setting values for these relays therefore account for this critical function. Accounting for voltage/frequency recovery time due to motor loading in this manner ensures the EDGs will not be overloaded under design basis LOCA/LOOP conditions.

Reference 2 also identifies an analytic limit for the maximum allowable time from initiating signal to all [RHR and CS] pumps up to speed and capable of rated flow with emergency diesel power of $\leq$ 30 seconds. Reference 2 used the FitzPatrick LOCA analysis (Reference 5) as the basis for establishing this analytic limit.

The upper and lower limits for the Trip Level Settings established in Reference 2 are based on the calculated 24-month drift uncertainty to allow the surveillance interval to be extended to 24 months. The calculated 24-month drift uncertainty is based on in-situ plant data (Reference 7).

The ADS interlock timers function to:

- Delay depressurization of the Reactor Pressure Vessel (RPV) long enough to allow the High Pressure Coolant Injection (HPCI) system time to maintain RPV water level.

- After the appropriate time delay, initiate ADS to depressurize the RPV and allow low-pressure Emergency Core Cooling Systems (ECCS) (RHR &CS) to inject to maintain RPV water level.

Reference 4 identifies an analytic limit for the maximum allowable time from initiating signal to the time the ADS system depressurizes the RPV of $\leq$ 140 seconds. Uncertainties were then applied to this analytical limit to determine the proposed automatic blowdown timer trip level setting of $\leq$ 134 seconds. Reference 2 used the FitzPatrick LOCA analysis (Reference 5) as the basis for establishing this analytic limit.

From an analytic perspective, delaying depressurization of the Reactor Pressure Vessel (RPV) long enough to allow the High Pressure Coolant Injection (HPCI) system time to maintain RPV water level is not a critical function. The FitzPatrick LOCA analysis (Reference 5) does not establish a minimum allowable time delay to allow HPCI to inject. Early depressurization would result in a cooldown transient on the Reactor Pressure Vessel (RPV). Early depressurization would result in low-pressure ECCS sources injecting to maintain RPV water level in lieu of the HPCI system.

The upper limit for the Trip Level Setting established in Reference 4 is based on the calculated 24-month drift uncertainty to allow the surveillance interval to be extended to 24 months. The calculated 24-month drift uncertainty is based on in-situ plant data (Reference 7).

Establishing Trip Level Settings for the RHR, CS and ADS timers as described above, and extending their surveillance intervals to 24 months does not have an adverse impact on safety. The Trip Level Settings are selected to satisfy the assumptions in the FitzPatrick LOCA analysis (Reference 5) when considering instrument uncertainty over a 24-month period.

IV. EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

Operation of the FitzPatrick plant in accordance with the proposed amendment would not involve a significant hazards consideration as defined in 10 CFR 50.92, since it would not:

Involve a significant increase in the probability or consequences of an accident previously evaluated.

This proposed change revises the Trip Level Settings for the RHR and CS pump interlock start timers as well as the ADS auto-blowdown timers. This proposed change also extends the surveillance interval for these timers from

6-months to 24-months.

This proposed change impacts the control of systems designed to mitigate the consequences of a Loss of Coolant Accident (LOCA). These changes do not impact any of the Reactor Coolant System parameter variations listed as potential causes of threats to the fuel and Reactor Coolant Pressure Boundary listed in section 14.4.2 of the FitzPatrick UFSAR (Reference 8). Therefore, this proposed change does not increase the probability of an accident previously evaluated.

The changes to the control of systems designed to mitigate the consequences of postulated LOCA events are consistent with the relevant assumptions made in the FitzPatrick LOCA analysis (Reference 5) therefore the results of that analysis are not changed. Therefore, this proposed change does not increase the consequence of an accident previously evaluated.

Create the possibility of a new or different kind of accident from any accident previously evaluated.

This proposed change impacts the control of systems designed to mitigate the consequences of a Loss of Coolant Accident (LOCA). These changes do not impact any of the Reactor Coolant System parameter variations listed as potential causes of threats to the fuel and Reactor Coolant Pressure Boundary listed in section 14.4.2 of the FitzPatrick UFSAR (Reference 8). Therefore, this proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Involve a significant reduction in a margin of safety.

The changes to the control of systems designed to mitigate the consequences of postulated LOCA events are consistent with the relevant assumptions made in the FitzPatrick LOCA analysis (Reference 5) therefore the results of that analysis are not changed. Therefore, this proposed change does not reduce the margin of safety.

V. IMPLEMENTATION OF PROPOSED CHANGE

This amendment request meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) as follows:

(i) The amendment involves no significant hazards consideration.

As described in section IV of this evaluation, the proposed change involves no significant hazards consideration.

(ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

SAFETY EVALUATION

This proposed change impacts the control of systems designed to mitigate the consequences of a Loss of Coolant Accident (LOCA). These changes do not impact any of the Reactor Coolant System parameter variations listed as potential causes of threats to the fuel and Reactor Coolant Pressure Boundary listed in section 14.4.2 of the FitzPatrick UFSAR (Reference 8). This proposed change will therefore not impact the types or amounts of any effluents that may be released offsite.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

This proposed change extends the surveillance interval for the RHR and CS pump start interlock timers and the ADS auto-blowdown timers from 6-months to 24-months. Any impact on occupational radiation exposure would be a reduction due to the decrease in the surveillance test frequency.

Based on the above, the Authority concludes that the proposed changes meet the criteria specified in 10 CFR 51.22 for a categorical exclusion from the requirements of 10 CFR 50.21 relative to requiring a specific environmental assessment by the Commission.

VI. CONCLUSION

Establishing Trip Level Settings for the RHR, CS and ADS timers as described above, and extending their surveillance intervals to 24 months does not have an adverse impact on safety. The Trip Level Settings are selected to satisfy the assumptions in the FitzPatrick LOCA analysis (Reference 5) when considering instrument uncertainty over a 24-month period. The instrument uncertainty over the 24 month period was evaluated using in-situ plant data.

Revising the Trip Level Setting for the RHR and CS timer relays as described above will result in a wider, more achievable, as-left calibration tolerance band for field technicians and will significantly reduce the frequency of these "high risk" surveillance tests from once every six months to once-per-cycle (24-months).

VII. REFERENCES

1. JAFP-99-0256, LER-99-007-001, Both Trains of Core Spray Inoperable Due To Out of Tolerance Time Delay In Pump Start Interlock Relays

2. JAF-CALC-ELEC-01460, Setpoint Calculation for the CS and RHR Pump Interlock Timer Relays

3. NYPA letter, J. Knubel to USNRC dated March 31, 1999 (JPN-99-008) regarding "Proposed Technical Specification Change (License Amendment) Conversion to Improved Standard Technical Specifications"

4. JAF-CALC-NBS-02899, 02E-K5A, B ADS Interlock Timer Relays Uncertainty and Setpoint Calculation

5. NEDC-31317P Revision 2, DRF-A00-03843 Class III April 1993, James A. FitzPatrick Nuclear Power Plant SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis

6. Table 16.3-7 of FitzPatrick UFSAR, Acceptance Criteria for In-Plant Testing

7. JAF-RPT-MULTI-02903 Rev. 0, February 13, 1998, Surveillance Extension Reports for Logic System Functional Testing

8. Section 14.4.2 of FitzPatrick UFSAR, Abnormal Operational Transients

Attachment III to JPN-00-XXX

MARKUP OF TECHNICAL SPECIFICATION PAGE CHANGES

Change to Trip Level Settings and Surveillance Test Intervals for Residual Heat Removal and Core Spray Pump Start Interlock Timers and Automatic Depressurization System Auto-Blowdown Timers

(JPTS-99-010)

New York Power Authority
JAMES A. FITZPATRICK NUCLEAR POWER PLANT
Docket No. 50-333
DPR-59

TABLE 3.2-2 (Cont'd)

CORE AND CONTAINMENT COOLING SYSTEM INITIATION AND CONTROL INSTRUMENTATION OPERABILITY REQUIREMENTS

Item No.	Minimum No. of Operable Instrument Channels Per Trip System	Trip Function	Total Number of Trip Level Setting	Instrument Channels Provided by Design for Both Trip Systems	Remarks
7	1 (Notes 3, 11)	Reactor Low Level	≥ 177 in. above TAF	2	Confirmatory low water level for ADS actuation.
8	2 (Notes 1, 2, 11)	Drywell High Pressure	≤ 2.7 psig	4	Initiates Core Spray, RHR (LPCI), HPCI and SGTS.
9	2 (Notes 6, 11)	Reactor Low Pressure	≥ 450 psig	4	Permits opening Core Spray and RHR (LPCI) injection valves.
10	1 (Notes 2, 12)	Reactor Low Pressure	50 ≤ p ≤ 75 psig	2	Permits closure of RHR (LPCI) injection valves while in shutdown cooling in conjunction with PCIS signal.
11	1 (Notes 7, 11)	Core Spray Pump Start Timer (each loop)	11 ± ~~0.6~~ 1.34 sec.	1 (Note 16)	Initiates starting of core spray pump. (each loop)
12	1 (Notes 7, 11)	RHR (LPCI) Pump Start Timer	1.25 ± .26 sec		
		1st Pump (A Loop)	~~1.0 + 0.5 (-0) sec.~~	1 (Note 16)	Starts 1st Pump (A Loop)
		1st Pump (B Loop)	~~1.0 + 0.5 (-0) sec.~~	1 (Note 16)	Starts 1st Pump (B Loop)
		2nd Pump (A Loop)	6.0 ± ~~0.5~~ sec. .73 sec	1 (Note 16)	Starts 2nd Pump (A Loop)
		2nd Pump (B Loop)	6.0 ± ~~0.5~~ sec. .73 sec	1 (Note 16)	Starts 2nd Pump (B Loop)

TABLE 3.2-2 (Cont'd)

CORE AND CONTAINMENT COOLING SYSTEM INITIATION AND CONTROL INSTRUMENTATION OPERABILITY REQUIREMENTS

Item No.	Minimum No. of Operable Instrument Channels Per Trip System	Trip Function	Trip Level Setting	Total Number of Instrument Channels Provided by Design for Both Trip Systems	Remarks
13	1 (Notes 8, 11)	Auto Blowdown Timer	~~120 sec. ± 5 sec.~~ ≤ 134 sec.	2	Initiates ADS (if not inhibited by ADS override switches).
14	4 (Notes 8, 11)	RHR (LPCI) Pump Discharge Pressure Interlock	125 psig ± 20 psig	8	Permits ADS actuation.
15	2 (Notes 8, 11)	Core Spray Pump Discharge Pressure Interlock	100 psig ± 10 psig	4	Permits ADS actuation.
16	2 (Notes 9, 11)	Condensate Storage Tank Low Level	≥ 59.5 in. above tank bottom (= 15,600 gal. avail)	2 (Note 16)	Transfers RCIC pump suction to suppression chamber.
17	2 (Notes 9, 11)	Condensate Storage Tank Low Level	≥ 59.5 in. above tank bottom (= 15,600 gal. avail)	2 (Note 16)	Transfers HPCI pump suction to suppression chamber.
18	2 (Notes 9, 11)	Suppression Chamber High Level	≤ 6 in. above normal level	2 (Note 16)	Transfers HPCI pump suction to suppression chamber.

TABLE 4.2-2 (Cont'd)

CORE AND CONTAINMENT COOLING SYSTEM INSTRUMENTATION TEST AND CALIBRATION REQUIREMENTS

	Logic System Functional Test	Frequency
1)	Core Spray Subsystem	R ~~SA~~ (Notes 7 & 9)
2)	Low Pressure Coolant Injection Subsystem	R ~~SA~~ (Notes 7 & 9)
3)	Containment Cooling Subsystem	R
4)	HPCI Subsystem	R (Notes 7 & 9)
5)	ADS Subsystem	R ~~SA~~ (Notes 7 & 9)

NOTE: See notes following Table 4.2-5.