

ENCLOSURE 2

NRC DOCKETS 50-321, 50-366  
OPERATING LICENSES DPR-57, NPF-5  
EDWIN I. HATCH NUCLEAR PLANT UNITS 1, 2  
REQUEST TO AMEND TECHNICAL SPECIFICATIONS-TMI ACTION PLAN ITEMS

The proposed changes to Unit 1 Technical Specifications (Appendix A to Operating License DPR-57) would be incorporated as follows:

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NOTE: SCALE IN INCHES  
ABOVE VESSEL ZERO

# WATER LEVEL NOMENCLATURE

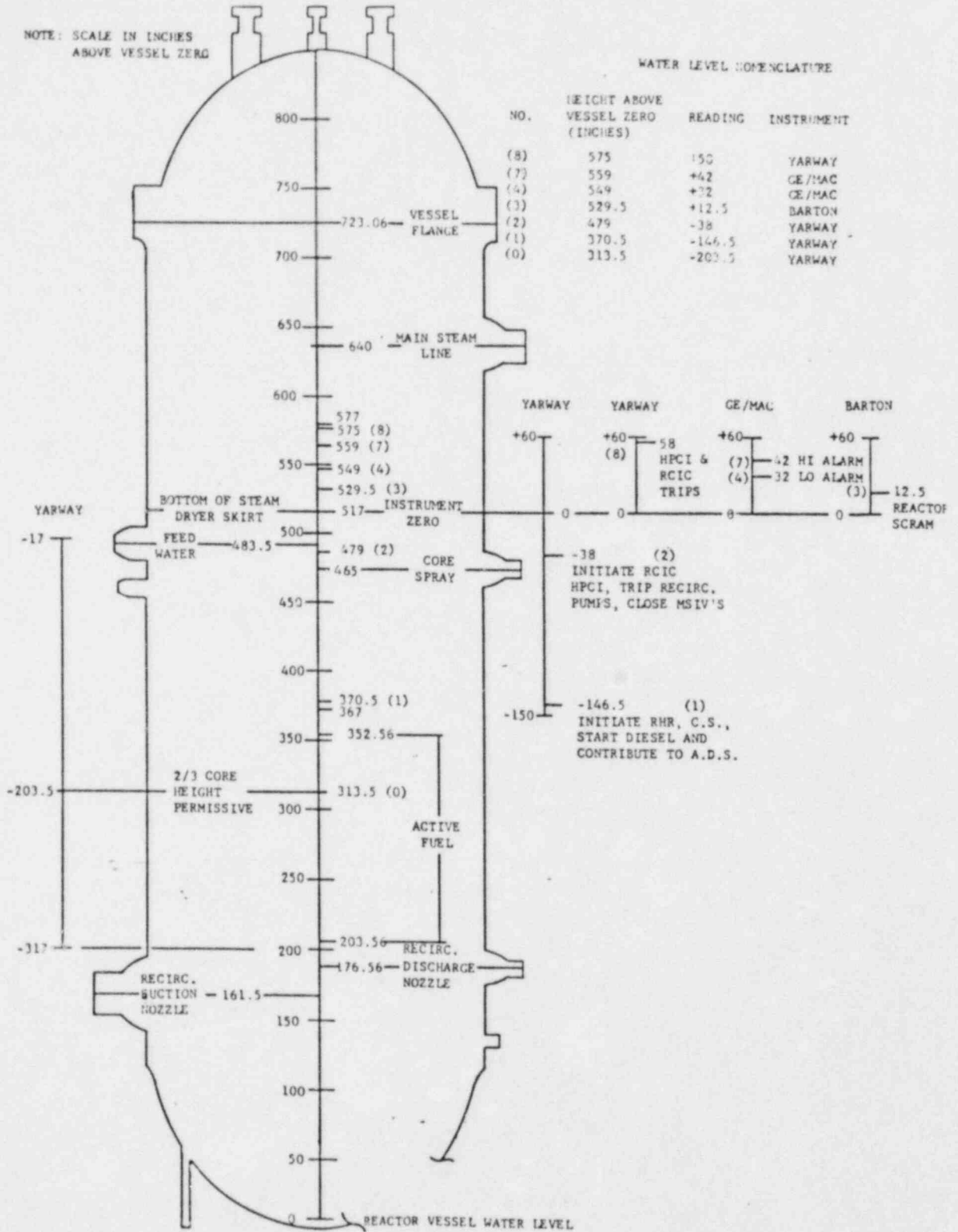


TABLE 3.2-3 (Continued)

Ref. No. (a)	Instrument	Trip Condition Nomenclature	Required Operable Channels per Trip System (b)	Trip Setting	Remarks
9.	RCIC Steam Line Pressure	Low	2	$\geq 50$ psig	Closes isolation valves in RCIC system, trips RCIC turbine.
10.	RCIC Steam Line Flow (Upstream and Downstream Elbow Taps)	High	1	$\leq 300\%$ Flow	Closes isolation valves in RCIC system, trips RCIC turbine.
11.	RCIC Turbine Exhaust Diaphragm Pressure	High	1	$\leq 10$ psig	Closes isolation valves in RCIC system, trips RCIC turbine.
12.	Suppression Chamber Area Air Temperature	High	1	$\leq 175^{\circ}\text{F}$	Closes isolation valves in RCIC system, trips RCIC turbine.
13.	Suppression Chamber Area Differential Air Temperature	High	1	$\leq 50^{\circ}\text{F}$	Closes isolation valves in RCIC system, trips RCIC turbine.
14.	RCIC Logic Power Failure Monitor		1	Not Applicable	Monitors availability of power to logic system.
15.	Condensate Storage Tank Water Level	Low	2	$\geq 0''$	Transfers suction from CST to suppression pool
16.	Suppression Pool Water Level	High	2	$\leq 0''$	Transfers suction from CST to suppression pool

NOTES FOR TABLE 3.2-3

- a. The column entitled "Ref. No." is only for convenience so that a one-to-one relationship can be established between items in Table 3.2-3 and items in Table 4.2-3.
- b. Whenever any CCCS subsystem is required to be operable by Section 3.5, there shall be two operable trip systems. If the required number of operable channels cannot be met for one of the trip systems, that system shall be repaired or the reactor shall be placed in the Cold Shutdown Condition within 24 hours after this trip system is made or found to be inoperable.

TABLE 3.2-11

## INSTRUMENTATION WHICH PROVIDES SURVEILLANCE INFORMATION

Ref. No. (a)	Instrument (b)	Required Operable Instrument Channels	Type and Range	Action	Remarks
1	Reactor Water Level (GE/MAC)	1	Recorder	(c)	(d)
		2	Indicator 0 to 60"	(c)	(d)
2	Shroud Water Level	1	Recorder	(c)	(d)
		1	Indicator +200" to +500"	(c)	(d)
3	Reactor Pressure	1	Recorder	(c)	(d)
		2	Indicator 0 to 1200 psig	(c)	(d)
4	Drywell Pressure	2	Recorder - 10 to +90 psig	(c)	(d)
5	Drywell Temperature	2	Recorder 0 to 500°F	(c)	(d)
6	Suppression Chamber Air Temperature	2	Recorder 0 to 500°F	(c)	(d)
7	Suppression Chamber Water Temperature	2	Recorder 0 to 250°F	(c)	(d)
8	Suppression Chamber Water Level	2	Indicator 0 to 300"	(c)	(d)
		2	Recorder 0 to 30"	(c)(e)	(d)
9	Suppression Chamber Pressure	2	Recorder -10 to +90 psig	(c)	(d)
10	Rod Position Information System (RPIS)	1	28 Volt Indicating Lights	(c)	(d)
11	Hydrogen and Oxygen Analyzer	1	Recorder 0 to 52	(c)	(d)
12	Post LOCA Radiation Monitoring System	1	Recorder	(c)	(d)
			Indicator 1 to 10 <sup>6</sup> R/hr	(c)	(d)
13	Drywell/Suppression Chamber Differential Pressure	2	Recorder -0.5 to + 2.5 psid	(c)(e)	(d)
14	a) Safety/Relief Valve Position Primary Indicator	1	Pressure Switch 4-100 psig	(f)	
	b) Safety/Relief Valve Position Secondary Indicator	1	Temperature element 0-600°F	(f)	

TABLE 3.2-11 (Continued)

## INSTRUMENTATION WHICH PROVIDES SURVEILLANCE INFORMATION

Ref. No. (a)	Instrument (b)	Required Operable Instrument Channels	Type and Range	Action	Remarks
15	Drywell High Range Pressure	2	Recorder 0 to 250 psig	(c)	(d)
16	Drywell High Range Radiation	1	Indicator 1 to $10^7$ R/hr Recorder 1 to $10^7$ R/hr	(c) (c)	(d) (d)
17	Main Stack Post-Accident Effluent Monitor	1	Recorder $5 \times 10^{-3}$ to $1 \times 10^5 \mu\text{Ci/cc}$	(g)	(h)
18	Reactor Building Vent Plenum Post-Accident Effluent Monitor	1	Recorder $5 \times 10^{-3}$ to $1 \times 10^5 \mu\text{Ci/cc}$	(g)	(h)



NOTES FOR TABLE 3.2-11

- a. The column entitled "Ref. No." is only for convenience so that a one-to-one relationship can be established between items in Table 3.2-11 and items in Table 4.2-11.
- b. Limiting Conditions for Operation for the Neutron Monitoring System are listed in Table 3.2-7.
- c. From and after the date that one of these parameters is reduced to one indication, continued operation is permissible during the succeeding thirty days unless such instrumentation is sooner made operable.

Continued operation is permissible for seven days from and after the date that one of these parameters is not indicated in the control room. Surveillance of local panels will be substituted for indication in the control room during the seven days.

- d. Drywell and Suppression Chamber Pressure are each recorded on the same recorders. Each output channel has its own recorder.

Drywell and Suppression Chamber air temperature and suppression chamber water temperature are all recorded on the same recorders. Each output channel has its own recorder. Each recorder takes input from several temperature elements.

Hydrogen and Oxygen are indicated on one recorder. The recorder has two pens, one pen for each parameter.

Each channel of the post LOCA radiation monitoring system includes two detectors; one located in the drywell and the other in the suppression chamber. Each detector feeds a signal to a separate log count rate meter. The meter output goes to a two pen recorder. One high radiation level alarm is provided per channel and annunciation of alarm is provided in the control room.

High range drywell pressure and high range drywell radiation are recorded on the same recorders. Each output channel has its own recorder.

- e. In the event that all indications of this parameter is disabled and such indication cannot be restored in six (6) hours, an orderly shutdown shall be initiated and the reactor shall be in a Hot Shutdown condition in six (6) hours and a Cold Shutdown condition in the following eighteen (18) hours.
- f. If either the primary or secondary indication is inoperable, the torus temperature will be monitored at least once per shift to observe any unexplained temperature increase which might be indicative of an open SRV. With both the primary and secondary monitoring channels of two or more SRVs inoperable either restore sufficient inoperable channels such that no more than one SRV has both primary and secondary channels inoperable within 7 days or be in at least hot shutdown within the next 12 hours.

NOTES FOR TABLE 3.2-11 (Continued)

- g. With the number of operable channels less than the required operable channels, either restore the inoperable channel to operable status within 72 hours or:
  - 1. Initiate the pre-planned alternate method of monitoring the appropriate parameters and
  - 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.
- h. A channel is comprised of five detectors: One for mid-range noble gas, one for high-range noble gas, and one for each of three iodine/particulate collectors. Both noble gas detectors and one iodine/particulate detector must be operable to consider the channel operable.



TABLE 4.2-3 (Continued)

Ref. No. (a)	Instrument	Instrument Check Minimum Frequency	Instrument Functional Test Minimum Frequency (b)	Instrument Calibration Minimum Frequency (c)
10	RCIC Steam Line $\Delta P$ (Flow)	None	(d)	Every 3 months
11	RCIC Turbine Exhaust Diaphragm Pressure	None	(d)	Every 3 months
12	Suppression Chamber Area Air Temperature	None	(d)	Every 3 months
13	Suppression Chamber Area Differential Air Temperature	None	(d)	Every 3 months
14	RCIC Logic Power Failure Monitor	None	Once/operating cycle	None
15	Condensate Storage Tank Level	None	Monthly	Every 3 months
16	Suppression Pool Water Level	None	Monthly	Every 3 months

## Notes for Table 4.2-3

- a. The column entitled "Ref. No." is only for convenience so that a one-to-one relationship can be established between items in Table 4.2-3 and items in Table 3.2-3.
- b. Instrument functional tests are not required when the instruments are not required to be operable or are tripped. However, if functional tests are missed, they shall be performed prior to returning the instrument to an operable status.

TABLE 4.2-11 (Continued)

Ref. No. (a)	Instrument	Instrument Check Minimum Frequency (b)	Instrument Functional Test Minimum Frequency (d)	Instrument Calibration Minimum Frequency (c)
15	Post-Accident Drywell Pressure	Each Shift	N.A.	Every 6 Months
16	Post-Accident Drywell Radiation	Each Shift	N.A.	Every 6 Months
17	Main Stack Post-Accident Effluent Monitor	N.A.	Every 6 Months	Every 18 Months
18	Reactor Building Vent Plenum Post-Accident Effluent Monitor	N.A.	Every 6 Months	Every 18 Months

NOTES FOR TABLE 4.2-11

- a. The column entitled "Ref. No." is only for convenience so that a one-to-one relationship can be established between items in Table 4.2-11 and items in Table 3.2-11.
- b. Instrument checks are not required when the instruments are not required to be operable or are tripped. However, if instrument checks are missed, they shall be performed prior to returning the instrument to an operable status.
- c. Calibrations are not required when the instruments are not required to be operable or are tripped. However, if calibrations are missed, they shall be performed prior to returning the instrument to an operable status.
- d. Functional tests are not required when the instruments are not required to be operable or are tripped. However, if functional tests are missed, they shall be performed prior to returning the instrument to an operable status.

3.2.C.9. RCIC Steam Line Pressure Low (Continued)

lation setpoint of 50 psig is chosen at a pressure below that at which the RCIC turbine can effectively operate.

10. RCIC Steam Line Flow (High)

RCIC turbine high steam flow could indicate a break in the RCIC turbine steam line. The automatic closure of the RCIC steam line isolation valves prevents the excessive loss of reactor coolant and the release of significant amounts of radioactive materials from the nuclear system process barrier. Upon detection of RCIC turbine high steam flow the RCIC turbine steam line is isolated. The high steam flow trip setting of 300% flow was selected high enough to avoid spurious isolation, i.e., above the high steam flow rate encountered during turbine starts. The setting was selected low enough to provide timely detection of an RCIC turbine steam line break.

11. RCIC Turbine Exhaust Diaphragm Pressure High

High pressure in the RCIC turbine exhaust could indicate that the turbine rotor is not turning, thus allowing reactor pressure to act on the turbine exhaust line. The RCIC steam line isolation valves are automatically closed to prevent overpressurization of the turbine exhaust line. The turbine exhaust diaphragm pressure trip setting of 10 psig is selected high enough to avoid isolation of the RCIC if the turbine is operating, yet low enough to effect isolation before the turbine exhaust line is unduly pressurized.

12. Suppression Chamber Area Air Temperature High

As in the RCIC equipment room, and for the same reason, a temperature of 90 F + ambient will initiate a timer to isolate the RCIC turbine steam line.

13. Suppression Chamber Area Differential Air Temperature High

As for the RCIC equipment room differential temperature, and for the same reason, a high differential air temperature between the inlet and outlet ducts which ventilate the suppression chamber area will also initiate a timer to isolate the RCIC turbine steam line.

14. RCIC Logic Power Failure Monitor

The RCIC Logic Power Failure Monitor monitors the availability of power to the logic system. In the event of loss of availability of power to the logic system, an alarm is annunciated in the control room.

15. Condensate Storage Tank Level Low

The low CST level signal transfers RCIC suction from the CST to the suppression pool. The setpoint was chosen to ensure an uninterrupted supply of water during suction transfer.

16. Suppression Pool Water Level High

A high water level in the suppression chamber automatically switches RCIC suction from the CST to the suppression pool.

3.2.J.4. Scintillation Detector For Monitoring Radioiodine (Continued)

Level reading is indicative of a leak in the nuclear system process barrier in the primary containment. A sample that is continuously drawn from the primary containment is collected on an iodine filter and monitored by a gamma sensitive scintillation detector. Radiation levels are read out by a log rate meter and recorded on a strip chart located in the control room. A high radiation level alarm and a failure alarm are also provided and are annunciated in the control room. Also, a high-low flow alarm is annunciated in the control room.

5. GM Tubes For Monitoring Noble Gases

A set of GM tubes contained in an instrument rack are used to monitor the release of noble gases in the drywell and torus. A high radiation level reading is indicative of a leak in the nuclear system process barrier in the primary containment. A sample that is continuously drawn from the primary containment is passed through a shielded sample chamber which contains the beta sensitive GM tubes. Radiation levels are read out by a log rate meter and recorded on a strip chart located in the control room. A high radiation level alarm and failure alarm are provided and are annunciated in the control room. Also, a high-low flow alarm is annunciated in the control room.

K. Instrumentation Which Provides Surveillance Information (Table 3.2-11)

For each parameter monitored, as listed in Table 3.2-11, there are two channels of instrumentation except for the control rod positions indicating system and the post-accident effluent monitors. By comparing readings between the two channels, a near continuous surveillance of instrument performance is available. Any significant deviation in readings will initiate an early recalibration, thereby maintaining the quality of the instrument readings.

The hydrogen and oxygen analyzing systems consist of two redundant, separate systems and are each capable of analyzing the hydrogen and oxygen content of the drywell/torus simultaneously. They are designed to be completely testable at both the analyzer rack and in the control room. With an oxygen concentration of less than 4% by volume, a flammable mixture with hydrogen is not possible.

L. Instrumentation Which Initiates Disconnection of Offsite Power Sources (Table 3.2-12)

The undervoltage relays shall automatically initiate the disconnection of offsite power sources whenever the voltage setpoint and time delay limits have been exceeded. This action shall provide voltage protection for the emergency power systems by preventing sustained degraded voltage conditions due to the offsite power source and interaction between the offsite and onsite emergency power systems. The undervoltage relays have a time delay characteristic that provides protection against both a loss of voltage and degraded voltage condition and thus minimizes the effect of short duration disturbances without exceeding the maximum time delay, including margin, that is assumed in the FSAR accident analyses.



3.5.D.2. Operation with Inoperable Components

If the HPCI system is inoperable the reactor may remain in operation for a period not to exceed fourteen (14) days provided the ADS CS system, RHR system LPCI mode, and RCIC system are operable.

With the surveillance requirements of Specification 4.5.D.1 not performed at the required frequencies due to low reactor steam pressure, reactor startup is permitted and the appropriate surveillance will be performed within 12 hours after reactor steam pressure is adequate to perform the tests.

7. Shutdown Requirements

If Specification 3.5.D.1 or 3.5.D.2 cannot be met, an orderly shutdown shall be initiated and the reactor vessel pressure shall be reduced to 113 psig or less within 24 hours.

E. Reactor Core Isolation Cooling (RCIC) System1. Normal System Availability

- a. The RCIC system shall be operable with an operable flow path capable of (automatically) taking suction from the suppression pool and transferring the water to the reactor pressure vessel:

- (1) Prior to reactor startup from a cold condition, or

\*Automatic Restart on a Low Water Level Which is Subsequent to a High Level Trip.

4.5.D.1 Normal Operational Tests (Continued)

The HPCI pumps shall deliver at least 4250 gpm during each flow rate test.

- |                                     |            |
|-------------------------------------|------------|
| d. Pump Operability                 | Once/month |
| e. Motor Operated valve operability | Once/month |

2. Surveillance with Inoperable Components

When the HPCI system is inoperable, the ADS actuation logic, the RCIC system, the RHR system LPCI mode, and the CS system shall be demonstrated immediately. The RCIC system and ADS logic shall be demonstrated to be operable daily thereafter until the HPCI system is returned to normal operation.

E. Reactor Core Isolation Cooling (RCIC) System1. Normal Operational Tests

RCIC system testing shall be performed as follows:

<u>Item</u>	<u>Frequency</u>
a. Simulated Automated Actuation (and restart*) Test	Once/Operating Cycle



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LIMITING CONDITIONS FOR OPERATION

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SURVEILLANCE REQUIREMENTS

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5.E.1. Normal System Availability (Continued)    4.5.E.1. Normal Operational Tests (Continued)

- a.(2) when there is irradiated fuel in the reactor vessel and the reactor pressure is above 113 psig, except as stated in Specification 3.5.E.2.

- b. Verifying that suction for the RCIC system is automatically transferred from the CST to the suppression pool on a simulated low CST level or high suppression pool level signal.    Once/Operating Cycle

- c. Flow rate at normal reactor vessel operating pressure and  
Flow rate at 150 psig reactor pressure    Once/3 months  
Once/Operating Cycle

The RCIC pump shall deliver at least 400 gpm during each flow test.

- d. Pump Operability    Once/month  
e. Motor Operated valve operability    Once/month

2. Operation with Inoperable Components

If the RCIC system is inoperable, the reactor may remain in operation for a period not to exceed seven (7) days if the HPCI system is operable during such time.

3. If Specification 3.5.E.1 or 3.5.E.2 is not met, an orderly shutdown shall be initiated and the reactor shall be depressurized to less than 113 psig within 24 hours.

2. Surveillance with Inoperable Components

When the RCIC system is inoperable, the HPCI system shall be demonstrated to be operable immediately and daily thereafter until the RCIC system is returned to normal operation.

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## BASES FOR LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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### 3.5.D.2. Operation With Inoperable Components

The HPCI system serves as a backup to the RCIC system as a source of feedwater makeup during primary system isolation conditions. The ADS serves as a backup to the HPCI system for reactor depressurization for postulated transients and accidents. Both these systems are checked for operability if the HPCI system is determined to be inoperable. Considering the redundant systems, an allowable repair time of seven (7) days was selected.

### E. Reactor Core Isolation Cooling (RCIC) System

#### 1. Normal System Availability

The various conditions under which the RCIC system plays an essential role in providing makeup water to the reactor vessel have been identified by evaluating the various plant events over the full range of planned operations. The specifications ensure that the function for which the RCIC system was designed will be available when needed.

Because the low-pressure cooling systems (LPCI and core spray) are capable of providing all the cooling required for any plant event when nuclear system pressure is below 113 psig, the RCIC system is not required below this pressure. Between 113 psig and 150 psig the RCIC system need not provide its design flow, but reduced flow is required for certain events. RCIC system design flow (400 gpm) is sufficient to maintain water level above the top of the active fuel for a complete loss of feedwater flow at the design power.

Two sources of water are available to the RCIC system. Suction is initially taken from the condensate storage tank and is automatically transferred to the suppression pool upon low CST level or high suppression pool level.

#### 2. Operation With Inoperable Components

Consideration of the availability of the RCIC system reveals that the average risk associated with failure of the RCIC system to cool the core when required is not increased if the RCIC system is inoperable for no longer than seven (7) days, provided that the HPCI system is operable during this period.

### F. Automatic Depressurization System (ADS)

#### 1. Normal System Availability

This specification ensures the operability of the ADS under all conditions for which the depressurization of the nuclear system is an essential response to Unit abnormalities.

The nuclear system pressure relief system provides automatic nuclear system depressurization for small breaks in the nuclear system so that the low-pressure coolant injection (LPCI) and the core spray system can operate to protect the fission product barrier. Note that this Specification applies only to the automatic feature of the pressure relief system.

- g. Administrative procedures shall be developed and implemented to limit the working hours of Unit staff who perform safety-related functions; e.g., senior reactor operators, reactor operators, auxiliary operators, health physicists, and key maintenance personnel.

Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work a normal 8-hour day, 40-hour week while the plant is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used or during extended periods of shutdown for refueling, major maintenance, or major plant modifications, the following guidelines shall be followed on a temporary basis:

- (1) An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.
- (2) An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven day period, all excluding shift turnover time.
- (3) A break of at least eight hours should be allowed between work periods, including shift turnover time.
- (4) Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Plant General Manager or his deputy of higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant General Manager or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

## ADMINISTRATIVE CONTROLS

### ANNUAL REPORTS (Continued)

#### 6.9.1.5 Reports required on an annual basis shall include:

- a. A tabulation on an annual basis of the number of station, utility and other personnel, including contractors, receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions,<sup>2</sup> e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.
- b. Documentation of all challenges to safety/relief valves.
- c. Any other unit unique reports required on an annual basis.

### MONTHLY OPERATING REPORT

6.9.1.6 Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the Director, Office of Management and Program Analysis, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, with a copy to the Regional Office of Inspection and Enforcement no later than the 15th of each month following the calendar month covered by the report.

### REPORTABLE OCCURRENCES

6.9.1.7 The REPORTABLE OCCURRENCES of Specification 6.9.1.8 and 6.9.1.9 below, including corrective actions and measures to prevent recurrence, shall be reported to the NRC. Supplemental reports may be required to fully describe final resolution of occurrence. In case of corrected or supplemental reports, a licensee event report shall be completed and reference shall be made to the original report date.

<sup>2</sup>This tabulation supplements the requirements of § 20.407 of 10 CFR Part 20.



## ADMINISTRATIVE CONTROL

### PROMPT NOTIFICATION WITH WRITTEN FOLLOWUP (Continued)

- g. Conditions arising from natural or man-made events that, as a direct result of the event, require unit shutdown, operation of safety systems, or other protective measures required by technical specifications.
- h. Errors discovered in the transient or accident analyses or in the methods used for such analyses as described in the safety analysis report or in the bases for the technical specifications that have or could have permitted reactor operation in a manner less conservative than assumed in the analyses.
- i. Performance of structures, systems, or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than assumed in the accident analyses in the safety analysis report or technical specifications bases; or discovery during unit life of conditions not specifically considered in the safety analysis report or technical specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition.
- j. Failure or malfunction of any safety/relief valve

### THIRTY DAY WRITTEN REPORTS

6.9.1.9 The types of events listed below shall be the subject of written reports to the Director of the Regional Office within thirty days of occurrence of the event. The written report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

- a. Reactor protection system or engineered safety feature instrument settings which are found to be less conservative than those established by the technical specifications but which do not prevent the fulfillment of the functional requirements of affected systems.
- b. Condition leading to operation in a degraded mode permitted by a limiting condition for operation or plant shutdown required by a limiting condition for operation.
- c. Observed inadequacies in the implementation of administrative or procedural controls which threaten to cause reduction of degree of redundancy provided in reactor protection systems or engineered safety feature systems.

ENCLOSURE 2 (Continued)

NRC DOCKETS 50-321, 50-366  
OPERATING LICENSES DPR-57, NPF-5  
EDWIN I. HATCH NUCLEAR PLANT UNITS 1, 2  
REQUEST TO AMEND TECHNICAL SPECIFICATIONS-TMI ACTION PLAN ITEMS

The proposed changes to Unit 2 Technical Specifications (Appendix A to Operating License NPF-5) would be incorporated as follows:

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TABLE 3.3.2-3 (Continued)

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

<u>TRIP FUNCTION</u>	<u>RESPONSE TIME (Seconds)#</u>
<u>3. REACTOR WATER CLEANUP SYSTEM ISOLATION</u>	
a. $\Delta$ Flow - High	$\leq 13^*$
b. Area Temperature - High	$\leq 13^*$
c. Area Ventilation Temperature $\Delta T$ - High	$\leq 13^*$
d. SLCS Initiation	NA
e. Reactor Vessel Water Level-Low	$\leq 13^*$
<u>4. HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION</u>	
a. HPCI Steam Line Flow-High	$3 \leq \text{Isolation Time} \leq 13^*$
b. HPCI Steam Supply Pressure - Low	$\leq 13^*$
c. HPCI Turbine Exhaust Diaphragm Pressure - High	NA
d. HPCI Equipment Room Temperature - High	NA
e. Suppression Pool Area Ambient Temp. - High	NA
f. Suppression Pool Area $\Delta T$ - High	NA
g. Suppression Pool Area Temp. Timer Relays	NA
h. Emergency Area Cooler Temperature - High	NA
i. Drywell Pressure - High	$\leq 13^*$
j. Logic Power Monitor	NA
<u>5. REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION</u>	
a. RCIC Steam Line Flow - High	$3 \leq \text{Isolation Time} \leq 13^*$
b. RCIC Steam Supply Pressure - Low	NA
c. RCIC Turbine Exhaust Diaphragm Pressure - High	NA
d. Emergency Area Cooler Temperature - High	NA
e. Suppression Pool Area Ambient Temp. - High	NA
f. Suppression Pool Area $\Delta T$ - High	NA
g. Suppression Pool Area Temperature Timer Relays	NA
h. Drywell Pressure - High	$\leq 13^*$
i. Logic Power Monitor	NA
<u>6. SHUTDOWN COOLING SYSTEM ISOLATION</u>	
a. Reactor Vessel Water Level - Low	NA
b. Reactor Steam Dome Pressure - High	NA

TABLE 3.3.6.4-1

POST-ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>
1. Reactor Vessel Pressure (2C32-R605 A, B, C)	2
2. Reactor Vessel Water Level (2B21-R610, 2B21-R615)	2
3. Suppression Chamber Water Level (2T48-R622 A, B)	2
4. Suppression Chamber Water Temperature (2T47-R626, 2T47-R627)	2
5. Suppression Chamber Pressure (2T43-R608, 2T48-R609)	2
6. Drywell Pressure (2T48-R608, 2T48-R609)	2
7. Drywell Temperature (2T47-R626, 2T47-R627)	2
8. Post-LOCA Gamma Radiation (2D11-K622 A, B, C, D)	2
9. Drywell H <sub>2</sub> -O <sub>2</sub> Analyzer (2P33-R601 A, B)	2
10. a) Safety/Relief Valve Position Primary Indicator (2B21-N301 A-H and K-M)	*
b) Safety/Relief Valve Position Secondary Indicator (2B21-N004 A-H and K-M)	*
11. High Range Drywell Pressure (2T48-R601A, B)	2
12. High Range Drywell Radiation (2D11-K621 A, B)	2
13. Main Stack Effluent Monitor (D11-R631)	1**
14. Reactor Building Vent Plenum Effluent Monitor (2D11-R631)	1**

NOTES FOR TABLE 3.3.6.4-1

\*If either the primary or secondary indication is inoperable, the torus temperature will be monitored at least once per shift to observe any unexplained temperature increases which might be indicative of an open SRV. With both the primary and secondary monitoring channels of two or more SRVs inoperable, either restore sufficient inoperable channels such that no more than one SRV has both primary and secondary channels inoperable within 7 days or be in at least hot shutdown within the next 12 hours.

\*\*A channel is comprised of five detectors; one for mid-range noble gas, one for high-range noble gas, and one for each of three iodine/particulate collectors.

Both noble gas detectors and one iodine/particulate detector must be operable to consider the channel operable.

With the minimum channels operable requirement not met either restore the inoperable channel to operable status within 72 hours or:

- a. Initiate the pre-planned alternate method of monitoring the appropriate parameters and
- b. 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.

TABLE 4.3.6.4-1

POST-ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>
1. Reactor Vessel Pressure	M		Q
2. Reactor Vessel Water Level	M		Q
3. Suppression Chamber Water Level	M		R
4. Suppression Chamber Water Temperature	M		R
5. Suppression Chamber Pressure	M		R
6. Drywell Pressure	M		Q
7. Drywell Temperature	M		R
8. Post-LOCA Gamma Radiation	M		R
9. Drywell H <sub>2</sub> -O <sub>2</sub> Analyzer	M		Q
10. a) Safety/Relief Valve Position Primary Indication	M*		R
b) Safety/Relief Valve Position Secondary Indication	M*		R
11. High Range Drywell Pressure	M		Q
12. High Range Drywell Radiation	M		R
13. Main Stack Effluent Monitor	N.A.	SA	R
14. Reactor Building Vent Plenum Effluent Monitor	N.A.	SA	R

\*See 4.4.2.a

## INSTRUMENTATION

### BASES

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#### 3/4.3.2 ISOLATION ACTUATION INSTRUMENTATION

This specification ensures the effectiveness of the instrumentation used to mitigate the consequences of accidents by prescribing the OPERABILITY requirements, trip setpoints and response times for isolation of the reactor systems. When necessary, one channel may be inoperable for brief intervals to conduct required surveillance. Some of the trip settings have tolerances explicitly stated where both the high and low values are critical and may have a substantial effect on safety. The setpoints of other instrumentation, where only the high or low end of the setting has a direct bearing on safety, are established at a level away from the normal operating range to prevent inadvertent actuation of the systems involved.

Except for the MSIVs, the safety analysis does not address individual sensor response times or the response times of the logic systems to which the sensors are connected. For DC operated valves a 3-second delay is assumed before the valve starts to move. For the AC operated valves it is assumed that the AC power supply is lost and is restored by startup of the emergency diesel generators. In this event, a time of 13 seconds is assumed before the valve starts to move. In addition to the pipe break, the failure of the DC operated valve is assumed; thus the signal delay (sensor response) is concurrent with the 13 second diesel startup. The safety analysis considers an allowable inventory loss in each case which in turn determines the valve speed in conjunction with the 13 second delay. It follows that checking the valve speeds and the 13 second time for emergency power establishment will establish the response time for the isolation functions. However, to enhance overall system reliability, the isolation actuation instrumentation response time shall be measured and recorded as a part of the ISOLATION SYSTEM RESPONSE TIME.

Minimum response times for isolation of HPCI or RCIC on high steam line flow prevent spurious isolations due to pressure spikes in the steam supply.

#### 3/4.3.3 EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

The emergency core cooling system actuation instrumentation is provided to initiate actions to mitigate the consequences of accidents that are beyond the ability of the operator to control. This specification provides the OPERABILITY requirements, trip setpoints and response times that will ensure effectiveness of the systems to provide the design protection. Although the instruments are listed by system, in some cases the same instrument is used to send the actuation signal to several systems at the same time.

## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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c. At least once per 18 months by:

1. Performing a system functional test which includes simulated automatic actuation (and restart\*) and verifying that each automatic valve in the flow path actuates to its correct position, but may exclude actual injection of coolant into the reactor vessel.
2. Verifying that the system will develop a flow of at least 400 gpm on recirculation flow when steam is supplied to the turbine at a pressure of  $150 \pm 15$ ,  $-0$  psig.
3. Verifying that the suction for the RCIC system can be manually transferred between the condensate storage tank and the suppression pool.

\*Automatic restart on a low water level signal which is subsequent to a high level trip.



- g. Administrative procedures shall be developed and implemented to limit the working hours of Unit staff who perform safety-related functions; e.g., senior reactor operators, reactor operators, auxiliary operators, health physicists, and key maintenance personnel.

Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work a normal 8-hour day, 40-hour week while the plant is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used or during extended periods of shutdown for refueling, major maintenance, or major plant modifications, the following guidelines shall be followed on a temporary basis:

- (1) An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.
- (2) An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any seven day period, all excluding shift turnover time.
- (3) A break of at least eight hours should be allowed between work periods, including shift turnover time.
- (4) Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Plant General Manager or his deputy of higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Plant General Manager or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

## ADMINISTRATIVE CONTROLS

### ANNUAL REPORTS (Continued)

#### 6.9.1.5 Reports required on an annual basis shall include:

- a. A tabulation on an annual basis of the number of station, utility and other personnel, including contractors, receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions,<sup>2</sup> e.g., reactor operations and surveillance, inservice inspection routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.
- b. Documentation of all challenges to safety/relief valves.
- c. Any other unit unique reports required on an annual basis.

### MONTHLY OPERATING REPORT

6.9.1.6 Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the Director, Office of Management and Program Analysis, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, with a copy to the Regional Office, of Inspection and Enforcement no later than the 15th of each month following the calendar month covered by the report.

### REPORTABLE OCCURRENCES

6.9.1.7 The REPORTABLE OCCURRENCES of Specifications 6.9.1.8 and 6.9.1.9 below, including corrective actions and measures to prevent recurrence, shall be reported to the NRC. Supplemental reports shall be required to fully describe final resolution of occurrence. In case of corrected or supplemental reports, a licensee event report shall be completed and reference shall be made to the original report date.

<sup>2</sup>This tabulation supplements the requirements of § 20.407 of 10 CFR Part 20.

## ADMINISTRATIVE CONTROL

### PROMPT NOTIFICATION WITH WRITTEN FOLLOWUP (Continued)

- g. Conditions arising from natural or man-made events that, as a direct result of the event require unit shutdown, operation of safety systems, or other protective measures required by technical specifications.
- h. Errors discovered in the transient or accident analyses or in the methods used for such analyses as described in the safety analysis report or in the bases for the technical specifications that have or could have permitted reactor operation in a manner less conservative than assumed in the analyses.
- i. Performance of structures, systems, or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than assumed in the accident analyses in the safety analysis report or technical specifications bases; or discovery during unit life of conditions not specifically considered in the safety analysis report or technical specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition.
- j. Failure or malfunction of any safety/relief valve

### THIRTY DAY WRITTEN REPORTS

6.9.1.9 The types of events listed below shall be the subject of written reports to the Director of the Regional Office within thirty days of occurrence of the event. The written report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

- a. Reactor protection system or engineered safety feature instrument settings which are found to be less conservative than those established by the technical specifications but which do not prevent the fulfillment of the functional requirements of affected systems.
- b. Conditions leading to operation in a degraded mode permitted by a limiting condition for operation or plant shutdown required by a limiting condition for operation.
- c. Observed inadequacies in the implementation of administrative or procedural controls which threaten to cause reduction of degree of redundancy provided in reactor protection systems or engineered safety feature systems.

ENCLOSURE 3

NRC DOCKETS 50-321, 50-366  
OPERATING LICENSES DPR-57, NPF-5  
EDWIN I. HATCH NUCLEAR PLANT UNITS 1, 2  
REQUEST TO AMEND TECHNICAL SPECIFICATIONS TMI ACTION PLAN ITEMS

Pursuant to 10 CFR 170.22, Georgia Power Company has evaluated the attached proposed amendments to Operating Licenses DPR-57 and NPF-5 and has determined that:

- a. The proposed amendments do not require evaluation of new safety analysis reports or rewrite of the facility licenses;
- b. The proposed amendments do not require evaluation of several complex issues, involve ACRS review, or require an environmental impact statement;
- c. The proposed amendments do involve more than one safety issue, namely Technical Specification changes associated with the implementation of certain TMI Action Plan Items at Plant Hatch Units 1 and 2;
- d. The proposed amendments are therefore a Class IV amendment for one unit and a Class I amendment for the other unit.

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