Attachment I to JPN-93-007

PROPOSED TECHNICAL SPECIFICATION CHANGES CONSISTENT TERMINOLOGY IN LIMITING CONDITIONS FOR OPERATION ACTION STATEMENTS

(JPTS-90-007)

New York Power Authority

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
Docket No. 50-333
DPR-59

TABLE 3.1-1 (cont'd)
REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENT

Minimum No. of Operable Instrument Channels per Trip System (1)	Trip Function	Trip Level Setting	Modes in Which Function Must be Operable			Total Number of Instrument Channels Provided by Design for Both Trip Systems	Action (1)
			Refuel (6))16)	Startup	Run		
4	Turbine Stop Valve Closure	≤10% valve closure			X(4)(5)	8 Instrument Channels	A or C

NOTES OF TABLE 3.1-1

1. There shall be two operable or tripped trip systems for each function, except as specified in 4.1.D. From and after the time that the minimum number of operable instrument channel for a trip system cannot be met, that affected trip system shall be placed in the safe (tripped) condition, or the appropriate actions listed below shall be taken.

   A. Insert all operable control rods within four hours.
   B. Reduce power level to IRM range and place Mode Switch in the Startup Position within eight hours.
   C. Reduce power level to less than 30 percent of rated within four hours.

2. Permissible to bypass, if Refuel and Shutdown positions of the Reactor Mode Switch.
3. Deleted.
4. Bypassed when turbine first stage pressure is less than 217 psig or less than 30 percent of rate.
5. The design permits closure of any two lines without a scram being initiated.
6. When the reactor is subcritical and the reactor water temperature is less than 212°F, only the following trip functions need to be operable:

   A. Mode Switch in Shutdown.
   B. Manual Scram.

Amendment No. ~~43~~, ~~87~~, ~~122~~, ~~134~~,

TABLE 3.2-1 (Cont'd)
INSTRUMENTATION THAT INITIATES PRIMARY CONTAINMENT ISOLATION

NOTES FOR TABLE 3.2-1

1. Whenever Primary Containment integrity is required by Section 3.7, there shall be two operable or tripped trip systems for each function.

2. From and after the time it is found that the first column cannot be met for one of the trip systems, that trip system shall be tripped or the appropriate action listed below shall be taken.

   A. Place the reactor in the cold condition within 24 hours.
   B. Isolate the main steam lines within eight hours.
   C. Isolate Reactor Water Cleanup System within four hours.
   D. Isolate shutdown cooling within four hours.

3. Deleted

4. Deleted

5. Two required for each steam line.

6. These signals also start SBGTS and initiate secondary containment isolation.

7. Only required in run mode (interlocked with Mode Switch).

8. Bypassed when mode switch is not in run mode and turbine stop valves are closed.

9. The trip level setpoint will be maintained at ≤ 3 times normal rated full power background. See note 16 to Table 3.1-1 for re-setting trip level setpoint just prior to and following the Hydrogen Addition Test.

TABLE 3.2-8 (Cont'd)
ACCIDENT MONITORING INSTRUMENTATION

NOTES FOR TABLE 3.2-8

A. With the number of operable channels less than the required minimum, either restore the inoperable channels to operable status within 30 days, or be in a cold condition within the next 24 hours.

B. With the number of OPERABLE channels less than required by the minimum channels OPERABLE requirements, initiate an alternate method of monitoring the appropriate parameter(s) within 72 hours and: (1) either restore the inoperable channel(s) to OPERABLE status within 7 days of the event, or (2) prepare and submit a Special Report to the Commission within 14 days following the event outlining the cause of the inoperability, the action taken, and the plans and schedule for restoring the system to OPERABLE status.

C. Each Safety/Relief Valve is equipped with two acoustical detectors, one of which is in service. Each SRV also has a backup thermocouple detector. In the event that a thermocouple is inoperable, SRV performance shall be monitored daily with the associated in service acoustical detector.

D. From and after the date that both of the acoustical detectors are inoperable, continued operation is permissible until the next outage in which a primary containment entry is made provided that the thermocouple is operable. Both acoustical detectors shall be made operable prior to restart.

E. In the event that both primary (acoustical detectors) and secondary (thermocouple) indications of this parameter for any one valve are disabled and neither indication can be restored in forty-eight (48) hours, the reactor shall be in a Hot Shutdown condition within twelve (12) hours and in a Cold Shutdown within the next twenty-four (24) hours.

F. Refer to Specification 3.7.A.9.

G. This parameter and associated instrumentation are not part of post-accident monitoring.

H. This instrument shall be operable in the Run, Startup/Hot Standby, and Hot Shutdown modes.

J. This instrument shall be operable in the Run and Startup/Hot Standby modes.

3.4 (Cont'd)

C. Sodium Pentaborate Solution

The standby liquid control solution tank shall contain a boron bearing solution with a minimum enrichment of 34.7 atom percent of B-10 that satisfies the volume-concentration requirements of Fig. 3.4-1 at all times when the Standby Liquid Control System is required to be operable and the solution temperature including that in the pump suction piping shall not be less than the temperature presented in Fig. 3.4-2. Tank heater and the heat tracing system shall be operable whenever the SLCS is required in order to maintain solution temperature in accordance with Fig. 3.4-2. If these requirements are not met, restore the system to the above limits within eight hours or take action in accordance with Specification 3.4.D.

D. If specifications 3.4.A through C are not met, the reactor shall be in at least hot shutdown within the following 12 hours.

4.4 (Cont'd)

C. Sodium Pentaborate Solution

The availability of the proper boron bearing solution shall be verified by performance of the following tests:

1. At least once per month -

   Boron concentration shall be determined. In addition, the boron concentration shall be determined any time water or enriched sodium pentaborate is added or if the solution temperature drops below the limits specified by Fig. 3.4-2.

2. At least once per day -

   Solution volume and the solution temperature shall be checked.

3. At least once per operating cycle -

   a. The temperature and level elements shall be calibrated.

   b. Enrichment of B-10 (in atom percent) shall be checked.

D. Not Used

3.5 (cont'd)

condition, that pump shall be considered inoperable for purposes of satisfying Specifications 3.5.A, 3.5.C, and 3.5.E.

4.5 (cont'd)

2. Following any period where the LPCI subsystems or core spray subsystems have not been maintained in a filled condition; the discharge piping of the affected subsystem shall be vented from the high point of the system and water flow observed.

3. Whenever the HPCI or RCIC System is lined up to take suction from the condensate storage tank, the discharge piping of the HPCI or RCIC shall be vented from the high point of the system, and water flow observed on a monthly basis.

4. The level switches located on the Core Spray and RHR System discharge piping high points which monitor these lines to insure they are full shall be functionally tested each month.

H. Average Planar Linear Heat Generation Rate (APLHGR)

During power operation, the APLHGR for each type of fuel as a function of axial location and average planar exposure shall be within limits based on applicable APLHGR limit values which have been approved for the respective fuel and lattice types. These values are specified in the Core Operating Limits Report. If anytime during reactor power operation greater than 25% of rated power it is determined that the limiting value for APLHGR is being exceeded, action shall then be initiated within 15 minutes to restore operation to within the prescribed limits. If the APLHGR is not returned to within the prescribed limits within two (2) hours, the reactor power shall be reduced to less than 25% of rated power within the next four hours, or until the APLHGR is returned to within the prescribed limits.

H. Average Planar Linear Heat Generation Rate (APLHGR)

The APLHGR for each type of fuel as a function of average planar exposure shall be determined daily during reactor operation at ≥25% rated thermal power.

3.5 (cont'd)

I. Linear Heat Generation Rate (LHGR)

The linear heat generation rate (LHGR) or any rod in any fuel assembly at any axial location shall not exceed the maximum allowable LHGR specified in the Core Operating Limits Report.

If anytime during reactor power operation greater than 25% of rated power it is determined that the limiting value for LHGR is being exceeded, action shall then be initiated within 15 minutes to restore operation to within the prescribed limits. If the LHGR is not returned to within the prescribed limits within two (2) hours, the reactor power shall be reduced to less than 25% of rated power within the next four hours, or until the LHGR is returned to within the prescribed limits.

4.5 (cont'd)

I. Linear Heat Generation Rate (LHGR)

The LHGR shall be determined daily during reactor operation at ≥25% rated thermal power.

3.5 (cont'd)

2. Within 2 hours after completing an increase in thermal power of 5 percent or more of rated thermal power.

b. If the APRM and LPRM neutron flux noise levels are greater than 5 percent and greater than three times their established baseline noise levels, initiate corrective action within 15 minutes to restore the noise levels to within the required limits within 2 hours, by increasing core flow and/or reducing thermal power.

3. If during single-loop operation, core thermal power is greater than the limit defined by line A of Figure 3.5-1, and core flow is less than 39 percent, immediately initiate corrective action to restore core thermal power and/or core flow to within the limits, specified in Figure 3.5-1, by increasing core flow and/or initiating an orderly reduction of core thermal power by inserting control rods.

4. The requirements applicable to single-loop operation in Specifications 1.1.A, 2.1.A, 3.1.A, 3.1.B, 3.2.C and 3.5.H shall be in effect within 8 hours following the removal of one recirculation loop from service, or the reactor shall be placed in at least the hot shutdown condition within 12 hours.

3.6 (cont'd)

5. With the Primary Containment Sump Monitoring System (Equipment Drain Sump Monitoring or Floor Drain Sump Monitoring) inoperable, restore the system to operable status within 24 hours or be in at least hot shutdown within the next 12 hours and in the cold condition within the following 24 hours.

6. With the Primary Containment Atmosphere Radioactivity Monitoring System (gaseous) or the Primary Containment Atmosphere Radioactivity Monitoring System (particulate) inoperable, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours. Otherwise be in at least hot shutdown within the next 12 hours and in cold shutdown within the following 24 hours.

4.6 (cont'd)

3. Drywell Continuous Atmosphere Radioactivity Monitoring System instrumentation shall be functionally tested and calibrated as specified in Table 4.6.2.

3.7 (cont'd)

breaker is sooner made operable, provided that the repair procedure does not violate primary containment integrity.

5. Pressure Suppression Chamber - Drywell Vacuum Breakers

a. When primary containment integrity is required, all drywell suppression chamber vacuum breakers shall be operable and positioned in the fully closed position except during testing and as specified in 3.7.A.5.b below.

b. One drywell suppression chamber vacuum breaker may be non-fully closed so long as it is determined to be not more than 1° open as indicated by the position lights.

c. One drywell suppression chamber vacuum breaker may be determined to be inoperable for opening.

d. Deleted

4.7 (cont'd)

5. Pressure Suppression Chamber - Drywell Vacuum Breakers

a. Each drywell suppression chamber vacuum breaker shall be exercised through an opening - closing cycle monthly.

b. When it is determined that one vacuum breaker is inoperable for fully closing when operability is required, the operable breakers shall be exercised immediately, and every 15 days thereafter until the inoperable valve has been returned to normal service.

c. Once each operating cycle, each vacuum breaker valve shall be visually inspected to insure proper maintenance and operation.

d. A leak test of the drywell to suppression chamber structure shall be conducted once per operating cycle; the acceptable leak rate is ≤ 0.25 in. water/min, over a 10 min period, with the drywell at 1 psid.

3.7 (Cont'd)

(1) This differential pressure shall be established within a 24 hour period subsequent to placing the reactor in the run mode. The differential pressure may be reduced to less than 1.7 psid 24 hours prior to a scheduled shutdown.

(2) The differential pressure may be decreased to less than 1.7 psid for a maximum of four (4) hours during required operability testing of the HPCI, RCIC, and Suppression Chamber - Drywell Vacuum Breaker System.

(3) If the specifications of Item a, above, cannot be met, and the differential pressure cannot be restored within the subsequent six (6) hour period the reactor shall be in a Hot Shutdown condition in six (6) hours and a Cold Shutdown condition in the following eighteen (18) hours.

8. If the specifications of 3.7.A.1 through 3.7.A.6 cannot be met the reactor shall be in the cold condition within 24 hours.

4.7 (Cont'd)

8. Not applicable.

3.7 (cont'd)

2. With one or more of the containment isolation valves inoperable, maintain at least one isolation valve operable in each affected penetration that is open and:

   a. Restore the inoperable valve(s) to operable status within 4 hours; or

   b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the closed position. Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under administrative control; or

   c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or a blind flange.

3. If Specifications 3.7.D.1 or 3.7.D.2 cannot be met the reactor shall be in the cold condition within 24 hrs.

4.7 (cont'd)

   (2.) With the reactor at reduced power level, trip main steam isolation valves and verify closure time.

   d. At least twice per week, the main steam line power-operated isolation valves shall be exercised by partial closure and subsequent reopening.

   e. The RBCLCWS isolation valves shall be fully closed and reopened any time the reactor is in the cold condition exceeding 48 hours, if the valves have not been fully closed and reopened during the preceding 92 days.

2. Whenever a containment isolation valve is inoperable, the position of at least one other valve in each line having an inoperable valve shall be recorded daily.

3. Not Used

3.9 (cont'd)

3. From and after the time that one of the Emergency Diesel Generator Systems is made or found to be inoperable, continued reactor operation is permissible for a period not to exceed 7 days provided that the two incoming power sources are available and that the remaining Diesel Generator System is operable. At the end of the 7-day period, the reactor shall be placed in a cold condition within 24 hours, unless the affected diesel generator system is made operable sooner.

4. When both Emergency Diesel Generator Systems are made or found to be inoperable restore at least one system to operable status within two hours or place the reactor in the cold condition within the following 24 hours.

5. Deleted

4.9 (cont'd)

3. The emergency diesel generator system instrumentation shall be checked during the monthly generator test.

4. Once each operating cycle, the conditions under which the Emergency Diesel Generator System is required will be simulated to demonstrate that the pair of diesel generators will start, accelerate, force parallel, and accept the emergency loads in the prescribed sequence.

5. Once within one hour and at least once per twenty-four hours thereafter while the reactor is being operated in accordance with Specifications 3.9.B.1, 3.9.B.2, or 3.9.B.3 the availability of the operable Emergency Diesel Generators shall be demonstrated by manual starting and force paralleling where applicable.

3.11 (cont'd)

ventilation air supply fan and/or filter may be out of service for 14 days.

2. The main control room air radiation monitor shall be operable whenever the control room emergency ventilation air supply fans and filter trains are required to be operable by 3.11.A.1 or filtration of the control room ventilation intake air must be initiated.

3. The control room emergency ventilation system shall not be out of service for a period exceeding 3 days during normal reactor operation or refueling operations. In the event that the system is not returned to service within 3 days, the reactor shall be in cold shutdown within 24 hours and any handling of irradiated fuel, core alterations, and operations with a potential for draining the reactor vessel shall be suspended as soon as practicable

4. Not Used

4.11 (cont'd)

b. Di-octylphtalate (DOP) test for particulate filter efficiency greater than 99% for particulate greater than 0.3 micron size.

c. Freon-112 test for charcoal filter bypass as a measure of filter efficiency of at least 99.5% for halogen removal.

d. A sample of charcoal filter shall be analyzed once a year to assure halogen removal efficiency of at least 99.5%.

2. Operability of the main control room air intake radiation monitor shall be tested once/3 months.

3. Temperature transmitters and differential pressure switches shall be calibrated once/operating cycle.

4. Main control room emergency ventilation air supply system capacity shall be tested once every 18 months to assure that it is ±10% of the design value of 1000 cfm.

3.11 (cont'd)

2. From and after the time that one Emergency Service Water System is made or found to be inoperable for any reason continued reactor operation is permissible for a period not to exceed 7 days, provided that:

   - the operable Emergency Diesel Generator System is demonstrated to be operable immediately and daily thereafter; and,

   - all Emergency Diesel Generator System emergency loads are verified operable immediately and daily thereafter.

3. If specification 3.11.D.2 cannot be met the reactor shall be placed in the cold condition within 24 hours.

4.11 (cont'd)

e.	ESW	Once/day
	instrumentation-	Once/3 months
	check	
	calibrate test	Once/3 months
f.	Logic System Functional Test	Once/each operating cycle

2. ESW will not be supplied to RBCLC system during testing.

3. Not Used

SAFETY EVALUATION FOR PROPOSED TECHNICAL SPECIFICATION CHANGES CONSISTENT TERMINOLOGY IN LIMITING CONDITIONS FOR OPERATION ACTION STATEMENTS (JPTS-90-007)

I. DESCRIPTION OF THE PROPOSED CHANGES

These changes to the James A. FitzPatrick Technical Specifications are categorized into three groups: A. clarification of Limiting Condition for Operation (LCO) action statements; B. addition of completion times to LCO action statements; or C. revision of LCO action statement requirements. The proposed changes to the James A. FitzPatrick Technical Specifications are detailed below.

Minor changes in format, such as type font, margins or hyphenation, are not described in this submittal. These changes are typographical in nature and do not affect the content of the Technical Specifications.

A. Clarification of LCOs

1. Page 42, Table 3.1-1, Note 1.A Replace the phrase "Initiate insertion of operable rods and complete insertion of all operable rods within four hours" with "Insert all operable control rods within four hours."

2. Page 65, Table 3.2-1, Note 2.B Replace the phrase "Initiate an orderly load reduction and have main steam lines isolated within eight hours" with "Isolate the main steam lines within eight hours."

3. Page 77d, Table 3.2-8, Note E Replace the phrase "an orderly shutdown shall be initiated and the reactor shall be in a Hot Shutdown condition in" with "the reactor shall be in a Hot Shutdown condition within."

4. Page 107, Specification 4.4.D Insert with the words, "Not Used."

5. Page 123, Specification 3.5.H Join the last two sentences by replacing the phrase "an orderly reactor power reduction shall be commenced immediately. The" with "the."

6. Page 124, Specification 3.5.I Join the last two sentences by replacing the phrase "an orderly reactor power reduction shall be commenced immediately. The" with "the."

7. Page 178, Specification 3.7.A.5.d Delete this specification and replace with the word "Deleted."

8. Page 180a, Specification 3.7.A.7.a.(3) Delete the phrase ", an orderly shutdown shall be initiated and."

9. Page 180a, Specification 3.7.A.8.a Renumber the specification as "3.7.A.8" and replace the phrase ", an orderly shutdown shall be initiated, and the reactor shall be in a" with "the reactor shall be in the."

10. Page 186, Specification 3.7.D.3 Replace the phrase ", an orderly shutdown shall be initiated and the reactor shall be in" with "the reactor shall be in the."

11. Page 186, Specification 4.7.D.3 Insert with the words "Not Used."

12. Page 217, Specification 3.9.B.4 Replace the phrase ", a reactor shutdown shall be initiated within two hours and the reactor placed in a cold condition within 24 hours after initiation of shutdown" with "restore at least one system to operable status within two hours or place the reactor in the cold condition within the following 24 hours."

13. Page 217, Specification 3.9.B.5 Insert with the word "Deleted."

14. Page 238, Specification 3.11.A.3 Replace the phrase:

    "within 3 days, the reactor will be shutdown in an orderly manner and in the Cold Shutdown Condition within 24 hours or if refueling operations are in progress, such operations will be terminated in an orderly manner"

    with

    "within 3 days, the reactor shall be in cold shutdown within 24 hours and any handling of irradiated fuel, core alterations, and operations with a potential for draining the reactor vessel shall be suspended as soon as practicable."

15. Page 238, Specification 3.11.A.4 Insert with the words, "Not Used."

16. Page 241, Specification 3.11.D.2 Delete the words, "total for any calendar month."

17. Page 241, Specification 3.11.D.3 Replace the phrase "an orderly shutdown shall be initiated and the reactor shall be placed in a" with "the reactor shall be placed in the."

18. Page 241, Specification 4.11.D.3 Insert with the words "Not Used."

B. Addition of Completion Times

1. Page 42, Table 3.1-1, Note 1.C Replace the sentence:

"Reduce power to less than 30 percent of rated."

with

"Reduce power level to less than 30 percent of rated within four hours."

2. Page 65, Table 3.2-1, Note 2.C At the end of note 2.C, insert the words, "within four hours."

3. Page 65, Table 3.2-1, Note 2.D At the end of note 2.D, insert the words, "within four hours."

4. Page 107, Specification 3.4.C At the end of the existing paragraph, add the sentence:

"If these requirements are not met, restore the system to the above limits within eight hours or take action in accordance with Specification 3.4.D."

5. Page 124b, Specification 3.5.J.4 Replace the phrase "the hot shutdown condition" with "at least the hot shutdown condition within 12 hours."

C. Revision of LCO Action Statement Requirements

1. Page 65, Table 3.2-1, Note 2.A Replace note 2.A "Initiate an orderly shutdown and have the reactor in cold shutdown condition in 24 hours" with "Place the reactor in the cold condition within 24 hours."

2. Page 107, Specification 3.4.D Replace the phrase "the cold condition within 24 hours" with "at least hot shutdown within the following 12 hours."

3. Page 142, Specification 3.6.D.5 Replace the phrase "immediately initiate an orderly shutdown and be in at least hot standby condition within the next 12 hours and in" with "be in at least hot shutdown within the next 12 hours and in the."

II. PURPOSE OF THE PROPOSED CHANGES

The FitzPatrick Technical Specifications contain several LCO action statements which require the plant to be placed in the cold condition using various terminology for apparently identical actions. There is no guidance available to the operators on how to interpret these different requirements.

This application adopts consistent terminology for LCO action statements and clearly distinguishes between the different actions associated with each LCO. This application also adds action times to action statements that previously did not specify action times and revises three LCO action statements specifying new LCO requirements.

A. Clarification of LCOs

Editorial changes have been made to: (1) eliminate undefined phrases which add no meaning; (2) clarify LCO repair times; (3) insert the words "Not Used" or "Deleted" to clarify the Technical Specification's history or usage; and (4) delete a redundant action statement.

Elimination of Undefined Phrases

Phrases such as "initiate an orderly load reduction" and "an orderly shutdown shall be initiated" are not defined in the Technical Specifications or the Standard Technical Specifications (STS) (Reference 1). These phrases where originally included to clarify that shutdown was to be conducted in an orderly fashion rather than on an urgent basis which would increase the possibility of a scram or other transient. A plant review of these phrases concluded that usage of these phrases do not provide any additional information to the operators in implementing the required LCO. The presence of these extraneous phrases may result in a misinterpretation by an operator (e.g., they could be interpreted as precluding a shutdown by scram). The removal of this potential restriction to operator action does not alter the specified action required and clarifies the Technical Specifications. The elimination of these phrases were performed for the following Sections and Tables:

A.1 Page 42, Table 3.1-1, Note 1.A

A.2 Page 65, Table 3.2-1, Note 2.B

A.3 Page 77d, Table 3.2-8, Note E

A.5 Page 123, Specification 3.5.H

A.6 Page 124, Specification 3.5.I

A.8 Page 180a, Specification 3.7.A.7.a.(3)

A.9 Page 180a, Specification 3.7.A.8.a

A.10 Page 186, Specification 3.7.D.3

A.12 Page 217, Specification 3.9.B.4

A.14 Page 238, Specification 3.11.A.3

A.17 Page 241, Specification 3.11.D.3

Clarification of LCO Repair Time

The phrase "total for any calendar month" was originally intended to limit the repair time allowed during a given month. This phrase could be misinterpreted to allow a repair period at the end of one month to continue into the beginning of another month for a total repair period in excess of the intended LCO action time limitation. The removal of this phrase precludes the possibility of having two consecutive repair periods without implementing the associated LCO. This change makes Specification 3.11.D.2 consistent with the remainder of the Technical Specifications in applying repair time limits.

Addition of "Not Used" or "Deleted"

There are several sections which were never used or were deleted by a prior amendment. Inserting a section with the words "Not Used" clarifies that there is no associated limiting condition for operation or surveillance requirement for an existing technical specification (e.g., Specification 4.11.A.4 was inserted by Amendment 114, Reference 2; inserting 3.11.A.4 here clarifies that there is no directly associated LCO). Inserting a section with the word "Deleted" clarifies that there are no current requirements (e.g., Specification 3.9.B.5 on page 217 was deleted by Amendment 95, Reference 3). The insertion of either the phrase "Not Used" or the word "Deleted" were performed for the following Sections:

A.4 Page 107, Specification 4.4.D

A.11 Page 186, Specification 4.7.D.3

A.13 Page 217, Specification 3.9.B.5

A.15 Page 238, Specification 3.11.A.4

A.18 Page 241, Specification 4.11.D.3

Redundant Action Statement

Specifications 3.7.A.5.d and 3.7.A.8.a both require the reactor to be placed in a cold condition if the requirements of Specifications 3.7.A.5.a through 3.7.A.5.c are not met. Specification 3.7.A.8.a does this broadly by referring to Specification 3.7.A.1 through 3.7.A.6 which encompasses the limiting conditions established in Specification 3.7.A.5.

Specification 3.7.A.5.d is therefore redundant since a shutdown requirement by this specification is interpreted as a shutdown requirement established by Specification 3.7.A.5. This specification can therefore be deleted.

B. Addition of Completion Times

There are five current LCOs where an action (i.e., shutdown or re-mediation) is specified without a corresponding time period for implementation. Completion times for these five LCO's were established taking into consideration related specifications and the STS.

The addition of time constraints to these action requirements provides a safety benefit to the plant by specifying when a safety action required by the LCO has to be completed. This provides an established time frame allowing the operators to determine the available and acceptable allocations of plant resources towards mitigating an event. An additional benefit arises from removing the need for the operators to interpret/determine a completion time for the required action.

C. Revision of LCO Action Statement Requirements

There are three changes to LCOs which revise the resulting mode if the limiting condition for operation can not be maintained (e.g., cold condition instead of cold shutdown). The reason for each of these changes are described in more detail in Section III.C of this safety evaluation.

III. SAFETY IMPLICATIONS OF THE PROPOSED CHANGES

A. Clarification of LCOs

These changes are editorial in nature, except for Specification 3.11.D.2, and do not have any safety implications. They do not alter the conclusions of the accident analyses in the FSAR or the NRC staff's SER.

The change to Specification 3.11.D.2 provides an increase in conservatism by precluding the possibility of having two consecutive repair periods without implementing the required LCO action. Furthermore, established plant practice requires the performance of post maintenance testing to demonstrate system operability prior to the system being declared operable. The post maintenance testing would therefore prevent a system which could not be made operable in the allowed repair time to be brought online only to have it fail again initiating a new repair period.

There is therefore no unresolved safety implications to this change to Specification 3.11.D.2 since it does not alter established plant practice in performing post maintenance tests nor alter or delay implementation of the required specified LCO action(s).

B. Addition of Completion Times

LCOs specify minimum requirements for ensuring safe operation of the unit. Each LCO includes action(s) and completion times(s).

The addition of action times will not increase risk since the times selected are consistent with current action requirements for similar or concurrent LCOs. The addition of action times does not alter the actions required. Each of the changes and the associated safety implications are discussed below:

1. Page 42, Table 3.1-1: Note 1.C requires a reduction of power to less than 30% of rate without specifying a completion time for this action. This power reduction is required when the minimum number of instrument channels for the trip systems of the turbine control and stop valves are inoperable. The addition of a 4 hour time requirement to note 1.C makes it consistent with the existing time requirement in note 1.A. Note 1.A requires control rods to be inserted within 4 hours when the minimum number of instrument channels for the trip systems of the turbine control and stop valves are inoperable. Both actions place the reactor in a condition where the inoperable trip is not required and the plant is in a safe condition.

2. Page 65, Table 3.2-1: Notes 2.C and 2.D require isolation of the reactor water cleanup and shutdown cooling systems, respectively, without specifying a duration for completion. The addition of a 4 hour time limit to both notes makes them consistent with the existing time limit in Technical Specification 3.7.D.2 for inoperable containment isolation valves.

3. Page 107, Specification 3.4.C: The specification requires a minimum boron enrichment, a minimum solution temperature, and heating to maintain the solution temperature in order for the Standby Liquid Control System (SLCS) to be considered operable. The current Specification 3.4.D requires the plant to be in a cold condition in 24 hours if these conditions are not met. The proposed change adds an 8 hour time period to restore the system to an operable condition. This is the same as the STS action time limit (ATL) (Section 3/4.1.5, "Standby Liquid Control System"). This repair time, in conjunction with the change to Specification 3.4.D that's discussed below, will require the reactor to be in hot shutdown within 20 hours if the SLC system can not be restored to the operable condition.

4. Page 124b, Specification 3.5.J.4: The specification identifies an ATL of 8 hours to implement single loop operation requirements. The proposed change establishes a completion time of 12 hours for reaching hot shutdown during single loop operation if the single loop requirements are not met. It also adds the words "at least" to clarify that hot shutdown is not the only plant condition that can be

reached and to be consistent with the balance of the Technical Specifications. The 12 hours is consistent with the ATL for hot shutdown in Technical Specification 3.5.J.6 when no loop is in service. This time is also the same as the STS ATL (Section 3/4.1.1, "Shutdown Margin") allowance for shutdown under these conditions.

C. Revision of LCO Action Statement Requirements

This amendment revises three LCOs by changing the terminal condition at the end of the ATL. These changes and their relevant safety implications are discussed as follows:

1. Page 65, Table 3.2-1: This change revises Note 2.A to require the reactor be placed in a "cold condition" rather than a "cold shutdown" when the minimum number of instrument channels for initiating primary containment isolation due to reactor coolant level (low and low-low-low) and drywell pressure (high) are inoperable. This is consistent with other sections of the Technical Specifications, for example Table 3.2-2, Note 1 and Table 3.2-8, Note A which states, respectively:

> "Whenever any ECCS subsystem is required by specification 3.5 to be operable, there shall be two operable trip systems. From and after the time it is found that the first column cannot be met for one of the trip systems, that trip system shall be placed in the tripped condition or the reactor shall be placed in the cold condition within 24 hours."

and

> "With the number of operable channels less than the required minimum, either restore the inoperable channels to operable status within 30 days, or be in a cold condition within the next 24 hours."

The change from "cold shutdown" (defined in Specification 1.0.I.3) to "cold condition" (defined in 1.0.C) differs only in that cold shutdown requires the mode switch be in the shutdown position and the reactor vessel to be vented. Placing the mode switch in the shutdown position also enables additional safety related features (i.e., interlocks on control rods and the transmittal of a scram signal). This is inconsistent with the remainder of the Technical Specifications (e.g., 3.3.A.2.c, 3.3.E, 3.4.D, 3.5.A, 3.5.B, 3.5.C, 3.5.D) concerning instrument repair time constraints. It also unnecessarily subjects the plant to a scram and the associated Control Rod Drive (CRD) system pressure transient. The 24 hour interval provides plant operators the opportunity to evaluate and reestablish the operability of those instruments required for initiating primary containment isolation.

Changing the terminal condition will leave the reactor at the same low energy level with the reactor coolant boundary intact (not vented) and without interlocks (i.e., control rod blocks). While the revised terminal condition avoids activating the interlocks this will not have any significant safety implications and does not alter the intent or goal of the LCO in bringing the plant to a safe condition following an initiating event. The plant safety features and functions at this energy level assure that safety margins are maintained.

2. Page 107, Specification 3.4.D: The proposed change revises Specification 3.4.D to require hot shutdown in 12 hours rather than the cold condition in 24 hours if the SLCS is inoperable. This change to the time interval and the mode requirement is consistent with the STS and avoids a cooldown-heatup thermal cycle on the reactor. By maintaining a high reactor coolant temperature, the change also avoids an increase in reactivity due to a temperature drop (i.e., contribution from the temperature coefficient factor). Finally, by requiring a hot shutdown condition rather then a cold condition, the reactor will have all control rods inserted negating the need for negative reactivity contribution from the standby liquid control system

   The specification also permits an 8 hour repair time (see section III.B.3, above). The change will not reduce the plant's safety margins.

3. Page 142, Specification 3.6.D.5: The proposed change revises Specification 3.6.D.5 to require "hot shutdown" rather than "hot standby" when the primary containment sump monitoring system is inoperable. This will make the specification consistent with Specification 3.6.D.6 as well as with the STS (Section 3/4.4.3.1, "Leakage Detection Systems"). This change places the plant in a more conservative condition by requiring the mode switch to be in the shutdown position. This results in the activation of safety interlocks to preclude the pulling control rods and also transmits a scram signal to ensure the complete insertion of all control rods. There is no adverse affect to the plant's safety margins.

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:

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

   The proposed amendment revisions involve no hardware changes, no changes to the operation of any systems or components, no changes to structures, and alters procedures only to the extent of clarifying required action or changing the actions required by the LCOs. LCOs which did not have a specified action time limit now have one. Three specifications were revised to require consistent terminal conditions with associated specifications. The changes to the various LCOs

makes the revised LCOs consistent with the Technical Specifications.

In all cases, the changes do not alter the probabilities or consequences of the accident scenarios.

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

   The proposed amendment revisions involve no hardware changes, no changes to the operation of any systems or components, no changes to structures, and alters procedures only to the extent that the LCOs have modified ATLs or revised terminal conditions. These changes do not affect the manner in which the reactor is operated. In all cases, the resulting changes do not pose a safety issue concern different from those analyzed previously for the FSAR or the NRC staffs SER.

3. involve a significant reduction in a margin of safety.

   The proposed amendment revisions involve no hardware changes, no changes to the operation of any systems or components, no changes to structures, and alters procedures only to the extent that the LCOs have modified ATLs or revised terminal conditions. The addition of an ATL for fulfilling the required actions in a LCO adds specificity to the specification. The changes to the terminal condition after implementation of an action requirement is consistent with related specifications and therefore will not significantly increase or decrease the margin of safety.

V. IMPLEMENTATION OF THE PROPOSED CHANGES

Implementation of the proposed changes will not adversely affect the ALARA or Fire Protection Programs at the FitzPatrick plant, nor will the changes impact the environment. These changes will not result in any new releases to the environment since there are no hardware, structural, or operational changes. For these same reasons, the changes pose no radiological or fire hazards. The changes do not alter the goals or intent of the relevant LCO's.

VI. CONCLUSION

The changes, as proposed, do not constitute an unreviewed safety question as defined in 10 CFR 50.59. That is, they:

1. will not change the probability nor the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report;

2. will not increase the possibility of an accident or malfunction of a type different from any previously evaluated in the Safety Analysis Report; and

3. will not reduce the margin of safety as defined in the basis for any technical specification.

The changes involve no significant hazards consideration, as defined in 10 CFR 50.92.

VII. REFERENCES

1. NRC NUREG-0123, "Standard Technical Specifications for General Electric Boiling Water Reactors (BWR/5)", Revision 3, dated Fall 1980.

2. NRC letter, H. I. Abelson to J. C. Brons, dated February 17, 1988 (JAF-88-038) transmits Amendment 114.

3. NRC letter, H. I. Abelson to J. C. Brons, dated October 29, 1985 (JAF-85-336) transmits Amendment 95.

4. James A. FitzPatrick Nuclear Power Plant Updated Final Safety Analysis Report Sections 3.7 "Thermal and Hydraulic Design," 3.9 "Standby Liquid Control System," 4.1 "Reactor Coolant System," 5.2 "Primary Containment System," 7.2 "Reactor Protection System," 7.3 "Primary Containment and Reactor Vessel Isolation Control System," 7.8 "Reactor Vessel Instrumentation," 8.6 "Emergency AC Power System," 9.7.1 "Emergency Service Water System," 9.9.3.11 "Control and Relay Room Air Conditioning System," through Revision 5, dated January 1992.

5. James A. FitzPatrick Nuclear Power Plant Safety Evaluation Report (SER), dated November 20, 1972, and Supplements.

Attachment III to JPN-93-007

PROPOSED TECHNICAL SPECIFICATION CHANGES CONSISTENT TERMINOLOGY IN LIMITING CONDITIONS FOR OPERATION ACTION STATEMENTS MARKUP OF TECHNICAL SPECIFICATION PAGES

(JPTS-90-007)

New York Power Authority

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
Docket No. 50-333
DPR-59

TABLE 3.1-1 (cont'd)

REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION REQUIREMENT

Minimum No. of Operable Instrument Channels per Trip System (1)	Trip Function	Trip Level Setting	Modes in Which Function Must be Operable: Refuel (6))16)	Startup	Run	Total Number of Instrument Channels Provided by Design for Both Trip Systems	Action (1)
4	Turbine Stop Valve Closure	≤ 10% valve closure			X(4)(5)	8 Instrument Channels	A or

NOTES OF TABLE 3.1-1

1. There shall be two operable or tripped trip systems for each function, except as specified in 4.1.D. From and after the time that the minimum number of operable instrument channel for a trip system cannot be met, that affected trip system shall be placed in the safe (tripped) condition, or the appropriate actions listed below shall be taken.
   A. Initiate insertion of operable rods and complete insertion of all operable rods within four hours.
   B. Reduce power level to IRM range and place Mode Switch in the Startup Position within eight hours.
   C. Reduce power to less than 30 percent of rated.
2. Permissible to bypass, if Refuel and Shutdown positions of the Reactor Mode Switch.
3. Deleted.
4. Bypassed when turbine first stage pressure is less than 217 psig or less than 30 percent of rated.
5. The design permits closure of any two lines without a scram being initiated.
6. When the reactor is subcritical and the reactor water temperature is less than 212°F, only the following trip functions need to be operable:
   A. Mode Switch in Shutdown
   B. Manual Scram

Amendment No. 99, 111, 179

TABLE 3.2-1 (Cont'd)

INSTRUMENTATION THAT INITIATES PRIMARY CONTAINMENT ISOLATION

NOTES FOR TABLE 3.2-1

1. Whenever Primary Containment integrity is required by Section 3.7, there shall be two operable or tripped trip systems for each function.
2. From and after the time it is found that the first column cannot be met for one of the trip systems, that trip system shall be tripped or the appropriate action listed below shall be taken.
   A. Initiate an orderly shutdown and have the reactor in cold shutdown condition in 24 hours.
   B. Initiate an orderly load reduction and have main steam lines isolated within eight hours.
   C. Isolate Reactor Water Cleanup System.
   D. Isolate shutdown cooling.
3. Deleted
4. Deleted
5. Two required for each steam line.
6. These signals also start SBGTS and initiate secondary containment isolation.
7. Only required in run mode (interlocked with Mode Switch).
8. Bypassed when mode switch is not in run mode and turbine stop valves are closed.
9. The trip level setpoint will be maintained at $\leq$ 3 times normal rated full power background. See note 16 to Table 3.1-1 for re-setting trip level setpoint just prior to and following the Hydrogen Addition Test.

TABLE 3.2-8 (Cont'd)

ACCIDENT MONITORING INSTRUMENTATION

NOTES FOR TABLE 3.2-8

A. With the number of operable channels less than the required minimum, either restore the inoperable channels to operable status within 30 days, or be in a cold condition within the next 24 hours.

B. With the number of OPERABLE channels less than required by the minimum channels OPERABLE requirements, initiate an alternate method of monitoring the appropriate parameter(s) within 72 hours and: (1) either restore the inoperable channel(s) to OPERABLE status within 7 days of the event, or (2) prepare and submit a Special Report to the Commission within 14 days following the event outlining the cause of the inoperability, the action taken, and the plans and schedule for restoring the system to OPERABLE status.

C. Each Safety/Relief Valve is equipped with two acoustical detectors, one of which is in service. Each SRV also has a backup thermocouple detector. In the event that a thermocouple is inoperable, SRV performance shall be monitored daily with the associated in service acoustical detector.

D. From and after the date that both of the acoustical detectors are inoperable, continued operation is permissible until the next outage in which a primary containment entry is made provided that the thermocouple is operable. Both acoustical detectors shall be made operable prior to restart. within

E. In the event that both primary (acoustical detectors) and secondary (thermocouple) indications of this parameter for any one valve are disabled and neither indication can be restored in forty-eight (48) hours, an orderly shutdown shall be initiated and the reactor shall be in a Hot Shutdown condition in twelve (12) hours and in a Cold Shutdown within the next twenty-four (24) hours.

F. Refer to Specification 3.7.A.9.

G. This parameter and associated instrumentation are not part of post-accident monitoring.

H. This instrument shall be operable in the Run, Startup/Hot Standby, and Hot Shutdown modes.

J. This instrument shall be operable in the Run and Startup/Hot Standby modes.

3.4 (Cont'd)

C. Sodium Pentaborate Solution

The standby liquid control solution tank shall contain a boron bearing solution with a minimum enrichment of 34.7 atom percent of B-10 that satisfies the volume-concentration requirements of Fig. 3.4-1 at all times when the Standby Liquid Control System is required to be operable and the solution temperature including that in the pump suction piping shall not be less than the temperature presented in Fig. 3.4-2. Tank heater and the heat tracing system shall be operable whenever the SLCS is required in order to maintain solution temperature in accordance with Fig. 3.4-2.

Insert "A"

D. If specifications 3.4.A through C are not met, the reactor shall be in the cold condition within 24 hours.

Replace with Insert "B"

4.4 (Cont'd)

C. Sodium Pentaborate Solution

The availability of the proper boron bearing solution shall be verified by performance of the following tests:

1. At least once per month -

   Boron concentration shall be determined. In addition, the boron concentration shall be determined any time water or enriched sodium pentaborate is added or if the solution temperature drops below the limits specified by Fig. 3.4-2.

2. At least once per day -

   Solution volume and the solution temperature shall be checked.

3. At least once per operating cycle -

   a. The temperature and level elements shall be calibrated.

   b. Enrichment of B-10 (in atom percent) shall be checked.

D. Not Used

3.5 (cont'd)

condition, that pump shall be considered inoperable for purposes of satisfying Specifications 3.5.A, 3.5.C, and 3.5.E.

H. Average Planar Linear Heat Generation Rate (APLHGR)

During power operation, the APLHGR for each type of fuel as a function of axial location and average planar exposure shall be within limits based on applicable APLHGR limit values which have been approved for the respective fuel and lattice types. These values are specified in the Core Operating Limits Report. If anytime during reactor power operation greater than 25% of rated power it is determined that the limiting value for APLHGR is being exceeded, action shall then be initiated within 15 minutes to restore operation to within the prescribed limits. If the APLHGR is not returned to within the prescribed limits within two (2) hours, an orderly reactor power reduction shall be commenced immediately. The reactor power shall be reduced to less than 25% of rated power within the next four hours, or until the APLHGR is returned to within the prescribed limits.

4.5 (cont'd)

2. Following any period where the LPCI subsystems or core spray subsystems have not been maintained in a filled condition; the discharge piping of the affected subsystem shall be vented from the high point of the system and water flow observed.

3. Whenever the HPCI or RCIC System is lined up to take suction from the condensate storage tank, the discharge piping of the HPCI or RCIC shall be vented from the high point of the system, and water flow observed on a monthly basis.

4. The level switches located on the Core Spray and RHR System discharge piping high points which monitor these lines to insure they are full shall be functionally tested each month.

H. Average Planar Linear Heat Generation Rate (APLHGR)

The APLHGR for each type of fuel as a function of average planar exposure shall be determined daily during reactor operation at $\geq$25% rated thermal power.

3.5 (cont'd)

I. Linear Heat Generation Rate (LHGR)

The linear heat generation rate (LHGR) of any rod in any fuel assembly at any axial location shall not exceed the maximum allowable LHGR specified in the Core Operating Limits Report.

If anytime during reactor power operation greater than 25% of rated power it is determined that the limiting value for LHGR is being exceeded, action shall then be initiated within 15 minutes to restore operation to within the prescribed limits. If the LHGR is not returned to within the prescribed limits within two (2) hours, an orderly reactor power reduction shall be commenced immediately. The reactor power shall be reduced to less than 25% of rated power within the next four hours, or until the LHGR is returned to within the prescribed limits.

4.5 (cont'd)

I. Linear Heat Generation Rate (LHGR)

The LHGR shall be determined daily during reactor operation at $\geq$25% rated thermal power.

3.5 (cont'd)

2. Within 2 hours after completing an increase in thermal power of 5 percent or more of rated thermal power.

b. If the APRM and LPRM neutron flux noise levels are greater than 5 percent and greater than three times their established baseline noise levels, initiate corrective action within 15 minutes to restore the noise levels to within the required limits within 2 hours, by increasing core flow and/or reducing thermal power.

3. If during single-loop operation, core thermal power is greater than the limit defined by line A of Figure 3.5-1, and core flow is less than 39 percent, immediately initiate corrective action to restore core thermal power and/or core flow to within the limits, specified in Figure 3.5-1, by increasing core flow and/or initiating an orderly reduction of core thermal power by inserting control rods.

4. The requirements applicable to single-loop operation in Specifications 1.1.A, 2.1.A, 3.1.A, 3.1.B, 3.2.C and 3.5.H shall be in effect within 8 hours following the removal of one recirculation loop from service, or the reactor shall be placed in the hot shutdown condition.

within 12 hours

at least

Amendment No. 96,

3.6 (cont'd)

5. With the Primary Containment Sump Monitoring System (Equipment Drain Sump Monitoring or Floor Drain Sump Monitoring) inoperable, restore the system to operable status within 24 hours or immediately initiate an orderly shutdown and be in at least hot ~~standby condition~~ shutdown within the next 12 hours and in cold condition within the following 24 hours.

6. With the Primary Containment Atmosphere Radioactivity Monitoring System (gaseous) or the Primary Containment Atmosphere Radioactivity Monitoring System (particulate) inoperable, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours. Otherwise be in at least hot shutdown within the next 12 hours and in cold shutdown within the following 24 hours.

4.6 (cont'd)

3. Drywell Continuous Atmosphere Radioactivity Monitoring System instrumentation shall be functionally tested and calibrated as specified in Table 4.6.2.

3.7 (cont'd)

breaker is sooner made operable, provided that the repair procedure does not violate primary containment integrity.

5. Pressure Suppression Chamber - Drywell Vacuum Breakers

a. When primary containment integrity is required, all drywell suppression chamber vacuum breakers shall be operable and positioned in the fully closed position except during testing and as specified in 3.7.A.5.b below.

b. One drywell suppression chamber vacuum breaker may be non-fully closed so long as it is determined to be not more than 1° open as indicated by the position lights.

c. One drywell suppression chamber vacuum breaker may be determined to be inoperable for opening.

d. If specifications 3.7.A.5.a, b, and c cannot be met, an orderly shutdown will be initiated, and the reactor shall be placed in a cold condition.

Deleted

4.7 (cont'd)

5. Pressure Suppression Chamber - Drywell Vacuum Breakers

a. Each drywell suppression chamber vacuum breaker shall be exercised through an opening - closing cycle monthly.

b. When it is determined that one vacuum breaker is inoperable for fully closing when operability is required, the operable breakers shall be exercised immediately, and every 15 days thereafter until the inoperable valve has been returned to normal service.

c. Once each operating cycle, each vacuum breaker valve shall be visually inspected to insure proper maintenance and operation.

d. A leak test of the drywell to suppression chamber structure shall be conducted once per operating cycle; the acceptable leak rate is $\leq$ 0.25 in. water/min. over a 10 min period, with the drywell at 1 psid.

3.7 (Cont'd)

(1) This differential pressure shall be established within a 24 hour period subsequent to placing the reactor in the run mode. The differential pressure may be reduced to less than 1.7 psid 24 hours prior to a scheduled shutdown.

(2) The differential pressure may be decreased to less than 1.7 psid for a maximum of four (4) hours during required operability testing of the HPCI, RCIC, and Suppression Chamber - Drywell Vacuum Breaker System.

(3) If the specifications of item a, above, cannot be met, and the differential pressure cannot be restored within the subsequent six (6) hour period, 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.

8. a. If the specifications of 3.7.A.1 through 3.7.A.6 cannot be met, an orderly shutdown shall be initiated, and the reactor shall be in the cold condition within 24 hours.

4.7 (Cont'd)

8. Not applicable.

3.7 (cont'd)

2. With one or more of the containment isolation valves inoperable, maintain at least one isolation valve operable in each affected penetration that is open and:

   a. Restore the inoperable valve(s) to operable status within 4 hours; or

   b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the closed position. Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under administrative control; or

   c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or a blind flange.

3. If Specifications 3.7.D.1 or 3.7.D.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in cold condition within 24 hrs.

   ↑ the

4.7 (cont'd)

   (2.) With the reactor at reduced power level, trip main steam isolation valves and verify closure time.

   d. At least twice per week, the main steam line power operated isolation valves shall be exercised by partial closure and subsequent reopening.

   e. The RBCLCWS isolation valves shall be fully closed and reopened any time the reactor is in the cold condition exceeding 48 hours, if the valves have not been fully closed and reopened during the preceding 92 days.

2. Whenever a containment isolation valve is inoperable, the position of at least one other valve in each line having an inoperable valve shall be recorded daily.

3. Not Used

Amendment No. 124, 184, 178,

3.9 (cont'd)

3. From and after the time that one of the Emergency Diesel Generator Systems is made or found to be inoperable, continued reactor operation is permissible for a period not to exceed 7 days provided that the two incoming power sources are available and that the remaining Diesel Generator System is operable. At the end of the 7-day period, the reactor shall be placed in a cold condition within 24 hours, unless the affected diesel generator system is made operable sooner.

4. When both Emergency Diesel Generator Systems are made or found to be inoperable, a reactor shutdown shall be initiated within two hours and the reactor placed in a cold condition within 24 hours after initiation of shutdown.

5. Deleted

Replace with Insert "C"

4.9 (cont'd)

3. The emergency diesel generator system instrumentation shall be checked during the monthly generator test.

4. Once each operating cycle, the conditions under which the Emergency Diesel Generator System is required will be simulated to demonstrate that the pair of diesel generators will start, accelerate, force parallel, and accept the emergency loads in the prescribed sequence.

5. Once within one hour and at least once per twenty-four hours thereafter while the reactor is being operated in accordance with Specifications 3.9.B.1, 3.9.B.2, or 3.9.B.3 the availability of the operable Emergency Diesel Generators shall be demonstrated by manual starting and force paralleling where applicable.

3.11 (cont'd)

ventilation air supply fan and/or filter may be out of service for 14 days.

2. The main control room air radiation monitor shall be operable whenever the control room emergency ventilation air supply fans and filter trains are required to be operable by 3.11.A.1 or filtration of the control room ventilation intake air must be initiated.

3. The control room emergency ventilation system shall not be out of service for a period exceeding 3 days during normal reactor operation or refueling operations. In the event that the system is not returned to service within 3 days, the reactor will be shutdown in an orderly manner and in the Cold Shutdown Condition within 24 hours or if refueling operations are in progress, such operations will be terminated in an orderly manner.

4. Not Used

Replace with Insert "D"

4.11 (cont'd)

b. Di-octylphtalate (DOP) test for particulate filter efficiency greater than 99% for particulate greater than 0.3 micron size.

c. Freon-112 test for charcoal filter bypass as a measure of filter efficiency of at least 99.5% for halogen removal.

d. A sample of charcoal filter shall be analyzed once a year to assure halogen removal efficiency of at least 99.5%.

2. Operability of the main control room air intake radiation monitor shall be tested once/3 months.

3. Temperature transmitters and differential pressure switches shall be calibrated once/ operating cycle.

4. Main control room emergency ventilation air supply system capacity shall be tested once every 18 months to assure that it is ±10% of the design value of 1000 cfm.

3.11 (cont'd)

2. From and after the time that one Emergency Service Water System is made or found to be inoperable for any reason continued reactor operation is permissible for a period not to exceed 7 days total for any calendar month, provided that:

   - the operable Emergency Diesel Generator System is demonstrated to be operable immediately and daily thereafter; and,
   - all Emergency Diesel Generator System emergency loads are verified operable immediately and daily thereafter.

3. If specification 3.11.D.2 cannot be met an orderly shut down shall be initiated and the reactor shall be placed in a cold condition within 24 hours.

4.11 (cont'd)

e.	ESW instrumentation- check	Once/day Once/3 months
	calibrate test	Once/3 months
f.	Logic System Functional Test	Once/each operating cycle

2. ESW will not be supplied to RBCLC system during testing.

3. Not Used

INSERT "A"

If these requirements are not met, restore the system to the above limits within eight hours or take action in accordance with Specification 3.4.D.

INSERT "B"

at least hot shutdown within the following 12 hours.

INSERT "C"

restore at least one system to operable status within two hours or place the reactor in the cold condition within the following 24 hours."

INSERT "D"

within 3 days, the reactor shall be in cold shutdown within 24 hours and any handling of irradiated fuel, core alterations, and operations with a potential for draining the reactor vessel shall be suspended as soon as practicable.