



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 192
License No. DPR-59

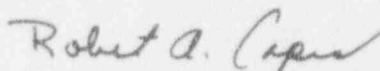
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Power Authority of the State of New York (the licensee) dated February 25, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-59 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 192, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 12, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 192

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A as follows:

Remove Pages

42
65
77d
107
123
124
124b
142
178
180a
186
217
238
241

Insert Pages

42
65
77d
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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	$\leq 10\%$ valve closure			X(4)(5)	8 Instrument Channels	A or C

NOTES OF TABLE 3.1-1

- 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.
 - Insert all operable control rods within four hours.
 - Reduce power level to IRM range and place Mode Switch in the Startup Position within eight hours.
 - Reduce power level to less than 30 percent of rated within four hours.
- Permissible to bypass, if Refuel and Shutdown positions of the Reactor Mode Switch.
- Deleted.
- Bypassed when turbine first stage pressure is less than 217 psig or less than 30 percent of rate.
- The design permits closure of any two lines without a scram being initiated.
- When the reactor is subcritical and the reactor water temperature is less than 212°F, only the following trip functions need to be operable:
 - Mode Switch in Shutdown.
 - Manual Scram.

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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.

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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

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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 at 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.

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.

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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, 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 at least the hot shutdown condition within 12 hours.

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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.

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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.

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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.

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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

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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.

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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-octylphthalate (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 $\pm 10\%$ of the design value of 1000 cfm.

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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 instrumentation-check | Once/day |
| | 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