



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. 229  
License No. DPR-59

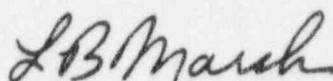
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Power Authority of the State of New York (the licensee) dated April 12, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's 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. 229, 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 90 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Ledyard B. Marsh, 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: October 13, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 229

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A as follows:

Remove Pages

86a  
119  
142a  
143  
152

Insert Pages

86a  
119  
142a  
143  
152

JAFNPP

TABLE 4.2-8 (cont'd)

**MINIMUM TEST AND CALIBRATION FREQUENCY FOR  
ACCIDENT MONITORING INSTRUMENTATION**

Instrument	Instrument Functional Test	Calibration Frequency	Instrument Check
15. Core Spray Flow	N/A	Once/Operating Cycle	Once/day
16. Core Spray Discharge Pressure	N/A	Once/Operating Cycle	Once/day
17. LPCI (RHR) Flow	N/A	Once/Operating Cycle	Once/day
18. RHR Service Water Flow	N/A	Once/Operating Cycle	Once/day
19. Safety/Relief Valve Position Indicator (Primary and Secondary)	Once/24 months	N/A	Once/month
20. Torus Water Level (narrow range)	N/A	Once/Operating Cycle	Once/day
21. Drywell-Torus Differential Pressure	N/A	Once/Operating Cycle	Once/day

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3.5 (cont'd)

D. Automatic Depressurization System (ADS)

1. The ADS shall be operable with at least 5 of the 7 ADS valves operable:
  - a. whenever the reactor pressure is greater than 100 psig and irradiated fuel is in the reactor vessel, and
  - b. prior to reactor startup from a cold condition.

4.5 (cont'd)

D. Automatic Depressurization System (ADS)

1. Surveillance of the Automatic Depressurization System shall be performed at least once every 24 months as follows:
  - a. A simulated automatic actuation which opens all pilot valves.
  - b. A simulated automatic actuation which is inhibited by the override switches.

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3.6 (cont'd)

E. Safety/Relief Valves

1. During reactor power operating conditions and prior to startup from a cold condition, or whenever reactor coolant pressure is greater than atmosphere and temperature greater than 212 F, the safety mode of at least 9 of 11 safety/relief valves shall be operable. The Automatic Depressurization System valves shall be operable as required by specification 3.5.D.

4.6 (cont'd)

E. Safety/Relief Valves

1. At least 5 of the 11 safety/relief valves shall be bench checked or replaced with bench checked valves every 24 months. All valves shall be tested every 48 months. The testing shall demonstrate that each valve tested actuates at 1110 psig  $\pm 3\%$ . Following testing, lift settings shall be 1110 psig  $\pm 1\%$ .

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### 3.6 (cont'd)

2. If Specification 3.6.E.1 is not met, the reactor shall be placed in a cold condition within 24 hours.
3. Low power physics testing and reactor operator training shall be permitted with inoperable components as specified in Specification 3.6.E.1 above, provided that reactor coolant temperature is  $\leq 212$  F and the reactor vessel is vented or the reactor vessel head is removed.
4. The provisions of Specification 3.0.D are not applicable.
5. The safety and safety/relief valves are not required to be operable during hydrostatic pressure and leakage testing with reactor coolant temperatures between 212 F and 300 F and irradiated fuel in the reactor vessel provided all control rods are inserted.

### 4.6 (cont'd)

2. At least one safety/relief valve shall be disassembled and inspected every 24 months.
3. The integrity of the nitrogen system and components which provide manual and ADS actuation of the safety/relief valves shall be demonstrated at least once every 3 months.
4. Manually open each safety/relief valve while bypassing steam to the condenser and observe a  $\geq 10\%$  closure of the turbine bypass valves, to verify that the safety/relief valve has opened. This test shall be performed at least every 24 months while in the RUN mode and within the first 12 hours after steam pressure and flow are adequate to perform the test.

## 3.6 and 4.6 BASES (cont'd)

E. Safety/Relief Valves

The safety/relief valves (SRVs) have two modes of operation; the safety mode or the relief mode. In the safety mode (or spring mode of operation) the spring loaded pilot valve opens when the steam pressure at the valve inlet overcomes the spring force holding the pilot valve closed. The safety mode of operation is required during pressurization transients to ensure vessel pressures do not exceed the reactor coolant pressure safety limit of 1,375 psig.

In the relief mode the spring loaded pilot valve opens when the spring force is overcome by nitrogen pressure which is provided to the valve through a solenoid operated valve. The solenoid operated valve is actuated by the ADS logic system (for those SRVs which are included in the ADS) or manually by the operator from a control switch in the main control room or at the remote ADS panel. Operation of the SRVs in the relief mode for the ADS is discussed in the Bases for Specification 3.5.D.

Experiences in safety/relief valve testing have shown that failure or deterioration of safety/relief valves can be adequately detected if at least 5 of the 11 valves are bench tested once every 24 months so that all valves are tested every 48 months. Furthermore, safety/relief valve testing experience has demonstrated that safety/relief valves which actuate within  $\pm 3\%$  of the design pressure setpoint are considered operable (see ANSI/ASME OM-1-1981). The safety bases for a single nominal valve opening pressure of 1110 psig are described in NEDC-31697P, "Updated SRV Performance Requirements for the JAFNPP." The single nominal setpoint is set below the reactor vessel design pressure (1250 psig) per the requirements of Article 9 of the ASME Code - Section III, Nuclear Vessels. The setting of 1110 psig preserves the safety margins associated

with the HPCI and RCIC turbine overspeed systems and the Mark I torus loading analyses. Based on safety/relief valve testing experience and the analysis referenced above, the safety/relief valves are bench tested to demonstrate that in-service opening pressures are within the nominal pressure setpoints  $\pm 3\%$  and then the valves are returned to service with opening pressures at the nominal setpoints  $\pm 1\%$ . In this manner, valve integrity is maintained from cycle to cycle.

The analyses with NEDC-31697P also provide the safety basis for which 2 SRVs are permitted inoperable during continuous power operation. With more than 2 SRVs inoperable, the margin to the reactor vessel pressure safety limit is significantly reduced, therefore, the plant must enter a cold condition within 24 hours once more than 2 SRVs are determined to be inoperable. (See reload evaluation for the current cycle).

A manual actuation of each SRV is performed to demonstrate that the valves are mechanically functional and that no blockage exists in the valve discharge line. Valve opening is confirmed by monitoring the response of the turbine bypass valves and the SRV acoustic monitors. Adequate reactor steam dome pressure must be available to avoid damaging the valve. Adequate steam flow is required to ensure that reactor pressure can be maintained during the test. Testing is performed in the RUN mode to reduce the risk of a reactor scram in response to small pressure fluctuations which may occur while opening and reclosing the valves.

Low power physics testing and reactor operator training with inoperable components will be conducted only when the safety/relief valves are