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

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

DOCKET NO. 50-334

BEAVER VALLEY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 150
License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Duquesne Light Company, et al. (the licensee) dated October 16, 1989 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-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 150, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective on issuance, to be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Peter S. Tam for

John F. Stolz, Director
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 6, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 150

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Replace the following pages of Appendix A (Technical Specifications) with the enclosed pages as indicated. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove	Insert
3/4 1-4	3/4 1-4
3/4 4-2c	3/4 4-2c
3/4 4-3	3/4 4-3
3/4 4-4	3/4 4-4
3/4 9-8	3/4 9-8
B3/4 4-1a	B3/4 4-1a

BORON DILUTION

LIMITING CONDITION FOR OPERATION

3.1.1.3 The flow rate of reactor coolant through the core shall be ≥ 3000 gpm whenever a reduction* in Reactor Coolant System boron concentration is being made.

APPLICABILITY: All MODES.#

ACTION:

With the flow rate of reactor coolant through the core < 3000 gpm, immediately suspend all operations involving a reduction* in boron concentration of the Reactor Coolant System.

SURVEILLANCE REQUIREMENTS

4.1.1.3 The flow rate of reactor coolant through the core shall be determined to be ≥ 3000 gpm prior to the start of and at least once per hour during a reduction* in the Reactor Coolant System boron concentration by either:

a. Verifying at least one reactor coolant pump is in operation, or

b. Verifying that at least one RHR pump is in operation and supplying ≥ 3000 gpm through the core.

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* For purposes of this specification, the addition of borated water to the RCS does not constitute a reduction in RCS boron concentration provided the boron concentration of the borated water being added is greater than the minimum required to satisfy the requirements of one of the following applicable specifications: 3.1.1.1 for Modes 1,2,3 and 4; or 3.1.1.2 for Mode 5; or 3.9.1 for Mode 6.

With fuel in the vessel.

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.4.1.3 a. At least two of the coolant loops listed below shall be OPERABLE:

1. Reactor Coolant Loop (A) and its associated steam generator and reactor coolant pump,

2. Reactor Coolant Loop (B) and its associated steam generator and reactor coolant pump,

3. Reactor Coolant Loop (C) and its associated steam generator and reactor coolant pump,

4. Residual Heat Removal Pump (A) and a heat exchanger,**

5. Residual Heat Removal Pump (B) and a second heat exchanger.**

b. At least one of the above coolant loops shall be in operation.***

APPLICABILITY: Modes 4 AND 5

ACTION:

a. With less than the above required loops OPERABLE, immediately initiate corrective action to return the required loops to OPERABLE status as soon as possible; be in COLD SHUTDOWN within 20 hours.

b. With no coolant loop in operation, suspend all operation involving a reduction in boron concentration of the Reactor Coolant system and immediately initiate corrective action to return the required coolant loop to operation. Refer to Specification 3.4.1.6 for additional limitations.

** The normal or emergency power source may be inoperable in MODE 5.

*** All reactor coolant pumps and Residual Heat Removal pumps may be de-energized for up to 1 hour provided: 1) no operations are permitted that would cause dilution of the reactor coolant system boron concentration and 2) core outlet temperature is maintained at least 10°F below saturation temperature. For purposes of this specification, the addition of borated water to the RCS does not constitute dilution of the RCS boron concentration provided the boron concentration of the borated water being added is greater than the minimum required to satisfy the requirements of specification 3.1.1.1 for Mode 4; or 3.1.1.2 for Mode 5.

ISOLATED LOOP

LIMITING CONDITION FOR OPERATION

3.4.1.4. The RCS isolated loop stop valves shall have power removed from the associated valve operators*.

APPLICABILITY:

Whenever an RCS loop has been isolated, Modes 5 and 6#.

ACTION:

With the requirements of the above specification not satisfied, remove power from the isolated loop stop valve operators* within 1 hour.

SURVEILLANCE REQUIREMENTS

4.4.1.4 Verify at least once per 7 days that power is removed from the RCS isolated loop stop valve operators*.

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* Power may be restored to the associated RCS isolated loop stop valve operators provided the requirements of surveillance requirement 4.4.1.5.3 have been satisfied.

\# With fuel in the vessel.

REACTOR COOLANT SYSTEM

ISOLATED LOOP STARTUP

LIMITING CONDITION FOR OPERATION

3.4.1.5 The RCS cold leg stop valve shall remain closed until:

a. The isolated loop has been operating on a recirculation flow of $\geq$ 125 gpm for at least 90 minutes and the temperature at the cold leg of the isolated loop is within 20°F of the highest cold leg temperature of the operating loops.

b. The reactor is subcritical by at least 1 percent $\Delta k/k$.

c. The isolated loop boron concentration is greater than or equal to minimum required to satisfy the applicable requirements of Specification 3.1.1.2 for Mode 5 or Specification 3.9.1 for Mode. 6.

APPLICABILITY: Modes 5 and 6*.

ACTION:

With the requirements of the above specification not satisfied, suspend startup of the isolated loop.

SURVEILLANCE REQUIREMENTS

4.4.1.5.1 The isolated loop cold leg temperature shall be determined to be within 20°F of the highest cold leg temperature of the operating loops within 30 minutes prior to opening the cold leg stop valve.

4.4.1.5.2 The reactor shall be determined to be subcritical by at least 1 percent $\Delta k/k$ within 30 minutes prior to opening the cold leg stop valve.

4.4.1.5.3 The isolated loop boron concentration shall be determined to be greater than or equal to the minimum required to satisfy the applicable requirements of Specification 3.1.1.2 for Mode 5 or Specification 3.9.1 for Mode 6 within 30 minutes prior to opening the hot leg stop valve and again within 30 minutes prior to opening the cold leg stop valve.

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* With fuel in the vessel.

REFUELING OPERATION

3/4 9.8 RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION

LIMITING CONDITION FOR OPERATION

3.9.8.1 At least one residual heat removal (RHR) loop shall be in operation.

APPLICABILITY: MODE 6 #

ACTION:

a. With less than one residual heat removal loop in operation, except as provided below, suspend all operations involving an increase in the reactor decay heat load or a reduction° in boron concentration of the Reactor Coolant System. Close all containment penetrations providing direct access from the containment atmosphere to the outside atmosphere within 4 hours.

b. The residual heat removal loop may be removed from operation for up to 1 hour per 8 hour period during the performance of CORE ALTERATIONS in the vicinity of the reactor pressure vessel (hot) legs.

c. The residual heat removal loop may be removed from operation for up to 4 hours per 8 hour period during the performance of Ultrasonic In-service Inspection inside the reactor vessel nozzles provided there is at least 23 feet of water above the top of the reactor vessel flange.

d. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.8.1 Verify at least one residual heat removal loop is in operation and circulating reactor coolant at:

a. A flow rate ≥ 1000 gpm twice per shift when the Reactor Coolant System is in a reduced inventory condition*.

b. A flow rate ≥ 3000 gpm prior to the start of and once per hour during a reduction° in the Reactor Coolant System boron concentration.

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* The Reactor Coolant System water level is lower than three feet below the reactor vessel flange.

° For purposes of this specification, the addition of borated water to the RCS does not constitute a reduction or dilution in RCS boron concentration provided the boron concentration of the borated water being added is greater than the minimum required to satisfy the requirements of specification 3.9.1 for Mode 6.

\# With fuel in the vessel.

3/4.4.1 REACTOR COOLANT LOOPS, (continued)

of Appendix G by either (1) restricting the water level in the pressurizer and thereby providing a volume for the primary coolant to expand into or (2) by restricting starting of the RCPs to when the secondary water temperature of each steam generator is less than 25°F above each of the RCS cold leg temperatures.

Power is removed from the isolated loop stop valves (hot leg and cold leg) to ensure that no reactivity addition to the core can occur while the loop is isolated due to inadvertent opening of the isolated loop stop valves. Isolated loop startup is limited to Modes 5 and 6 in accordance with the NRC SER on N-1 loop operation. Verification of the isolated loop boron concentration prior to opening the isolated loop stop valves provides a reassurance of the adequacy of the shutdown margin in the remainder of the system. Restoration of power to the hot leg stop valve allows opening this valve to complete the recirculation flowpath in conjunction with the relief line bypassing the cold leg stop valve and ensures adequate mixing in the isolated loop. This enables the temperature and boron concentration of the isolated loop to be brought to equilibrium with the remainder of the system. Limiting the temperature differential between the isolated loop and the remainder of the system prior to opening the cold leg stop valve prevents any significant reactivity effects due to cool water addition to the core.

Startup of an idle lop will inject cool water from the loop into the core. The reactivity transient resulting from this cool water injection is minimized by delaying isolated loop startup until its temperature is within 20°F of the operating loops. Making the reactor subcritical prior to loop startup prevents any power spike which could result from this cool water induced reactivity transient.

3/4.4.2 and 3/4.4.3 SAFETY VALVES

The pressurizer code safety valves operate to prevent the RCS from being pressurized above its Safety Limit of 2735 psig. Each safety valve is designed to relieve 345,000 lbs. per hour of saturated steam at the valve set point. The relief capacity of a single safety valve is adequate to