

April 24, 1985

Docket No. 50-334

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Mr. J. J. Carey, Vice President  
Nuclear Division  
Duquesne Light Company  
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Dear Mr. Carey:

SUBJECT: ISSUANCE OF AMENDMENT (LICENSING ACTION TAC 56380)

The Commission has issued the enclosed Amendment No.92 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application dated November 14, 1984 and revised by letter dated March 8, 1985.

The amendment changes the Technical Specifications for Beaver Valley Unit No. 1 to require two reactor coolant pumps, rather than one, to be operating when the reactor trip breakers are closed in Mode 3. These changes would make the Technical Specifications consistent with the Updated FSAR analysis of the limiting low-flow event.

A copy of the related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next regular monthly Federal Register notice.

Sincerely,

/s/PSTam

Peter S. Tam, Project Manager  
Operating Reactors Branch No. 1  
Division of Licensing

Enclosures:

1. Amendment No.92 to DPR-66
2. Safety Evaluation

cc w/enclosures:  
See next page

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*[Signature]*  
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PDR



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

April 24, 1985

Docket No. 50-334

Mr. J. J. Carey, Vice President  
Nuclear Group  
Duquesne Light Company  
Post Office Box 4  
Shippingport, PA 15077

Dear Mr. Carey:

SUBJECT: ISSUANCE OF AMENDMENT (LICENSING ACTION TAC 56380)

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Sincerely,

A handwritten signature in cursive script that reads "Peter S. Tam".

Peter S. Tam, Project Manager  
Operating Reactors Branch No. 1  
Division of Licensing

Enclosures:

1. Amendment No. 92 to DPR-66
2. Safety Evaluation

cc w/enclosures:

See next page

Mr. J. J. Carey  
Duquesne Light Company

Beaver Valley Power Station  
Unit 1

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Beaver Valley Power Station  
Unit 1

- 2 -

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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. 92  
License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A.- The application for amendment by Duquesne Light Company, Ohio Edison Company, and Pennsylvania Power Company (the licensees) dated November 14, 1984 and revised by letter dated March 8, 1985, 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:

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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 92, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This amendment is effective on issuance, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Steven A. Varga, Chief  
Operating Reactors Branch #1  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 24, 1985

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 92 TO FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Revise Appendix A as follows:

Remove Pages

3/4 4-2b  
B 3/4 4-1

Insert Pages

3/4 4-2b  
B 3/4 4-1

## REACTOR COOLANT SYSTEM

### HOT STANDBY

#### LIMITING CONDITION FOR OPERATION

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- 3.4.1.2 a. At least two reactor coolant loops and associated steam generators and reactor coolant pumps shall be in operation\* when the rod control system is capable of control bank rod withdrawal.
- b. At least two reactor coolant loops and associated steam generators and reactor coolant pumps shall be OPERABLE and one reactor coolant loop shall be in operation\* when the rod control system is incapable of control bank rod withdrawal.

APPLICABILITY:     MODE 3

#### ACTION:

- a. With less than the above required reactor coolant loops OPERABLE, restore the required loops to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.
- b. With less than two reactor coolant loops in operation, immediately de-energize all control rod drive mechanisms, or align the rod control system so that it is incapable of control bank rod withdrawal.
- c. With no reactor coolant loop in operation, suspend all operations involving a reduction in boron concentration of the Reactor Coolant System and immediately initiate corrective action to return the required coolant loop to operation.

#### SURVEILLANCE REQUIREMENTS

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4.4.1.2.1 With the rod control system capable of rod withdrawal, at least two cooling loops shall be verified to be in operation and circulating reactor coolant at least once per 12 hours.

4.4.1.2.2 With the rod control system incapable of rod withdrawal, at least two cooling loops, if not in operation, shall be determined to be OPERABLE once per 7 days by verifying correct breaker alignments and indicated power availability.

4.4.1.2.3 With the rod control system incapable of rod withdrawal, at least one cooling loop shall be verified to be in operation and circulating reactor coolant at least once per 12 hours.

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\* All reactor coolant 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. This does not preclude natural circulation cooldown under abnormal cooldown conditions.

## 3/4.4 REACTOR COOLANT SYSTEM

### BASES

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#### 3/4.4.1 REACTOR COOLANT LOOPS

The plant is designed to operate with all reactor coolant loops in operation and maintain DNBR above 1.30 during all normal operations and anticipated transients. In Modes 1 and 2, with one reactor coolant loop not in operation, THERMAL POWER is restricted to  $\leq$  31 percent of RATED THERMAL POWER until the Overtemperature  $\Delta T$  trip is reset. Either action ensures that the DNBR will be maintained above 1.30. A loss of flow in two loops will cause a reactor trip if operating above P-7 (11 percent of RATED THERMAL POWER) while a loss of flow in one loop will cause a reactor trip if operating above P-8 (31 percent of RATED THERMAL POWER).

In MODE 3, a single reactor coolant loop provides sufficient heat removal capability for removing decay heat; however, due to the initial conditions assumed in the analysis for the control rod bank withdrawal from a subcritical condition, two operating coolant loops are required to meet the DNB design basis for this Condition II event.

In MODES 4 and 5, a single reactor coolant loop or RHR subsystem provides sufficient heat removal capability for removing decay heat; but single failure considerations require that at least two loops be OPERABLE. Thus, if the reactor coolant loops are not OPERABLE, this specification requires two RHR loops to be OPERABLE.

The operation of one Reactor Coolant Pump or one RHR pump provides adequate flow to ensure mixing, prevent stratification and produce gradual reactivity changes during boron concentration reductions in the Reactor Coolant System. The reactivity change rate associated with boron reduction will, therefore, be within the capability of operator recognition and control.

The restrictions on starting a Reactor Coolant Pump with one or more RCS cold legs less than or equal to 275°F are provided to prevent RCS pressure transients, caused by energy additions from the secondary system, which could exceed the limits of Appendix G to 10 CFR Part 50. The RCS will be protected against overpressure transients and will not exceed the limits.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 92 TO FACILITY OPERATING LICENSE NO. DPR-66

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

BEAVER VALLEY POWER STATION, UNIT NO. 1

DOCKET NO. 50-334

Introduction

By letter dated November 14, 1984, Duquesne Light Company (DLC) submitted a request to amend the Appendix A Technical Specifications of Operating License DPR-66 to require two reactor coolant pumps, rather than one, to be operating when the reactor trip breakers are closed in Mode 3. By letter dated March 8, 1985, DLC submitted a revised change request to clarify the original submittal. We have reviewed the submittals and the results of our review are as follows.

Discussion and Evaluation

The plant is designed to operate with all reactor coolant loops in operation and maintain DNBR above 1.30 during all normal operations and anticipated transients.

In Mode 3, a single reactor coolant loop provides sufficient heat removal capability for removing decay heat; however, due to the initial conditions assumed in the analysis for the control rod bank withdrawal from a subcritical condition, two operating coolant loops are required to meet the DNB design basis for this Condition II event.

The limiting accident for reduced RCS flow conditions applicable to Mode 3 operation is described in Updated Final Safety Analysis Report (UFSAR) Section 14.1.1, "Uncontrolled Rod Cluster Control Assembly Bank Withdrawal from a Subcritical Condition". The UFSAR does not specifically state the number of reactor coolant loops in operation assumed in the analysis. However, the assumptions used by Westinghouse in the analyses are specified in the UFSAR changes proposed for the N-1 loop operation analysis (C. N. Dunn, DLC to A. Schwencer, NRC dated October 27, 1978). The assumptions are, for the three loop operation case, three loops are operating and for the two loop operation case, two loops are operating. The UFSAR conclusions remain unchanged; the core and the Reactor Coolant System are not adversely affected, since the combination of thermal power and the coolant temperature result in a DNBR well above the limiting value of 1.30.

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The proposed change to the Technical Specifications will require a minimum of two operating reactor coolant loops (as opposed to two operable loops in the current specification) when in Mode 3 to reflect the minimum flow assumptions used in the UFSAR limiting low-flow event.

Since the proposed changes will make the Beaver Valley Unit 1 Technical Specification consistent with the UFSAR analysis and would add conservatism to reactor operation, we find them acceptable.

The licensee's submittal of March 8, 1985, was made as a result of NRC staff request to clarify the language of the original submittal dated November 14, 1984, and does not contain substantive changes.

#### Environmental Consideration

This amendment involves only changes in administrative procedures and requirements. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

#### Conclusion

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense or security or to the health and safety of the public.

Dated: April 24, 1985

Principal Contributor:

Ed Lantz