B Jones

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

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POSTED
Am-29 to
DPR-66

August 29, 1980

Docket No. 50-334

Mr. C. N. Dunn, Vice President
Operations Division
Duquesne Light Company
435 Sixth Avenue
Pittsburgh, Pennsylvania 15219

Dear Mr. Dunn:

The Commission has issued the enclosed Amendment No. 29 to Facility Operating License No. DPR-66 for the Beaver Valley Nuclear Power Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated May 14, 1980.

The amendment revises the Safety Technical Specifications in Appendix A to eliminate the use of a Reactor Coolant Pump Position Trip above setpoint P-8 (31% of rated power).

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

Joseph D. Neighbors
for Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Enclosures:
1. Amendment No. 29 to DPR-66
2. Safety Evaluation
3. Notice of Issuance

cc: w/enclosures
See next page

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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. 29
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 May 14, 1980, 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 Appendices A and B, as revised through Amendment No. 29 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION

for Joseph D. Neighbors
Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 29, 1980

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 29 TO FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Revise Appendix A as follows:

Remove Pages	Insert Pages
B 2-8	B 2-8
3/4 3-4	3/4 3-4

Safety Injection Input from ESF

If a reactor trip has not already been generated by the reactor protective instrumentation, the ESF automatic actuation logic channels will initiate a reactor trip upon any signal which initiates a safety injection. This trip is provided to protect the core in the event of a LOCA. The ESF instrumentation channels which initiate a safety injection signal are shown in Table 3.3-3.

Reactor Coolant Pump Breaker Position Trip

The Reactor Coolant Pump Breaker Position Trips are anticipatory trips which provide reactor core protection against DNB resulting from the opening of two or more pump breakers above P-7. These trips are blocked below P-7. The open/close position trips assure a reactor trip signal is generated before the low flow trip set point is reached. No credit was taken in the accident analyses for operation of these trips. Their functional capability at the open/close position settings is required to enhance the overall reliability of the Reactor Protection System.

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

APPLICABLE FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	MODES	ACTION
18. Turbine Trip					
A. Auto Stop Oil Pressure	3	2	2	1	7
B. Turbine Stop Valve Closure	4	4	4	1	8
19. Safety Injection Input from ESF	2	1	2	1, 2	1
20. Reactor Coolant Pump Breaker Position Trip Above P-7	1/breaker	2	1/breaker per operating loop	1	11
21. Reactor Trip Breakers	2	1	2	1, 2*	1
22. Automatic Trip Logic	2	1	2	1, 2*	1

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 29 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 of May 14, 1980, Duquesne Light Company (the licensee) requested that the Technical Specifications for Beaver Valley Unit No. 1 be revised. The revision would eliminate the use of a Reactor Coolant Pump Breaker Position Trip whenever the plant was above Setpoint P-8 ($\geq$ 31% of rated power). The change was requested to prevent spurious reactor trips which occur when the output of the vital bus inverters is inadvertently short-circuited.

The purpose of this review was to determine whether or not the proposed modification to the P-8 reactor trip circuitry meets the licensing guidelines of SRP 7. Specifically, this review examined the modifications to ensure that adequate justification exists for bypassing this trip and that no other trips are affected.

Discussion and Evaluation

SRP 7.2 provides guidelines for review of electrical, instrumentation, and control system (EICS) features of Reactor Trip Systems. IEEE Standard 279 and Regulatory Guide (RG) 1.53 contain single failure criteria. Redundancy and independence criteria are in IEEE Standard 279 and RG 1.6. Testing requirements are contained in IEEE Standard 279 and RG 1.118.

The P-8 permissive in the Beaver Valley Unit No. 1 reactor trip system ensures that a loss of flow in any one reactor coolant loop when reactor power is above 31% will initiate a reactor scram. This trip is initiated either by two of three low flow signals from flow instruments in each loop or by any reactor coolant pump (RCP) breaker auxiliary relays indicating that power to the pump is interrupted. Each of the three flow sensors per loop is powered from independent and redundant vital buses and requires two of three sensors to indicate low flow in order to initiate a scram. Thus, no EICS single failure will render this protective feature inoperable. However, failure of any one static inverter power supply can cause a spurious reactor trip by causing the reactor coolant pump breaker auxiliary relays to indicate that the pump has tripped. The modification to the P-8 circuitry would eliminate this input to the reactor trip system.

The RCP breaker trip is an anticipatory trip and serves as a backup to the flow sensors. However, no credit has been taken for this trip in the Beaver Valley Unit No. 1 safety analyses. Therefore, removal of this trip has no effect on the safety analyses.

The RCP breaker trip is removed by removing the leads to an electronic "OR" gate. This action has no effect on any other trips and still allows the two of three low flow signals to initiate a scram. This modification has no effect on the independence or testability of the two of three low flow trip signals.

The removal of the RCP breaker auxiliary relays trip in the P-8 circuitry does not affect the safety analyses, does not affect the independence or testability of the remaining signals, and does not affect any other reactor trips. Therefore, the proposal meets the guidelines of SRP 7.2.

Summary

The removal of the RCP breaker auxiliary relays trips to the P-8 circuitry meets the guidelines of SRP 7.2, does not affect the safety analysis, and does not affect the operation of any other trips.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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 and security or to the health and safety of the public.

Date: August 29, 1980

References

1. Final Safety Analysis Report, Beaver Valley Nuclear Station, Unit 1.

2. Duquesne Light Company letter (Dunn) to NRC (Varga) "Request for Amendment No. 46 to Operating License."

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-334

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 29 to Facility Operating License No. DPR-66 issued to Duquesne Light Company, Ohio Edison Company, and Pennsylvania Power Company (the licensees), which revised Technical Specifications for operation of the Beaver Valley Power Station, Unit No. 1 (the facility) located in Beaver County, Pennsylvania. The amendment is effective as of the date of issuance.

The amendment revises the Safety Technical Specifications in Appendix A to eliminate the use of a Reactor Coolant Pump Position Trip above setpoint P-8 (31% rated power).

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since this amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated May 14, 1980, (2) Amendment No. 29 to License No. DPR-66 and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. and at the B. F. Jones Memorial Library, 663 Franklin Avenue, Aliquippa, Pennsylvania 15001. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 29th day of August, 1980.

FOR THE NUCLEAR REGULATORY COMMISSION

Joseph D. Neighbors

Joseph D. Neighbors, Acting Chief
Operating Reactors Branch #1
Division of Licensing