

December 6, 1989

Docket No. 50-412

Mr. J. D. Sieber, Vice President
Nuclear Group
Duquesne Light Company
Post Office Box 4
Shippingport, Pennsylvania 15077

Dear Mr. Sieber:

SUBJECT: BEAVER VALLEY UNIT 2 - ISSUANCE OF AMENDMENT (TAC NO. 73106)

The Commission has issued the enclosed Amendment No. 24 to Facility Operating License No. NPF-73 for the Beaver Valley Power Station, Unit 2, in response to your application dated May 4, 1989.

The amendment revises the reactor trip system overtemperature delta T and overpower delta T response times listed in Table 3.3-2 of the Technical Specifications from 4.0 seconds to 5.5 seconds.

A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

Signed by

Peter S. Tam, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 24 to NPF-73
- 2. Safety Evaluation

cc w/enclosures:
See next page

DFC	:LA:PDI-4	:PM:PDI-4	:PD:PDI-4	:OGC	:B:STXB	:	:
NAME	:SMorris	:PTam:lm	:JStolz	:PS Tam	:RJones	:	:
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DATED: December 6, 1989

AMENDMENT NO. 24 FACILITY OPERATING LICENSE NO. NPF-24

Docket File

NRC & Local PDR

Plant File

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cc: Licensee/Applicant Service List

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Duquesne Light Company

Beaver Valley Power Station
Units 1 & 2

cc:

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

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

DOCKET NO. 50-412

BEAVER VALLEY POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 24
License No. NPF-73

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Duquesne Light Company, et al. (the licensee) dated May 4, 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.

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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. NPF-73 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 24, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto are hereby incorporated in the license. DLCO shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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: December 6, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 24

FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

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

Remove

3/4 3-8

Insert

3/4 3-8

TABLE 3.3-2

REACTOR TRIP SYSTEM INSTRUMENTATION RESPONSE TIMES

<u>FUNCTIONAL UNIT</u>	<u>RESPONSE TIME</u>
1. Manual Reactor Trip	NOT APPLICABLE
2. Power Range, Neutron Flux	≤ 0.5 seconds*
3. Power Range, Neutron Flux, High Positive Rate	NOT APPLICABLE
4. Power Range, Neutron Flux, High Negative Rate	≤ 0.5 seconds*
5. Intermediate Range, Neutron Flux	NOT APPLICABLE
6. Source Range, Neutron Flux (Below P-10)	NOT APPLICABLE
7. Overtemperature ΔT	≤ 5.5 seconds*
8. Overpower ΔT	≤ 5.5 seconds*
9. Pressurizer Pressure--Low (Above P-7)	≤ 2.0 seconds
10. Pressurizer Pressure--High	≤ 2.0 seconds
11. Pressurizer Water Level--High (Above P-7)	NOT APPLICABLE
12. Loss of Flow - Single Loop (Above P-8)	≤ 1.0 seconds
13. Loss of Flow - Two Loop (Above P-7 and below P-8)	≤ 1.0 seconds
14. Steam Generator Water Level--Low-Low (Loop Stop Valves Open)	≤ 2.0 seconds
15. Steam/Feedwater Flow Mismatch and Low Steam Generator Water Level	NOT APPLICABLE
16. Undervoltage-Reactor Coolant Pumps (Above P-7)	≤ 1.5 seconds
17. Underfrequency-Reactor Coolant Pumps (Above P-7)	≤ 0.9 seconds

*Neutron detectors are exempt from response time testing. Response time shall be measured from detector output or input of first electronic component in channel.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 24 TO FACILITY OPERATING LICENSE NO. NPF-73

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

BEAVER VALLEY POWER STATION, UNIT NO. 2

DOCKET NO. 50-412

INTRODUCTION

By letter dated May 4, 1989, Duquesne Light Company (the licensee, acting as agent for the above utilities) submitted an application to modify Table 3.3-2 of the Technical Specifications. The proposed amendment would modify the reactor trip system overtemperature delta T (OT Δ T) and overpower delta T (OP Δ T) response times. Our review of that application follows.

DISCUSSION AND EVALUATION

The current design basis requirements for the OT Δ T and OP Δ T reactor trip total response time, respectively, as provided in FSAR Table 15.0-4, is 6.0 seconds. This total response time is defined as the delay from when the temperature in the reactor coolant loop exceeds the trip setpoint, until the rods are free to fall into the core. Included in this time response is the resistance temperature detector (RTD) bypass manifold fluid transport and heatup time delays, along with RTD sensor time delays, channel time delays, and the reactor trip breaker and rod gripper release times. By definition, the Technical Specification reactor trip response time includes the time from when the monitored parameter exceeds its setpoint at the sensor until loss of gripper coil voltage. Therefore, for the Technical Specifications, the RTD bypass manifold fluid transport and heatup times are not included in the response time requirement. Since a duration of 2 seconds is assigned for the RTD delay time, the non-inclusion of the RTD delay time results in a respective 4-second OT Δ T and OP Δ T requirement in the Technical Specifications.

The OT Δ T and OP Δ T reactor trip time response were initially verified during the startup test program and subsequently verified by the Technical Specifications surveillance program. The licensee's evaluation of the results of the initial

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startup test indicated that the 6.0 second time response assumed in the FSAR was exceeded. The licensee requested Westinghouse to provide a technical basis for continued operation pending determination of the cause and resolution of the design deviation. As a result, Westinghouse prepared a letter dated April 28, 1989, providing the technical justification for continued operation (JCO). The JCO, was attached to the licensee's May 4, 1989 letter. Westinghouse re-evaluated those transients or accidents that would depend on the protective function of the OTAT or OPAT trips, and obtained these results:

<u>FSAR Section</u>	<u>Accident</u>	<u>Assumed Protection Function</u>
15.1.5	Steam line break	OTAT or OPAT
15.2.3	Turbine Trip with Pressurizer Control, Minimum Feedback	OTAT
15.4.2	Uncontrolled RCCA Bank Withdrawal at Power	OTAT
15.4.6	CVCS Malfunction that results in a decrease in the boron concentration in the RCS (Boron Dilution), Mode 1 - Manual Rod Control	OTAT
15.6.3	Steam generator tube rupture	Low pressurizer pressure trip, which is faster than the OTAT or OPAT

The licensee concluded that only the above transients or accidents in the FSAR could be affected by the increase in OTAT or OPAT response time, and that the effects on these are either non-existent, or minimal. We reviewed the submitted information and concur with the licensee's assessment

Westinghouse also re-evaluated the impact of increased OPAT response time on equipment qualification outside containment, and concluded that a delay of rod motion of 1.5 seconds has no significant effect on the reported peak enthalpies or mass releases. Westinghouse stated that the data presented in WCAP-10961, Rev. 1, "Steamline Break Mass/Energy Releases for Equipment Qualification Outside Containment," continues to be applicable for Beaver Valley Unit 2. We concur with this re-evaluation.

The licensee requested to change the specified OTAT and OPAT trip response times by adding 1.5 seconds to each. The resulting response time is 5.5 seconds. We evaluated this request and agree that despite the increased response time, the conclusions of various FSAR safety analyses remain valid. The requested changes are thus acceptable.

ENVIRONMENTAL CONSIDERATION

The amendment changes requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. We have previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the 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 (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: December 6, 1989

Principal Contributor: Peter S. Tam