

June 10, 1988

Docket No. 50-412

DISTRIBUTION

Mr. J. D. Sieber, Vice President
Nuclear Group
Duquesne Light Company
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Dear Mr. Sieber:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. 67185)

The Commission has issued the enclosed Amendment No. 3 to Facility Operating License No. NPF-73 for the Beaver Valley Power Station, Unit 2, in response to your application dated February 11, 1988.

The amendment revises the steam generator water level low-low reactor trip setpoint and auxiliary feedwater actuation setpoint by lowering them from 15.5% to 11.5%.

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,

original signed by

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

Enclosures:

1. Amendment No. 3 to NPF-73
2. Safety Evaluation

cc w/enclosures:
See next page

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OGC
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Mr. J. Sieber
Duquesne Light Company

cc:

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Beaver Valley Power Station
Units 1 & 2

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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. 3
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 February 11, 1988, 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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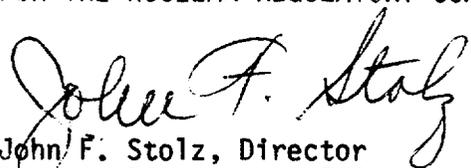
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-73 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 3, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective on issuance, to be implemented within 30 day of 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: June 10, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 3

FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

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

2-5

3/4 3-27

Insert

2-5

3/4 3-27

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>ALLOWANCE (TA)</u>	<u>Z</u>	<u>S</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
13. Steam Generator Water Level-Low-Low	11.5	10.18	1.67	\geq 11.5% of narrow range instrument span-each steam generator	\geq 10.7% of narrow range instrument span-each steam generator
14. a. Steam/Feedwater Flow Mismatch	20.0	2.66	See Note 6	\leq 40% of full steam flow at RTP*	\leq 43.1% of full steam flow at RTP
b. Coincident with Steam Generator Water Level Low	25.0	2.18	1.67	\geq 25% of narrow range instrument span	\geq 23.2% of narrow range instrument span
15. Undervoltage - Reactor Coolant Pumps	27.7	1.39	0	$>$ 75% of BUS Voltage-each bus	$>$ 73% of BUS Voltage - each bus
16. Underfrequency-Reactor Coolant Pumps	10.0	0.20	0	\geq 57.5 Hz-each bus	\geq 57.4 Hz-each bus
17. Turbine Trip					
a. Emergency Trip Header Low Pressure	N.A.	N.A.	N.A.	\geq 1000 psig	\geq 958 psig
b. Turbine Stop Valve Closure	N.A.	N.A.	N.A.	\geq 1% open	\geq 1% open
18. Safety Injection Input from ESF	N.A.	N.A.	N.A.	N.A.	N.A.
19. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	N.A.	N.A.	N.A.
20. Reactor Trip Breakers	N.A.	N.A.	N.A.	N.A.	N.A.

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TOTAL ALLOWANCE (TA)</u>	<u>Z</u>	<u>SENSOR DRIFT (S)</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
7. AUXILIARY FEEDWATER (Continued)					
b. Steam Generator Water Level--Low-Low					
1. Start Turbine Driven Pump	11.5	10.18	1.67	> 11.5% of narrow range instrument span	> 10.7% of narrow range instrument span
2. Start Motor Driven Pumps	11.5	10.18	1.67	> 11.5% of narrow range instrument span	> 10.7% of narrow range instrument span
c. Undervoltage - RCP (Start Turbine Driven Pump)	27.7	1.39	0.0	> 75% of nominal bus voltage	> 73% of nominal bus voltage
d. Safety Injection (Start Motor-Driven Pumps)	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values.				
e. Turbine Driven Pump Discharge Pressure Low with Steam Valve Open (Start Motor-Driven Pumps)	5.0	2.0	0	Discharge pressure > 150 psig with steam inlet valves open	Discharge pressure > 145 psig with steam inlet valves open
f. Trip of Main Feedwater Pumps (Start Motor-Driven Pumps)	N.A.	N.A.	N.A.	N.A.	N.A.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 3 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 February 11, 1988 Duquesne Light Company (acting as agent for itself and other utilities named above) submitted a request to amend the Technical Specifications of Beaver Valley Power Station, Unit 2. The proposed changes would revise the steam generator water level low-low reactor trip setpoint, and the auxiliary feedwater actuation setpoint.

DISCUSSION AND EVALUATION

The amendment revises the steam generator water level low-low reactor trip setpoint in Table 2.2-1, "Reactor Trip System Instrumentation Trip Setpoints", and the steam generator water level low-low auxiliary feedwater actuation setpoint in Table 3.3-4, "Engineered Safety Features Actuation System Instrumentation Trip Setpoints", from $> 15.5\%$ narrow range level span to $\geq 11.5\%$ narrow range level span. This change removes a 4% environmental allowance that was previously added to the steam generator low-low level setpoint calculation to account for radiation effects on the steam generator level transmitters. The associated values for "Allowable Value", "Total Allowance", and "z" for these setpoints in Table 2.2-1 and 3.3-4 are also revised accordingly.

The steam generator low-low level reactor trip and auxiliary feedwater actuation protection is assumed in the following accidents as discussed in Section 15.2 of the FSAR:

Loss of External Electrical Load/Turbine Trip
Loss of Non-emergency AC Power to the Station Auxiliaries
Loss of Normal Feedwater Flow
Feedwater System Pipe Breaks

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None of these four events result in fuel failures that would produce accident radiation levels that need to be accounted for by the 4% uncertainty for radiation effects for this instrument channel. Elimination of the 4% uncertainty allows the steam generator low-low level setpoint to be reduced as described below.

The Unit 2 reactor trip and engineered safety features setpoints were calculated using standard Westinghouse methodology as presented in Westinghouse Topical Report WCAP-11366 (reviewed by NRC during licensing of the unit). The required setpoints are obtained by adding the specific channel statistical allowance (for channel inaccuracies) to the safety analysis limit. The safety analysis limit for steam generator low-low water level is 0% of narrow range level span as provided in Table 15.0-4 of the FSAR. The channel statistical allowance for the steam generator low-low level protection channel included a 12% environmental allowance of which 4% accounted for transmitter radiation effects. Removing the 4% uncertainty for radiation effects revises the overall channel statistical allowance for this protection channel from 15.3% to 11.3%. The revised setpoint of 11.5% still meets the safety analysis limit of Table 15.0-4 of the FSAR, with the required channel accuracies included and a 0.2% additional margin.

The revised setpoints for steam generator level low-low reactor trip and auxiliary feedwater actuation are consistent with the safety limit assumed in the FSAR safety analysis, consistent with approved setpoint methodology, removes an overconservatism which contributes to unnecessary reactor trips and ESF actuations, and are thus acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has 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. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 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 and security or to the health and safety of the public.

Dated: June 10, 1988

Principal Contributor:

P. Tam