

Mr. J. E. Cross
President-Generation Group
Duquesne Light Company
Post Office Box 4
Shippingport, PA 15077

November 25, 1997

SUBJECT: REVISION TO SAFETY EVALUATION FOR AMENDMENT NO. 207 TO FACILITY
OPERATING LICENSE NO. DPR-66 AND AMENDMENT NO. 86 TO FACILITY
OPERATING LICENSE NO. NPF-73, BEAVER VALLEY POWER STATION, UNIT NOS.
1 AND 2 (TAC NOS. M96743 AND M96744)

Dear Mr. Cross:

By letter dated October 28, 1997, the NRC issued Amendment No. 207 to Facility Operating License No. DPR-66 and Amendment No. 86 to Facility Operating License No. NPF-73 for the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and BVPS-2). These amendments revised the technical specification (TS) surveillance requirements applicable to the charging/high-head safety injection pumps, low-head safety injection pumps, and the containment quench spray pumps for both BVPS-1 and BVPS-2. Enclosure 3 to that letter provided the NRC staff's safety evaluation (SE) and our basis for approval of these amendments.

While the SE for these amendments stated that changes were being made to the TS for both units and the amendments revised the TSs of both units, the pump performance values discussed in the SE were applicable to only the BVPS-1 pumps. The omission of reference to the BVPS-2 pump performance values was an oversight. Therefore, the NRC staff has revised this SE to include references to the pump performance values of both BVPS-1 and BVPS-2. A copy of our revised SE is enclosed. The NRC staff's conclusion set forth in the SE regarding the acceptability of the proposed changes for both units is unaffected by this revision to the SE.

We apologize for any inconvenience caused by this matter.

Sincerely,

/s/

Donald S. Brinkman, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosure: Safety Evaluation

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 25, 1997

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Duquesne Light Company
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We apologize for any inconvenience caused by this matter.

Sincerely,

A handwritten signature in cursive script, reading "Donald S. Brinkman", is positioned above the typed name.

Donald S. Brinkman, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosure: Safety Evaluation

cc w/encl: See next page

J. E. Cross
Duquesne Light Company

Beaver Valley Power Station
Units 1 & 2

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 207 AND 86 TO FACILITY OPERATING
LICENSE NOS. DPR-66 AND NPF-73
DUQUESNE LIGHT COMPANY
OHIO EDISON COMPANY
PENNSYLVANIA POWER COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
THE TOLEDO EDISON COMPANY
BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-334 AND 50-412

1.0 INTRODUCTION

By letter dated October 4, 1996, the Duquesne Light Company (the licensee) submitted a request for changes to the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and BVPS-2), Technical Specifications (TSs). The requested changes would revise the surveillance requirements in TSs 4.1.2.3.1, 4.1.2.4.1, 4.5.2.b, and 4.6.2.1.b and associated Bases. The subject surveillance requirements are applicable to the charging/high-head safety injection pumps, low-head safety injection (LHSI) pumps, and the containment quench spray pumps. The proposed changes replace the current specific test acceptance criteria contained in these surveillance requirements with requirements to verify pump performance in accordance with the inservice testing (IST) program, the emergency core cooling system (ECCS) flow analysis, or the containment integrity safety analysis, as applicable. The proposed changes also make minor editorial changes in these TSs and make conforming changes in the TS Index pages.

2.0 EVALUATION

2.1 Proposed Technical Specification Changes

2.1.1 Charging Pumps

The licensee has proposed to delete the acceptance criteria and testing reference for the charging pumps from TSs 4.1.2.3.1 and 4.1.2.4.1 and reference TS 4.5.2.b.1 in both the BVPS-1 and BVPS-2 TSs. These specifications currently require that each charging pump be demonstrated operable by verifying that each pump meets or exceeds a discharge pressure

of 2402 psig for BVPS-1 or 2437 psid for BVPS-2 on recirculation flow when tested pursuant to TS 4.0.5. The licensee has also proposed to modify TS 4.5.2.b to state that testing would be performed at the frequency specified in the IST program. TS 4.5.2.b.1 would also be modified to state that the charging pump's developed head be greater than the required developed head as specified in the IST program and the ECCS flow analysis.

2.1.2 Low-Head Safety Injection Pumps

The licensee has proposed to delete the requirement in TS 4.5.2.b.2 to verify that each LHSI pump meets or exceeds a discharge pressure of 159 psig for BVPS-1 or 103 psid for BVPS-2 on recirculation flow when tested in accordance with TS 4.0.5. This specification would be modified to state that the LHSI pump's developed head at the flow test point would be verified at the frequency specified in the IST program (note modification in 4.5.2.b as stated in Section 2.1.1 is greater than or equal to the required developed head as specified in the IST program and ECCS flow analysis).

2.1.3 Quench Spray Pumps

The licensee has proposed, in TS 4.6.2.1.b, to delete the requirement to verify on recirculation flow that each quench spray pump develops a differential pressure of greater than or equal to 142 psid for BVPS-1 or 138 psid for BVPS-2 at a flow of greater than or equal to 1600 gpm for BVPS-1 or 3000 gpm for BVPS-2 when tested in accordance with TS 4.0.5. The licensee has proposed that each quench spray pump's developed head at the flow test point be greater than or equal to the required developed head as specified in the IST program and the containment integrity safety analysis.

2.2 Evaluation of Proposed Technical Specification Changes

2.2.1 Charging Pumps

The TSs currently require that the charging pumps be tested in accordance with specific criteria contained in TS 4.5.2.b.1 and the licensee's IST program referenced in TS 4.0.5. The changes would remove the specific acceptance criteria from the TS and replace it with direct references to the IST program and the licensee's ECCS flow analysis.

Section III of the licensee's IST program for BVPS-1 and BVPS-2 contains minimum operating point curves for the charging pumps. The licensee states on page 5 of their IST program for each plant that these curves are a graphical representation of the minimum allowable pump flow versus head, which is required to meet the applicable safety analysis, for each centrifugal pump in the IST program. Plotting acceptable pump performance on the minimum operating point graph in the IST program using the discharge pressure criteria of 2402 psig for BVPS-1 or 2437 psid for BVPS-2 from the current TS and the recirculation flow rate from the last pump inservice test reveals that the performance point is above the plotted minimum operating point curve. Therefore, the change to the TS provides an equivalent test to that which currently is included in the TS and is acceptable.

2.2.2 Low-Head Safety Injection Pumps

The TSs currently require that the LHSI pumps be tested in accordance with specific criteria contained in TS 4.5.2.b.2 and the licensee's IST program referenced in TS 4.0.5. The changes would remove the specific acceptance criteria from the TS and replace it with direct references to the IST program and the licensee's ECCS flow analysis.

Section III of the licensee's IST program for BVPS-1 and BVPS-2 contains minimum operating point curves for the LHSI pumps. The licensee states on page 5 of their IST program for each plant that these curves are a graphical representation of the minimum allowable pump flow versus head, which is required to meet the applicable safety analysis, for each centrifugal pump in the IST program. Plotting acceptable pump performance on the minimum operating point graph in the IST program using the discharge pressure criteria of 159 psig for BVPS-1 or 103 psid for BVPS-2 from the current TS and the recirculation flow rate from the last pump inservice test reveals that the performance point is above the plotted minimum operating point curve. Therefore, the change to the TS provides an equivalent test to that which currently is included in the TS and is acceptable.

2.2.3 Quench Spray Pumps

The TSs currently require that the quench spray pumps be tested in accordance with specific criteria contained in TS 4.6.2.1.b and the licensee's IST program referenced in TS 4.0.5. The changes would remove the specific acceptance criteria from the TS and replace it with direct references to the IST program and the licensee's containment integrity safety analysis.

Section III of the licensee's IST program for BVPS-1 and BVPS-2 contains minimum operating point curves for the quench spray pumps. The licensee states on page 5 of their IST program for each plant that these curves are a graphical representation of the minimum allowable pump flow versus head, which is required to meet the applicable safety analysis, for each centrifugal pump in the IST program. Plotting acceptable pump performance on the minimum operating point graph in the IST program using the discharge pressure and flow criteria of 142 psid for BVPS-1 and 138 psid for BVPS-2 and 1600 gpm for BVPS-1 and 3000 gpm for BVPS-2 respectively from the current TS reveals that the performance point is on the plotted minimum operating point curve. Therefore, the change to the TS provides an equivalent test to that which currently is included in the TS and is acceptable.

2.2.4 Editorial Changes

The licensee has adjusted page numbers in the TS Index and changed a footnote reference from an asterisk to a number. These changes are editorial in nature and are acceptable.

2.3 Summary

Based on the above evaluation, the NRC staff finds that the licensee has demonstrated the adequacy of the proposed changes for the BVPS-1 and BVPS-2 TS.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendments involve 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 the amendments involve no significant hazards consideration, and there has been no public comment on such finding (61 FR 66706). Accordingly, the amendments meet 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 amendments.

5.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: J. Colaccino

Date: October 28, 1997

Revised: November 25, 1997