May 3, 1995

Mr. J. E. Cross
Senior Vice President and
Chief Nuclear Officer
Nuclear Power Division
Duquesne Light Company
Post Office Box 4
Shippingport, PA 15077

SUBJECT: BEAVER VALLEY POWER STATION, UNIT NO. 2 (TAC NO. M92003)

Dear Mr. Cross:

The Commission has issued the enclosed Amendment No. 68 to Facility Operating License No. NPF-73 for the Beaver Valley Power Station, Unit 2. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated April 10, 1995, as supplemented April 12, 1995, and April 20, 1995.

This amendment revises TS 4.6.2.2.d to delete the reference to the specific test acceptance criteria for the Containment Recirculation Spray Pumps and to replace the specific test acceptance criteria with reference to the developed head required by the plant's safety analysis. In addition, the 18-month test frequency would be replaced with the test frequency requirements specified in the IST Program. The current footnote (1) pertaining to the performance of recirculation spray pump 2RSS*P21A would be deleted.

A copy of our Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

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

Docket No. 50-412

Enclosures: 1. Amendment No. 68 to NPF-73
2. Safety Evaluation
cc w/encls: See next page

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

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2. Safety Evaluation

cc w/encls: 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

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

DOCKET NO. 50-412

BEAVER VALLEY POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 68
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 April 10, 1995, as supplemented April 12, 1995, and April 20, 1995, 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. 68 , 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, to be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz

John F. Stolz, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 3, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 68

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 contains vertical lines indicating the areas of change.

Remove	Insert
3/4 6-13	3/4 6-13

SURVEILLANCE REQUIREMENTS (continued)

d. Verify, at the frequency specified in the Inservice Testing Program, that each recirculation spray pump's developed head at the flow test point is greater than or equal to the required developed head as specified in the Inservice Testing Program and the Containment Integrity Safety Analysis.

e. At least once per 18 months during shutdown, by:

1. Cycling each power operated (excluding automatic) valve in the flow path not testable during plant operation, through at least one complete cycle of full travel.

2. Verifying that each automatic valve in the flow path actuates to its correct position on a test signal.

3. Initiating flow through each Service Water subsystem and its two associated recirculation spray heat exchangers, and verifying a flow rate of at least 11,000 gpm.

f. At least once per 5 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 68 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 2

DOCKET NO. 50-412

1.0 INTRODUCTION

By letter dated April 10, 1995, as supplemented April 12, 1995, and April 20, 1995, the Duquesne Light Company (the licensee) submitted a request for changes to the Beaver Valley Power Station, Unit 2 (BVPS-2), Technical Specifications (TSs). The requested changes would revise TS 4.6.2.2.d to delete the reference to the specific test acceptance criteria for the containment recirculation spray system pumps and replace the specific test acceptance criteria with reference to the requirements of the Inservice Testing (IST) Program. In addition, the 18-month frequency would be replaced with the test frequency requirements specified in the IST Program. The current footnote (1) pertaining to the performance of containment recirculation spray pump 2RSS*P21A would be deleted. The April 20, 1995, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

The function of the containment recirculation spray system pumps is to take suction from the containment sump and discharge water to the spray rings located in the containment dome during a design basis accident. The sprayed water provides cooling for the containment atmosphere and will maintain the containment atmosphere at a negative pressure with respect to the outside atmosphere after initial depressurization by the quench spray system and the recirculation spray system.

The recirculation spray system consists of two redundant trains with two pumps in each train. During the recirculation phase, one of the two pumps in each train continues to operate in the spray mode while the second pump in each train is automatically realigned to provide flow to the emergency core cooling system to remove decay heat from the reactor core in the long term. The remaining pump in each train that continues to provide flow in the spray mode maintains the containment subatmospheric in the long term.

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The recirculation spray system pumps are flow tested during refueling outages by installing a temporary dike in the lowest floor elevation of the containment around the safeguards sump area to ensure adequate net positive suction head for the pumps during pump testing. Flow to the spray headers is then blocked and pump discharge in returned to the sump area via installation of a spoolpiece into the test loop flow path.

TS 4.6.2.2.d requires the pumps to demonstrate their operability by developing ≥ 112 psid at a flow of ≥ 3500 gpm. This acceptance criteria was temporarily reduced to ≥ 110 psid at a flow of ≥ 3275 gpm by License Amendment No. 62 which was issued on August 22, 1994. However, this temporary approval expired at the beginning of the unit's fifth refueling outage on March 24, 1995. Pump 2RSS*P21A failed the requirements of TS 4.6.2.2.d when tested on April 1, 1995. Therefore, pump 2RSS*P21A was declared inoperable. Subsequently this pump was removed and inspected. A 1-inch diameter by 5-inch long stainless steel bolt was discovered lodged in a pump inpeller. Some minor damage had occurred to the impeller and pump casing. The pump is a two stage pump, therefore, both impellers were replaced and the casing was repaired. Upon retest, the pump again failed the TS requirements. Therefore, the licensee submitted the April 10, 1995, license amendment request.

3.0 EVALUATION

The proposed change to TS 4.6.2.2.d would delete reference to the specific test acceptance criteria for the recirculation spray system pumps and replace these criteria with reference to the requirements of the Inservice Testing (IST) Program. Future changes in the pumps' minimum operating point could then be made by the licensee in accordance with the provisions of 10 CFR 50.59, without requiring prior NRC staff approval and a license amendment unless an unreviewed safety question is involved. During its review of the April 10, 1995, submittal, the NRC staff became concerned that the provisions of the IST Program, other than reference to the frequency specified in the IST program, could permit excessive degradation of the pumps to be considered acceptable. Therefore, in a telephone conference call on April 12, 1995, the NRC staff requested that reference to the provisions of the IST Program, other than reference to the frequency specified in the IST program, be deleted from proposed TS 4.6.2.2.d. The licensee agreed with the NRC staff's concern and by letter dated April 12, 1995, submitted a revision to proposed TS 4.6.2.2.d deleting reference to the provisions of the IST Program regarding pump performance.

During the April 12, 1995, telephone conference call, the NRC staff also requested that if pump 2RSS*P21A did not meet the criteria of TS 4.6.2.2.d following repair of the pump, the licensee should submit for NRC review, the licensee's engineering evaluation of the revised pump performance values for developed differential pressure and flow. By letter dated April 20, 1995, the licensee submitted the requested engineering evaluation. This submittal includes a revised developed pump head curve for pump 2RSS*P21A. The revised developed pump head curve was then used to establish acceptable and unacceptable pump performance criteria considering the number of tubes plugged in the associated recirculation spray system head exchanger. The NRC staff

has reviewed the licensee's evaluation and has determined that the analysis methods and assumptions have not changed and that the licensee's analyses follow standard engineering practices. The licensee's evaluation demonstrates that following a design basis accident, the containment will depressurize in less than 1 hour and that subatmospheric conditions will be maintained in the containment thereafter, as stated in the Updated Final Safety Analysis Report. The NRC staff subsequently determined that TS 4.6.2.2.d, as proposed in the April 12, 1995, letter, did not provide an adequate limit on pump performance. Therefore, during a telephone call on April 28, 1995, the NRC staff and licensee representatives agreed to further modify TS 4.6.2.2.d to specify that the pump's performance shall be as specified in the IST Program and in the containment integrity safety analysis which prohibits the excessive pump degradation which could otherwise be permitted by the IST Program. Therefore, we have determined that the proposed TS change, as revised, is acceptable.

The proposed amendment would also delete footnote (1) of TS 4.6.2.2.d. This footnote is no longer applicable and therefore, its deletion is acceptable.

The proposed amendment would change the frequency for demonstrating the operability of the recirculation spray system pumps from once-per-18-months to the frequency specified in the IST Program (each refueling outage). This change is consistent with current NRC staff guidance and requirements, as reflected in the NRC's improved Standard Technical Specifications (NUREG-1431, Revision 0), and is, therefore, acceptable.

4.0 EXIGENT CIRCUMSTANCES

On April 10, 1995, the licensee requested that the proposed license amendment be processed as an exigent TS change in accordance with 10 CFR 59.91(a)(6). Exigent processing was requested because BVPS-2 entered Mode 5 for the purpose of performing its fifth refueling outage on March 25, 1995, and upon completion of testing of Recirculation Spray Pump 2RSS*P21A on April 4, 1995, the licensee concluded that this pump failed to satisfy the specific test acceptance criteria in TS 4.6.2.2.d. Pump disassembly for inspection and repairs commenced on April 5, 1995. The pump was reassembled and flow tested on April 18, 1995, at which time the licensee determined that the pump had again marginally failed to satisfy the requirements of TS 4.6.2.2.d. BVPS-2 is currently scheduled to enter Mode 4 on May 4, 1995, at which time pump 2RSS*P21A is required to be operable. Unless TS 4.6.2.2.d is revised, BVPS-2 will be prohibited from entry into Mode 4. With the proposed revision to TS 4.6.2.2.d, the actual performance of pump 2RSS*P21A could then be evaluated against accident analysis assumptions and the pump's acceptance criteria could then be revised under the provisions of 10 CFR 50.59 to establish IST Program requirements that would continue to maintain the plant within the accident analysis assumptions. The licensee could not have foreseen this event since the pump's performance could not be tested until the plant entered Mode 5 on March 25, 1995. Therefore, we conclude that a license amendment pursuant to 10 CFR 50.91(a)(6) should be processed.

5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission has made a final determination that the amendment involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92(c), this means that the operation of the facility in accordance with the proposed amendment would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The Commission has evaluated the proposed changes against the above standards as required by 10 CFR 50.91(a) and has concluded that:

A. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated (10 CFR 50.92(c)(1)) because they do not involve a change in the design or operation of the facility, nor do they affect the response of the facility to an accident. Since the proposed changes merely involve a surveillance requirement for devices which are used in the mitigation of an accident, they will not affect the operation of the equipment. Furthermore, none of the failure modes of the recirculation spray system pumps are accident initiators, and any failure would be detected during the proposed surveillance requirements. The revised surveillance requirements will continue to provide adequate assurance that the equipment will perform its specified function if called upon to do so.

B. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated (10 CFR 50.92(c)(2)) because the changes do not affect the manner by which the facility is operated or involve any changes to equipment or features which affect the operational characteristics of the facility.

C. The changes do not involve a significant reduction in a margin of safety (10 CFR 59.92(c)(3)) because they do not affect the manner by which the facility is operated or involve equipment or features which affect the operational characteristics of the facility.

6.0 STATE CONSULTATION

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

7.0 ENVIRONMENTAL CONSIDERATION

The amendment changes 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 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (60 FR 19417). The Commission has made a final determination that the amendment involves no significant hazards consideration. 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.

8.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that because the requested changes do not involve a significant increase in the probability or consequences of an accident previously evaluated, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant reduction in a margin of safety, the amendments do not involve a significant hazards consideration and 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Donald S. Brinkman

Date: May 3, 1995