April 25, 1988

Docket No. 50-334

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

Dear Mr. Sieber:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. 56916)

The Commission has issued the enclosed Amendment No. 124 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1, in response to your application dated November 12, 1987.

The amendment revises the Technical Specifications to impose additional and revised requirements on reactor coolant system pressure isolation valves (PIVs), in accordance with our Generic Letter 87-06.

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. 124 to DPR-66
2. Safety Evaluation

cc w/enclosures:
See next page

| LA:PDI-4 | PM:PDI-4 | D:PDI-4 | OGC |
|---|---|---|---|
| SNorris | PTam:bd | JStolz | MYoung |
| 04/18/88 | 04/18/88 | 04/25/88 | 04/20/88 |

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Mr. J. Sieber
Duquesne Light Company

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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. 124
License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Duquesne Light Company, et al. (the licensee) dated November 12, 1987, 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-66 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 124, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective on issuance, to be implemented within 30 days 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: April 25, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 124

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

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 | Insert |
|---|---|
| 3/4 4-14a | 3/4 4-14a |
| 3/4 4-14b | 3/4 4-14b |
| 3/4 4-14c | 3/4 4-14c |

## PRESSURE ISOLATION VALVES

### LIMITING CONDITION FOR OPERATION

3.4.6.3 Reactor Coolant System pressure isolation valves as shown in Table 4.4-3 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

1. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the limit stated in Table 4.4-3, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of a closed manual or deactivated automatic valve, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.*

2. The provision of Specification 4.0.4 is not applicable for entry into MODE 3 or 4.

### SURVEILLANCE REQUIREMENTS

4.4.6.3.1 Leakage testing** of each valve listed in Table 4.4-3 shall be accomplished prior to entering MODE 2 after every time the plant is placed in the COLD SHUTDOWN condition for refueling and prior to returning the valve to service after each maintenance, repair or replacement work is performed; and

4.4.6.3.2 Additional leakage testing of each valve identified by note (d) listed in Table 4.4-3 shall be accomplished prior to entering MODE 2 after each time the plant is placed in COLD SHUTDOWN for 72 hours if testing has not been accomplished in the preceding 9 months.

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* Motor operated valves shall be placed in the closed position and power supplies de-energized.

** To satisfy ALARA requirements, leakage may be measured indirectly (as from the performance of pressure indicators) if accomplished in accordance with approved procedures and supported by computations showing that the method is capable of demonstrating compliance within the valve leakage criteria.

TABLE 4.4-3

REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES

| System | Valve No. | Leakage Rates (a) Allowable/Maximum |
|---|---|---|
| Loop 1, Cold leg, LHSI | SI-23<br>SI-12 | ≤ 3.0/≤ 5.0 gpm(b)(d)<br>≤ 3.0/≤ 5.0 gpm(b)(d) |
| Loop 2, Cold leg, LHSI | SI-24<br>SI-11 | ≤ 3.0/≤ 5.0 gpm(b)(d)<br>≤ 3.0/≤ 5.0 gpm(b)(d) |
| Loop 3, Cold leg, LHSI | SI-25<br>SI-10 | ≤ 3.0/≤ 5.0 gpm(b)(d)<br>≤ 3.0/≤ 5.0 gpm(b)(d) |
| Loop 1, Hot leg, LHSI | SI-15 | ≤ 3.0/≤ 5.0 gpm(b) |
| Loop 2, Hot leg, LHSI | SI-16 | ≤ 3.0/≤ 5.0 gpm(b) |
| Loop 3, Hot leg, LHSI | SI-17 | ≤ 3.0/≤ 5.0 gpm(b) |
| Common, Hot leg, LHSI | SI-13<br>SI-14 | ≤ 3.0/≤ 5.0 gpm<br>≤ 3.0/≤ 5.0 gpm |
| Loop 1, Cold leg, SIACC | SI-48<br>SI-51 | ≤ 5.0/≤ 5.0 gpm(b)<br>≤ 5.0/≤ 5.0 gpm(b) |
| Loop 2, Cold leg, SIACC | SI-49<br>SI-52 | ≤ 5.0/≤ 5.0 gpm(b)<br>≤ 5.0/≤ 5.0 gpm(b)(d) |
| Loop 3, Cold leg, SIACC | SI-50<br>SI-53 | ≤ 5.0/≤ 5.0 gpm(b)<br>≤ 5.0/≤ 5.0 gpm(b)(d) |
| Loop 1, Hot leg, RHS | MOV-RH-700<br>MOV-RH-701 | ≤ 5.0/≤ 5.0 gpm(b)<br>≤ 5.0/≤ 5.0 gpm(b) |
| Loop 2, Cold leg, RHS | MOV-RH-720A | ≤ 5.0/≤ 5.0 gpm(b)(c) |
| Loop 3, Cold leg, RHS | MOV-RH-720B | ≤ 5.0/≤ 5.0 gpm(b)(c) |

(a) At function pressure:

1. Leakage rates less than or equal to 0.5 gpm/inch diameter are acceptable.

2. Leakage rates greater than 0.5 gpm/inch diameter but less than or equal to 5.0 gpm are considered acceptable if the latest measured rate has not exceeded the rate determined by the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate of 5.0 gpm by 50 percent or greater.

3. Leakage rates greater than 0.5 gpm/inch diameter but less than or equal to 5.0 gpm are considered unacceptable if the latest measured rate exceeded the rate determined by the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate of 5.0 gpm by 50 percent or greater.

4. Leakage rates greater than 5.0 gpm are considered unacceptable.

5. Observed leakage rates shall be adjusted to the function maximum pressure in accordance with ASME XI IWV 3423.

(b) Minimum test differential pressure shall not be less than 150 psid.

(c) Leakage rate continuously monitored during plant operation, no other leakage rate testing required. Leakage rate acceptance criteria shall be as stated in (a) and (b) above and shall be recorded at intervals as noted in paragraph 4.4.6.3.1 as a minimum.

(d) Both surveillances 4.4.6.3.1 and 4.4.6.3.2 are required.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 124 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 dated November 12, 1987, Duquense Light Company (the licensee) requested that the Technical Specifications for Beaver Valley Power Station, Unit No. 1 be amended relative to the reactor coolant system pressure isolation valves (PIVs). This request was submitted in response to Generic Letter 87-06.

Generic Letter 87-06, "Periodic Verification of Leak Tight Integrity of Pressure Isolation Valves" specified that plant Technical Specifications should include a list of all PIVs along with the description of the testing methods. The PIVs are defined in the Generic Letter as any two valves in series within the reactor coolant pressure boundary which separate the high-pressure coolant system from the attached low pressure system. The potential for a loss-of-coolant accident (LOCA) outside containment from the failure of PIVs (i.e., the "Event V" scenario) had been identified in the Reactor Safety Study (WASH-1400) as a significant contributor to risk. This proposed change, which is in accord with the licensee's June 10, 1987 response to the Generic Letter, would reduce the risk associated with the failure of PIVs.

## DISCUSSION AND EVALUATION

Our review of the licensee's requests was performed using the guidelines of Standard Review Plan Section 3.9.6, and the ASME Boiler and Pressure Vessel Code, Section XI. The following proposed changes relating to the Technical Specification for the leak testing of PIVs were reviewed:

(1) Section 3.4.6.3 is revised to reference the new Table 4.4-3 (see below), which lists the PIVs, their associated systems, and their allowable leakage rates.

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(2) Action Statements 1, 2 and 3 are replaced by a new Action 1, which requires isolation of the high pressure portion of the affected system from the low pressure portion within 4 hours or shutdown the plant if leakage exceeds those specified in Table 4.4-3. This is a more stringent requirement than the previous requirement which allowed up to 24 hours to shutdown the unit if leakage of a PIV exceeds specified limits.

(3) Surveillance Requirements 4.4.6.3.1 and 4.4.6.3.2 are revised for clarification and consistency. The amended Section 4.4.6.3.1 requires the PIVs to be tested during refueling outage and prior to returning the valve to service after maintenance, repair, or replacement work. The amended Section 4.4.6.3.2 calls for additional leakage testing of Event V valves prior to entering Mode 2 after the plant has been in cold shutdown for 72 hours unless testing has been performed within the previous 9 months.

(4) Note (a) on page 3/4 4-14a is redesignated with an "*"; and note (a) on page 3/4 4-14b is redesignated with a "**" and moved to page 3/4 4-14a.

(5) The list of PIVs in Table 4.4-3 is expanded to include all PIVs that perform an important pressure isolation function. This change increases the number of listed PIVs from 6 to 21, and is a significant improvement in conservatism.

(6) Note (a) to Table 4.4-3 is changed so that the acceptable leak rate is 1/2 gpm for each nominal inch of valve size up to a maximum of 5 gpm. This is consistent with our current position as we already stated in Supplement 1 to the Beaver Valley Unit 2 Safety Evaluation Report.

(7) Note (c) is added to Table 4.4-3, stating that if leakage is continuously monitored during operations, no other leakage testing is required, provided the observations otherwise required for testing are made.

(8) Note (d) is added to Table 4.4-3, requiring performance of both surveillance requirements 4.4.6.3.2 and 4.4.6.3.1 for Event V valves.

The above revisions do not violate any applicable staff guidelines, and are consistent with the Beaver Valley Unit 2 Technical Specifications already approved. The 15 valves added to Table 4.4-3 are in line with the guidelines of Generic Letter 87-06 and the commitment made by the licensee in its June 10, 1987 response to Generic Letter 87-06. The amended specifications provide additional assurance that adequate surveillance is performed to minimize PIV leaks, and that the reactor coolant system will be maintained in a safe condition. Thus the proposed changes are acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment changes requirements with respect to the installation or use of facility components 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, 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: April 25, 1988

Principal Contributor:

K. Dempsey