

September 18, 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. M92995)

Dear Mr. Cross:

The Commission has issued the enclosed Amendment No.76 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 July 24, 1995.

This amendment revises TS 3/4.4.11, "Relief Valves," and associated Bases to make Unit 2 TS 3/4.4.11 consistent with Unit 1 TS 3/4.4.11 which was revised by Unit 1 License Amendment No. 187 issued on May 15, 1995. The amendment generally reflects the guidance provided in NRC Generic Letter 90-06 and in the NRC's Improved Standard Technical Specifications (NUREG-1431).

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,  
Original signed by  
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. 76 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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Sincerely,

A handwritten signature in cursive script that reads "Donald S. Brinkman".

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

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cc w/encls: See next page

**J. E. Cross**  
Duquesne Light Company

**Beaver Valley Power Station**  
Units 1 & 2

cc:

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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. 76  
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 July 24, 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.

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. 76, 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, 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: September 18, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 76

FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

Replace the following pages of the 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.

<u>Remove</u>	<u>Insert</u>
3/4 4-39	3/4 4-39
3/4 4-39a	3/4 4-39a
B 3/4 4-16b	B 3/4 4-16b
B 3/4 4-16c	B 3/4 4-16C
B 3/4 4-16d	B 3/4 4-16d
B 3/4 4-16e	B 3/4 4-16e
B 3/4 4-16f	B 3/4 4-16f

NPF-73  
REACTOR COOLANT SYSTEM

3/4.4.11 RELIEF VALVES

LIMITING CONDITION FOR OPERATION

3.4.11 Each Power-Operated Relief Valve (PORV) and associated block valve shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

----- GENERAL NOTE -----

Separate ACTION statement entry is allowed for each PORV and block valve.

- 
- a. With one or more PORVs inoperable and capable of being manually cycled, within 1 hour either restore the PORV(s) to OPERABLE status or close the associated block valve(s) with power maintained to the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
  - b. With one or two PORV(s) inoperable and not capable of being manually cycled, within 1 hour either restore the PORV(s) to OPERABLE status or close the associated block valves and remove power from the block valve(s); a minimum of two PORVs are to be OPERABLE within the following 72 hours or be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. With one PORV inoperable and isolated, power operation may continue until the next refueling outage.
  - c. With three PORVs inoperable and not capable of being manually cycled, within 1 hour either restore at least one PORV to OPERABLE status or close the associated block valves and remove power from the block valves and be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
  - d. With one block valve inoperable and open, within 1 hour either restore the block valve to OPERABLE status or place the associated PORV in manual control. Restore the block valve to OPERABLE status within the following

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

72 hours or be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. With one block valve inoperable, restore the block valve to OPERABLE status within 1 hour or close it, power operation may continue until the next refueling outage.

- e. With more than one block valve inoperable, within 1 hour either restore the block valves to OPERABLE status or place the associated PORVs in manual control. Restore at least one block valve to OPERABLE status within the next hour if three block valves are inoperable; restore a minimum of two block valves to OPERABLE status within 72 hours; otherwise, be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.11.1 Each PORV shall be demonstrated OPERABLE at least once per 18 months by operating the PORV through one complete cycle of full travel.

4.4.11.2 Each block valve shall be demonstrated OPERABLE at least once per 92 days by operating the valve through one complete cycle of full travel unless the block valve is closed to meet required ACTIONS b or c.

NPF-73  
REACTOR COOLANT SYSTEM

BASES (Continued)

3/4.4.11 REACTOR COOLANT SYSTEM RELIEF VALVES (Continued)

APPLICABILITY (Continued)

PORV opening setpoint. The most rapid increases will occur at the higher operating power and pressure conditions of MODES 1 and 2. The PORVs are also required to be OPERABLE in MODES 1, 2, and 3 to minimize challenges to the pressurizer safety valves.

Pressure increases are less prominent in MODE 3 because the core input energy is reduced, but the RCS pressure is high. Therefore, the LCO is applicable in MODES 1, 2, and 3. The LCO is not applicable in MODE 4 when both pressure and core energy are decreased and the pressure surges become much less significant. The PORV setpoint is reduced for OPPS in MODES 4 (below the enable temperature), 5, and 6 with the reactor vessel head in place. LCO 3.4.9.3 addresses the PORV requirements in these MODES.

ACTION

A General Note provides clarification that all pressurizer PORVs and block valves are treated as separate entities, each with separate completion times (i.e., the completion time is on a component basis).

- a. With the PORVs inoperable and capable of being manually cycled, either the PORVs must be restored or the flow path isolated within 1 hour. The block valves should be closed but power must be maintained to the associated block valves, since removal of power would render the block valve inoperable. Although a PORV may be designated inoperable, the associated vent path may be manually opened and closed, and the PORV therefore, able to perform its function. PORV inoperability may be due to seat leakage, instrumentation problems related to PORV accident monitoring instruments identified in LCO 3.3.3.8, or other causes that do not prevent manual use and do not create a possibility for a small break LOCA. If the position indication is inoperable, then the PORVs are inoperable. For these reasons, the block valve shall be closed but the ACTION requires power be maintained to the valve. Automatic control problems and related instrumentation problems would not render the PORVs inoperable. Accident analyses assume manual operation of the PORVs and does not take credit for automatic actuation. This condition is only intended to

BASES (Continued)

3/4.4.11 REACTOR COOLANT SYSTEM RELIEF VALVES (Continued)

ACTION (Continued)

permit operation of the plant for a limited period of time not to exceed the next refueling outage (MODE 6) so that maintenance can be performed on the PORVs to eliminate the seat leakage condition. Normally, the PORVs should be available for automatic mitigation of overpressure events and should be returned to OPERABLE status prior to entering startup (MODE 2).

Quick access to the PORV for pressure control can be made when power remains on the closed block valve. The completion time of 1 hour is based on plant operating experience that has shown that minor problems can be corrected or closure accomplished in this time period.

- b. With one or two PORV(s) inoperable and not capable of being manually cycled, the PORV(s) must be either restored or isolated by closing the associated block valve and removing the power to the associated block valve. The completion time of 1 hour is reasonable, based on challenges to the PORVs during this time period, and provides the operator adequate time to correct the situation. If the inoperable valve(s) cannot be restored to OPERABLE status, the PORV(s) must be isolated within the specified time. Because there is at least one PORV that remains OPERABLE, an additional 72 hours is provided to restore a minimum of two PORVs to OPERABLE status. If a minimum of two PORVs cannot be restored within this additional time, the plant must be brought to a MODE in which the LCO does not apply. Two OPERABLE PORVs provide redundancy to allow continued operation until the next refueling outage to perform maintenance on the inoperable valve and return it to OPERABLE status.
- c. If three PORVs are inoperable and not capable of being manually cycled, it is necessary to either restore at least one valve within the completion time of 1 hour or isolate the flow path by closing and removing the power to the associated block valves. The completion time of 1 hour is reasonable, based on the small potential for challenges to the system during this time and provides the operator time to correct the situation. If one PORV is restored, then the plant will be in a less limiting

BASES (Continued)

3/4.4.11 REACTOR COOLANT SYSTEM RELIEF VALVES (Continued)

ACTION (Continued)

ACTION statement with the time clock started at the original declaration of having three PORVs inoperable. If no PORVs are restored within the completion time, then the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 4 within 12 hours. The allowed completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. In MODES 4 and 5, maintaining PORV OPERABILITY may be required. See LCO 3.4.9.3.

- d. If one block valve is inoperable and open, then it is necessary to either restore the block valve to OPERABLE status within the completion time of 1 hour or place the associated PORV in manual control. The prime importance for the capability to close the block valve is to isolate a stuck open PORV. Therefore, if the block valve cannot be restored to OPERABLE status within 1 hour, the required action is to place the PORV in manual control to preclude its automatic opening for an overpressure event and to avoid the potential for a stuck open PORV at a time that the block valve is inoperable. If the block valve is inoperable, it is necessary to restore the block valve to OPERABLE status within 1 hour or close it. If block valve instrumentation related to accident monitoring instrumentation identified in LCO 3.3.3.8 is determined to be inoperable, then the block valve shall be declared inoperable. Closing the block valve precludes the need to place the PORV in manual control since it is isolated from the system. The completion time of 1 hour is reasonable, based on the small potential for challenges to the system during this time period, and provides the operator time to correct the situation. Because at least one PORV remains OPERABLE, the operator is permitted a completion time of 72 hours to restore the inoperable open block valve to OPERABLE status. If it cannot be restored within this additional time, the plant must be brought to a MODE in which the LCO does not apply in order to avoid continuous operation without a redundant ability to isolate this PORV flow path. If

NPF-73  
REACTOR COOLANT SYSTEM

BASES (Continued)

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3/4.4.11 REACTOR COOLANT SYSTEM RELIEF VALVES (Continued)

ACTION (Continued)

the block valve is restored within the completion time of 72 hours, the power will be restored and the PORV restored to OPERABLE status. With one block valve inoperable and closed, there still remains two PORV flow paths. This redundancy will allow continued operation until the next refueling outage to perform maintenance on the inoperable valve and return it to OPERABLE status.

- e. If more than one block valve is inoperable, it is necessary to either restore the block valves within the completion time of 1 hour, or place the associated PORVs in manual control and restore at least one block valve within 2 hours [and restore a minimum of two block valves within 72 hours]. Two OPERABLE PORVs provide redundancy to allow continued operation until the next refueling outage to perform maintenance on the inoperable valve and return it to OPERABLE status. The completion times are reasonable, based on the small potential for challenges to the system during this time and provide the operator time to correct the situation. If the required actions are not met, then the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 4 within 12 hours. The allowed completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. In MODES 4 and 5, maintaining PORV OPERABILITY may be required. See LCO 3.4.9.3.

SURVEILLANCE REQUIREMENTS (SR)

SR 4.4.11.1

This surveillance requires a complete cycle of each PORV. Operating a PORV through one complete cycle ensures that the PORV can be manually actuated for mitigation of an SGTR. The frequency of 18 months is based on a typical refueling cycle and industry accepted practice.

NPF-73  
REACTOR COOLANT SYSTEM

BASES (Continued)

3/4.4.11 REACTOR COOLANT SYSTEM RELIEF VALVES (Continued)

SURVEILLANCE REQUIREMENTS (SR) (Continued)

SR 4.4.11.2

Block valve cycling verifies that the valve(s) can be closed if needed. The basis for the frequency of 92 days is the ASME Code, Section XI. If the block valve is closed to isolate a PORV that is capable of being manually cycled, the OPERABILITY of the block valve is of importance, because opening the block valve is necessary to permit the PORV to be used for manual control of reactor pressure. If the block valves are closed to isolate inoperable PORVs, the maximum completion time to restore one PORV and open the block valve is 72 hours, which is well within the allowable limits (25%) to extend the block valve frequency of 92 days. Furthermore, these test requirements would be completed by the reopening of a recently closed block valve upon restoration of the PORV to OPERABLE status (i.e., completion of the required actions fulfills the SR).

This SR is not required to be met with the block valve closed, in accordance with required ACTIONS b or c of this LCO.

3/4.4.12 REACTOR COOLANT SYSTEM HEAD VENTS

Reactor Coolant System Vents are provided to exhaust noncondensable gases and/or steam from the primary system that could inhibit natural circulation core cooling. The OPERABILITY of at least one reactor coolant system vent path from the reactor vessel head or the pressurizer steam space via the PORV's ensures the capability exists to perform this function.

The valve redundancy of the Reactor Coolant System Head vent paths serves to minimize the probability of inadvertent or irreversible actuation while ensuring that a single failure of a vent valve, power supply or control system does not prevent isolation of the vent path.

The function, capabilities, and testing requirements of the Reactor Coolant System vent systems are consistent with the requirements of Item II.B.1 of NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 76 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 July 24, 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 the Action Statement requirements of BVPS-2 TS 3.4.11 to be consistent with the Action Statement requirements issued in License Amendment No. 187 to Beaver Valley Power Station, Unit 1 (BVPS-1), on May 15, 1995, and to generally reflect the guidance provided in NRC Generic Letter (GL) 90-06, "Resolution of Generic Issue 70, 'Power-Operated Relief Valves and Block Valve Reliability,' and Generic Issue 94, 'Additional Low-Temperature Overpressure Protection for Light-Water Reactors,' Pursuant to 10 CFR 50.54(f)," and of the NRC's Improved Standard Technical Specifications (NUREG-1431, Revision 1). The proposed revisions to the Action Statement requirements would provide instructions for dealing with PORVs when they are either capable of being manually cycled or not capable of being manually cycled.

2.0 EVALUATION

The NRC staff has reviewed the proposed changes to the Action Statement requirements of BVPS-2 TS 3.4.11 and has determined that the proposed changes are consistent with: (1) the intent of the recommendations of GL 90-06, (2) the guidance of the NRC's Improved Standard Technical Specifications (NUREG-1431, Revision 1), and (3) the Action Statement requirements of Unit 1 TS 3.4.11. Therefore, we have concluded that these proposed changes are acceptable.

The proposed editorial changes are minor and administrative in nature; they do not change the intent or requirements of any TSs and are, therefore, acceptable.

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### 3.0 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.

### 4.0 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 42604). 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.

### 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 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: September 18, 1995