

August 30, 1990

Docket No. 50-412
Serial No. BV-90-007

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

SUBJECT: AMENDMENT NO. 32 TO FACILITY OPERATING LICENSE NPF-73:
OVERPRESSURE PROTECTION SYSTEM (TAC NO. 76893)

The Commission has issued the enclosed Amendment No. 32 to Facility Operating License No. NPF-73 for the Beaver Valley Power Station, Unit 2, in response to your application dated June 11, 1990 (Change Request No. 41).

The amendment modifies the Appendix A Technical Specifications (TSs) for the Overpressure Protection System. Specifically, the amendment deletes Surveillance Requirements 4.4.9.3.1.d which requires stroking each operable power-operated relief valve (PORV) each time the plant enters Mode 5 unless stroke testing was performed previously on the PORV within three months.

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

Sincerely,

/s/

Albert W. De Agazio, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 32 to NPF-73
2. Safety Evaluation

cc w/enclosures:
See next page

OFC	:PDI-4:LA	:PDI-4:PM	:PDI-4:D	:OGC*	:	:
NAME	:SNorris	:AdeAgazio	:JStolz	:BM	:TMarsh	:
DATE	:8/20/90	:8/20/90	:8/20/90	:8/22/90	:	:

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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. 32
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 June 11, 1990, 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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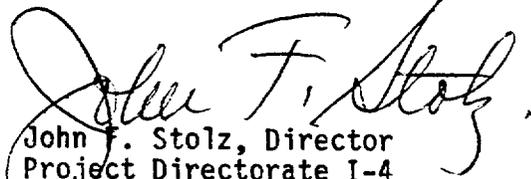
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-73 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 32, 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 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: August 30, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 32

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.

Remove

3/4 4-36

Insert

3/4 4-36

REACTOR COOLANT SYSTEM

OVERPRESSURE PROTECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.9.3 At least one of the following Overpressure Protection Systems (OPPS) shall be OPERABLE:

- a. Two power-operated relief valves (PORVs) with nominal maximum allowable lift settings which vary with the RCS temperature and which do not exceed the limits established in FIGURE 3.4-4, or
- b. A Reactor Coolant System vent of ≥ 3.14 square inches.

APPLICABILITY: When the temperature of one or more of the non-isolated RCS cold legs is $\leq 350^{\circ}\text{F}$.

ACTION:

- a. With one PORV inoperable, either restore the inoperable PORV to OPERABLE status within 7 days or depressurize and vent the RCS through a 3.14 square inch vent(s) within the next 12 hours; maintain the RCS in a vented condition until both PORVs have been restored to OPERABLE status. Refer to Technical Specification 3.4.1.6 for further limitations.
- b. With both PORVs inoperable, depressurize and vent the RCS through a 3.14 square inch vent(s) within 12 hours; maintain the RCS in a vented condition until both PORVs have been restored to OPERABLE status.
- c. In the event either the PORVs or the RCS vent(s) are used to mitigate an RCS pressure transient, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days. The report shall describe the circumstances initiating the transient, the effect of the PORVs or RCS vent(s) on the transient, and any corrective action necessary to prevent recurrence.
- d. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.4.9.3.1 Each PORV shall be demonstrated OPERABLE BY:

- a. Performance of a CHANNEL FUNCTIONAL TEST on the PORV actuation channel, but excluding valve operation, within 31 days prior to entering a condition in which the PORV is required OPERABLE and at least once per 31 days thereafter when the PORV is required OPERABLE.
- b. Performance of a CHANNEL CALIBRATION on the PORV actuation channel at least once per 18 months.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS(Continued)

- c. Verifying the PORV isolation valve is open at least once per 72 hours when the PORV is being used for overpressure protection.

4.4.9.3.2 The > 3.14 square inch RCS vent(s) shall be verified to be open at least once per 12 hours* when the vent(s) is being used for overpressure protection.

*Except when the vent pathway is provided with a valve which is locked, or provided with remote position indication, sealed, or otherwise secured in the open position, then verify these valves open at least once per 7 days.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS(Continued)

- c. Verifying the PORV isolation valve is open at least once per 72 hours when the PORV is being used for overpressure protection.

4.4.9.3.2 The > 3.14 square inch RCS vent(s) shall be verified to be open at least once per 12 hours* when the vent(s) is being used for overpressure protection.

*Except when the vent pathway is provided with a valve which is locked, or provided with remote position indication, sealed, or otherwise secured in the open position, then verify these valves open at least once per 7 days.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 32 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

1.0 INTRODUCTION

By letter dated June 11, 1990, Duquesne Light Company proposed a revision to the surveillance requirements applicable to the Overpressure Protection System as specified in the Beaver Valley Power Station, Unit 2 (BVPS-2) Technical Specifications (TSs), Section 3/4 4.9. The proposed revision would delete paragraph 4.4.9.3.1.d of that section which requires stroking each operable power-operated relief valve (PORV) each time the plant enters Mode 5 unless stroke-testing was performed previously on the PORV within 3 months.

With respect to other surveillance requirements applicable to the PORVs, TS Section 3/4 4.11 requires that the PORVs are to be demonstrated operable at least once per 18 months by operating the valve(s) through one complete cycle of full travel. The specification, however, is not specific as to the conditions under which the demonstration is to be conducted.

On June 20, 1990, the Commission issued Generic Letter (GL) 90-06 which represents the technical resolution of Generic Issue 70, "Power-Operated Relief Valve and Block Valve Reliability", and Generic Issue 94, "Additional Low Temperature Overpressure Protection for Light Water Reactors". Among other things, GL 90-06 clarifies the staff's position on the conditions under which surveillance-testing of the PORVs is to be done. All pressurized water reactor licensees and applicants are to respond to GL 90-06 by December 17, 1990. While this Safety Evaluation partially resolves one of the issues embodied in GL 90-06, it is not intended to address totally the specific issues to which the responses to GL 90-06 must be directed.

2.0 DISCUSSION AND EVALUATION

The BVPS-2 TSs contain three specific requirements for the surveillance testing (in addition to various other channel tests and calibrations) of the PORVs as follows:

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1. Paragraph 4.4.9.3.1.d states that "Each PORV shall be demonstrated OPERABLE by stroking the operable PORVs each time the plant enters MODE 5, unless tested within the preceeding 3 months".
2. Paragraph 4.4.11.1 b states that "In addition to the requirements of Specification 4.0.5, each PORV shall be demonstrated OPERABLE at least once per 18 months by operating the valve through one complete cycle of full travel".
3. Paragraph 4.0.5 specifies, in part, that the inservice testing requirements of Section XI of the ASME Code Class 1, 2, and 3 pumps and valves shall be applicable and shall be in addition to other specified surveillance requirements.

The BVPS-2 Inservice Testing (IST) Program provides for the testing of the PORVs at least quarterly but includes a cold shutdown justification to permit delaying a scheduled test until the unit is in cold shutdown so as to avoid testing the PORVs while the plant is at power. The IST test includes valve-stroke timing in addition to cycling the PORVs. The Standard Technical Specifications (STS) for Westinghouse Pressurized Water Reactors, NUREG-0452 (Rev. 4), only provides for the testing of PORVs in accordance with the requirements of inservice testing. The STS require an operational test of the PORV actuation channel within 31 days prior to entering a condition in which the PORV is required to be operable, but that requirement specifically excludes operation of the PORV.

GL 90-06 requested licensees to include PORVs and PORV block valves in an operational quality assurance program within the scope of the IST program, and to adopt certain technical specification changes in accordance with staff positions. With respect to the inclusion of the PORV into the IST program, the GL specifically noted that stroke-testing of PORVs should only be performed during Mode 3 or Mode 4 and, more generally, such stroke-testing should only be performed when plant conditions are such that low-temperature overpressure protection is not required. Additionally, the staff-endorsed technical specifications included with 90-06 would require operation of the PORV through one complete cycle of full travel during Modes 3 or 4 at least once per 18 months.

Thus, the requirement of Paragraph 4.4.9.3.1.d of the BVPS-2 is not consistent with the staff position that testing of PORVs should not be performed when the plant is in a condition where the PORVs are being relied upon for low-temperature overpressure protection. The staff's position is based upon consideration of the unavailability of the PORVs for the period of time required to perform the testing while the plant is in a condition where a low-temperature overpressure transient is most likely to occur. The staff, in fact, concluded that while low temperature overpressure protection is required in all shutdown modes, the most vulnerable period of time is in Mode 5 with the reactor coolant temperature less than 200 F (NUREG-1326, Regulatory Analysis for the Resolution of Generic Issue 94, "Additional Low-Temperature Overpressure Protection for Light-Water Reactors").

Low temperature overpressure protection is required at BVPS-2 whenever the temperature of at least one non-isolated reactor coolant system cold leg is 350°F or less. Thus, low temperature overpressure protection is required whenever the plant is in operational modes 4 or 5, and in Mode 6 if the head is on the vessel. To meet the staff position stated in GL 90-06, PORV stroking at BVPS-2 should be done only in Mode 3.

Based on the above, we find that the requirement of TS Paragraph 4.4.9.3.1.d is not consistent with the stated staff position because the subject surveillance requirement would require PORV stroke-testing at a time when plant conditions have been established which require low temperature overpressure protection. Other surveillance requirements currently incorporated in the BVPS-2 TSs, namely, the requirements of Paragraphs 4.4.11.1 b (if performed while in Mode 3) and 4.0.5 would meet the staff position with regard to surveillance testing requiring stroking of the PORVs.

Based on the above, we agree with the licensee's assertion that the requirement of TS Paragraph 4.4.9.3.1 d is redundant; we find, further, that adequate stroke-testing of the PORVs is required by Paragraphs 4.4.11.1 b and 4.0.5. The deletion of Paragraph 4.4.9.3.1 d would eliminate a requirement to perform testing of the PORVs while the reactor coolant system is most vulnerable to an overpressure transient requiring mitigation through the use of the PORVs. Therefore, the deletion of TS Paragraph 4.4.9.3.1 d is acceptable. It is to be noted, however, that this Safety Evaluation is limited solely to the issue of the deletion of the subject paragraph. Duquesne Light Company must still respond to the staff on the issues covered by GL 90-06. The staff will review that response at a later date.

ENVIRONMENTAL CONSIDERATION

This amendment changes surveillance requirements. 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. The staff 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, 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.

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 (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.

Dated: August 30, 1990

Principal Contributor:

Albert W. De Agazio