



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

May 13, 1993

Docket No. 50-334

Mr. J. D. Sieber, Senior Vice President
and Chief Nuclear Officer
Nuclear Power Division
Duquesne Light Company
Post Office Box 4
Shippingport, Pennsylvania 15077

Dear Mr. Sieber:

SUBJECT: ISSUANCE OF AMENDMENT NO. 171 TO FACILITY OPERATING LICENSE DPR-66 IN
RESPONSE TO CHANGE REQUEST NO. 192 REGARDING AUXILIARY FEEDWATER
SYSTEM (TAC NO. M82305)

The Commission has issued the enclosed Amendment No. 171 to Facility
Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1,
in response to your application dated October 5, 1992.

The amendment revises Technical Specification (TS) 3.7.1.2 relating to the
Auxiliary Feedwater (AFW) System. Specifically, two additional action
statements are added to the Limiting Conditions for Operation (LCO), and
Surveillance Requirements (SR) 4.7.1.2.a and 4.7.1.2.c are modified. One of
the new action statements added to the LCO applies when two AFW pumps are
inoperable; the other new action statement applies when all three AFW pumps
are inoperable. Surveillance Requirement 4.7.1.2.a is revised by replacing a
specific pump discharge pressure with the pump head specified in the Inservice
Testing Program. Additionally, it clarifies provisions of TS 4.0.4, that do
not apply for entry into Mode 3 for testing the steam-driven AFW pump, and a
footnote is added to specify the minimum steam system pressure when the steam-
driven auxiliary feedwater pump is tested. Surveillance Requirement 4.7.1.2.c
is reworded and a footnote is added to clarify when the requirement is
applicable.

190068

9305200097 930513
PDR ADOCK 05000334
P PDR

NRC FILE CENTER COPY

Handwritten signature
11

Mr. J. D. Sieber

- 2 - May 13, 1993

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,

ORIGINAL SIGNED BY:

Gordon E. Edison, Senior Project Manager
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 171 to DPR-66
- 2. Safety Evaluation

cc w/enclosures:
See next page

DISTRIBUTION:

~~Docket File~~
 NRC & Local PDRs
 PDI-3 Reading
 SVarga
 JCalvo
 WButler
 TClark
 GEdison
 JHarold
 NWagner

OGC
 DHagan
 GHill (2 copies)
 WJones MNBB 7103
 CGrimes 11E22
 ACRS (10)
 OPA
 OC/LFDCB
 JLinville, RI

OFFICE	PDI-3:LA	PDI-3:PM	PDI-3:PM	OGC	OTSB	PDI-3:D
NAME	TClark	JHarold	GEdison	WButler	CGrimes	WButler
DATE	4/21/93	4/21/93	4/26/93	5/2/93	5/3/93	5/13/93

OFFICIAL RECORD COPY
FILENAME: A:\BVM82305.AMD

~~Submittal~~
 initial in #93-61
 SER.
 SE Turk w/comment

Mr. J. D. Sieber

- 2 -

May 13, 1993

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,

A handwritten signature in black ink that reads "G E Edison". The letters are cursive and slanted to the right.

Gordon E. Edison, Senior Project Manager
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 171 to DPR-66
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. J. D. Sieber
Duquesne Light Company

Beaver Valley Power Station
Units 1 & 2

cc:

Jay E. Silberg, Esquire
Shaw, Pittman, Potts & Trowbridge
2300 N Street, NW.
Washington, DC 20037

Nelson Tonet, Manager
Nuclear Safety
Duquesne Light Company
Post Office Box 4
Shippingport, Pennsylvania 15077

Commissioner Roy M. Smith
West Virginia Department of Labor
Building 3, Room 319
Capitol Complex
Charleston, West Virginia 25305

John D. Borrowes
Director, Utilities Department
Public Utilities Commission
180 East Broad Street
Columbus, Ohio 43266-0573

Director, Pennsylvania Emergency
Management Agency
Post Office Box 3321
Harrisburg, Pennsylvania 17105-3321

Ohio EPA-DERR
ATTN: Zack A. Clayton
Post Office Box 1049
Columbus, Ohio 43266-0149

Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources
ATTN: R. Barkanic
Post Office Box 2063
Harrisburg, Pennsylvania 17120

Mayor of the Borough of
Shippingport
Post Office Box 3
Shippingport, Pennsylvania 15077

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

Resident Inspector
U.S. Nuclear Regulatory Commission
Post Office Box 181
Shippingport, Pennsylvania 15077



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

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. 171
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 October 5, 1992, 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.

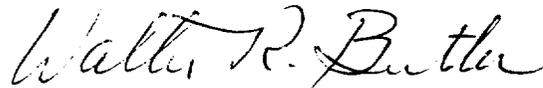
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 171, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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



Walter R. Butler, Director
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: **May 13, 1993**

ATTACHMENT TO LICENSE AMENDMENT NO. 171

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.

<u>Remove</u>	<u>Insert</u>
3/4 7-5	3/4 7-5
3/4 7-6	3/4 7-6
B 3/4 7-2	B 3/4 7-2

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least three steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

- a. Two feedwater pumps, each capable of being powered from separate emergency busses, and
- b. One feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With one auxiliary feedwater pump inoperable, restore at least three auxiliary feedwater pumps (two capable of being powered from separate emergency busses and one capable of being powered by an OPERABLE steam supply system) to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.
- b. With the motor driven auxiliary feedwater pump supplying the redundant header inoperable, realign the two remaining auxiliary feedwater pumps to separate headers within 2 hours.
- c. With two auxiliary feedwater pumps inoperable, be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.
- d. With three auxiliary feedwater pumps inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.7.1.2 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

- a. When tested pursuant to Specification 4.0.5:
 1. By verifying, that the 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. The provisions of Specification 4.0.4 are not applicable for entry into Mode 3 for the steam turbine driven pump testing.⁽¹⁾

⁽¹⁾ Secondary side steam pressure shall be greater than 600 psig when performing this surveillance requirement for the steam turbine driven pump.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 31 days by:
 - 1. Verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.
 - 2. Reverifying the requirements of Technical Specification Surveillance 4.7.1.2.b.1 by a second and independent operator.
 - 3. Establish and maintain constant communications between the control room and the auxiliary feed pump room while any normal discharge valve is closed during surveillance testing.
 - 4. Verifying operability of each River Water Auxiliary Supply valve by cycling each manual River Water to Auxiliary Feedwater System valve through one complete cycle.
- c. Verify Auxiliary Feedwater flow from WT-TK-10 to the Steam Generators with the Auxiliary Feedwater Valves in their normal alignment.⁽²⁾
- d. At least once per 18 months during shutdown by:
 - 1. Cycling each power operated (excluding automatic) valve in the flow path that is 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. Verifying that each pump starts automatically upon receipt of a test signal.

⁽²⁾ This surveillance is required to be performed prior to entry into Mode 2 whenever the plant has been in Modes 5 or 6 for greater than 30 continuous days.

PLANT SYSTEMSBASESSAFETY VALVES (Continued)

- U = maximum number of inoperable safety valves per operating steam line
- (109) = Power Range Neutron Flux-High Trip Setpoint for (N) loop operation
- (W) = 71 percent of RATED THERMAL POWER permissible by P-8 Setpoint for 2 loop operation with stop valves open
- (W) = 66 percent of RATED THERMAL POWER permissible by P-8 Setpoint for 2 loop operation with stop valves closed
- X = Total relieving capacity of all safety valves per steam line in lbs/hour (4,261,666)
- Y = Maximum relieving capacity of one safety valve in lbs/hour (873,600)

3/4.7.1.2 AUXILIARY FEEDWATER PUMPS

The OPERABILITY of the auxiliary feedwater pumps ensures that the Reactor Coolant System can be cooled down to less than 350°F from normal operating conditions in the event of a total loss of off-site power.

The capacity of each auxiliary feedwater pump is sufficient to ensure that adequate feedwater flow is available to remove decay heat and reduce the Reactor Coolant System temperature to less than 350°F when the Residual Heat Removal System may be placed into operation.

3/4.7.1.3 PRIMARY PLANT DEMINERALIZED WATER

The OPERABILITY of the PPDW storage tank with the minimum water volume ensures that sufficient water is available for cooldown of the Reactor Coolant System to less than 350°F in the event of a total loss of off-site power. The minimum water volume is sufficient to maintain the RCS at HOT STANDBY conditions for 9 hours with steam discharge to atmosphere.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 171 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

1.0 INTRODUCTION

The licensee for the Beaver Valley Power Station, Unit 1, Duquesne Light Company, in a submittal dated October 5, 1992, requested that the plant license be amended. The change requested by the licensee would require modification of Technical Specifications (TS) 3.7.1.2 and 4.7.1.2 relating to Limiting Conditions for Operation (LCO) and Surveillance Requirements for the auxiliary feedwater (AFW) pumps. Details of the requested changes and the staff review of these changes are discussed below.

2.0 DISCUSSION

Under the "Action" statement of LCO TS 3.7.1.2, the licensee proposes to add paragraphs c and d, shown below:

- c. With two auxiliary feedwater pumps inoperable, be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.
- d. With three auxiliary feedwater pumps inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible.

The licensee also proposes to modify the surveillance requirements for testing each AFW pump. The changes proposed would delete TS 4.7.1.2a.1 which requires that the motor driven AFW pumps develop a discharge pressure equal to or greater than 1155 psig on recirculation flow in order to demonstrate pump operability. Similarly TS 4.7.1.2a.2, which requires that the steam driven pump develop a discharge pressure equal to or greater than 1155 psig on recirculation flow when the secondary stream pressure is greater than 600 psig to demonstrate pump operability, would also be deleted. The licensee proposes to replace these TS with the following wording:

4.7.1.2 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

a. When tested pursuant to Specification 4.0.5:

1. By verifying, that the 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. The provisions of Specification 4.0.4 are not applicable for entry into Mode 3 for the steam turbine driven pump testing.⁽¹⁾

⁽¹⁾ Secondary side steam pressure shall be greater than 600 psig when performing this surveillance requirement for the steam turbine driven pump.

(Note that the lines shown as "4.7.1.2 and "a" are identical in both the present and proposed TS.)

The licensee proposes to modify Surveillance TS 4.7.1.2.c to require that auxiliary feedwater flow from tank WT-TK-10 to the steam generators be verified before entering Mode 2 (startup) whenever the plant has been in Modes 5 or 6 for greater than 30 continuous days in lieu of the present requirement that such testing be required after "an extended plant outage."

In the Bases section for TS 3/4.7.1.2, "Auxiliary Feedwater Pumps," the licensee proposes to eliminate references to a definite flow rate (350 gpm for the motor-driven pumps and 700 gpm for the steam-driven pump) or developed head for this flow rate (1133 psig) at the entrance to the steam generators. The licensee will add words to complete the 2nd paragraph shown below as follows (unchanged paragraph 1 is also shown):

3/4.7.1.2 Auxiliary Feedwater Pumps

The OPERABILITY of the auxiliary feedwater pumps ensures that the Reactor Coolant System can be cooled down to less than 350°F from normal operating conditions in the event of a total loss of off-site power.

The capacity of each auxiliary feedwater pump is sufficient to ensure that adequate feedwater flow is available to remove decay heat and reduce the Reactor Coolant System temperature to less than 350°F when the Residual Heat Removal System may be placed into operation.

3.0 EVALUATION

The inclusion of Limiting Conditions for Operation TS 3.7.1.2.c and d are acceptable since LCO action statements 3.7.1.2 a, b, and d consider the actions to be taken on finding 1, 2 and 3 AFW pumps inoperable, in compliance with the action statements in the STS (Improved Standard Technical Specifications for Westinghouse Plants NUREG-1431).

The improved STS (NUREG-1431) also include a separate remedial action when one of the two steam supply lines to the turbine-driven AFW pumps is inoperable in Modes 1, 2 or 3. The Beaver Valley AFW system design includes two steam supply lines consistent with the system configuration assumed in the improved STS. This enhancement in the improved STS was discussed with the licensee, and the loss of an AFW steam supply will be considered for a possible future license amendment.

The replacement of Surveillance Requirements TS 4.7.1.2.a.1 and 4.7.1.2.a.2 with the new wording is found to be acceptable since it permits an assessment of pump capacity at any reasonable test point (flow test point) to be compared with a similar point along a flow/head curve previously established by inservice testing in accordance with Section XI of the ASME Boiler and Pressure Vessel Code. This is consistent with the STS.

Proposed TS 4.7.1.2.a.1 would allow the licensee to enter Mode 3 with the steam driven AFW pump without having tested it at lower temperatures, in Modes 4, 5, and 6, to assure provision of an adequate steam supply (at 600 psig) to drive the pump. The staff finds this to be acceptable. The staff also finds acceptable the change in 4.7.1.2.c which requires that auxiliary feedwater flow from tank WT-TK-10 to the steam generators be verified any time the plant has been in Modes 5 or 6 for a total period of 30 continuous days (as specified by note 2), in lieu of the present ambiguous statement which requires verification of flow from WT-TK-10 to the steam generators "following an extended plant outage."

The modification of the Bases Section 3/4.7.1.2, "Auxiliary Feedwater Pump" to eliminate the specified volumetric flow rates and developed heads at the entrance to the steam generators for both the motor-driven and steam-driven pumps and the replacement shown above is found to be consistent with the pump testing methodology and is, therefore, acceptable.

Therefore, the staff finds the licensee's proposed changes to the technical specifications acceptable.

4.0 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.

5.0 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 (58 FR 5428). 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.

6.0 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: N. Wagner

Date: **May 13, 1993**