

May 13, 1988

Docket Nos. 50-334
and 50-412

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

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Dear Mr. Sieber:

SUBJECT: BEAVER VALLEY UNITS 1 AND 2 - ISSUANCE OF AMENDMENT
(TAC NOS. 67101 AND 67102)

The Commission has issued the enclosed Amendment No. 125 to Facility Operating License No. DPR-66 and Amendment No. 2 to Facility Operating License No. NPF 73 for the Beaver Valley Power Station, Unit Nos. 1 and 2, in response to your application dated February 5, 1988.

The amendments correct a number of administrative errors, make editorial changes and clarify certain requirements in the existing Technical Specifications.

A copy of the 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. 125 to DPR-66
- 2. Amendment No. 2 to NPF-73
- 3. Safety Evaluation

cc w/enclosures:
See next page

LA:PDI-4
SNorris
5 04/13/88

PM:PDI-4
PTam:bd
04/13/88

D:PDI-4
JStolz
for 05/13/88

OGC
5-27/100/10
04/10/88
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PDR ADDCK 05000334
P PDR

Mr. J. Sieber
Duquesne Light Company

cc:

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Beaver Valley Power Station
Units 1 & 2

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Post Office Box 3321
Harrisburg, Pennsylvania 17105-3321



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. 125
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 February 5, 1988, 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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P PDR

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. 125, 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


for

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: May 13, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 125

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

3/4 2-2

3/4 3-16

3/4 3-16a

3/4 4-10a

6-23

Insert

3/4 2-2

--

3/4 3-16

3/4 4-10a

6-23

POWER DISTRIBUTION LIMITS

LIMITING CONDITION FOR OPERATION (Continued)

- b. THERMAL POWER shall not be increased above 90% of RATED THERMAL POWER unless the indicated AFD is within the $\pm 7\%$ target band and ACTION a.2.a) 1), above has been satisfied.
- c. THERMAL POWER shall not be increased above 50% of RATED THERMAL POWER unless the indicated AFD has not been outside of the $\pm 7\%$ target band for more than 1 hour penalty deviation cumulative during the previous 24 hours.

SURVEILLANCE REQUIREMENTS

4.2.1.1 The indicated AXIAL FLUX DIFFERENCE shall be determined to be within its limits during POWER OPERATION above 15% of RATED THERMAL POWER by:

- a. Monitoring the indicated AFD for each OPERABLE excore channel:
 - 1. At least once per 7 days when the AFD Monitor Alarm is OPERABLE, and
 - 2. At least once per hour for the first 24 hours after restoring the AFD Monitor Alarm to OPERABLE status.
- b. Monitoring and logging the indicated AXIAL FLUX DIFFERENCE for each OPERABLE excore channel at least once per hour for the first 24 hours and at least once per 30 minutes thereafter, when the AXIAL FLUX DIFFERENCE Monitor Alarm is inoperable. The logged values of the indicated AXIAL FLUX DIFFERENCE shall be assumed to exist during the interval preceding each logging.

4.2.1.2 The indicated AFD shall be considered outside of its $\pm 7\%$ target band when at least 2 of 4 or 2 of 3 OPERABLE excore channels are indicating the AFD to be outside the target band. POWER OPERATION outside of the $\pm 7\%$ target band shall be accumulated on a time basis of:

- a. One minute penalty deviation for each one minute of POWER OPERATION outside of the target band at THERMAL POWER levels equal to or above 50% of RATED THERMAL POWER, and
- b. One-half minute penalty deviation for each one minute of POWER OPERATION outside of the target band at THERMAL POWER levels between 15% and 50% of RATED THERMAL POWER.

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

| <u>FUNCTIONAL UNIT</u> | <u>TOTAL NO. OF CHANNELS</u> | <u>CHANNNELS TO TRIP</u> | <u>MINIMUM CHANNELS OPERABLE</u> | <u>APPLICABLE MODES</u> | <u>ACTION</u> |
|---|------------------------------|--------------------------|----------------------------------|-------------------------|---------------|
| 1.1 SAFETY INJECTION-TRANSFER FROM INJECTION TO THE RE-CIRCULATION MODE | | | | | |
| a. Manual Initiation | 2 sets 2 switches/ set | 1 set | 2 sets | 1, 2, 3, 4 | 18 |
| b. Automatic Actuation Logic Coincident with Safety Injection Signal | 2 | 1 | 2 | 1, 2, 3 | 18 |
| c. Refueling Water Storage Tank Level-Low | 4 | 2 | 3 | 1, 2, 3 | 16 |
| d. Refueling Water Storage Tank Level - Auto QS Flow Reduction | 1 per train | 1 per train | 1 per train | 1, 2, 3 | 18 |

BEAVER VALLEY - UNIT 1

3/4 3-16

Amendment No. ~~13~~, ~~28~~, 125

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

5. Defect means an imperfection of such severity that it exceeds the plugging limit. A tube containing a defect is defective. Any tube which does not permit the passage of the eddy-current inspection probe shall be deemed a defective tube.
6. Plugging Limit means the imperfection depth at or beyond which the tube shall be removed from service because it may become unserviceable prior to the next inspection and is equal to 40% of the nominal tube wall thickness.
7. Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 4.4.5.3.c, above.
8. Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U-bend to the top support to the cold leg.
 - b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug all tubes exceeding the plugging limit and all tubes containing through-wall cracks) required by Table 4.4-2.

4.4.5.5 Reports

- a. Within 15 days following the completion of each inservice inspection of steam generator tubes, the number of tubes plugged in each steam generator shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2.
- b. The complete results of the steam generator tube inservice inspection shall be submitted to the Commission in a Special Report pursuant to Specification 6.9.2 within 12 months following the completion of the inspection. This Special Report shall include:
 1. Number and extent of tubes inspected.
 2. Location and percent of wall-thickness penetration for each indication of an imperfection.
 3. Identification of tubes plugged.

ADMINISTRATIVE CONTROLS

- a. ECCS Actuation, Specifications 3.5.2 and 3.5.3.
- b. Inoperable Seismic Monitoring Instrumentation, Specification 3.3.3.3.
- c. Inoperable Meteorological Monitoring Instrumentation, Specification 3.3.3.4.
- d. Seismic event analysis, Specification 4.3.3.3.2.
- e. Sealed source leakage in excess of limits, Specification 4.7.9.1.3.
- f. Fire Detection Instrumentation, Specification 3.3.3.6.
- g. Fire Suppression Systems, Specifications 3.7.14.1, 3.7.14.2 and 3.7.14.3 and 3.7.14.5.
- h. Miscellaneous reporting requirements specified in the Action Statements for Radiological Effluent Technical Specifications.
- i. Containment Inspection Report, Specification 4.6.1.6.2.
- j. Steam Generator Tube Inservice Inspection Results Report, Specification 4.4.5.5.

6.10 RECORD RETENTION

- 6.10.1 The following records shall be retained for at least five (5) years:
- a. Records and logs of facility operation covering time interval at each power level.
 - b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
 - c. All Reportable Events.
 - d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
 - e. Records of reactor tests and experiments.
 - f. Records of changes made to Operating Procedures.
 - g. Records of radioactive shipments.
 - h. Records of sealed source leak tests and results.
 - i. Records of annual physical inventory of all sealed source material of record.



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. 2
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 February 5, 1988, 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.

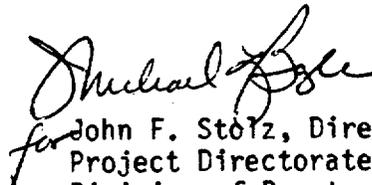
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-73 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 2, 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 on issuance, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



for John F. Stoiz, 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: May 13, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 2

FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

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

3/4 2-2

3/4 4-14

Insert

3/4 2-2

3/4 4-14

3/4.2 POWER DISTRIBUTION LIMITS

AXIAL FLUX DIFFERENCE (AFD)

LIMITING CONDITION FOR OPERATION

3.2.1 The indicated AXIAL FLUX DIFFERENCE (AFD) shall be maintained within a ± 7 percent target band (flux difference units) about the target flux difference.

APPLICABILITY: MODE 1 above 50 Percent RATED THERMAL POWER*

ACTION:

- a. With the indicated AXIAL FLUX DIFFERENCE outside of the ± 7 percent target band about the target flux difference and with THERMAL POWER:
 1. Above 90 percent of RATED THERMAL POWER, within 15 minutes:
 - a) Either restore the indicated AFD to within the target band limits, or
 - b) Reduce THERMAL POWER to less than 90 percent of RATED THERMAL POWER.
 2. Between 50 percent and 90 percent of RATED THERMAL POWER:
 - a) POWER OPERATION may continue provided:
 - 1) The indicated AFD has not been outside of the ± 7 percent target band for more than 1 hour penalty deviation cumulative during the previous 24 hours, and
 - 2) The indicated AFD is within the limits shown on Figure 3.2-1. Otherwise, reduce THERMAL POWER to less than 50 percent of RATED THERMAL POWER within 30 minutes and reduce the Power Range Neutron Flux-High Trip Setpoints to < 55 percent of RATED THERMAL POWER within the next 4 hours.
 - b) Surveillance testing of the Power Range Neutron Flux Channels may be performed pursuant to Specification 4.3.1.1.1 provided the indicated AFD is maintained within the limits of Figure 3.2-1. A total of 16 hours operation may be accumulated with the AFD outside of the target band during this testing without penalty deviation.

*See Special Test Exception 3.10.2

POWER DISTRIBUTION LIMITS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

- b. THERMAL POWER shall not be increased above 90 percent of RATED THERMAL POWER unless the indicated AFD is within the ± 7 percent target band and ACTION a.2.a) 1), above has been satisfied.
- c. THERMAL POWER shall not be increased above 50 percent of RATED THERMAL POWER unless the indicated AFD has not been outside of the ± 7 percent target band for more than 1 hour penalty deviation cumulative during the previous 24 hours.

SURVEILLANCE REQUIREMENTS

4.2.1.1 The indicated AXIAL FLUX DIFFERENCE shall be determined to be within its limits during POWER OPERATION above 15 percent of RATED THERMAL POWER by:

- a. Monitoring the indicated AFD for each OPERABLE excore channel:
 1. At least once per 7 days when the AFD Monitor Alarm is OPERABLE, and
 2. At least once per hour for the first 24 hours after restoring the AFD Monitor Alarm to OPERABLE status.
- b. Monitoring and logging the indicated AXIAL FLUX DIFFERENCE for each OPERABLE excore channel at least once per hour for the first 24 hours and at least once per 30 minutes thereafter, when the AXIAL FLUX DIFFERENCE Monitor Alarm is inoperable. The logged values of the indicated AXIAL FLUX DIFFERENCE shall be assumed to exist during the interval preceding each logging.

4.2.1.2 The indicated AFD shall be considered outside of its ± 7 percent target band when at least 2 of 4 or 2 of 3 OPERABLE excore channels are indicating the AFD to be outside the target band. POWER OPERATION outside of the ± 7 percent target band shall be accumulated on a time basis of:

- a. One-minute penalty deviation for each 1 minute of POWER OPERATION outside of the target band at THERMAL POWER levels equal to or above 50 percent of RATED THERMAL POWER, and
- b. One-half-minute penalty deviation for each 1 minute of POWER OPERATION outside of the target band at THERMAL POWER levels between 15% and 50% of RATED THERMAL POWER.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 4.4-2 during the shutdown subsequent to any of the following conditions.
1. Primary-to-secondary tubes leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.4.6.2,
 2. A seismic occurrence greater than the Operating Basis Earthquake,
 3. A loss-of-coolant accident requiring actuation of the engineered safeguards, or
 4. A main steam line or feedwater line break.

4.4.5.4 Acceptance Criteria

- a. As used in this Specification:
1. Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. Eddy-current testing indications below 20% of the nominal tube wall thickness, if detectable, may be considered as imperfections.
 2. Degradation means a service-induced cracking, wastage, wear, or general corrosion occurring on either inside or outside of a tube.
 3. Degraded Tube means a tube containing imperfections \geq 20 percent of the nominal wall thickness caused by degradation.
 4. % Degradation means the percentage of the tube wall thickness affected or removed by degradation.
 5. Defect means an imperfection of such severity that it exceeds the plugging limit. A tube containing a defect is defective. Any tube which does not permit the passage of the eddy-current inspection probe shall be deemed a defective tube.
 6. Plugging Limit means the imperfection depth at or beyond which the tube shall be removed from service because it may become un-serviceable prior to the next inspection and is equal to 40 percent of the nominal tube wall thickness.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

7. Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 4.4.5.3.c, above.
 8. Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U-bend to the top support of the cold leg.
- b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug all tubes exceeding the plugging limit and all tubes containing through-wall cracks) required by Table 4.4-2.

4.4.5.5 Reports

- a. Within 15 days following the completion of each inservice inspection of steam generator tubes, the number of tubes plugged in each steam generator shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2.
- b. The complete results of the steam generator tube inservice inspection shall be included in a Special Report pursuant to Specification 6.9.2 within 12 months following the completion of the inspection. This report shall include:
 1. Number and extent of tubes inspected.
 2. Location and percent of wall-thickness penetration for each indication of an imperfection.
 3. Identification of tubes plugged.
- c. Results of steam generator tube inspections which fall into Category C-3 shall be reported to the Commission pursuant to Specification 6.6 prior to resumption of plant operation. The written report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 125 TO FACILITY OPERATING LICENSE NO. DPR-66
AND AMENDMENT NO. 2 TO FACILITY OPERATING LICENSE NO. NPF-73
DUQUESNE LIGHT COMPANY, ET AL.
BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-334 AND 50-412

INTRODUCTION

By letter dated February 5, 1988, Duquesne Light Company (acting as agent for itself and other co-owners), submitted a request to amend the Technical Specifications (TS) of Beaver Valley Power Station Units 1 and 2. The proposed changes are for correction of errors, elimination of discrepancies or for clarification of statements. Our evaluation of these changes is as follows.

DISCUSSION AND EVALUATION

The discussion and evaluation below apply to both Unit 1 and Unit 2 Technical Specifications, unless stated otherwise.

- (1) Surveillance requirement 4.2.1.2.b currently does not specify the lower limit to which the $\frac{1}{2}$ -minute penalty for the axial flux difference (AFD) is to be applied, despite the fact that the Section 4.2.1.1 clearly states that the requirements apply when the power level is above 15% of rated thermal power. The proposed revision would eliminate this discrepancy between the two sections, and conform the subject specifications to the wording of Westinghouse Standard Technical Specifications. The proposed change is acceptable.
- (2) Page 3/4 3-16a (Unit 1 only) would be renumbered to 3/4 3-16, and the current page 3/4 3-16, a blank page as a result of Amendment No. 30, would be deleted. This is an editorial change, and is acceptable.
- (3) Section 4.4.5.5 would be modified to clearly say that a Special Report will be needed to document steam generator tube inspection results. The current specification is not clear on this. The revised specification would conform with the Westinghouse Standard Technical Specifications and is acceptable.
- (4) Section 6.9.2 (Unit 1 only) will be revised by adding Steam Generator Tube Inservice Inspection Report to the list of Special Reports. This is an administrative change, and reflects the change made above in Item (3). The revised specification conforms with the guidance of the Westinghouse Standard Technical Specifications and is acceptable.

ENVIRONMENTAL CONSIDERATION

These amendments involve changes that are administrative in nature. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: May 13, 1988

Principal Contributor:

Peter S. Tam