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Docket No. 50-334

Mr. J. J. Carey, Vice President
Nuclear Division
Duquesne Light Company
435 Sixth Avenue
Pittsburgh, Pennsylvania 15219

Dear Mr. Carey:

The Commission has issued the enclosed Amendment No. 52 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated June 16, 1982.

The amendment grants a temporary waiver of the accuracy requirements for the rod position instrumentation when the plant is below normal power operation temperature.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

ORIGINAL SIGNED

Peter S. Tam, Project Manager
Operating Reactors Branch #1
Division of Licensing

CP

Enclosures:
1. Amendment No. 52 to DPR-66
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:
See next page

OK as to form of AMDT + FRN only; see typo in notice

OFFICE	ORB#1:DL	ORB#1:DL	ORB#1:DL	AD/OR:DL	OELD		
SURNAME	CParrish	PTam	SVarga	TNovak			
DATE	06/25/82	06/25/82	06/ /82	06/25/82	06/25/82		

Mr. J. J. Carey
Duquesne Light Company

cc: Mr. H. P. Williams
Station Superintendent
Duquesne Light Company
Beaver Valley Power Station
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Shippingport, Pennsylvania 15077

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Charleston, West Virginia 25305

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Mr. J. J. Carey
Duquesne Light Company

cc: Regional Radiation Representatives
EPA Region III
Curtis Building - 6th Floor
Philadelphia, Pennsylvania 19106

Governor's Office of State Planning
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ATTN: Coordinator, Pennsylvania
State Clearinghouse
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Harrisburg, Pennsylvania 17120

Mr. Lawrence Barker
Commissioner, Department of Labor
State Capitol Complex
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Charleston, West Virginia 25305

Dr. Clark Hansbarger
Director
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Mr. Kenny Grada
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Beaver Valley Power Station
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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. 52
License No. DPR-66

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

   A. The application for amendment by Duquesne Light Company, Ohio Edison Company, and Pennsylvania Power Company (the licensees) dated June 16, 1982, 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 Appendices A and B, as revised through Amendment No. 52 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 25, 1982

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 52 TO FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Revise Appendix A as follows:

Remove Page	Insert Page
3/4 1-21	3/4 1-21

POSITION INDICATION SYSTEM-SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.1.3.3 The group step demand counter and at least two analog rod position indication channels per group shall be OPERABLE for each group of shutdown or control rods not fully inserted.

APPLICABILITY: Modes 3*#, 4*# and 5*#

ACTION:

With less than the above required position indicator(s) OPERABLE, immediately insert all rods or, immediately open the reactor trip system breakers.

SURVEILLANCE REQUIREMENTS

4.1.3.3 Each of the above required position indicator(s) shall be determined to be OPERABLE by performance of Specifications 4.1.3.2.1 and 4.1.3.2.2.

*With the reactor trip system breakers in the closed position.

#The accuracy requirements of the analog rod position indication system are not applicable below Tavg of 547F due to known shift of the calibration of the analog rod position indication system at reduced plant temperatures. At plant temperatures below Tavg = 547F, the analog rod position indicators shall be used to provide general guidance in determining rod position and the group demand indicators shall be used to determine exact rod positions. The requirements set forth in 4.1.3.2.2b must be performed at a nominal average coolant temperature of 547F. During preparations for startup, the requirements of 4.1.3.2.2b may be waived until a nominal coolant temperature of 547F is reached. This exclusion for monitoring the analog to demand accuracy within the Rod Position Indication System at temperatures below 547F is applicable pending resolution of the analog RPI drift between Duquesne Light and the NRC. This issue is expected to be resolved during July 1982. During this interim period, any rods which are not fully inserted (those partially or fully withdrawn) should be assumed to be fully withdrawn when Keff and the critical boron concentration are being calculated. Resolution of the analog RPI drift must be completed and this interim period expires no later than September 1, 1982.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 52 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

Duquesne Light has requested by letter dated June 16, 1982 a temporary license amendment to allow that the analog rod position instrumentation not be required to meet the normal accuracy requirements when the reactor coolant system is below the nominal operating temperature. This temporary change to the Technical Specifications would remain in effect pending final resolution of this issue, expected during July 1982. A written technical report should be submitted by the licensee at the end of July, 1982.

Background

The licensee advised us by telephone on June 11, 1982 that, in Mode 3 with the reactor coolant system at 350°F, the analog rod position instruments for the shutdown banks that had been withdrawn were indicating about 60 steps below the fully withdrawn position (i.e., 170 steps versus 228 steps). Normal operating temperature is about 550°F and the accuracy specification for the analog position instruments is ± 12 steps. When normal plant operating temperatures were reached, the analog instruments all read with the required accuracy. On June 14, 1982 revised Technical Specifications were issued, which require that the rod position instruments be within the ± 12 step accuracy.

On June 16, 1982 during the plant startup, problems with the reactor coolant pumps forced the licensee to cooldown the plant in order to perform repairs. At this plant condition, the rod position instrumentation again did not satisfy the ± 12-step accuracy requirements.

The analog rod position instrumentation at this plant has a history of difficulty in being able to satisfy the required performance specifications. In November 1980, a set of interim Technical Specifications were approved for Operating Cycle 2.

Evaluation

When the licensee reported that the instruments were not within specifications at cold temperatures, several questions were raised relative to the system behavior and the licensee's understanding of the problem. The licensee assured us that the low indications were due simply to the low coolant temperature and that, when normal operating temperatures are reached, the instruments would be back within specifications. The plant safety committees had been advised of this behavior but had not previously reviewed the matter in detail because the analog rod position instruments were not required to be operable during operation in the low temperature modes.

We checked with former NRC resident inspectors experienced with previous startups at this plant. Their recollection was that at cold temperatures the rod position instruments did read low but not by significant amounts - significantly less than 60 steps. We checked with other NRC personnel experienced with plant startups at two similar PWRs. We got the same response.

At our request the licensee has agreed to study the problem with assistance from the equipment designer and meet with us to explain the behavior that was observed. A tentative meeting date of July 13, 1982 was agreed to. It is our position that a permanent waiver of the accuracy requirements should not be granted without a better technical understanding of the problem.

Knowledge of rod position is important during the shutdown modes because the position of the rods plays an important role in maintaining the core reactivity within the Technical Specification limit, that is, Keff less than 0.99. A violation of this technical specification or an inadvertent criticality could occur if the rods were not inserted into the core as deeply as the plant operating staff assumed in establishing the critical boron concentration. These problems can be avoided in one of the following ways.

1. Provide accurate rod position indication for shutdown modes (the present Technical Specifications provide for this).

2. Keep the rods in the fully inserted position until operating system temperatures are reached.

3. For any rods which are not fully inserted (those partially or fully withdrawn) assume they are fully withdrawn when Keff and the critical boron concentration are being calculated.

During the effective period of this change, we require that item #3 above be adhered to. We have added this requirement to the Technical Specification change proposed by the licensee. With a better understanding of the instrument behavior and final resolution of the concerns we plan to return to relying upon accurate rod position indication as a long-term solution.

This plant has a history of difficulties in satisfying the performance requirements for the analog rod position instrumentation. We conclude that a temporary waiver of the accuracy requirements is justified based on the compensatory measure being required relative to method of establishing Keff. Therefore, under the conditions described earlier, we approve the proposed waiver.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

This safety evaluation was prepared by Mr. J.T. Beard, Engineering Section, and Mr. Gary Holahan, Systems Section, Operating Reactors Assessment Branch, Division of Licensing.

Date: June 25, 1982