

Mr. J. E. Cross
President-Generation Group
Duquesne Light Company
Post Office Box 4
Shippingport, PA 15077

February 1, 1998

SUBJECT: BEAVER VALLEY POWER STATION, UNIT NO. 1 (TAC NO. M99933)

Dear Mr. Cross:

The Commission has issued the enclosed Amendment No. 212 to Facility Operating License No. DPR-66 for the Beaver Valley Power Station, Unit No. 1. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated November 4, 1997, which submitted Proposed Operating License Change Request No. 243.

The amendment revises Item 6.a.2, "4.16kV Emergency Bus (Start Diesel)," of Table 3.3-4 of TS 3.3.2.1. The change reduces the trip setpoint for starting the emergency diesel generators on emergency bus undervoltage from a trip setpoint of greater than or equal to 83 percent with a 12-cycle delay time to a setpoint of greater than or equal to 75 percent of nominal bus voltage with a time delay of less than 0.9 seconds including auxiliary relay times. The amendment also revises the allowable value from greater than or equal to 81 percent of nominal bus voltage to greater than or equal to 74 percent of nominal bus voltage with a time delay of less than 0.9 seconds including auxiliary relay times.

Your application for this amendment was technically complete and addressed the relevant issues. The application's no significant hazards consideration determination was suitable for use without changes and the evaluation of environmental consideration was proper. However, since over an extended period of time (several years) the previous undervoltage trip setpoint resulted in undesired starts of the emergency diesel generator, this change in trip setpoint should have been proposed in a more timely manner.

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/}
Donald S. Brinkman, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-334

Enclosures: 1. Amendment No. 212 to DPR-66
2. Safety Evaluation

cc w/encs: See next page

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

February 11, 1998

Mr. J. E. Cross
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Duquesne Light Company
Post Office Box 4
Shippingport, PA 15077

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2. Safety Evaluation

cc w/encls: See next page

J. E. Cross
Duquesne Light Company

Beaver Valley Power Station
Units 1 & 2

cc:

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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. 212
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 November 4, 1997, 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. DPR-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 212, 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 its date of 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: February 11, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 212

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Replace the following pages of the Appendix A, Technical Specifications, with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove

3/4 3-24

Insert

3/4 3-24

TABLE 3.3-4 (Continued)

DPR-66

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
4. STEAM LINE ISOLATION		
a. Manual	Not Applicable	Not Applicable
b. Automatic Actuation Logic	Not Applicable	Not Applicable
c. Containment Pressure-- Intermediate-High-High	≤ 3.0 psig	≤ 3.9 psig
d. Steamline Pressure-Low	≥ 500 psig steam line pressure	≥ 488 psig steam line pressure
e. High Negative Steam Pressure Rate	≤ 100 psi with a time constant ≥ 50 seconds	≤ 127 psi with a time constant ≥ 50 seconds
5. TURBINE TRIP AND FEEDWATER ISOLATION		
a. Steam Generator Water Level High-High	$\leq 75\%$ of narrow range instrument span each steam generator	$\leq 76.9\%$ of narrow range instrument span each steam generator
6. LOSS OF POWER		
a. 1. 4.16kv Emergency Bus Undervoltage (Loss of Voltage) (Trip Feed)	$\geq 75\%$ of nominal bus voltage with a 1 ± 0.1 second time delay	$\geq 73\%$ of nominal bus voltage with a 1 ± 0.1 second time delay
2. 4.16kv Emergency Bus (Start Diesel)	$\geq 75\%$ of nominal bus voltage with a < 0.9 sec- ond time delay (includes auxiliary relay times)	$\geq 74\%$ of nominal bus voltage with a < 0.9 sec- ond time delay (includes auxiliary relay times)
b. 4.16kv Emergency Bus Undervoltage (Degraded Voltage)	$\geq 90\%$ of nominal bus voltage with a 90 ± 5 second time delay	$\geq 88\%$ of nominal bus voltage with a 90 ± 5 second time delay
c. 480v Emergency Bus Undervoltage (Degraded Voltage)	$\geq 90\%$ of nominal bus voltage with a 90 ± 5 second time delay	$\geq 88\%$ of nominal bus voltage with a 90 ± 5 second time delay



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 21 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

By letter dated November 4, 1997, the Duquesne Light Company (the licensee) submitted a request for changes to the Beaver Valley Power Station, Unit No. 1 (BVPS-1) Technical Specifications (TSs). The requested change would revise Item 6.a.2, "4.16kV Emergency Bus (Start Diesel)," of Table 3.3-4 of TS 3.3.2.1. The proposed change would reduce the trip setpoint for starting the emergency diesel generators on emergency bus undervoltage from a trip setpoint of greater than or equal to 83 percent with a 12-cycle delay time to a setpoint of greater than or equal to 75 percent of nominal bus voltage with a time delay of less than 0.9 seconds including auxiliary relay times. The proposed change would also reduce the allowable value from greater than or equal to 81 percent of nominal bus voltage to greater than or equal to 74 percent of nominal bus voltage with a time delay of less than 0.9 seconds including auxiliary relay times. The purpose of these changes is to eliminate unnecessary diesel generator starts.

2.0 EVALUATION

Diesel generators are the standby onsite ac power sources at BVPS-1. During certain postulated abnormal events (e.g., a loss of offsite power), the diesel generators must start and provide sufficient ac power to permit the functioning of structures, systems, and components which assure the core is cooled, and containment integrity and other vital functions are maintained. The safety function of the diesel generators is to start and supply sufficient ac power to the structures, systems, and components important to safety in time to assure that specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded.

To start the diesel generators at BVPS-1 during a postulated loss of offsite power event, the licensee has installed loss of power relays which start the diesel generators when voltage on the 4.16 kV emergency busses dips below a preset value. The function of the loss of power (start diesel) relays is an anticipatory function, and these relays are in addition to the degraded grid voltage protection relays. A second set of loss of power relays, the loss of power (trip feed) relays, is used at BVPS-1 to trip the 4.16 kV emergency bus feed breakers to allow the diesel generators to connect to the 4.16 kV emergency busses.

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Because the licensee has been experiencing unnecessary anticipatory starts of the diesel generators during reactor coolant pump starts and occasionally during fast bus transfers, the licensee has proposed to change the trip setpoint and allowable value of the loss of power (start diesel) relays. The present trip setpoint value of the loss of power (start diesel) relays is too high to allow operators to start large motors at BVPS-1 without causing unnecessary diesel generator starts. To correct this problem, the licensee has proposed to change the trip setpoint value of the relays from $\geq 83\%$ (12 cycles) to $\geq 75\%$ of nominal bus voltage with a < 0.9 second time delay that includes auxiliary relay times. The licensee has also proposed to change the allowable value of the relays from $\geq 81\%$ of the nominal bus voltage to $\geq 74\%$ of nominal bus voltage with a < 0.9 second time delay that includes auxiliary relay times. These new values proposed by the licensee for the loss of power (start diesel) relays are acceptable.

The revised relay trip setpoint value and allowable value proposed by the licensee are acceptable because: (1) these new values will not adversely affect any equipment needed to mitigate a postulated abnormal event; and (2) the proposed lower relay trip setpoint value will prevent future unnecessary starts of the diesel generators. Eliminating unnecessary starts of the diesel generator eliminates unnecessary wear of the diesel generators. Equipment connected to the 4.16 kV emergency busses will not be affected by the proposed relay trip setpoint change because the licensee uses a second set of loss of power relays to trip the emergency bus feed breakers.

3.0 SUMMARY

The NRC staff has reviewed the licensee's proposed changes for compliance with regulatory requirements and determined them to be acceptable. The revised relay trip setpoint value and allowable value proposed by the licensee are acceptable because: (1) these new values will not adversely affect any equipment needed to mitigate a postulated abnormal event; and (2) the proposed lower relay trip setpoint value will prevent future unnecessary starts of the diesel generators.

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 (62 FR 63976). 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: V. Beaston

Date: February 11, 1998