



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 122 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

By letter dated July 1, 1987, the licensee (Duquesne Light Company acting as agent for the other utilities listed above) submitted a request for an amendment to the operating license. The amendment would reflect a design change to the station batteries and would revise certain requirements on battery surveillance. By letter dated September 10, 1987, we requested additional information and the licensee responded in a letter dated October 26, 1987. Our evaluation is as follows.

DISCUSSION AND EVALUATION

Surveillance Requirement 4.8.2.3.2.a.2 (page 3/4 8-8)

The licensee, under its own Design Change Package DCP-673, replaced lead-antimony batteries 1-3 and 1-4 that had 60 cells per battery with lead-calcium batteries that have 59 cells per battery. The design change was made under 10 CFR 50.59, and upgraded the batteries to IEEE 535-1979, "Qualification of Class 1E Lead Storage Batteries for Nuclear Power Generating Stations". The amendment request of July 1, 1987, was submitted to account for the reduction of terminal voltage of batteries 1-3 and 1-4 because of the change in the number of cells per battery. Each battery terminal voltage is determined by multiplying the nominal cell voltage (2.13 volts) by the number of cells. The 59 cell batteries (lead-calcium) 1-3 and 1-4 will thus operate with a minimum terminal voltage of 125.67 volts. The other 60-cell batteries (lead-antimony) 1-1 and 1-2 will continue to operate with a minimum terminal voltage of 127.8 volts.

Based on our review of sizing of the new batteries and 1-4 versus their design margin stated in the Final Safety Analysis Report, we find the licensee's proposed change to the Technical Specifications acceptable.

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Table 3.8-1 (page 3/4 8-9a) and Bases (page B3/4 8-1 & 8-2)

We have stated our position regarding the requested changes in a letter to the licensee dated September 10, 1987. The licensee responded in a letter dated October 26, 1987.

We have reviewed the response and determined that the requested changes to these pages still cannot be granted.

The current specific gravity value of 1.20 for each cell is based on the Standard Technical Specifications value of 1.20, which in turn was derived from a consensus of utilities and battery vendors. This value is considered necessary to assure adequate capacity and has been uniformly applied to all plant batteries for years without incurring much operational problem. In the absence of technical information regarding specific characteristics of the licensee's new lead-calcium batteries, the value of 1.20 should be retained to assure an adequate reserve capacity for plant equipment.

We understand that an industry group is working on a proposal to lower the value from 1.20 to 1.195. We would review that proposal generically, but must deny the licensee's plant-specific request at this time.

ENVIRONMENTAL CONSIDERATION

This amendment of Section 4.8.2.3.2.a.2 changes surveillance requirements. The 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 this amendment.

CONCLUSION

We have concluded, based on the considerations discussed above, that with respect to amendment of Section 4.8.2.3.2.a.2: (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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: March 21, 1988

Principal Contributor:

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