



Duquesne Light

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October 10, 1984

United States Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Mr. George W. Knighton, Chief
Licensing Branch 3
Office of Nuclear Reactor Regulation

SUBJECT: Beaver Valley Power Station - Unit No. 2
Docket No. 50-412
PSB Electrical Outstanding Issues

Gentlemen:

Attachment 1 to this letter provides a response to outstanding issue 196 of the BVPS-2 draft SER Section 8.3.3.1.1. This response addresses those points requested by the reviewer in a meeting in August.

DUQUESNE LIGHT COMPANY

By *E. J. Woolever*
E. J. Woolever
Vice President

GLB/wjs
Attachment

cc: Mr. H. R. Denton, Director (NRR) (w/a)
Mr. D. Eisenhut, Director Division of Licensing (w/a)
Mr. J. Knox (w/a)
Ms. M. Ley, Project Manager (w/a)
Mr. E. A. Licitra, Project Manager (w/a)
Mr. G. Walton, NRC Resident Inspector (w/a)

SUBSCRIBED AND SWORN TO, BEFORE ME THIS
10th DAY OF October, 1984.

Anita Elaine Reiter
Notary Public

ANITA ELAINE REITER, NOTARY PUBLIC
ROBINSON TOWNSHIP, ALLEGHENY COUNTY
MY COMMISSION EXPIRES OCTOBER 20, 1986

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ATTACHMENT 1

Response to Outstanding Issue 196 of the
Beaver Valley Power Station Unit No. 2
Draft Safety Evaluation Report

Draft SER Section 8.3.3.1.1: Submerged Electrical Equipment as a Result of a
Loss-of-Coolant Accident

It is the staff's concern that following a loss-of-coolant accident, fluid (from the reactor coolant system and from operation of the emergency core cooling systems) may collect in the primary containment and reach a level that may cause certain electrical equipment located inside the containment to become submerged and thereby rendered inoperable. Both safety and nonsafety-related electrical equipment is of concern because their failure may cause electrical faults that would compromise the operability of redundant emergency power sources or the integrity of containment electrical penetrations. In addition, the safety-related electrical equipment that may be submerged is also of concern if this equipment is required to mitigate the consequences of the accident for both the short-term and long-term emergency core cooling system functions and for containment isolation.

The staff's position, in regard to submerged equipment, is that all electrical equipment must be located above the maximum possible flood level or be qualified for submerged operation, or the lack of qualification must be justified.

By Amendment 3 to the FSAR, the applicant provided a listing of safety class equipment that may become submerged as a result of a LOCA and are not designed and qualified for submergence. In justification of the lack of qualification, the applicant stated that the design of the Class IE distribution system satisfies the isolation criteria by ensuring that the failure of the submerged equipment will not degrade the Class IE power source. Clarification of the isolation criteria and how it ensures that Class IE systems will not be degraded will be pursued with the applicant and the results of the staff review will be reported in a supplement to this report.

Response:

All Class IE electrical equipment which may become submerged as a result of a LOCA, as listed in the response provided for 430.18, Amendment 3, is electrically tripped, disconnecting its Class IE power source by a high flood level indication. The Class IE level transmitters providing the sensing and instrumentation for this high flood level indication will be qualified for submergence. Two Class IE sensors (orange and purple train-related) will be located below the Class IE electrical equipment, which may become submerged as a result of a LOCA. Figure 7.4-27 shows a typical system logic for this tripping function.