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June 23, 1981

United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19405

ATTENTION: MR. BOYCE H. GRIER, DIRECTOR

SUBJECT: Beaver Valley Power Station - Unit No. 2
Docket No. 50-412
Seismic Calculations for Category I Structures
Significant Deficiency Report No. 80-07



Gentlemen:

Enclosed is "Interim Report No. 2" on the above subject. If you have any questions concerning this report, we are available to meet with Nuclear Regulatory Commission personnel at their convenience.

DUQUESNE LIGHT COMPANY

By E. J. Woolever
E. J. Woolever
VICE PRESIDENT

cc: Mr. V. Stello, Director (15)
Office of Inspection and Enforcement
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Interim Report No. 2
On
Seismic Calculations for Category I Structures
at
Beaver Valley Power Station - Unit No. 2

1.0 Summary

A review of seismic calculations for the Auxiliary Building (Category I) of Millstone Unit No. 3 has shown that the analysis used to design the portions of the structure transferring horizontal seismic forces down through the structure to the mat was incomplete. Beaver Valley Power Station-Unit 2 has used similar design methods for analysis of the following Category I Structures: Auxiliary Building, Control Room Extension and Valve Pit, Service Building, Main Steam and Cable Vault Area, Fuel and Decontamination Building, Safeguards Building, and the Diesel Generator Building.

2.0 Immediate Action Taken

An initial review of the calculations of the above structures was performed and indicated that there is no structural deficiency in the design of the structures resulting from the transfer of horizontal seismic forces. The detailed review and completion of the Auxiliary Building, Diesel Generator Building, Safeguards Building and Service Building seismic calculations is finished and the structures have been found adequate. The completion of such calculations for the other structures listed above has been initiated and is scheduled for completion by December 1981.

3.0 Description of Deficiency

The analysis used to design the portions of the structure transferring horizontal seismic forces down through the structure to the mat was incomplete to the extent that the cumulative effect of the vertical force couple resisting flexure was not carried down through the structure to the mat, although the analysis used to design the mat did consider this cumulative effect.

4.0 Analysis of Safety Implications

Analysis of safety implications will be provided in the final report.

5.0 Corrective Action to Remedy Deficiency

Pending the outcome of the detailed review of the seismic calculations of the Category I structures listed above, the calculations, drawings and any other design considerations will be corrected as required.

6.0 Additional Reports

A final report will be issued on December 1, 1981.