



# Duquesne Light

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February 20, 1985

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  
Stress Reconciliation Program use of Code Case N-411 Damping and  
Regulatory Guide 1.122 Peak Spreading

Gentlemen:

For implementation as part of the stress reconciliation program for BVPS-2 Seismic Category I piping, Duquesne Light Company (DLC) requests approval to utilize, for selected cases only, the Code Case N-411 damping values approved by the Pressure Vessel Research Committee (PVRC) and the amplified response spectra (ARS) peak spreading technique of Regulatory Guide 1.122.

Upon approval, the frequency dependent values from Code Case N-411 would be used for generation of the ARS. These values specifically are: 5 percent below a frequency of 10 Hz; linear reduction from 5 percent to 2 percent between 10 Hz and 20 Hz; and 2 percent above 20 Hz. These damping values would apply for both one-half SSE and SSE. The currently employed damping values are one-half percent and one percent for the one-half SSE and SSE, respectively.

Upon approval, the ARS peak spreading technique for Regulatory Guide 1.122 would be employed. Specifically, the peaks would be spread plus and minus 15 percent of the frequency at the peak, and the sides of the resulting envelope would be parallel to those of the peak. In the currently employed technique, the ARS peak resonant period values are broadened plus 25 percent and minus 20 percent with vertical sides.

The use of these higher damping values and the Regulatory Guide 1.122 technique is expected to preclude the modification of some existing hardware, to eliminate the need for the addition of some new hardware, and to eliminate the need for some seismic restraints.

The application of the Code Case N-411 damping values is consistent with the efforts to reduce the number of seismic restraints. Hardware reliability and inservice inspection and maintenance difficulties inherently detract from the safety qualification of these systems in accordance with the findings of NUREG/CR-3718.

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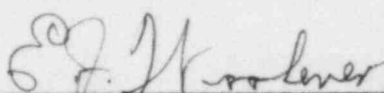
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The application of the Regulatory Guide 1.122 peak apreading technique retains significant safety margin as concluded in NUREG/CR-3526.

Upon your approval of this request, the appropriate revisions will be included in a future FSAR amendment.

Because of the potentially significant impact on engineering and construction activities, your expeditious review of this request would be greatly appreciated.

DUQUESNE LIGHT COMPANY

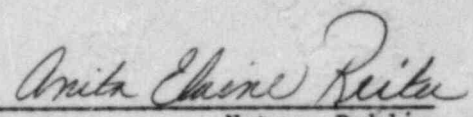
By   
E. J. Woolever  
Vice President

JJS/wjs

cc: Mr. B. K. Singh, Project Manager  
Mr. G. Walton, NRC Resident Inspector

COMMONWEALTH OF PENNSYLVANIA )  
  ) SS:  
COUNTY OF ALLEGHENY                 )

On this 20th day of February, 1985, before me, a Notary Public in and for said Commonwealth and County, personally appeared E. J. Woolever, who being duly sworn, deposed and said that (1) he is Vice President of Duquesne Light, (2) he is duly authorized to execute and file the foregoing Submittal on behalf of said Company, and (3) the statements set forth in the Submittal are true and correct to the best of his knowledge.

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