

April 8, 1985

Docket Nos: 50-369  
and 50-370

DISTRIBUTION:  
Docket Nos. 50-369/370  
NRC PDR  
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MDuncan  
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ACRS (16)  
JPartlow  
BGrimes  
EJordan

Mr. H. B. Tucker, Vice President  
Nuclear Production Department  
Duke Power Company  
422 South Church Street  
Charlotte, North Carolina 28242

Dear Mr. Tucker:

Subject: Piping Seismic Analysis Changes - McGuire Nuclear Station, Units  
1 and 2

By letters dated August 1 and December 20, 1984, you requested NRC approval for proposed piping seismic analysis changes for the McGuire Nuclear Station to adopt damping values and spectra shifting methods for piping systems recommended by the task group of the Pressure Vessel Research Committee (PVRC) of the Welding Research Council.

Specifically, for damping values for dynamic analysis of piping, you propose that the values given in ASME Code Case N-411 be used as an option to the damping values currently given in FSAR Section 3.7.1.3 for seismic response spectra analysis. This option, if approved, would be used for reanalysis of any system designed for seismic loads for either modifications or support/snubber optimization. Either the damping values currently given in FSAR Section 3.7.1.3 or Code Case N-411 would be selected for each analysis. You state that no combination of the two damping criteria would be used, and that Code Case N-411 damping values would not be used for time history analysis. Seismic displacements would be reviewed to assure calculated displacements can be accommodated.

With respect to response spectra shifting, you propose that an envelope of the response of the piping system to shifted floor response spectra be used as an alternative to the method of spectra broadening described in FSAR Section 3.7.2.8 for piping analysis. The proposed method to be used is that described in ASME Code Case N-397 and the Summer 1984 addendum to Section III, Appendix N of the ASME Boiler and Pressure Vessel Code. You note that this option may also be used either for station modifications or support/snubber optimization.

We find that your proposal, as described above, is consistent with our plans for including the PVRC developed treatment of damping and spectral shifting within Regulatory Guides and the Standard Review Plan, and is, therefore, acceptable.

Sincerely,

Thomas M. Novak, Assistant Director  
for Licensing  
Division of Licensing

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cc: See next page *4/14/85*

<i>DL:LB #4</i>	<i>LA:DL:LB #4</i>	<i>DL:LB #4</i>	<i>AD:DL</i>
<i>DHood/ah</i>	<i>MDuncan</i>	<i>EAdensam</i>	<i>TNovak</i>
<i>4/4/85</i>	<i>4/4/85</i>	<i>4/4/85</i>	<i>4/8/85</i>

*DSH*

McGuire

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