



**Commonwealth Edison**  
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Address Reply to: Post Office Box 767  
Chicago, Illinois 60690

April 11, 1986

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

**Subject:** Dresden Station Units 2 and 3  
Quad Cities Station Units 1 and 2  
Interim Damping Values for Seismic  
Evaluations  
NRC Docket Nos. 50-237/249 and 50-254/265

**References (a):** Letter from J. R. Wojnarowski to H. R. Denton  
dated September 30, 1985.

**(b):** Letter from E. G. Andensam to D. L. Farrar  
dated April 1, 1986.

Dear Mr. Denton:

The reference (a) letter requested NRC review and approval of revised criteria and techniques for performing seismic analyses at Dresden and Quad Cities. In recent conversations with your staff, it has become apparent that a number of the techniques we've requested are coupled with on-going NRC efforts to address modern seismic analysis techniques on a more generic basis. Since this could involve a prolonged review period, in the interim Commonwealth Edison requests your concurrence with the use of the following damping values for seismic analyses at Dresden and Quad Cities:

- (1) Use of PVRC (ASME Code Case N-411) damping values within the limitations described in the attachment, or
- (2) Use of Regulatory Guide 1.61 damping values, or
- (3) Continued use of FSAR damping values.

Please note that Item (1) above was recently approved for LaSalle Station in reference (b).

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We propose to utilize these damping values in seismic analyses for the design of future modifications and/or for assessment of system operability or compliance with allowable stresses. Your prompt approval of this request would allow us the flexibility to use damping values which have been previously reviewed and approved generically (Reg. Guide 1.61) or for other licensed facilities (Code Case N-411). Since this is an interim request, we will defer revising the updated FSAR until completion of your review of our reference (a) submittal.

If you have any questions regarding this transmittal, please contact this office.

One signed original and fifteen (15) copies of this letter and the attachment are provided for your use.

Very truly yours,



J. R. Wojnarowski  
Nuclear Licensing Administrator

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Attachment

cc: R. Bevan - NRR  
R. Gilbert - NRR  
J. J. Harrison - Region III  
Dresden Resident Inspector  
Quad Cities Resident Inspector

ATTACHMENT

CONDITIONS FOR USE OF ASME CODE CASE N-411 AT

DRESDEN AND QUAD CITIES

Reference (b) to this letter documents the NRC Staff authorization to use ASME Code Case N-411 on LaSalle Units 1 and 2. Some specific conditions apply to its use, pending a revision to Regulatory Guide 1.61. These conditions are repeated below:

- (1) The application of the Code Case shall be limited to piping systems analyzed by the response spectrum method only.
- (2) The alternate damping criteria of the Code Case shall be used in their entirety in any given analysis. Mixed application of the Code Case and Regulatory Guide 1.61 is not permitted.
- (3) Due to the increased flexibility of the system, the user shall check all recalculated displacements to verify there is adequate clearance between the piping system and adjacent structures, components, and equipment, and to verify the ability of mounted equipment to withstand the increased motion.
- (4) The user shall clearly indicate whether the Code Case will be used for new analyses, for reconciliation work, or for support optimizations.

Reference (b) contains one other condition for acceptance relative to application of N-411 damping. This additional condition stipulates that the Code Case is applicable only to piping sections. In other words, the NRC Staff does not consider N-411 damping to be applicable to major components. If major components are modeled with the piping, the applicability of Code Case N-411 to such a model will be determined by the Staff on a case-by-case basis.

Use of Code Case N-411 damping for seismic evaluations at Dresden and Quad Cities will conform with the above conditions. In addition, any other related assumptions or techniques utilized will be consistent with the Dresden or Quad Cities FSARs.