

Detroit
Edison

Harry Tauber
Group Vice President
2000 Second Avenue
Detroit, Michigan 48226
(313) 237-8000

November 9, 1982
EF2 - 60,351

Mr. L. L. Kintner
U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Licensing
Washington, D. C. 20555

Dear Mr. Kintner:

Reference: Enrico Fermi Atomic Power Plant, Unit 2
NRC Docket No. 50-341

Subject: Piping Vibration Acceptance Criteria

This is in response to your telecopy dated October 27, 1982.

Staff Position

In Section 3.9.1.1.5 of the FSAR, the acceptance criteria for stress caused by steady state vibration is given for Level 2 criteria. Level 2 criteria is provided to evaluate the adequacy of long term system operation. It is stated that for Class 1 systems, the acceptance criteria will be the endurance limit for the piping, and for non-Class 1 systems, the acceptance criteria will be the limits of Equation 9 of NC-3650 of ASME Section 3. The Staff finds the Level 2 criteria to be unacceptable.

The Staff's position is that the stress associated with steady state vibration be limited to 50% of the alternating stress intensity, S_a , of 10^6 cycles defined in ASME Code Appendix I, Figure I-9.1 and I-9.2. We consider this item to be open and will require that the applicant provide assurance that the Staff position has been satisfied.

Boo!

8211150225 821109
PDR ADOCK 05000341
A PDR

Mr. L. L. Kintner
November 9, 1982
EF2 - 60,351
Page 2

Response:

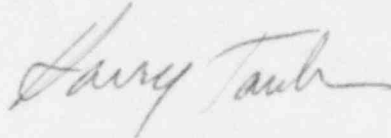
Per our discussion with your Staff on October 29, 1982 and November 1, 1982, the following is our agreed upon position.

The acceptance criteria for steady state vibration for both Class 1 and non-Class 1 piping is 7,690 psi for carbon steel and 12,000 psi for stainless steel. The above allowable stress amplitude is equal to 80% of the alternating stress intensity at 10^6 cycles for carbon steel and equal to 60% of the alternating stress intensity at 10^6 cycles for stainless steel.

The values of alternating stress intensity are taken from Figure I-9.1 of Appendix I of ASME Code Section III. In addition, a factor of safety of 1.3 was applied to obtain the allowables. FSAR Section 3.9.1.1.5 will be revised to incorporate the above acceptance criteria.

Should you have any further questions, please contact Mr. L. E. Schuerman, (313) 649-7562.

Sincerely,



cc: Mr. B. Little