



Commonwealth Edison
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July 21, 1983

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

Subject: Dresden Unit 2
Bellows Repair Review
NRC Docket No. 50-237

Dear Mr. Denton:

A qualitative review was performed to determine the affects of the bellow repair on the fatigue life of the bellows. Pathway Bellows was contacted to determine what reduction should be applied to the bellows fatigue life with such a repair. They had performed testing in conjunction with TVA and have determined that the life is reduced to 4% of original expected life. This factor was then applied to estimates provided by Pathway as to the original life expectancy. The design life predictions were based on movements expected to occur during plant transients.

Plant transients which were considered included, SRV actuations, DBA, IBA, SBA, HPCI, SU/SD, OBE and SSE. The worst case looked at provided for a combination of SRV+SBA+SSE+HPCI+SU/SD. A fatigue usage of less than 0.1 was determined for the remainder of plant life.

In general considering the movements expected at the bellows region it has been determined that the fatigue life is approaching infinity. The only event deviating from this in our assessment is the LOCA event. To assess this event the bellow's maximum design movements were used. Even considering this very conservative approach the fatigue life is 80 cycles with a repair. Assuming one LOCA in the lifetime of the plant then the fatigue usage factor is .0125.

Based on the above information it is our judgement that the repair being applied will last for remainder of plant life. A more refined analysis will be performed but that the information certainly justifies at least one cycle of operation.

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To the best of my knowledge and belief the statements contained herein are true and correct. In some respects these statements are not based on my personal knowledge but upon information furnished by other Commonwealth Edison employees and/or consultants. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

Enclosed for your use are one (1) signed original and forty (40) copies of this letter.

If there are any further questions in this matter, please contact this office.

Very truly yours,



B. Rybak
Nuclear Licensing Administrator

cc: R. Gilbert - Telecopy
NRC Resident - Dresden

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