



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

AUG 23 1985

Docket Nos.: STN 50-454, STN 50-455,  
STN 50-456 and STN 50-457

Mr. Dennis L. Farrar  
Director of Nuclear Licensing  
Commonwealth Edison Company  
Post Office Box 767  
Chicago, Illinois 60690

Dear Mr. Farrar:

Subject: Request for Additional Information - Vibration of Diesel  
Generator Instrumentation, Byron/Braidwood

We have reviewed your letter of October 16, 1984 regarding the fatigue effects, due to vibrations, on instrumentation on the Byron/Braidwood diesel control panels. The following additional information is required so that we can complete our review:

1. Provide the acceleration response plots recorded at the seven locations on the control panel, and clarify whether these plots represent accelerations at the locations or device location response spectra.
2. Explain how 0.31g, the maximum value of the operational acceleration, is derived. Also, justify the conclusion that the seismic test had enough margin for operational vibration, which is made solely by comparing the above acceleration value with the Zero Period Acceleration (ZPA) of Test Response Spectra (TRS), c.8g. It is noted that in comparing the severity of two motions, their respective frequency contents should be considered, instead of only the ZPA value or the acceleration at a particular frequency point.
3. Demonstrate that the Byron/Braidwood diesel generator control panel devices and instruments are similar to the LaSalle diesel generator tested control panel devices and instruments by providing similarity data for the following parameters: manufacturers, model numbers, materials, sizes, dimensions, and dynamic characteristics, etc. We need this information to conclude similarity of the corresponding devices and instruments.

For devices which are unique to Byron/Braidwood, justify that they can be covered by the LaSalle evaluation.

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PDR ADDCK 05000454  
P PDR

Mr. Dennis L. Farrar  
Commonwealth Edison Company

Byron/Braidwood

AUG 23 1985

cc:

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Mr. Dennis L. Farrar

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4. Provide a detailed calculation of the fatigue damage potential of both LaSalle EDG program and actual operational vibration of Byron/Braidwood diesel generator control panel, which supports your conclusion that the fatigue damage potential associated with the test program is at least 6.38 times greater than that associated with the vibration due to the Byron/Braidwood engine operation.

Please provide a response within 45 days of the date of this letter. Review of this item must be completed to satisfy License Condition 2.C(10) of the Byron Station, Unit 1, operating license. If additional clarification is needed, please contact the Byron Project Manager, L. Olshan at (301) 492-7070.

Sincerely,

ORIGINAL SIGNED BY:

B. J. Youngblood, Chief  
Licensing Branch No. 1  
Division of Licensing

cc: See next page

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