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UNITED STATES DEPARTMENT OF COMMERCE  
National Bureau of Standards  
Washington, D.C. 20234

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November 7, 1978

Mr. Victor Stello  
Director, Division of  
Operating Reactors  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Stello:

On November 2, 1978, during routine surveillance testing, shim arm No. 1 had a drop time of 180 msec for the first 5° which is 5 msec longer than the acceptable 175 msec. The tests were repeated the following day and the drop times ranged from about 175 to 190 msec. Examination of the drop trace showed the delay was due to slightly longer clutch release time which means that the armature (clutch disc) was not leaving the field fast enough. Examination of the drive assembly did not show anything significant. It was possible that the armature may have been slightly cocked which could be a small contributing factor.

The assembly was removed. The snap ring on the armature hub was replaced with a more uniform support. The thin cadmium coating between the armature and hub was removed and the surfaces polished in order to allow freer movement. The assembly was reinstalled and tested. The 5° drop time was an acceptable 160 msec.

Sincerely,

*Robert S. Carter*  
Robert S. Carter  
Chief, Reactor Radiation Division

cc: Director, Region 1, U.S. NRC

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110