

**SARGENT & LUNDY
ENGINEERS**

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August 15, 1979

Dr. Robert J. Bosnack
Division of Safety Systems
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Bob:

Per our discussions with you and Brookhaven National Laboratories on August 8, 1979, Sargent & Lundy has re-executed the mainsteam analysis that you requested. As you recall Dr. Reich of Brookhaven expresses some concern that some of the time history results had not decayed sufficiently before the analysis was terminated. What we have done is extend the analysis from approximately one second duration to four seconds. We have done this for 0.5% and 2.0% damping. The original analysis results that were available to Dr. Reich were for 0.5% damping. The system was analyzed with the 0.5% damping initially to be consistent with the seismic analysis, however since that time the NRC has indicated that the damping values contained in Regulatory guide 1.61 can be used for the pool related loads. This corresponds to a 2% damping for the subject system.

The structural loading functions were reviewed and it was determined that by the end of the one second forcing function duration they had decayed to insignificant levels. For the purpose of this analysis the structural input was continued at a zero level to four seconds to measure the decay of the piping system.

Due to the time limitations, we were able to xerox only one set of the digitized piping responses corresponding to the plots, therefore for this initial transmittal this xerox is being transmitted to Brookhaven Laboratory for their review.

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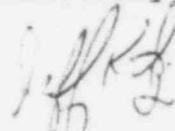
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Page Two

A complete set of curves and responses will be sent to all interested parties in the immediate future. If you have any questions on the above please feel free to contact me at my office (312) 269-6781.

Sincerely yours,

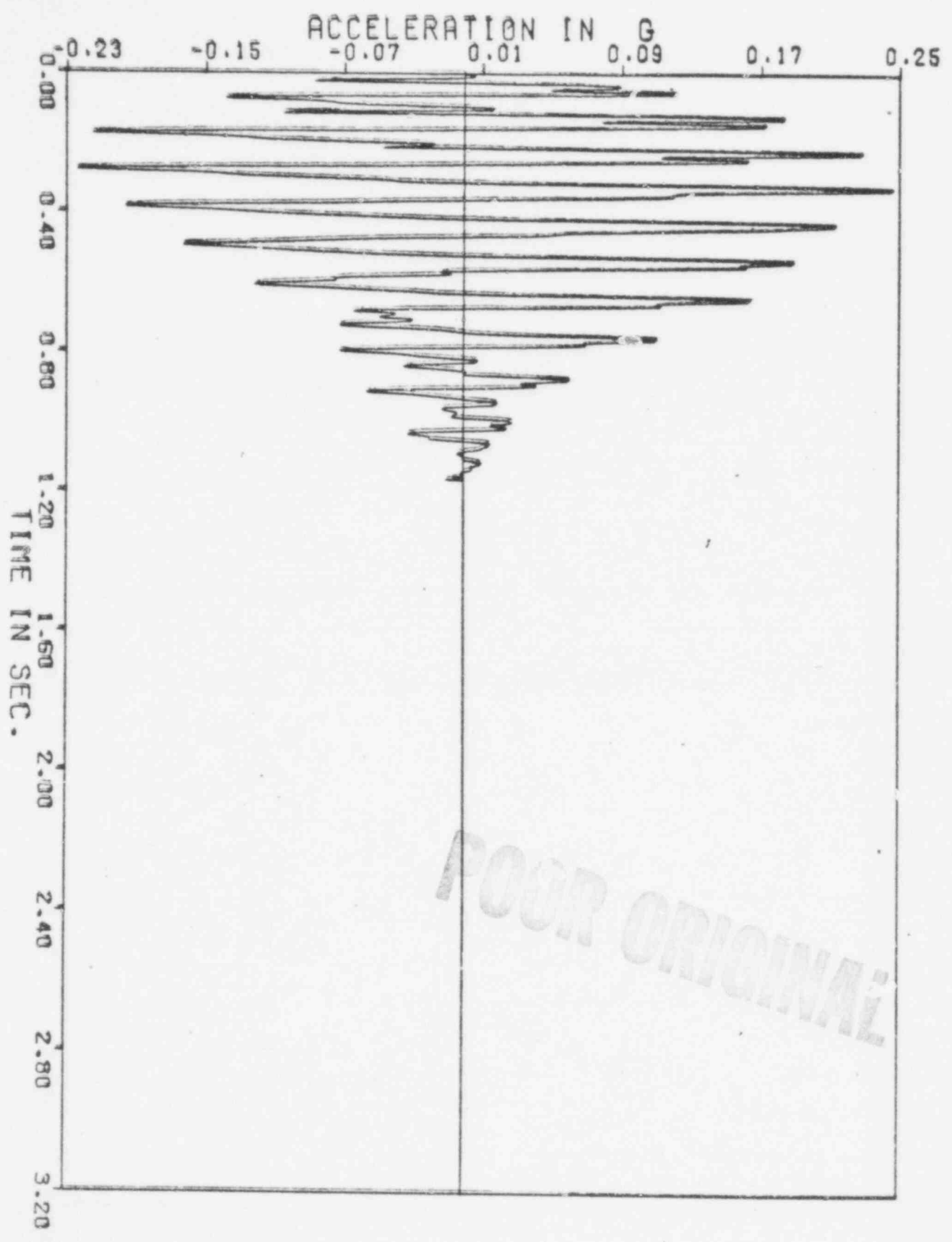


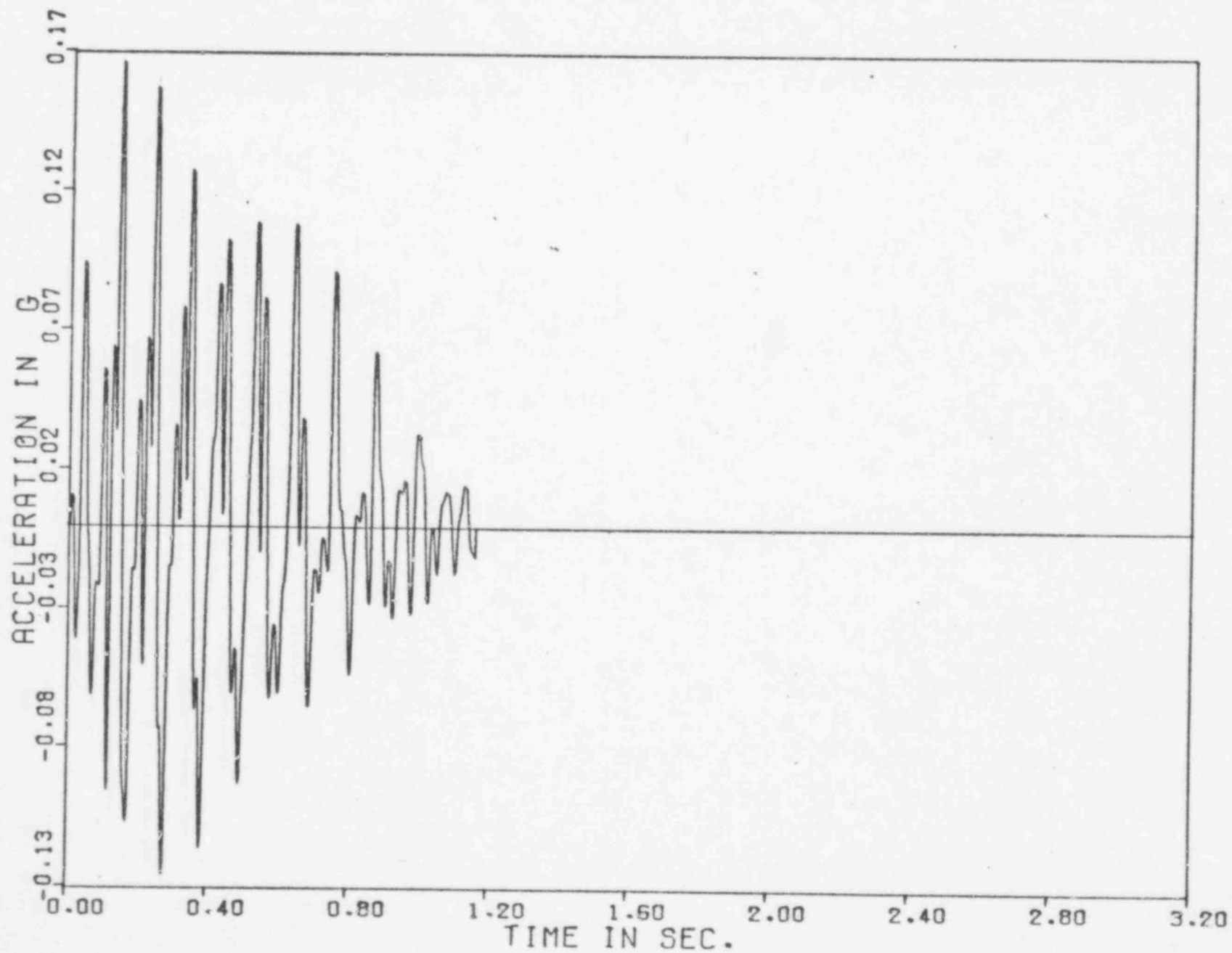
G. T. Kitz
Program Manager
Mark II Structural/Mechanical Area

GTK/rm

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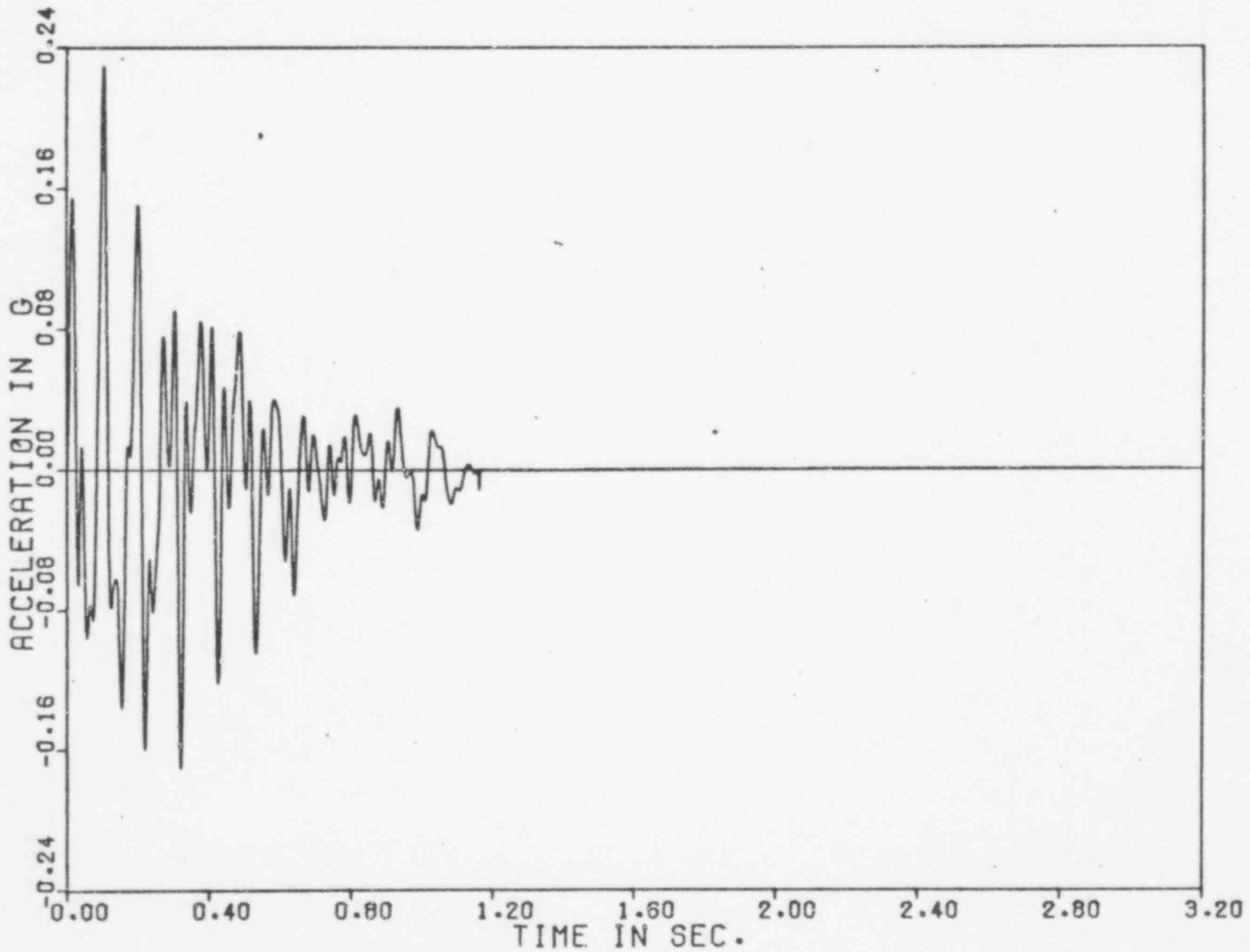
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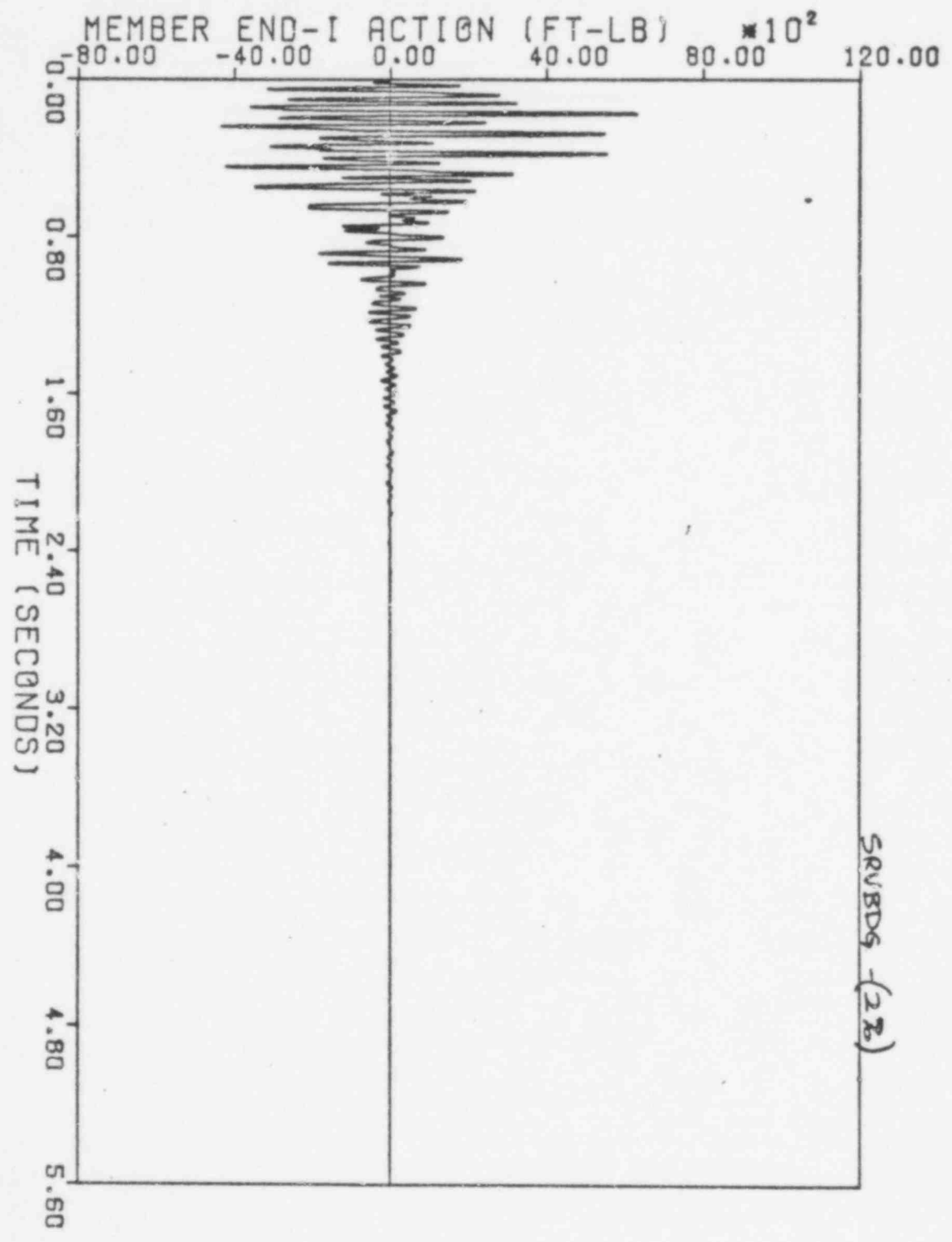
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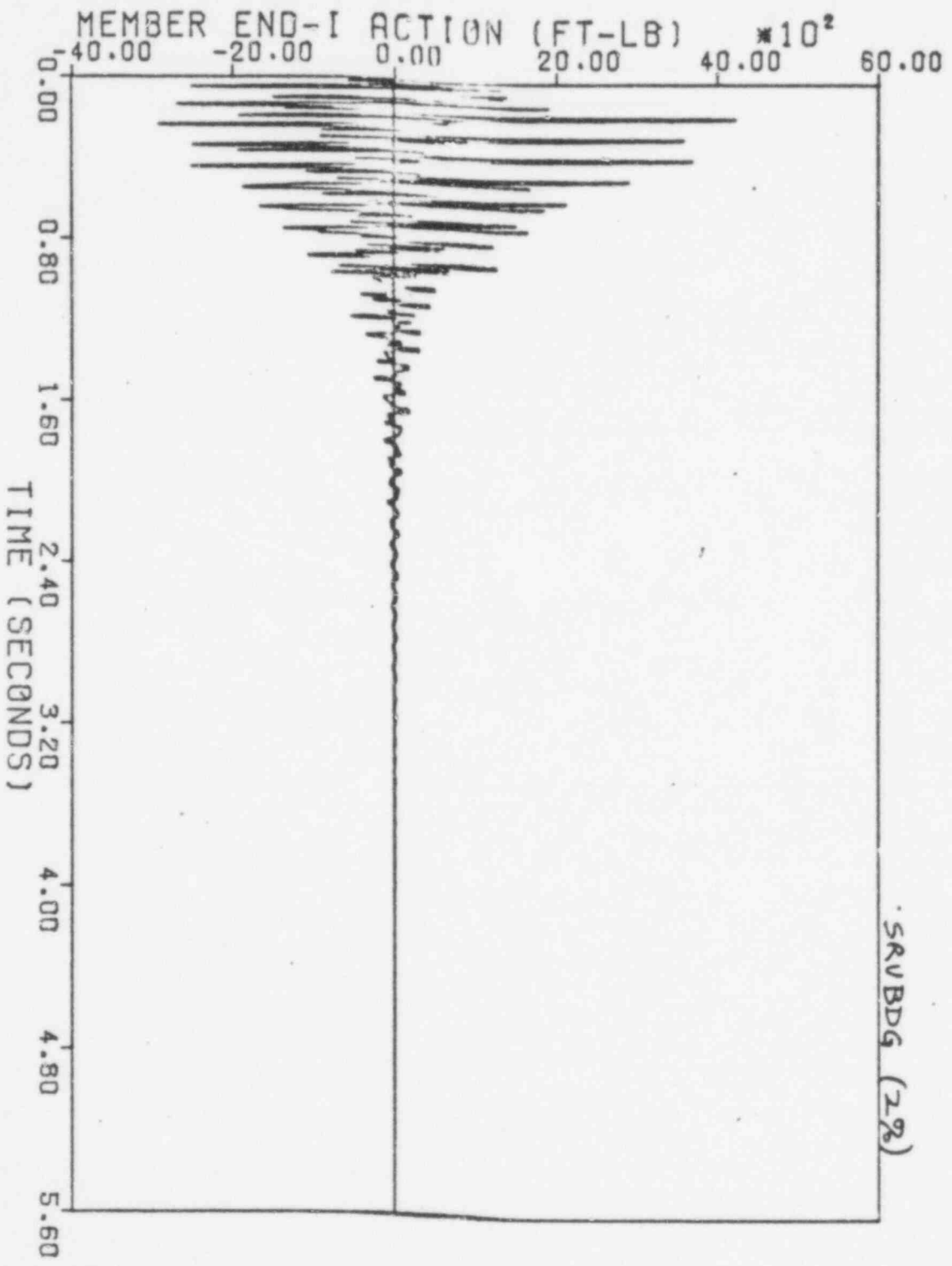
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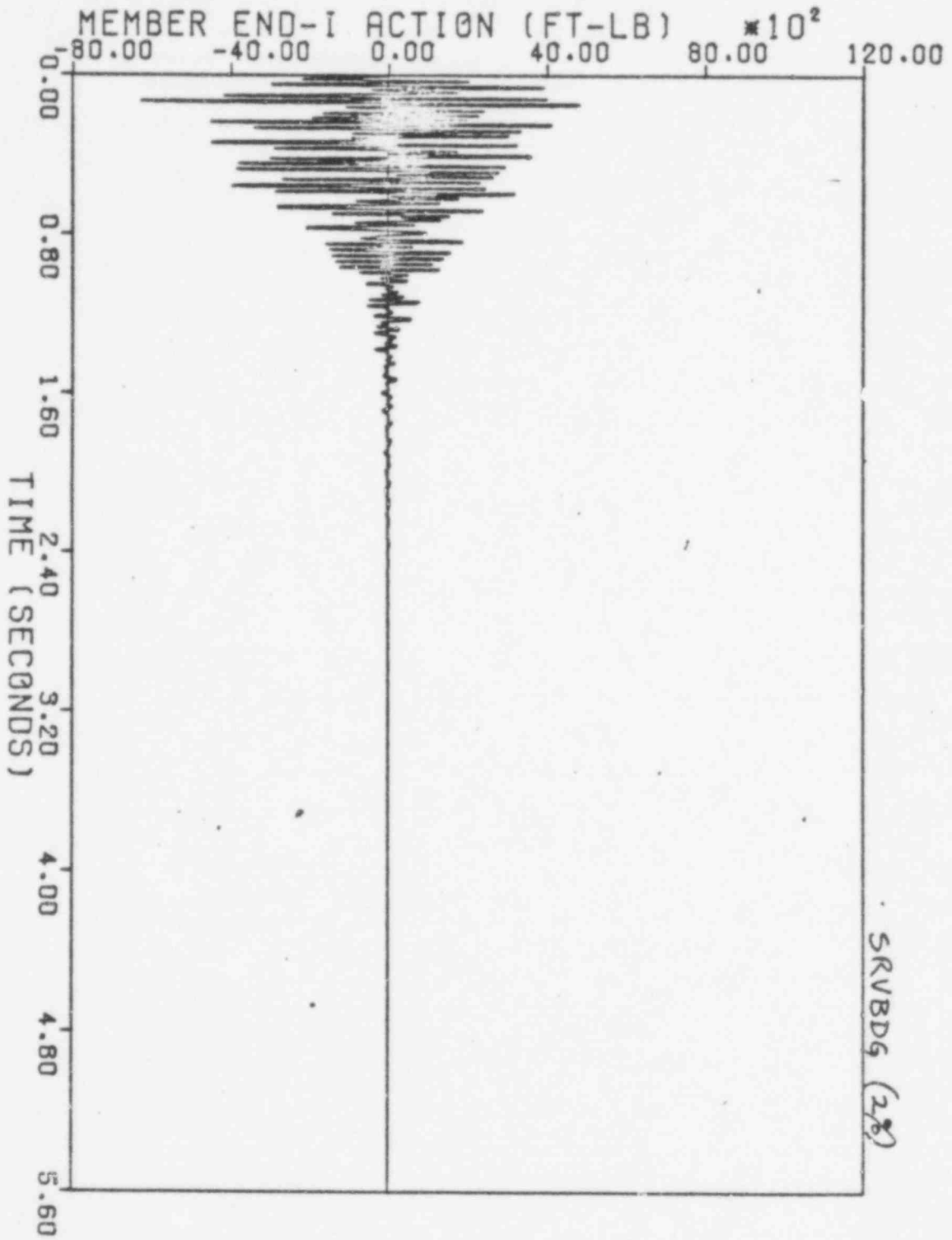
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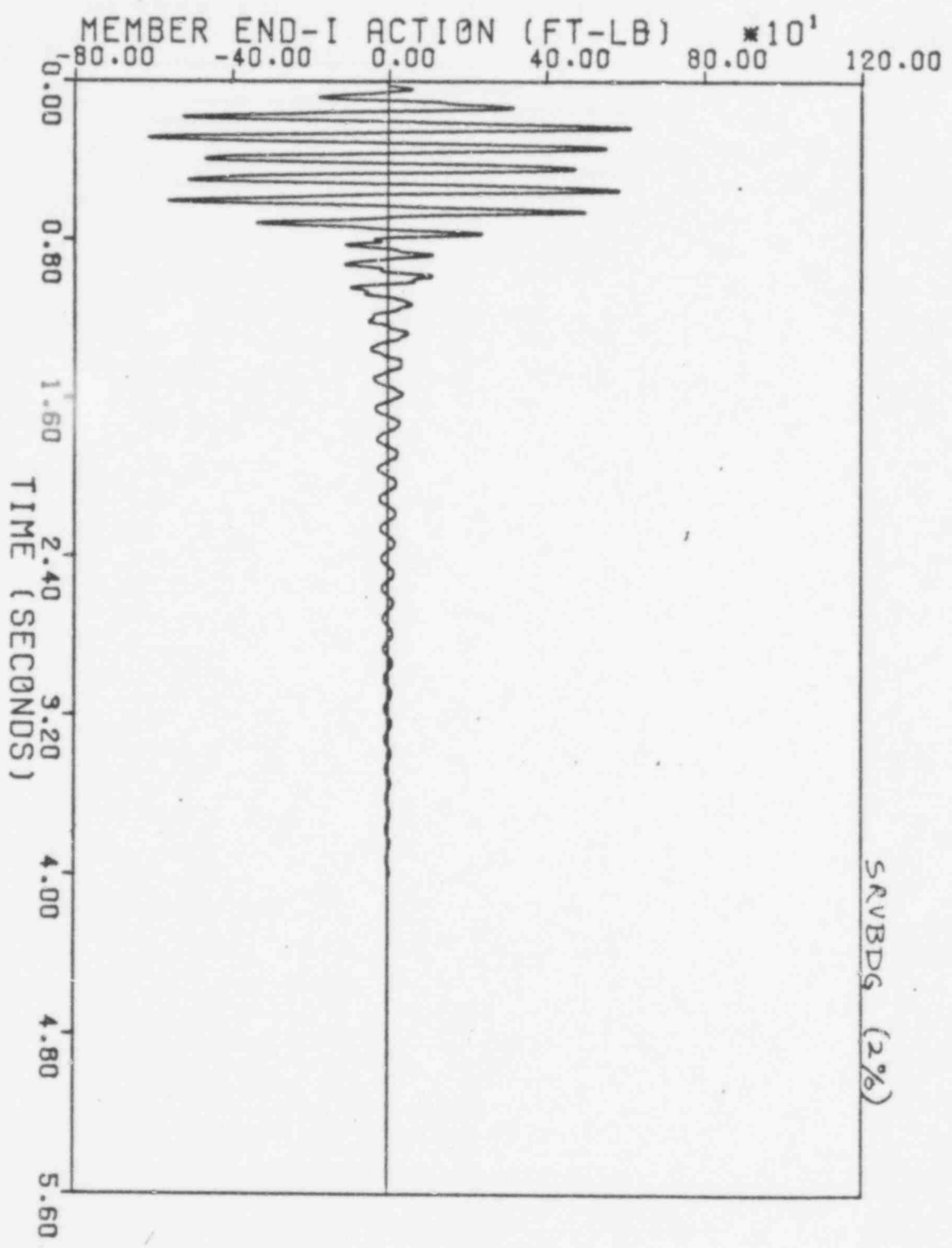
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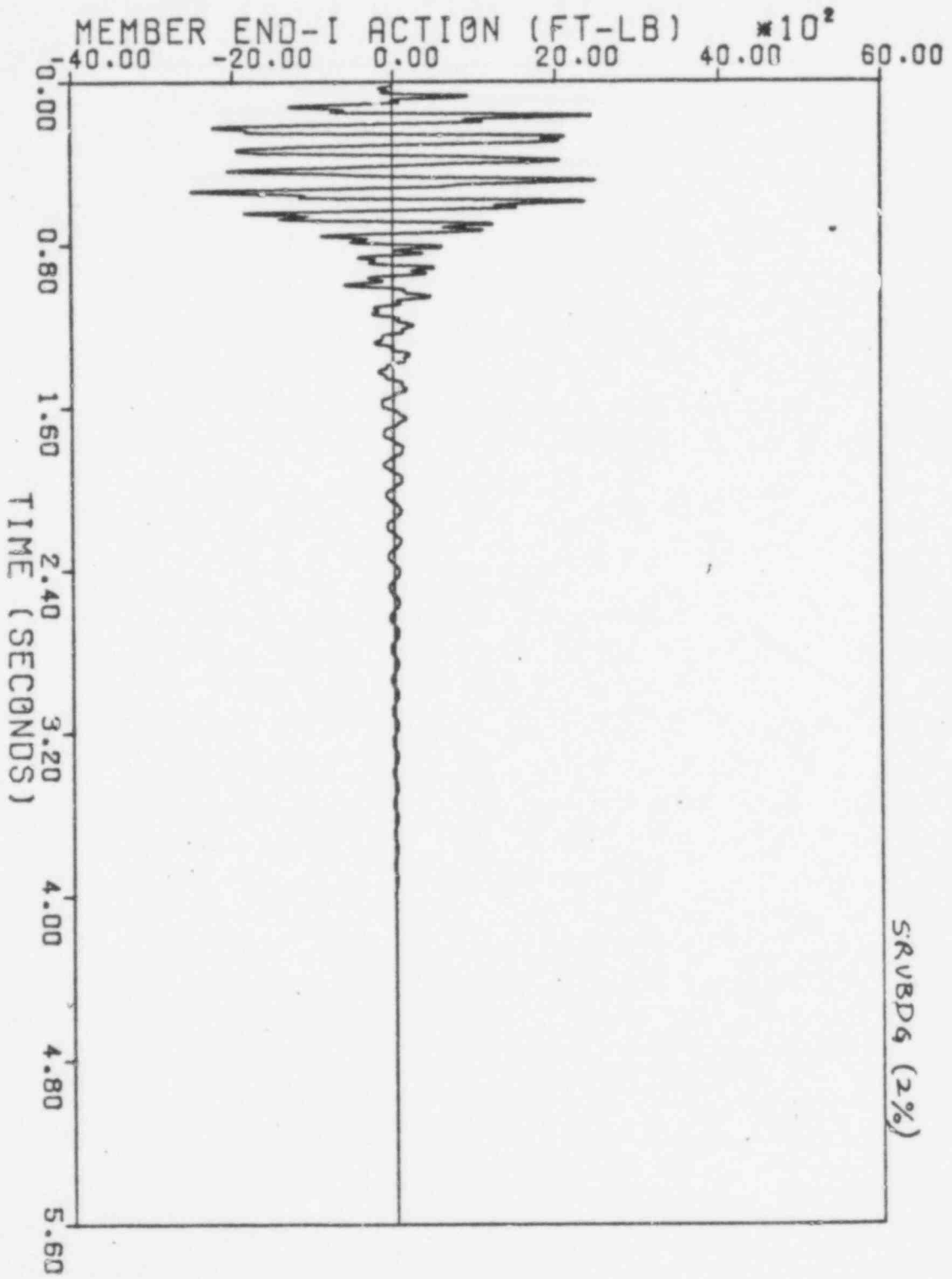
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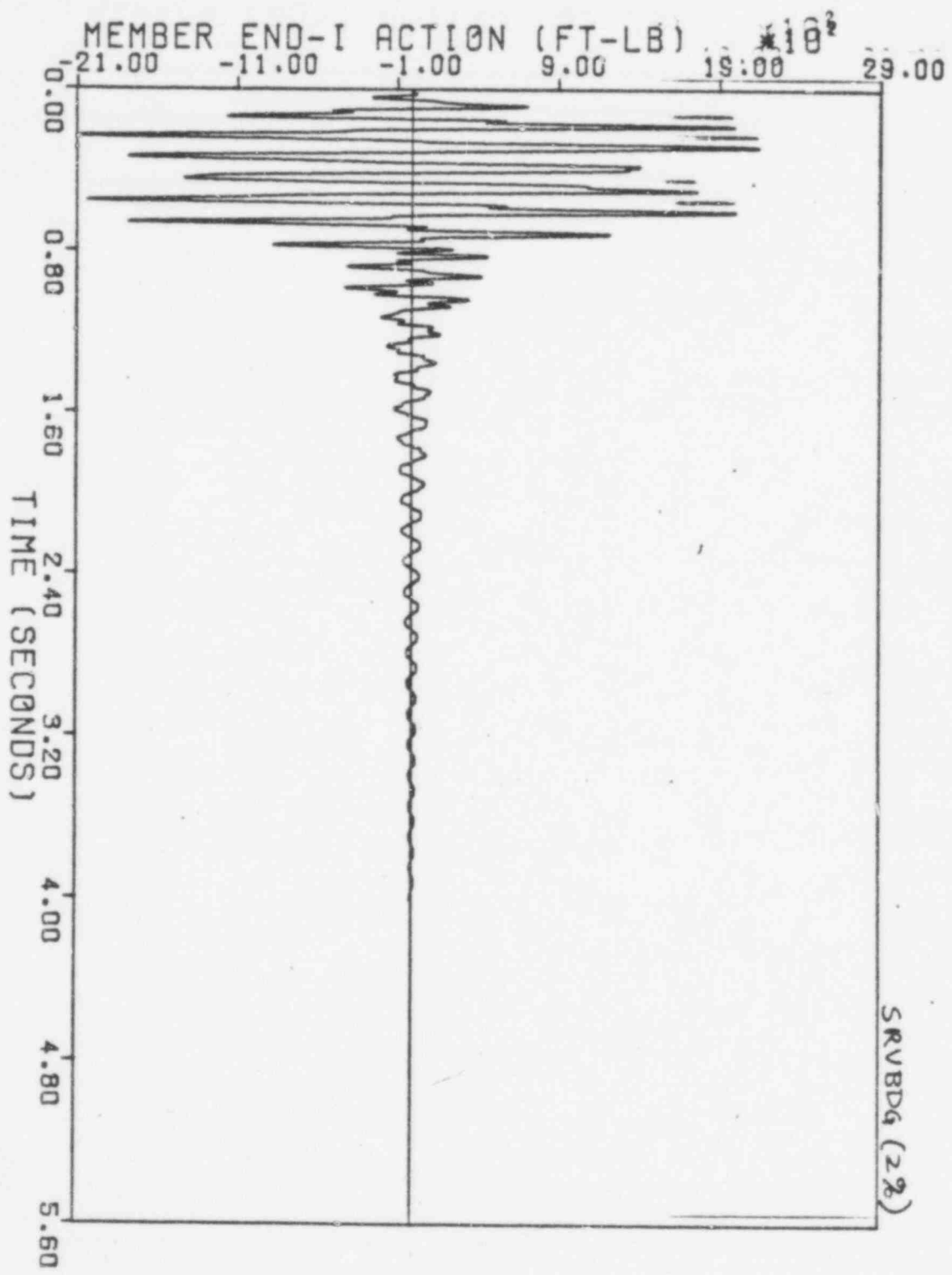
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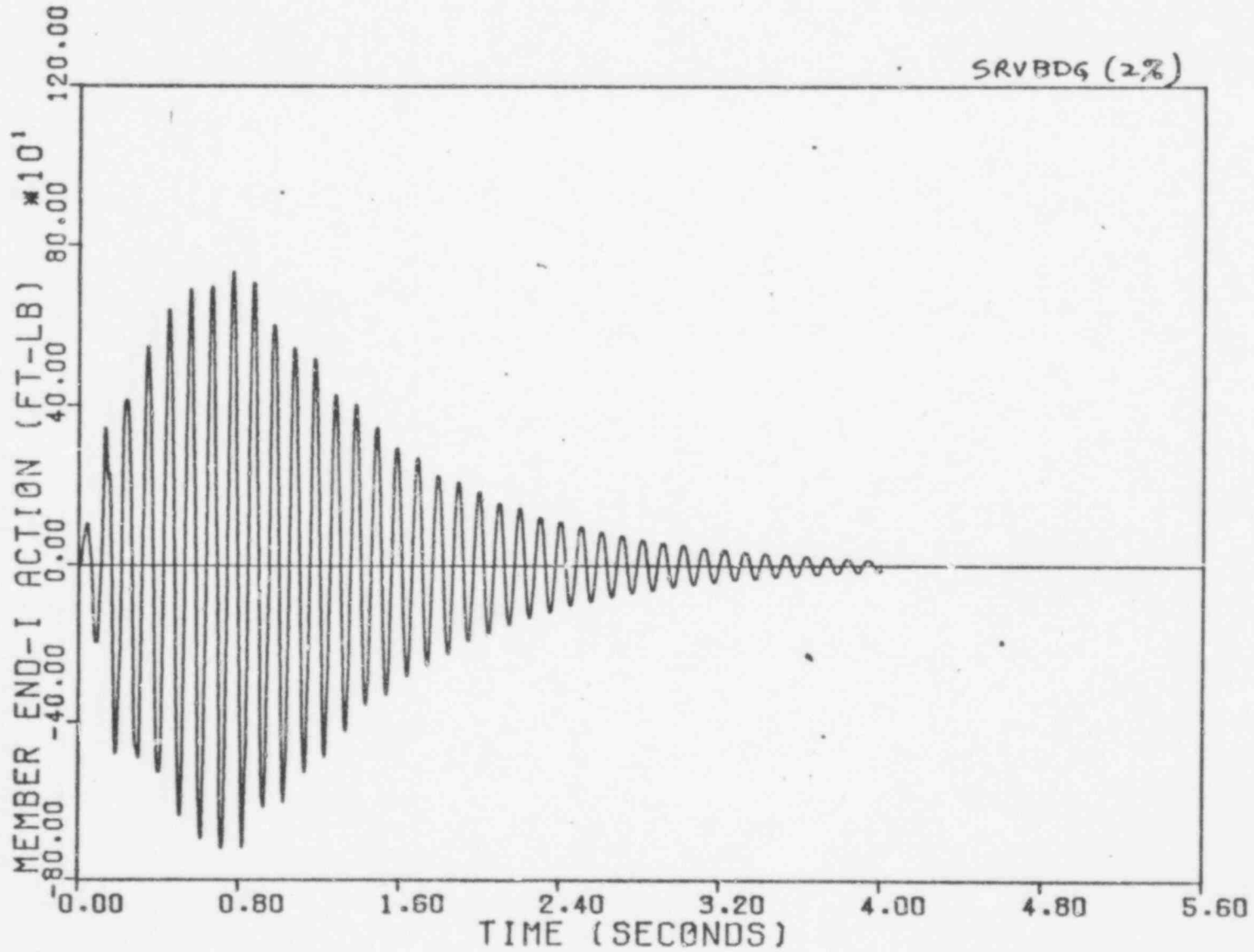


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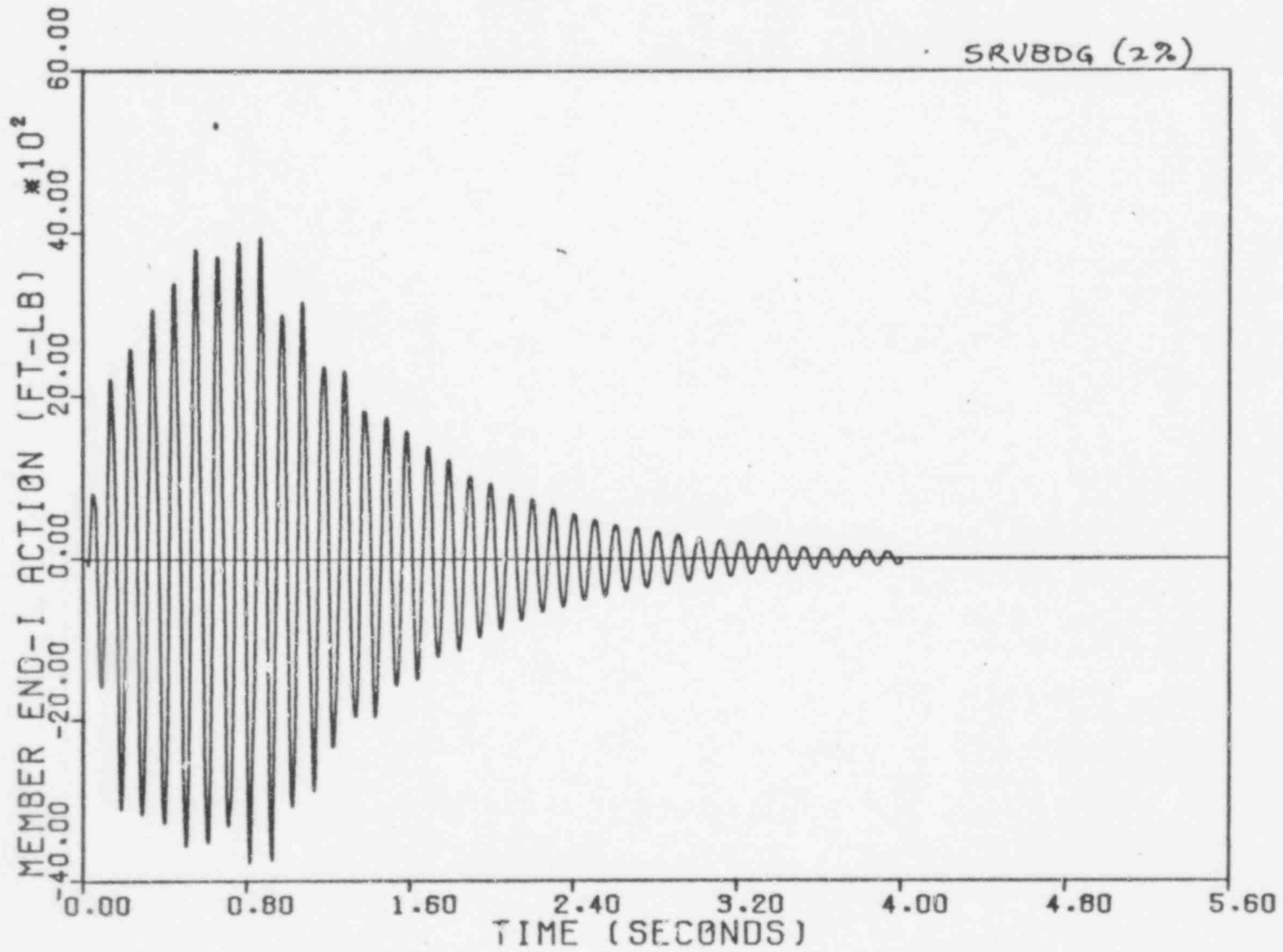
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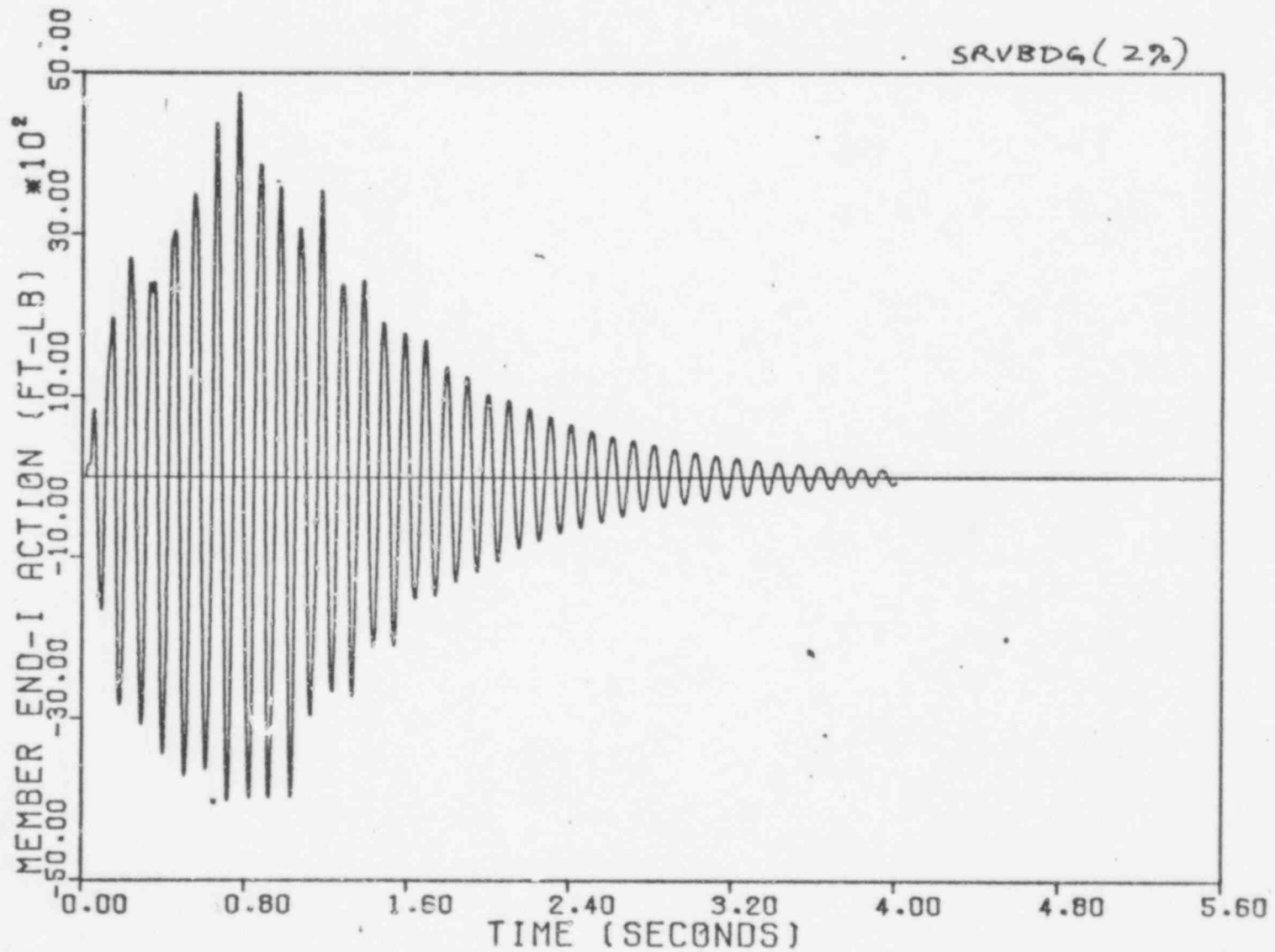
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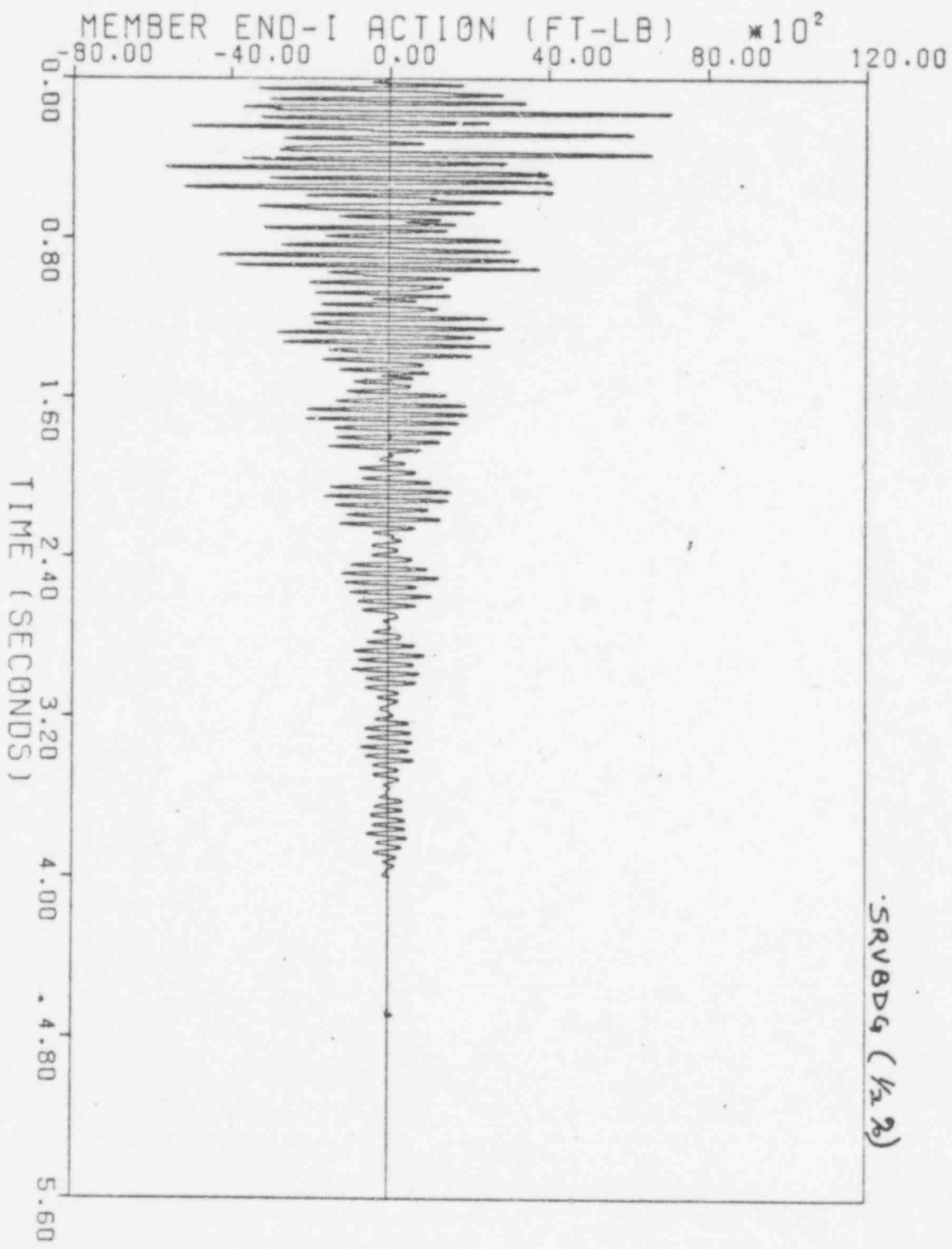
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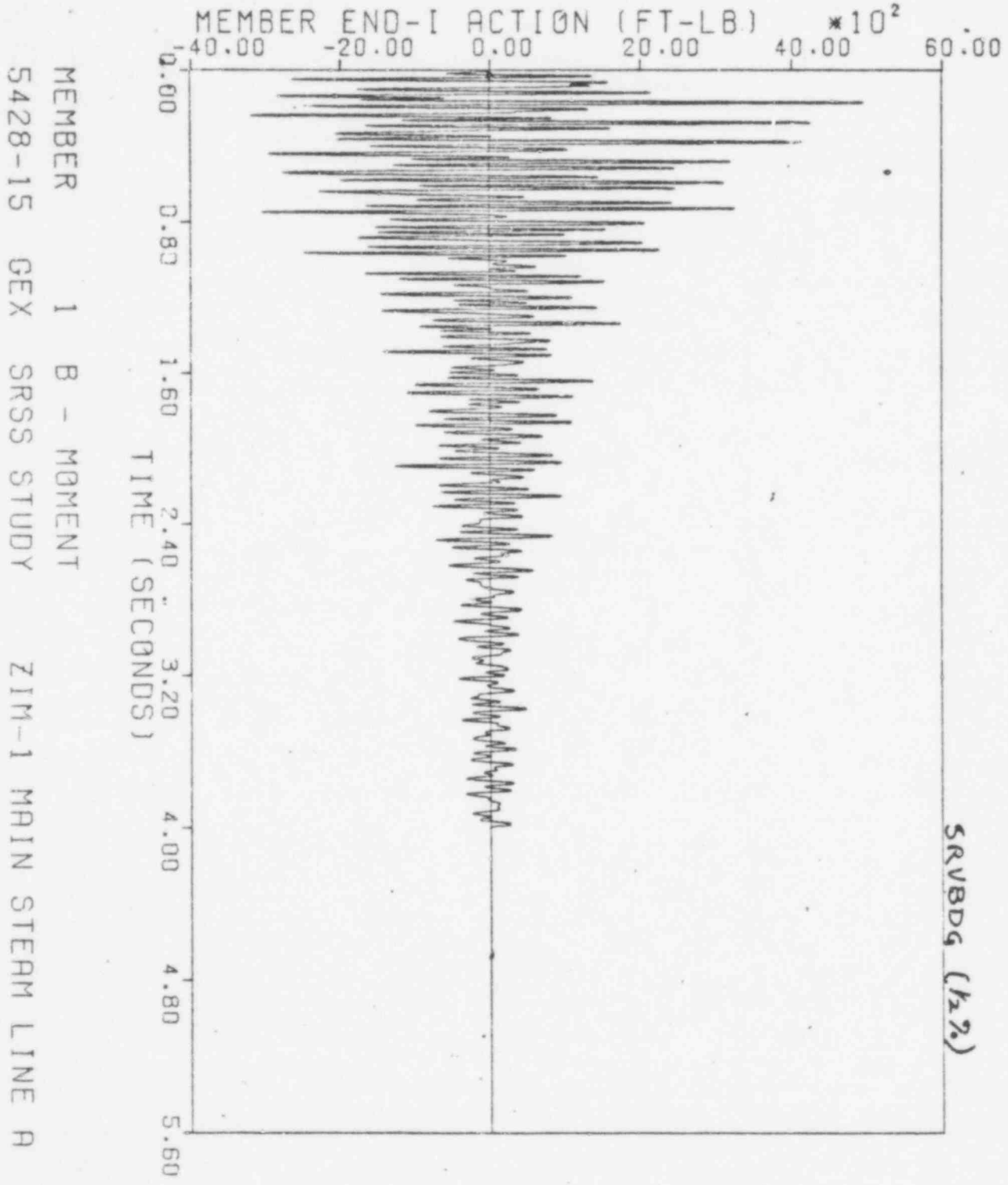
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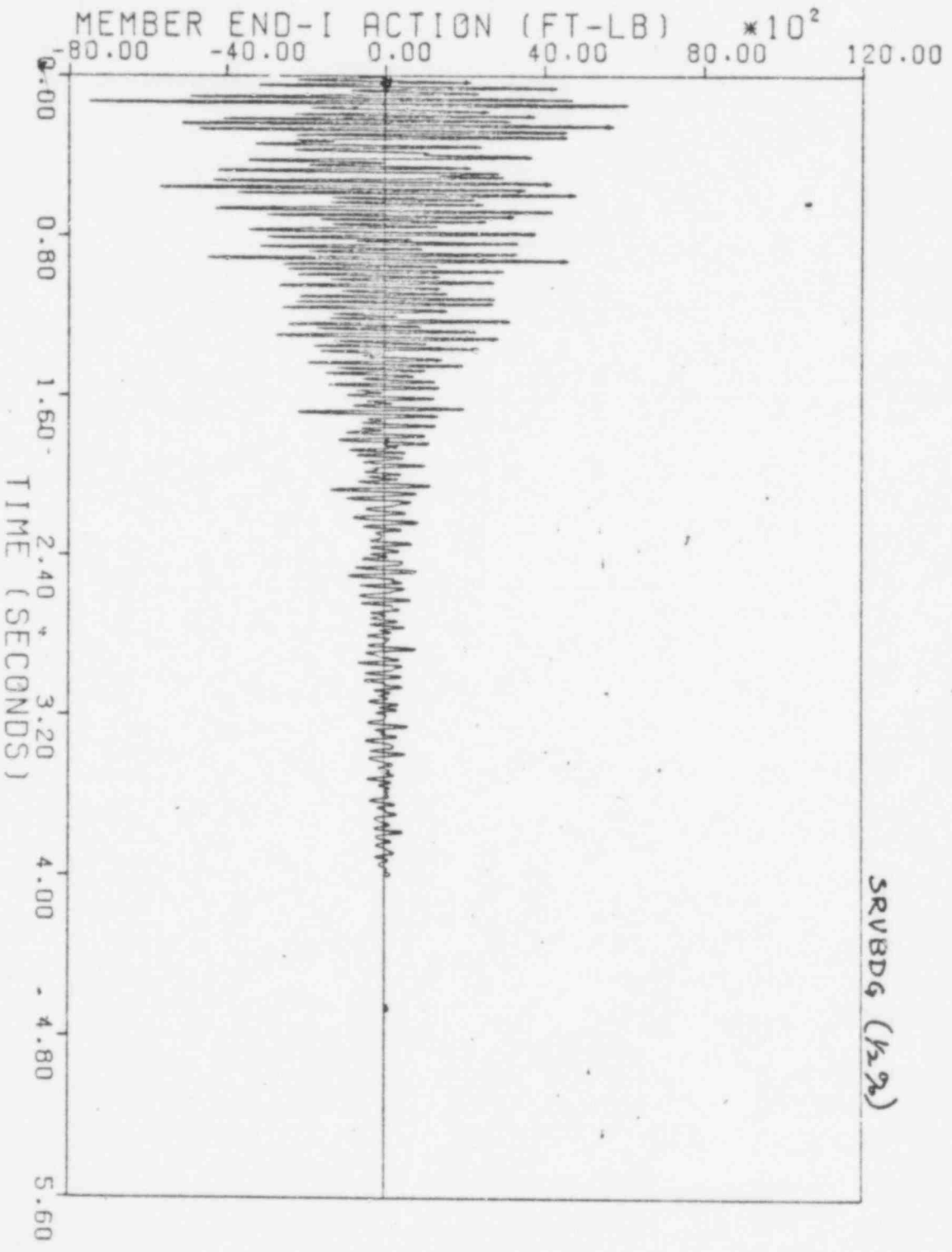
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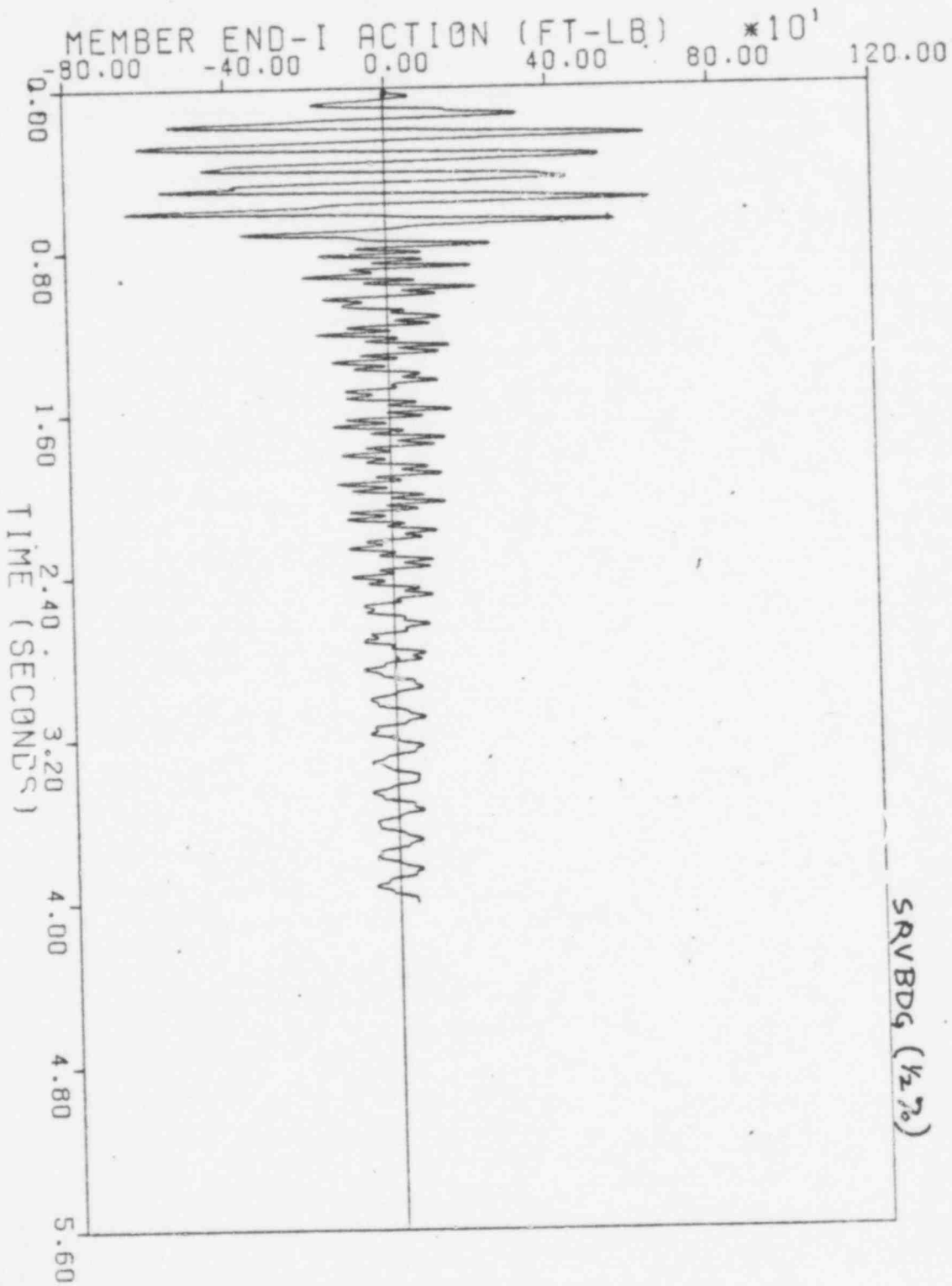




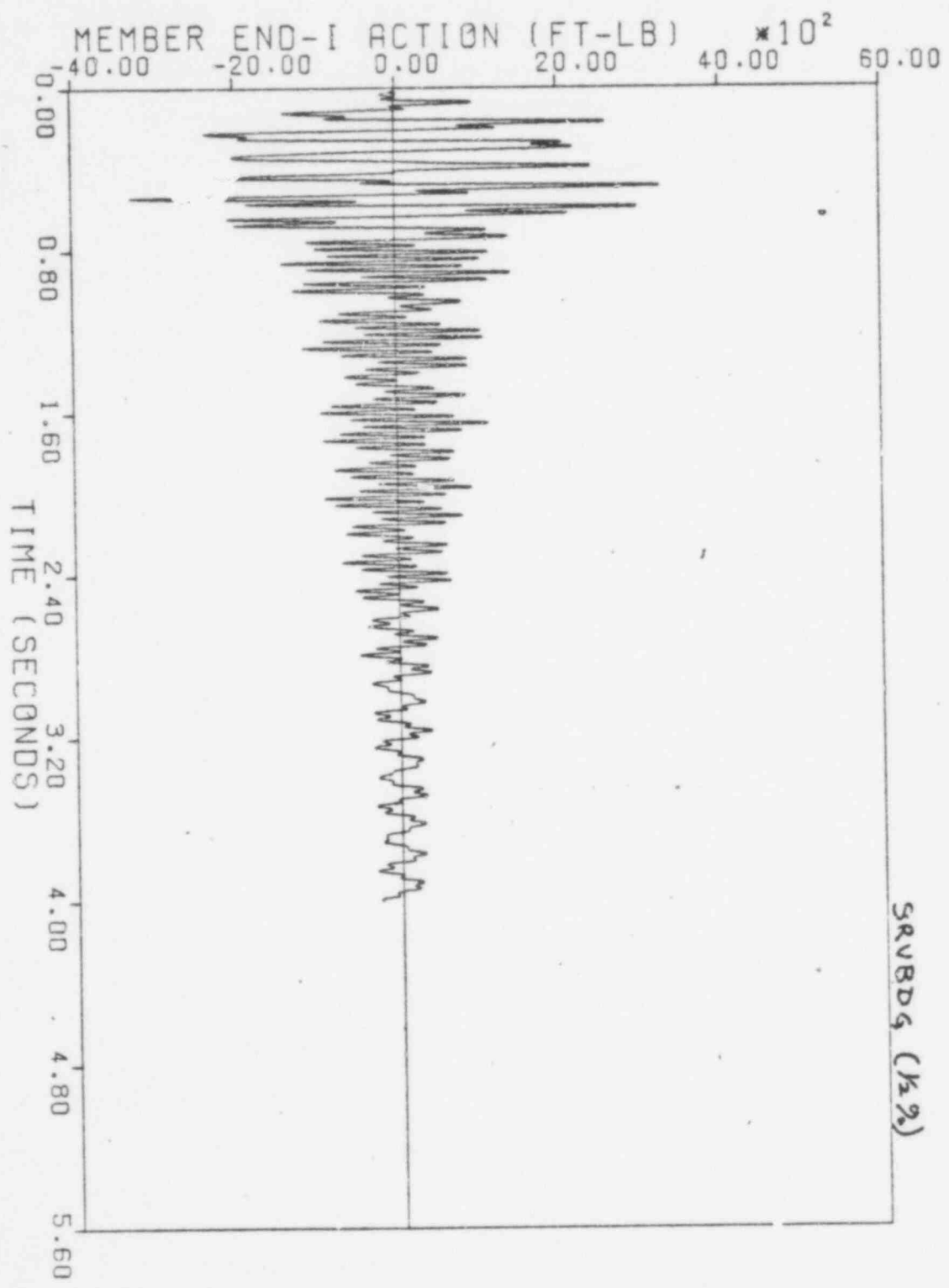
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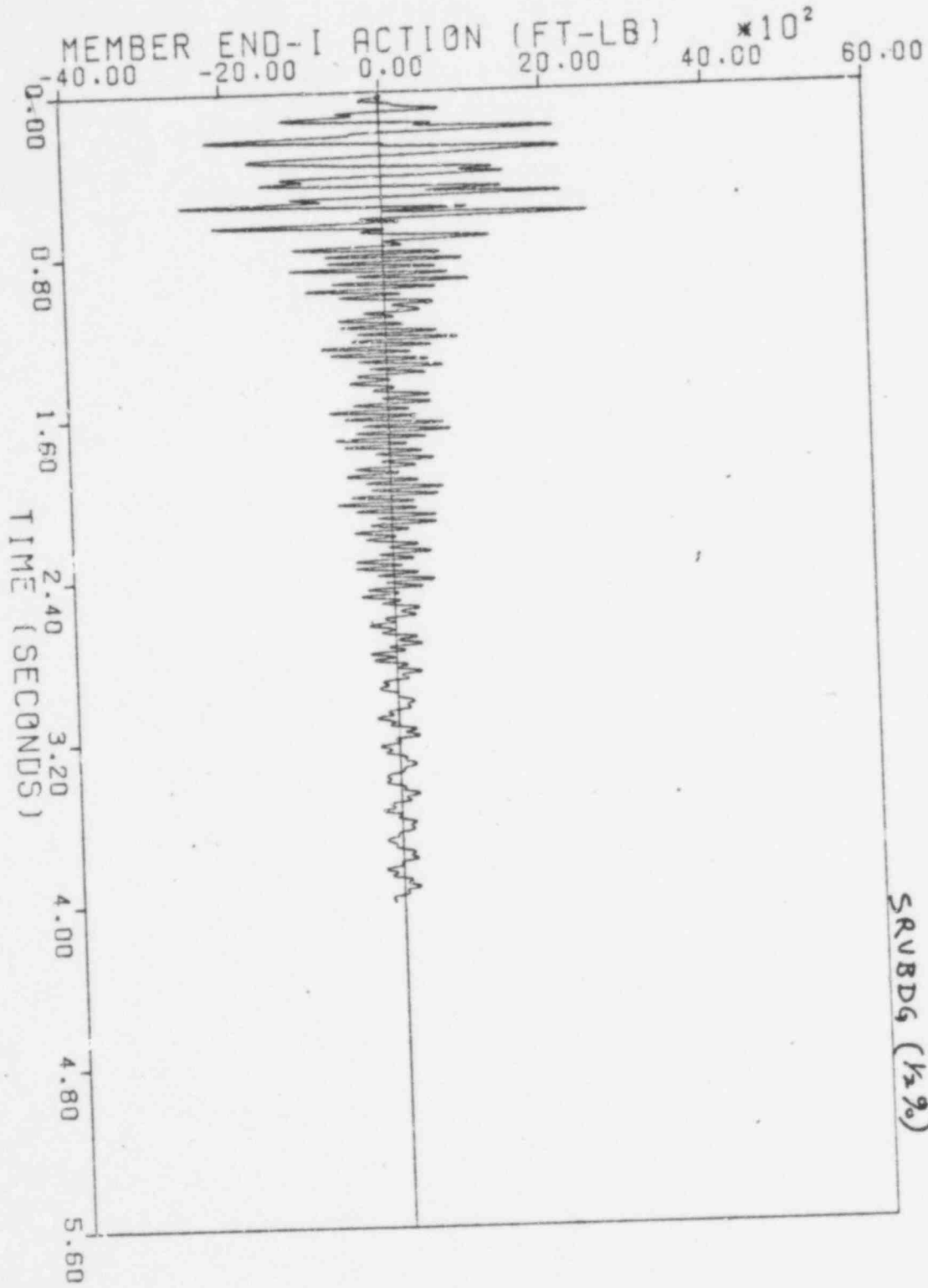
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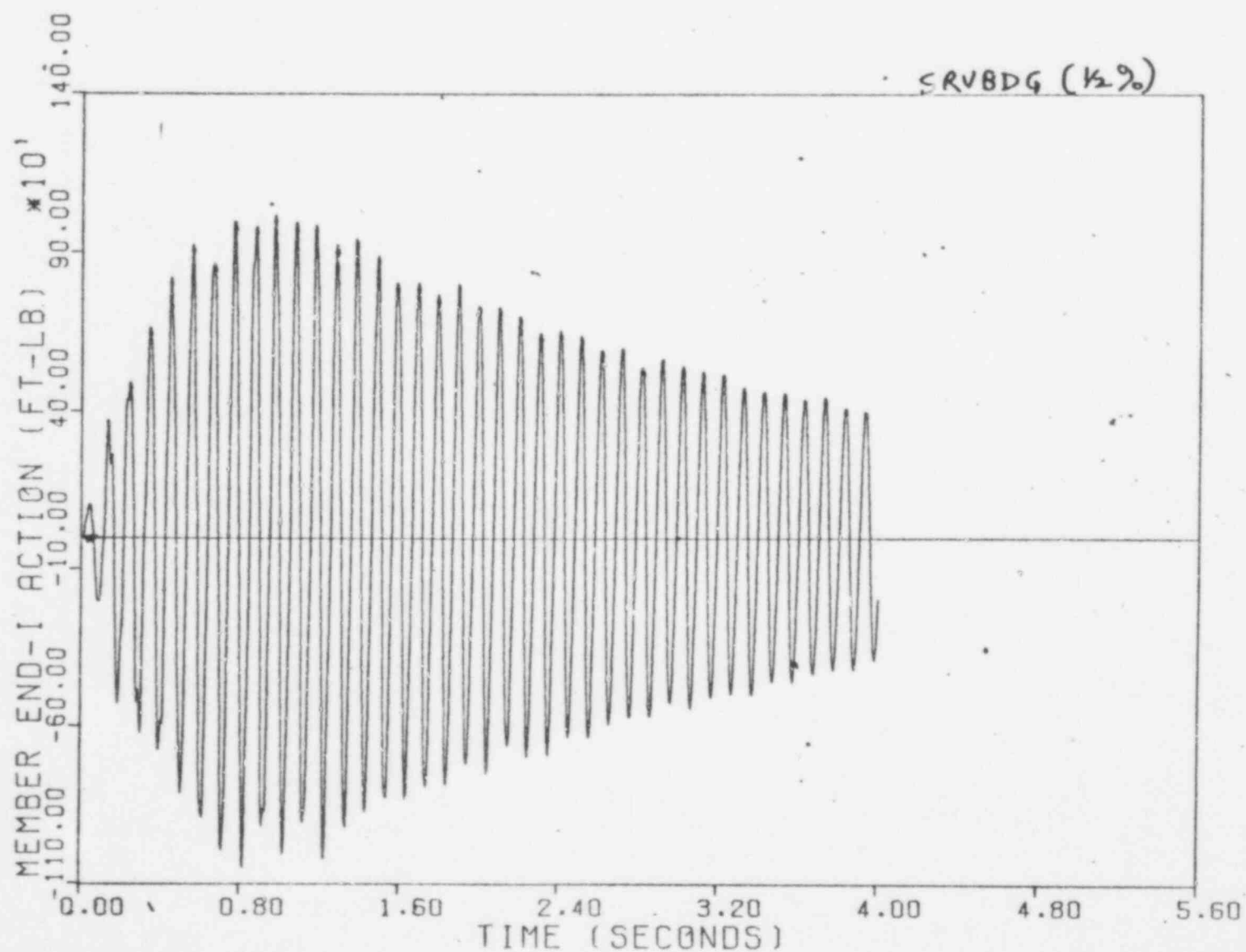


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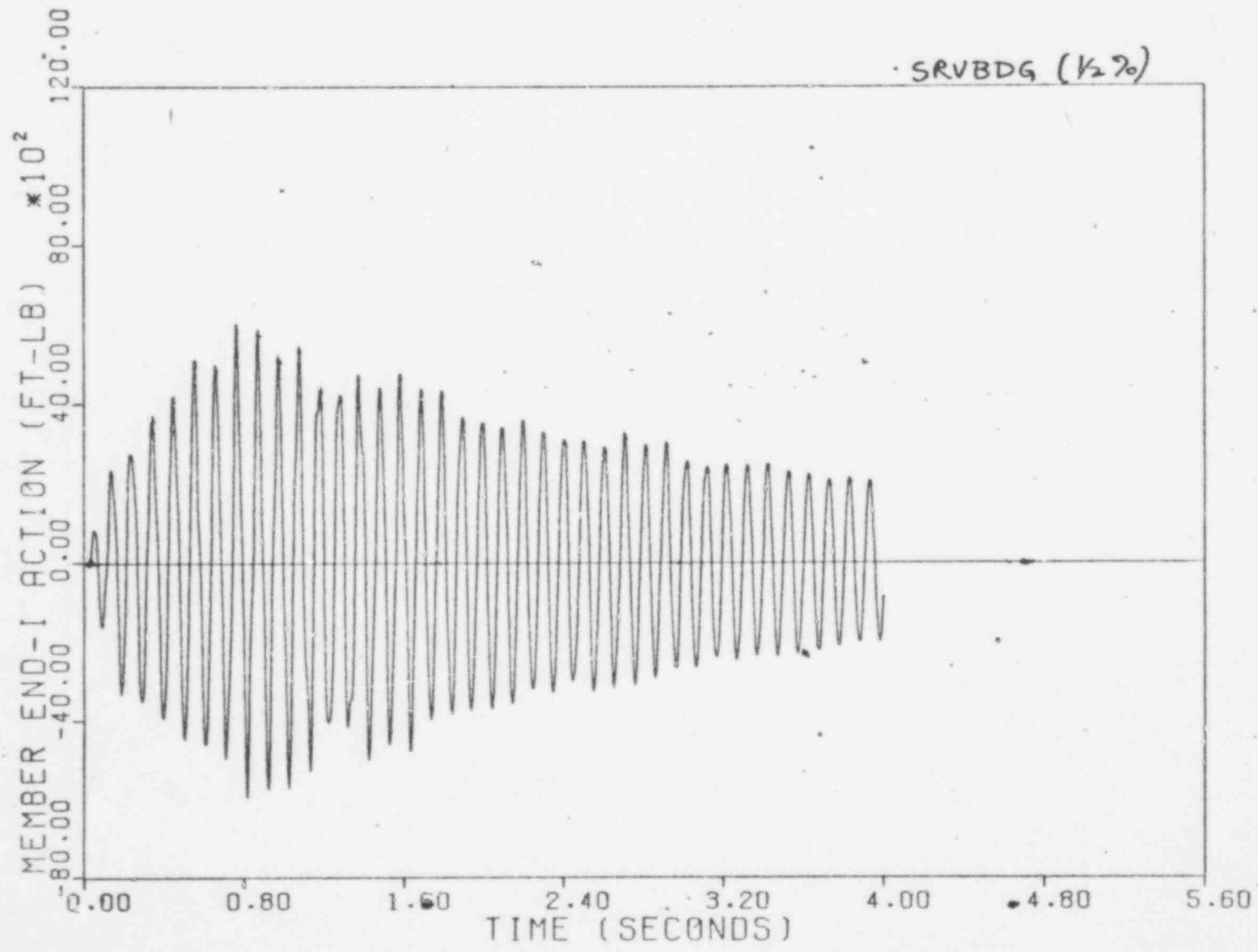
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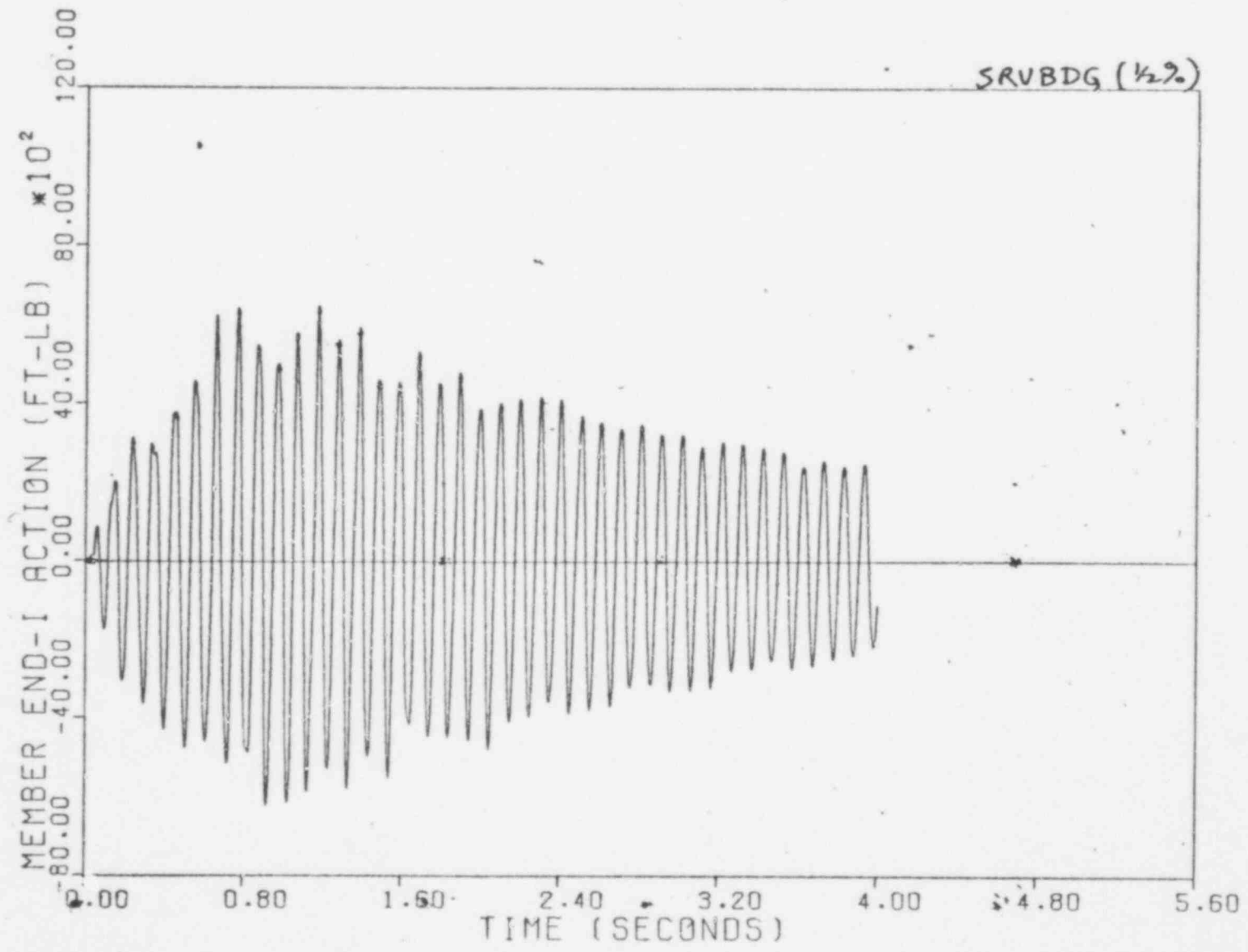


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MEMBER 46 B - MOMENT
5428-15 GEX SRSS STUDY ZIM-1 MAIN STEAM LINE A



MEMBER 46 C - MOMENT
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