Florida Power
CORPORATION

October 9, 1979

File: 3-0-3-a-3

Mr. Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Crystal River - Unit 3
Docket No. 50-302
Operating License No. DPR-72
Reactor Coolant Pump Power Monitors

Dear Mr. Reid:

Enclosed are the Required Response Spectrum curves for the potential transformers and current transformers as requested by your Mr. Chen in a recent telephone conversation. This information is in addition to and a clarification of that submitted in our letter of August 14, 1979.

If you or Mr. Chen have any further questions on this subject, please contact me.

Sincerely,

FLORIDA POWER CORPORATION

Patsy J. Baynard /for

W. P. Stewart
Manager, Nuclear Operations

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GILBERT ASSOCIATES, INC., P. O. Box 1498, Reading, PA 19603/Tel. 215 775-2600/Cable Gilasoc/Telex 836-431

October 3, 1979 FCS-795

Mr. D. A. Shook
Manager, Nuclear Engineering
Florida Power Corporation
P. O. Box 14042/H-8
St. Petersburg, Florida 33733

Re: Crystal River Unit #3
Power Level Upgrade
Seismic Test for Potential
Transformer and Current Transformer
NRC Concerns Sub #014
Letter FCS-730

Dear Mr. Shook:

Your Mr. Steve Ulm called GAI on September 27, 1979 regarding a recent communication with Mr. Chen of the NRC about seismic testing of the JVM4 and JCM4 transformers recently added to the PT and CT cabinets. Mr. Chen, when called by M. R. Wardrop of GAI, raised questions about the seismic test report by Harris Corporation, dated May 10, 1979, and additional data transmitted to FPC on July 30, 1979.

The major concerns of Mr. Chen are: (1) that the tests performed by Harris Corporation employ a method not normally used to seismically qualify equipment, and (2) the Required Response Spectra for the tested equipment has not been provided. These same concerns were expressed earlier by Mr. Arnold Lee of the NRC. The data contained in the Harris transmittal of July 30, 1979 was an attempt to explain the correlation of Power Spectral Density versus Frequency Curve and the Required Response Spectrum Curve for the transformers. From the data provided, it is not possible to make the stated correlation.

The transformer cabinets are located in the Intermediate Building at elevation 119'-0", this being the ground floor, and there is no floor response spectrum curve for the design of equipment installed at or near that elevation. Therefore, the Ground Acceleration Spectra was used to compare with the Test Response Spectrum.

Attached is a copy of the "Maximum Hypothetical Acceleration Spectra", as it appears in the Crystal River Unit 3 FSAR. On this Spectra sheet we have plotted the "Harris" response spectrum data for the transformers for both 2% and 7% damping. The transformer cabinets were not seismically tested and it is assumed that

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the difference between the "Harris" spectra and the ground spectra will cover the amplification of the cabinets. The 7% damping curve is used for comparison with the 0% of critical damping curve of the Acceleration Spectra. Based on this comparison it appears that the subject transformers are seismically qualified for installation in the Crystal River Unit 3 Intermediate Building at elevation 119'-0".

If you require additional comment, please call.

Very truly yours,

M. R. Wardrop

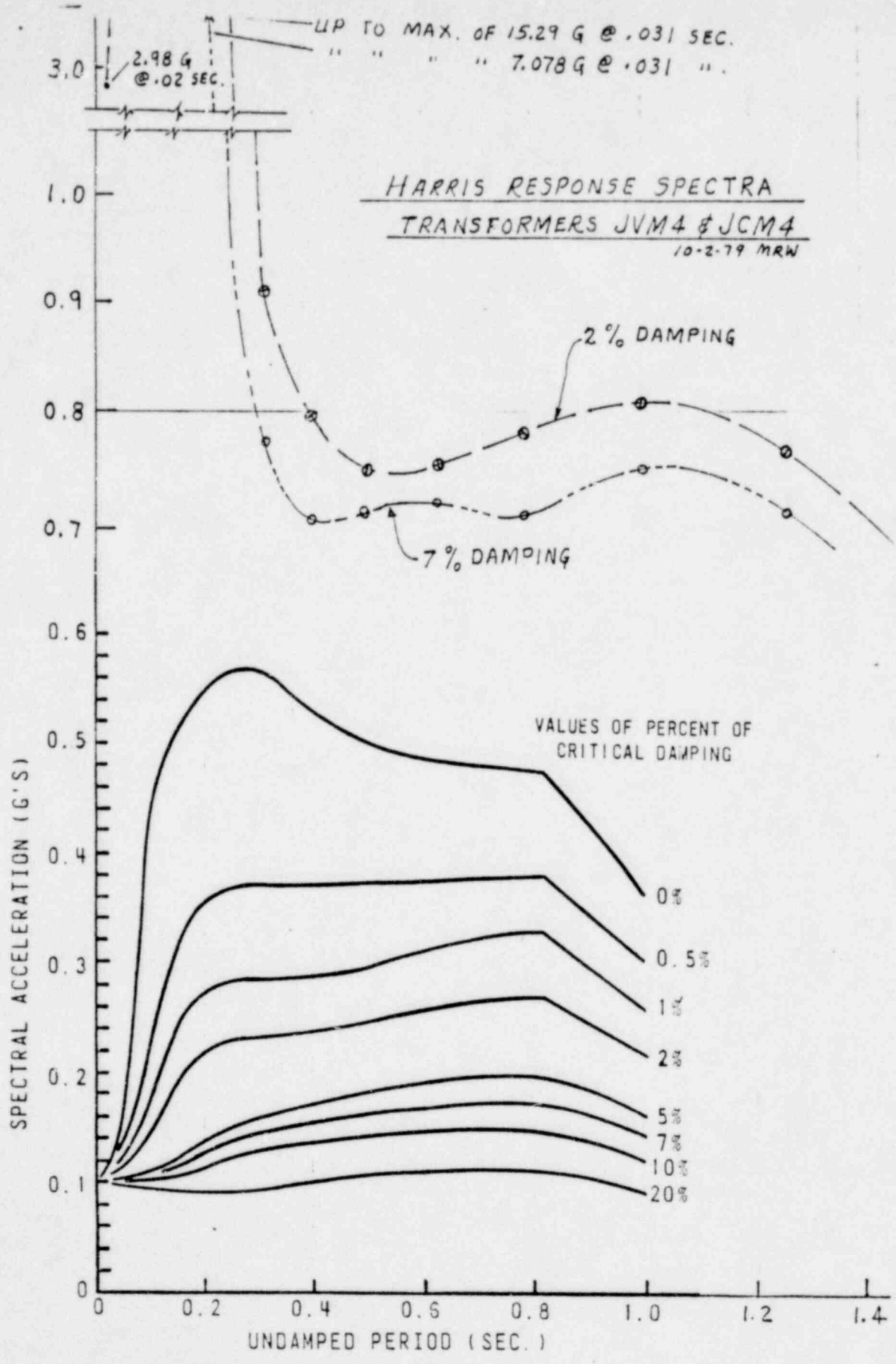
M. R. Wardrop
Project Structural Engineer

F. J. Tomazic

F. J. Tomazic
Project Manager

MRW:geb
Attachment

cc: D. A. Shook w/attach.
R. C. Bonner
F. J. Tomazic (2) w/attach.
M. Ober w/attach.
C. Chen w/attach.
Structural File w/attach.



MAXIMUM HYPOTHETICAL ACCELERATION SPECTRA