



August 14, 1979

File: 3-0-3-a-3

Mr. Chris C. Nelson, Project Manager
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 Chris,

Enclosed are the Time History and the Shock Response Spectrum from Harris Corporation Environmental Engineering Laboratory as was requested for your further analysis. Also attached is Gilbert's evaluation of this report data.

If you need any further information, please do not hesitate to contact me.

Sincerely,

FLORIDA POWER CORPORATION


Ronald M. Bright
Nuclear Support Specialist

RMBmhTb
D6

7908210405

841 002

Aug 15/11

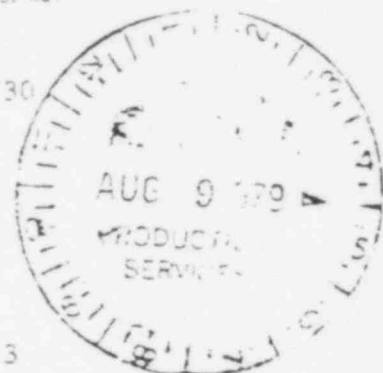
 **Gilbert/Commwealth** engineers and consultants

GILBERT ASSOCIATES, INC., P. O. Box 1495, Reading, PA 19603 Tel: 215 775-2600 Cable: Glasco Telex: 535431

August 3, 1979

PCS - 730

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
Sub #014

Dear Mr. Shook:

GAI has completed review of the Seismic Qualification Test Report and supplemental information for the JYM4 and JCM4 transformers.

Based on the report by Harris Corporation dated May 10, 1979 and additional information from them dated July 30, 1979 it appears that the subject equipment is seismically qualified for installation in the CR3 Intermediate Building.

If you require additional comment, please call.

Very truly yours,

M. R. Wardrop

M. R. Wardrop
Project Structural Engineer

MRW:dg

F. J. Tomazic

F. J. Tomazic
Project Manager

cc: D. A. Shook
R. C. Bonner
F. J. Tomazic
M. Oher
C. Chen
Structural File

POOR ORIGINAL

841 003

30 July 1979

Don Shook H-8
Florida Power Corporation
P.O. Box 14042
St. Petersburg, FL 33733

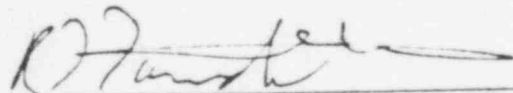
Dear Don:

In our test report for Seismic Qualification Testing your transformers JVM4 and JCM4, the seismic input is shown in Appendix A as Power Spectral Density versus frequency (PSD). This is in accordance with IEEE STD 344-1978 Paragraphs 3.4, 3.4.3, and 8.1.1 (11).

In order to further define our test input, I have re-generated the test vibration using the same computer program as used during testing, and recorded the Time History and Shock Response Spectrum.

Attached to this letter is our test input represented in all three manners recommended by IEEE-344, Para. 3.4. The Time History shows one second of vibration having a G(RMS) level over 0.5 G's with peaks over 1.5 G's. The Shock Response Spectra are computer dumps showing 1/3 octave frequencies versus G's for 2% and 7% Damping. The PSD is also shown in the same format as our test report.

I hope this additional data will clarify our test. If any questions remain, please feel free to call me.

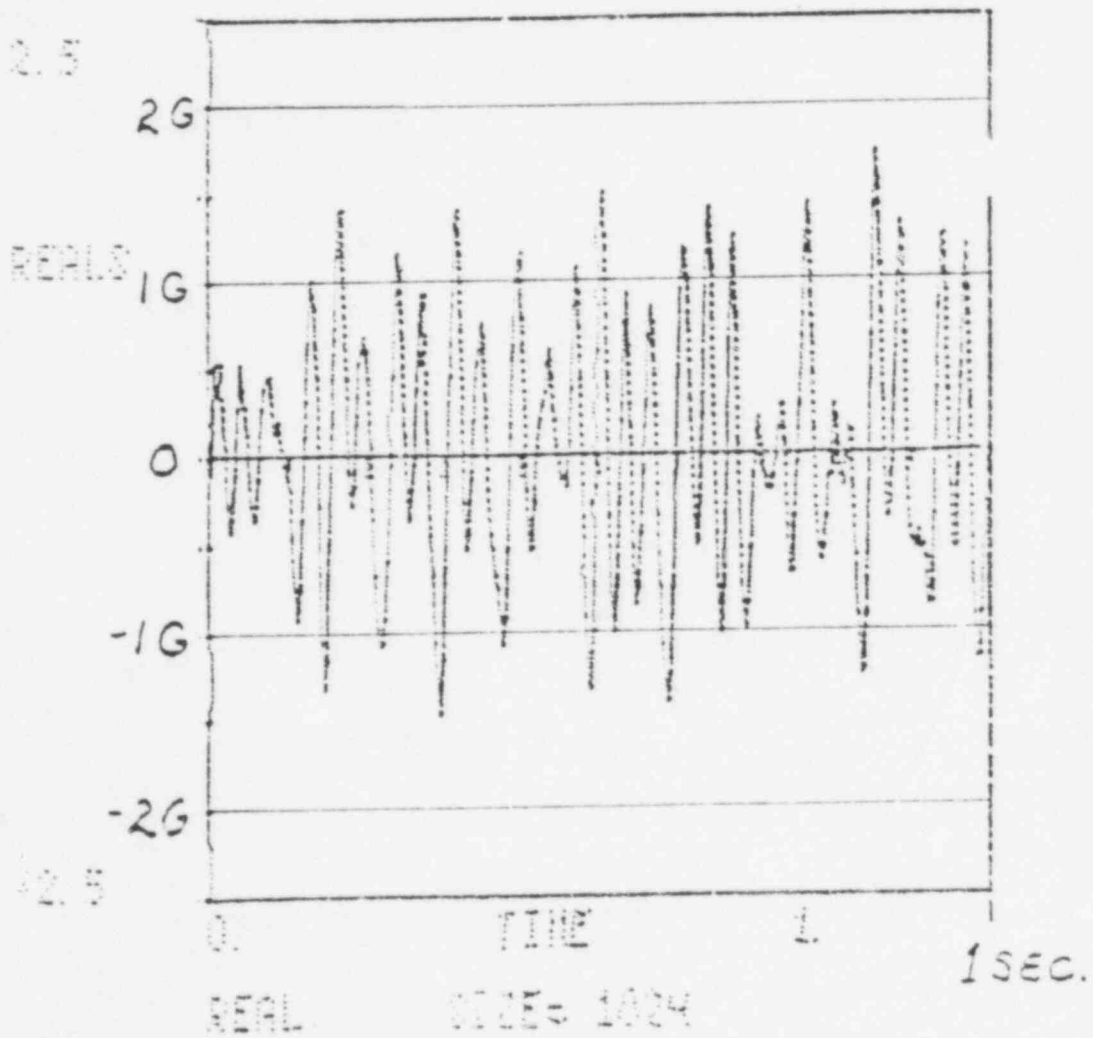


R.T. Fandrich
Supervisor
Environmental Engineering Laboratory
Harris Corporation

/jrc
Attachments
cc: Gilbert Associates

POOR ORIGINAL

TIME HISTORY



POOR ORIGINAL

841 005

R78
6/27/79

FREQUENCY

.6313
.7343
1.
1.253
1.584
1.935
2.510
3.162
3.98
5.011
6.309
7.941
10.
12.59
15.84
19.95
25.11
31.62
39.81
50.1

WAVE 2% DAMPING

.7313
.7459
.8101
.71
.7537
.8145
.8076
1.719
2.356
3.546
3.879
3.756
4.293
5.572
7.219
11.19
15.09
5.479
3.08

RESPONSE SPECTRA

270

FREQUENCY

.6309
.7942
1.
1.253
1.584
1.935
2.510
3.162
3.98
5.011
6.309
7.941
10.
12.59
15.84
19.95
25.11
31.62
39.81
50.1

WAVE 7% DAMPING

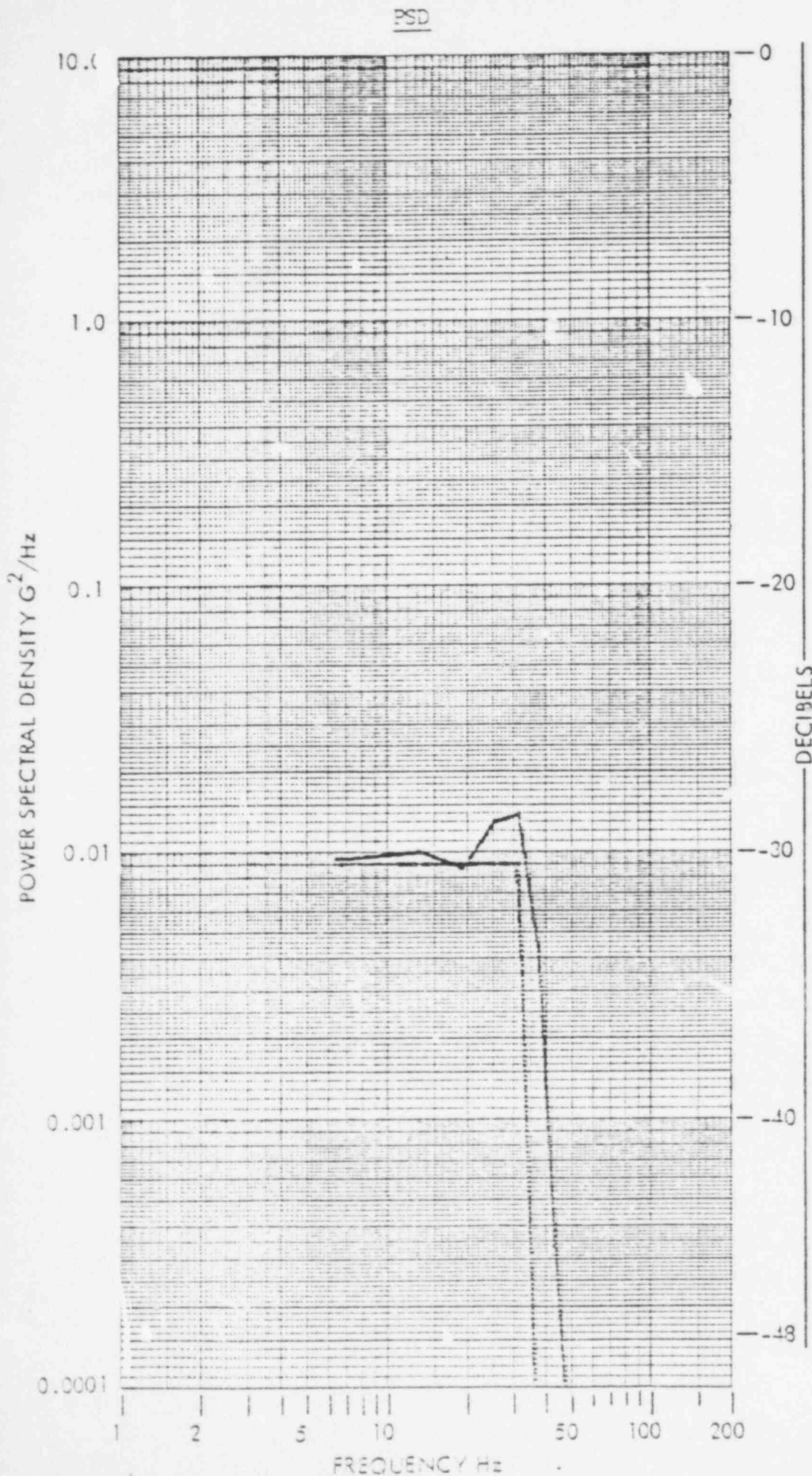
.8557
.7831
.7403
.71
.7631
.7176
.7092
.7379
1.251
1.451
1.875
2.293
2.465
2.553
2.912
4.448
7.823
7.372
4.319
3.747

012
013012=012
>013012

R73
6/27/79

POOR ORIGINAL

841 006



VIBRATION TEST

DATA

PSD VS FREQ

FLA. Power Corp.

PROJECT NUMBER

TEST ARTICAL

RUN NUMBER

6/27/79

TEST DATE

R72

OPERATOR

INPUT AXIS

INPUT LEVEL

ACCEL LOCATION

ACCEL SERIAL NO.

ACCEL SENSITIVE AXIS

ACCEL RESPONSE LEVEL

6.4 Hz

BANDWIDTH RESOLUTION

TEST ENGINEER

QUALITY CONTROL

POOR ORIGINAL

841 007