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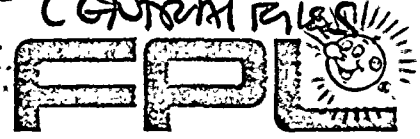

FLORIDA POWER & LIGHT COMPANY

79 JUN 8 A 9:18

May 5, 1979
L-79-153

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: RII:JPO
50-335
IE BULLETIN 79-04

The attached information, applicable to St. Lucie Unit 1, is submitted as a followup to our initial response to the subject Bulletin.

Very truly yours,

R. E. Uhrig for

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/MAS/cph

Attachment

cc: Robert Lowenstein, Esquire
Office of Inspection and Enforcement,
Division of Reactor Construction Inspection

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ATTACHMENT

Re: RII:JPO
50-335
IE BULLETIN 79-04

Item 1

List all Seismic Category I piping systems (or portions thereof) where 3, 4, or 6 inch diameter Velan swing check valves are installed or are scheduled to be installed.

Response 1

We have identified 27 Velan check valves of 3", 4" or 6" diameter which were used on St. Lucie 1. Of these, 17 are located on Seismic Category I sytems.

a. Chemical & Volume Control System
b. Safety Injection System
c. Fuel Pool System
d. Waste Management System

Item 2

Verify for all those systems identified in item 1 above that correct check valve weights were used in the piping analysis. Explain how and when the correct valve weights were determined.

Response 2

The valve weights used were either from the Velan drawings in the case of the computer analyzed lines, or catalogue estimates in the case of chart analyzed lines (see Response 5 below for an explanation of the "chart method"). Reduced weights were used in some cases.

Item 3

If incorrect valve weights were used, explain what actions have been taken or are planned to re-evaluate the piping systems affected.

Response 3

Eighteen of the 27 valves are either in seismic Category I lines or could affect seismic class lines. The subject Bulletin specified a higher weight for 15 of these valves. In 4 of the 15 cases, the load change was

Response 3 (Continued)

insignificant. In 7 of the 15 cases, the pipe and supports were reviewed for the higher weight and the loads were acceptable. One case was reanalyzed for the higher weight, and the pipe stress and restraint design was acceptable. The remaining 3 cases are described in Response 4 below.

Item 4

Specify for all the affected systems identified in Item 1 whether modifications were or are required to the piping systems or their supports because of changes in valve weight. Also, include the basis for this determination. For those systems in which the actual valve weight is greater than the design weight, provide a summary of stresses and loads and their allowable limits for the piping and its supports.

Response 4

Modifications have been completed in the area of 3 CVCS valves whose weights were found to have increased. These valves were in lines that were seismically analyzed by chart methods, as discussed in item 5 below.

It is felt that a detailed, computer analysis could have proved the adequacy of the existing restraint system, however, the cost of the analysis would have exceeded that of the restraint changes.

Item 5

Identify the analytical technique including identification of any computer codes used to determine the stresses indicated in Item 4.

Response 5

Eight of the identified 27 Velan valves were dynamically analyzed by Ebasco's pipestress 2010 computer program. These eight valves were all located in the safety injection system. The remaining seismic Category I valves were in systems analyzed by a chart method. The chart method is a simplified seismic analysis used on low temperature lines. Restraints are located based on span lengths sufficiently close to assure that the first mode of piping vibration does not coincide with that of the support structure.