Florida Power
CORPORATION

December 23, 1981
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File: 3-0-3-a-2

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

SUBJECT: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
IE Bulletin 80-11 Masonary Wall Design

Reference: RII: JJL
50-302/81-09

Dear Mr. O'Reilly:

During a routine safety inspection (see Inspection Report No. 50-302/81-09) on June 3 and 4, 1981, your Mr. J. J. Lenahan reviewed the field walk-down results required for the subject bulletin. Several discrepancies were identified. On June 23, 1981, Florida Power Corporation received a Notice of Violation dated June 18, 1981, concerning these findings.

On July 17, 1981, FPC responded to the Notice of Violation requesting that it be withdrawn. Mr. Lenahan received our response and, in late October 1981, notified our Mr. R. C. Widell, of several discrepancies in the response. Mr. Widell, via the Manager of Nuclear Support Services, committed to having a resolution to these discrepancies by November 30, 1981.

Per our commitment the following revised response, developed from further investigation, is provided for Item 3:

3. The Site Engineer was not specifically looking for cracks in the wall, however, had major cracks been present, they would have been noted. The cracks identified by the I&E inspector are not extensive and are small in size. The cracks are mainly in the mortar joints but, in one case, did extend into the face of the block itself. The interior of the shaft at the location of the cracks was reviewed and no evidence of cracking was found on the inside. Neither an inspection of the exterior of the shaft nor a cursory inspection of the shaft interior show other areas of cracking. Since the cracking is minor and will have no real significance to maintaining the structural integrity of the wall,

and since there is no safety significance if the shaft were to collapse under seismic conditions, no further action is considered necessary on this item.

Further investigation of Item 4 has revealed additional problems associated with the wall identified as Wall 1 in our November 17, 1980 response. The following explanation is provided for Item 4:

4. The conduit (No. ACC-29) identified by the inspector as passing through a portion of Wall 1, but not identifed on the field survey, is, in fact, color-coded and tagged as if it were safety related. Based on the criteria used by the Site Engineer for this survey, this conduit should have been identified. Research into the function of the cable within the conduit has shown that no safety related function is performed by the cable (it is a reliability feed for lighting in the control complex). This particular reliability feed is a non-safety related circuit to a lighting distribution panel fed from a safety related engineered safeguards motor control center. This type arrangement is used to maintain a high degree of confidence that lighting will be available in the control complex. There would be no safety significance of a failure of this circuit or adverse affect on the motor control center.

   An "as-built" of Wall 1 was provided to GAI for further evaluation. The actual changes to the wall from the original analysis were minor and not expected to change the results. The new analysis, however, revealed that for a safe shutdown earthquake, the wall would be overstressed and could possibly collapse. Florida Power Corporation requested GAI to review both analyses and determine why the wall was acceptable in the first run and, with only a small change (the addition of a 12"x14" opening), the stresses were increased enough to cause overstressing. Initially, there was no safety concern since the wall was not overstressed. The final conclusion is that under seismic loading the wall will be overstressed and could collapse.

   Nuclear Engineering has reviewed the effects of the collapse of this wall on safety related equipment. The only safety related equipment which could be adversely affected by the collapse of the wall is the control complex ventilation system main supply air duct to the lower elevations. The collapse of the wall could damage the verticle section of this duct where it turns and runs down the west wall. Damage to this portion of the duct would cut off cooling air to critical electrical components leading to higher than rated temperatures for continuous duty and subsequent failure of the equipment.

Two possible resolutions to the problem were evaluated. The first was to stiffen the wall using a complex arrangement of an I-beam with through-bolting and attachments to the floor and ceiling. The other available option was to remove the portion of the wall which would impact the duct if it fell. We have evaluated these two options and determined that the removal of the wall section would be the quickest, most effective resolution. A modification package, MAR 81-12-13, was issued on December 15, 1981 to perform the removal. This work will be completed by December 31, 1981.

Removal of the wall section will provide final resolution of NRC I&E Bulletin 80-11 concerns. Should you have any additional questions concerning these actions, please contact this office.

Very truly yours,

David G. Mardis

David G. Mardis
Acting Manager
Nuclear Licensing

Tibbs (F07)C2-1

cc/W/Attach: Director
Office of Inspection & Enforcement
Division of Reactor Operations Inspection
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

STATE OF FLORIDA

COUNTY OF PINELLAS

D. G. Mardis states that he is the Acting Manager, Nuclear Licensing Department of Florida Power Corporation; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information and belief.

D. G. Mardis

Subscribed and sworn to before me, a Notary Public in and for the State and County above named, this 31st day of December, 23, 1981.

Notary Public

Notary Public, State of Florida at Large,

My Commission Expires: May 29, 1984

DGM/MAMNotary
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