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Georgia Power  
the southern electric system

Power Generation Department

NOV 14 4:33

December 11, 1979

United States Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region II - Suite 3100  
101 Marietta Street

REFERENCE:  
RII: JPO  
50-321/50-366  
I&E Bulletin 79-02 Rev. 2

ATTENTION: Mr. James P. O'Reilly

Gentlemen:

Georgia Power Company hereby submits a response to I&E Bulletin 79-02, Rev. 1, "Pipe Support Base Plate Designs Using Concrete Expansion Anchor Bolts." The attached response addresses the specific items identified in I&E Bulletin 79-02 Rev. 2 and, in addition, recaps and/or expands on previous responses to Revision 0 and Revision 1 of I&E Bulletin 79-02. Previous responses were provided on July 6, 1979 and September 14, 1979.

If you have any questions or comments, please contact my office.

Sincerely yours,

*W. A. Widner (D. Widner)*  
W. A. Widner  
General Manager of Nuclear  
Generation

JAB/mt

Attachment

xc: United States Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Division of Regulatory Operations Inspection  
Washington, D.C. 20555

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Response to I. & E. Bulletin 79-02, Revision 2  
(including recap of actions with respect to  
initial issue and revision 1 of the bulletin)

A description of the actions taken on specific items of I. & E. Bulletin 79-02 including Revisions 1 and 2 as follows:

Item 1:

Addressed in previous responses to I. & E. Bulletin 79-02.

Item 2:

Addressed in previous responses to I. & E. Bulletin 79-02 item 2 and as follows:

Unit 1 - The bulletin factors of safety were met including DBE (SSE) loadings in the design bolt load.

Unit 2 - For snubbers and anchors DBE (SSE) loads were included directly for determining design bolt loads. For rigid hangers and restraints OBE loads were used in determining bolt design loads in the actual calculation of shear-tension interactions. Since the interaction values typically have additional margin which can accommodate increased loading and since seismic loads on rigid supports comprise only a part of the entire design load; the bulletin factors of safety will in general be satisfied for DBE (SSE) loadings.

Item 3:

Addressed in previous responses to I. & E. Bulletin 79-02, item 3.

Item 4;

Addressed in previous responses to I. & E. Bulletin 79-02, item 4 and as expanded on below:

a) Torque/preload

Verification of proper installation of bolts was made using torque values based on manufacturer's data.

b) Piping less than 2 1/2 inch in diameter

Due to the early start on the testing and replacement programs for Units 1 and 2 (work began on Unit 2 prior to the initial issuance of the bulletin) the scope concerning small pipe supports (<2 1/2 inch) is as given in previous reports.

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The specific systems or portions of systems which had 100% expansion anchor testing or replacement are as follows:

- Primary Steam Drainage (computer analyzed portion)
- Standby Liquid Control System (pump suction and discharge piping up to containment penetration, seismic I portion)
- Process Radiation Monitoring System (containment penetration to first anchor after second isolation valve) Unit 2 only.
- MSIV Leakage Control System (portion analyzed with large bore pipe) Unit 2 only
- HPCI System (containment isolation portion)
- RCIC System (containment isolation portion)
- H<sub>2</sub> and O<sub>2</sub> Analyzer System (containment isolation portion)
- Drywell Pneumatic System (containment isolation portion)
- Diesel Oil System (oil piping from day tank to diesel, starting air, and cylinder jacket cooling water)
- N<sub>2</sub> Inerting System (containment isolation portion)

Since 100% testing of wedge type expansion anchors and replacement of self-drilling type anchors with wedge type was performed on the above listed systems, it is felt that the supports employing expansion anchors subject to higher concern with regard to system operability have been covered by the program (Note: Small pipe inside the containment relies on welded supports for operability)

Other supports outside the containment supported by cookbook methods have conservatisms inherent to this method of pipe supporting and since no major items which would affect system operability were identified during the testing or replacement of those small pipe supports which were covered by this program, plant safety is not considered to be in jeopardy.

Item 5:

A walkdown inspection of Units 1 and 2 was performed to determine the extent that expansion anchor bolts were used in concrete block walls to attach piping supports within the scope of I. & E. Bulletin 79-02 as defined in the previous responses to the Bulletin.

No supports were identified for the safety related systems which were inspected.

The Steam Systems and Plant Service Water Systems for Unit 2 located in the turbine buildings were inaccessible at the time of the inspection and will be walked down when accessible with appropriate evaluation at that time if any safety related supports are found attached to concrete block walls.

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Item 6:

The scope of the testing and replacement programs for Units 1 and 2 included all supports relying on expansion anchor bolts for support of the piping covered in the program whether utilizing base plates or structural shapes attached directly to walls. It should be noted that structural shapes were generally not attached directly to the building walls. Only a few cases were identified during the program and these were given the same consideration as the other supports.

Item 7:

Not applicable.

Item 8:

Inspection documentation for the Unit 1 and 2 testing and replacement programs are available on site.

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