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F. L. CLAYTON, JR.
Senior Vice President



Alabama Power
the southern electric system

September 2, 1980

Docket No. 50-364

Mr. Steven A. Varga,
Acting Assistant Director for Light Water Reactors
Division of Project Management
Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Varga:

In response to your letter of April 21, 1980, concerning Category I
Masonry Walls, Alabama Power Company submits the attached response for
Farley Nuclear Plant Unit 2. If there are any questions, please contact
us.

Very truly yours,

F. L. Clayton, Jr.

CLB/sc

Attachment

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge
Mr. L. L. Kintner
Mr. W. H. Bradford

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RESPONSE TO NRC QUESTIONS ON
INFORMATION REQUEST FOR CATEGORY I MASONRY WALLS

Farley Plant Unit 2

1. Are there any concrete masonry walls being used in any of the Category I structures of your plant? If the answer is "no" to this question, there is no need to answer the following questions.

RESPONSE

Yes. There are concrete masonry walls in the auxiliary building and none in the containment building.

2. Indicate the loads and load combinations to which the walls were designed to resist. If load factors other than one (1) have been employed, please indicate their magnitudes.

RESPONSE

The concrete masonry walls for the Farley Plant Unit 2 are not designed as Category I structural members. Nominal reinforcement is provided per the attached sketch (Typical Block Wall Reinforcing) to withstand its own seismic effects. All concrete masonry walls are being re-evaluated as per IE Bulletin 80-11 requirements, even though this is not required by the Bulletin for units under construction.

3. In addition to complying with the applicable requirements of the SRP Sections 3.5, 3.7 and 3.8, is there any other code, such as the "Uniform Building Code" or the "Building Code Requirements for Concrete Masonry Structures" (proposed by the American Concrete Institute) which was or is being used to guide the design of these walls? Please identify and discuss any exceptions or deviations from the SRP requirements or the aforementioned codes.

RESPONSE

As per IE Bulletin 80-11 requirements, all concrete masonry walls are being re-evaluated and ACI 531-79 Code "Building Code Requirements for Concrete Masonry Structures" is being used to guide the re-evaluation of those concrete masonry walls. The re-evaluation will be completed by November 7, 1980. The exceptions or deviations from SRP requirements for block wall re-evaluation, if any, will be reported and discussed at that time.

4. Indicate the method that you used to calculate the dynamic forces in masonry walls due to earthquake; i.e., whether it is a code's method such as the Uniform Building Code, or a dynamic analysis. Identify the code and its effective date if the code's method has been used. Indicate the input motion if a dynamic analysis has been performed.

RESPONSE

Dynamic analysis was not performed. Per re-evaluation program (Bulletin 80-11), seismic force is being calculated using acceleration from floor response curves. Since the walls span between floor levels (mass points), the average of the floor accelerations from floors above and below are used to review the seismic effects on the concrete masonry walls.

5. How were the masonry walls and the piping/equipment supports attached to them designed? Provide enough numerical examples including details of reinforcement and attachments to illustrate the methods and procedures used to analyze and design the walls and the anchors needed for supporting piping/equipment (as applicable).

RESPONSE

The concrete masonry walls are not designed to withstand the additional load due to the pipe supports. Some of the safety-related supports with small magnitude loads were found attached to some of the concrete masonry walls using thru-wall bolts. All of the concrete masonry walls are being re-evaluated as per "as-built" conditions to satisfy the requirements of IE Bulletin 80-11. The attachment loads are included in the re-evaluation program.

6. Provide plan and elevation views of the plant structures showing the location of all masonry walls for your facility.

RESPONSE

The following drawings (attached) locate and identify all of the block walls in the Category I structures of the Farley Plant Unit 2.

D-206500, Revision 13
D-206502, Revision 06
D-206504, Revision 13
D-206505, Revision 11
D-206506, Revision 12
D-206507, Revision 05
D-206508, Revision 16
D-206509, Revision 08
D-206512, Revision 17
D-206513, Revision 04
D-206515, Revision 08
D-206516, Revision 12

