Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 323-5341

F. L. CLAYTON, JR.
Senior Vice President

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Alabama Power
the southern electric system

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October 25, 1979

Docket Nos. 50-348 and 50-364
NRC I.E. Bulletin No. 79-23

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street - Suite 3100
Atlanta, Georgia 30303

Gentlemen:

In response to I.E. Bulletin 79-23 "Potential Failure of Emergency Diesel Generator Field Exciter Transformer", Alabama Power Company submits the following response for Farley Nuclear Plant Units 1 and 2.

Item 1: Determine whether or not connections have been made between low KVA rated transformers and high KVA rated EDGs without adequate limitations on the flow of circulating currents. If applicable, provide a description of the corrective action being taken to address this problem.

Response: An investigation of the generator and exciter circuits of the five diesel generators at Plant Farley determined that a connection does not exist between the neutral of the diesel generator and the neutral of the primary side of the exciter control transformer. Since the problem does not exist, corrective action is not required.

Item 2: Provide a schedule for the completion of a sustained full-load operation test of the EDGs for the duration of not less than 24 hours, or provide the results of the similar long duration, full-load test which has already been completed on the EDGs installed at your facility. The test should demonstrate full-load carrying capability for an interval of not less than 24 hours, of which 22 hours should be a load equivalent to the continuous rating of the diesel generator and 2 hours at a load equivalent to the 2 hour rating of the diesel generator. The test should also verify that voltage and frequency requirements are maintained and that the cooling system functions within design limits.

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Response: During the startup of Unit 1, four of the five diesel generators, 1-2A, 2C, 1C and 1B, were operated over a sustained time period of 26 hours. The test demonstrated the following capability for the large and small diesel generators:

| Time Period | | 4075 KW Generator | 2850 Generator |
|---|---|---|---|
| 1st 8 hrs | @ | 1500 KW | 1000 KW |
| 2nd 8 hrs | @ | 3000 KW | 2000 KW |
| 3rd 8 hrs | @ | 4075 KW | 2850 KW |
| Next 2 hrs | @ | 4474 KW | 3250 KW |

During the test each diesel generator maintained the required voltage and frequency and functioned within the cooling system design limits. Test data sheets are available for inspection at the plant site.

The remaining diesel generator, 2B, is scheduled for pre-operational testing in the Unit 2 startup program. The test planned for 2B will follow the same procedure as shown above and will be completed prior to initial fueling, which is scheduled for June, 1980.

Yours very truly,

F. L. Clayton, Jr.

FLCjr/HRF/mmb

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge

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