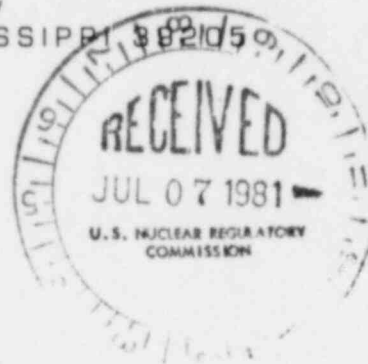




MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205



PRODUCTION DEPARTMENT

July 1, 1981

Mr. Robert L. Tedesco,  
Assistant Director of Licensing  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Mr. Tedesco:

SUBJECT: Grand Gulf Nuclear Station  
Units 1 and 2  
Docket Nos. 50-416 and 50-417  
File 0262/0755/L-860.0  
Hydrogen Ignition System  
AECM-81/237

As requested in a meeting with members of your staff on June 18, 1981, please find attached the following additional information on the design of the Grand Gulf Hydrogen Igniter System.

1. Further description of the preoperational and periodic testing program of the igniter system.
2. Six plan views and two sectional views of the containment and drywell to further clarify flow areas and igniter assembly locations.

Yours truly,

L. F. Dale  
Manager of Nuclear Services

JDR:dn  
Attachment

cc: (See Next Page)

*Drawings to: BC  
Aperture Card  
Distribution*

*Boo!  
5/11*

8107080396 810701  
PDR ADOCK 05000414  
A PDR

cc: Mr. N. L. Stampley  
Mr. G. B. Taylor  
Mr. R. B. McGehee  
Mr. T. B. Conner

Mr. Victor Stello, Jr., Director  
Office of Inspection & Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

## Tests and Inspection

### 1. Preoperational Testing

The HIS will be preoperationally tested to ensure correct functioning of all controls, instrumentation, wiring, transformers and igniters and to provide baseline data for subsequent surveillance testing and maintenance.

The test will include energizing one of the two divisions of igniters from the control room and verifying that all igniters powered from the associated panel are functional. The identical procedure will be followed for the remaining igniters powered off the other division.

Functional testing of each igniter will include, as a minimum, measuring and recording the following:

- a) Surface temperature of each igniter to verify that it is operating at or above 1500 F.
- b) Voltage to verify that each igniter is supplied with the voltage necessary to achieve the minimum operating temperature of 1500 F.
- c) Total current being drawn through one breaker when all igniters powered by that breaker are operating. This procedure will be repeated for the remaining breaker of the division being tested.

### 2. Periodic Testing and Surveillance

During normal plant operation, at intervals not yet determined, each of the two power divisions will be energized and the current being drawn by the igniters fed by one breaker will be measured and recorded. This procedure will be repeated for each of the four breakers. The data for each breaker will be compared to the data obtained in the preoperational test of this system.

In addition to the above procedure, during plant operation, the igniter assemblies, power distribution panels, instrumentation, and associated wiring can be visually inspected (outside the drywell) at any time.

During each refueling period, all igniter assemblies will be tested to verify operability. The test procedure will be identical to the preoperational test procedure discussed in Section 1.