

## MIS SISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

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April 8, 1982

NUCLEAR PRODUCTION DEPARTMENT

U. S. Nuclear Regulatory Commission Office of Nuclear Reactor Regulation Washington, D. C. 20555

Attention: Mr. Harold B. Denton, Director

Dear Mr. Denton:

8204120182 820408 PDR ADOCK 05000416

SUBJECT: Grand Gulf Nuclear Statio Units 1 and 2 Docket Nos. 50-416 and 50-417 File L-860.0/0756 References 1) AECM-81/336 2) AECM-82/60 Environmental Qualification Test Program AECM-82/137

This letter is in response to a recent verbal request by members of your staff for supplementary information regarding the environmental qualification testing of igniters which will be used in Mississippi Power & Light's (MP&L) Hydrogen Ignition System at the Grand Gulf Nuclear Station. As indicated in reference 1, it is our intent to qualify the igniters to IEEE 344-1975 and IEEE 323-1974 requirements. Additional tests are also planned to demonstrate that the igniters will remain functional under adverse environmental conditions postulated during a hydrogen generation event.

The igniter testing program consists of a sequence of tests as laid out below. The submergence test consists of immersing the igniters in water with the same conductivity, pH, dissolved solids and temperature as the suppression pool. The igniters will then be tested to assure that they remain functional. The ability of the igniters to withstand repeated hydrogen burns will be demonstrated in a final test. Operability of the igniters will again be demonstrated after this test. An approximate schedule for the complete environmental qualification testing program is included below:

Test	Time Required	Completion Date
Radiation Testing (Beta & Gamma)	2 weeks	03/08/82
Thermal Aging	10 weeks	05/17/82
Wear Aging	2 weeks	05/31/82
Seismic & Functional Tests	2 weeks	06/14/82
Submergence Test	2 weeks	06/28/82
LOCA Simulation	3 weeks	07/19/82
Hydrogen Burn	3 weeks	08/09/82

..... Middle South Utilities System

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Please note that the environmental qualification testing program is separate from the proposed suppression pool tests discussed in reference 2. The testing discussed in reference 2 is not required for the environmental qualification of the igniters.

Yours truly,

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L. F. Dale Manager of Nuclear Services

RWE/SHH/JDR:1g

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

> Mr. Richard C. DeYoung, Director Office of Inspection & Enforcement U. S. Nuclear Regulatory Commission Washington, D. C. 20555

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