



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39215-1640

August 30, 1985

NUCLEAR LICENSING & SAFETY DEPARTMENT

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

Attention: Mr. Harold R. Denton, Director

Dear Mr. Denton:

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416 and 50-417
License No. NPF-29
File: 0260/0272/0756
Quarterly Status Report
June, 1985, "Degraded
Core Accident Hydrogen
Control Program"
AECM-85/0240

The Grand Gulf Nuclear Station (GGNS), Unit 1 Facility Operating License (License No. NPF-29) requires that Mississippi Power & Light (MP&L) submit to the NRC quarterly reports on the status of the "Degraded Core Accident Hydrogen Control Program." In response to that requirement MP&L is submitting the attached report covering the period from April 1, 1985 through June 30, 1985.

Should you have any questions concerning this report, please contact us.

Yours truly,

L. F. Dale
Director

MJM/GWS/SHH:vog
Attachment

cc: (see next page)

8509100280 850830
PDR ADOCK 05000416
R PDR

J13AECM85073002 - 1

Member Middle South Utilities System

Acc
11

cc: Mr. J. B. Richard (w/a)
Mr. O. D. Kingsley, Jr. (w/a)
Mr. R. B. McGehee (w/a)
Mr. N. S. Reynolds (w/a)
Mr. H. L. Thomas (w/o)
Mr. R. C. Butcher (w/a)

Mr. James M. Taylor, Director (w/a)
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. J. Nelson Grace, Regional Administrator (w/a)
U. S. Nuclear Regulatory Commission
Region II
101 Marietta St., N. W., Suite 2900
Atlanta, Georgia 30323

Quarterly Status Report for
Quarter Ending June 30, 1985

"Degraded Core Accident
Hydrogen Control Program"

Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416 and 50-417

Mississippi Power & Light Company

Quarterly Status Report - June 30, 1985

"Degraded Core Accident Hydrogen Control Program"

1.0 Introduction

This quarterly status report is submitted to comply with a requirement in the Grand Gulf Nuclear Station, Unit 1 Facility Operating License (License No. NPF-29). This requirement specifies that Mississippi Power & Light (MP&L) should provide quarterly reports outlining the status of the on-going research program to address degraded core hydrogen control requirements. This report covers the second calendar quarter of 1985 ending June 30, 1985.

This report includes brief summaries of the submittals made by MP&L during this quarter along with summaries of meetings between the NRC staff and MP&L. MP&L is participating in the Hydrogen Control Owners Group (HCOG) which is conducting generic research and completing generic analyses to resolve the degraded core hydrogen control issue. Since the work completed by HCOG complements MP&L's program to resolve this issue, this report also includes summaries of meetings between the HCOG and the NRC. The summaries of these meetings included in this report do not reflect a formal HCOG position with respect to any issue and represent only the MP&L interpretation of the meetings.

2.0 Summary of MP&L Submittals

AECM-85/0069, April 1, 1985

MP&L letter number, AECM-85/0069, dated April 1, 1985 provided written documentation of MP&L's endorsement of the HCOG Program Plan. This endorsement commits MP&L to use the Plan as a major and integral part of the final resolution of the hydrogen control issue for Grand Gulf.

AECM-85/0115, April 19, 1985

MP&L letter number, AECM-85/0115, dated April 19, 1985 provided a response to a request from a member of your staff to evaluate the HECTR containment analysis code input and results for containment response to a degraded core accident. MP&L stated in their evaluation that due to substantial differences in input parameters as well as certain anomalous behavior in the HECTR results, no meaningful direct comparison with CLASIX-3 results was attempted.

AECM-85/0182, June 24, 1985

MP&L letter number, AECM-85/0182, dated June 24, 1985, transmitted a proposed schedule for meeting the Final Hydrogen Control Rule Requirements. The information and schedule provided in this letter was based on the tasks identified in the HCOG Program Plan and was submitted to meet the requirement of 10CFR50.44(c)(3)(vi)(a).

3.0 Summary of HCOG and NRC Meetings

HCOG and NRC meeting on May 22, 1985

The HCOG met with the NRC on May 22, 1985, to discuss the NRC evaluation of HCOG Program Plan Tasks 1, 7, 9 and 12. The discussion focused on the generation of hydrogen release histories and the $\frac{1}{4}$ scale test program. HCOG and the NRC indicated that they were pleased with the recent progress made towards resolution of the Hydrogen Control Program and that they should continue their effort in order to achieve closure of remaining open issues.

HCOG and NRC meeting on June 4, 1985

The HCOG and NRC agreed at the May 22, 1985 HCOG-NRC meeting to a separate meeting regarding the BWR Core Heatup Code and the March Code. The purpose of the meeting was to compare the two computer codes and their respective hydrogen generation histories. This meeting was intended to help resolve differences between the codes and their predictions and to assist in gaining NRC acceptance of the time histories to be used in the $\frac{1}{4}$ scale test program.

HCOG and NRC meeting on June 6, 1985

The HCOG met with the NRC on June 6, 1985, to discuss the status of the Hydrogen Control Program and to provide the NRC management the opportunity to tour the $\frac{1}{4}$ scale test facility.

The meeting began with a description of the $\frac{1}{4}$ scale test facility configuration and a summary of submittals to date concerning the facility design. The NRC management was then given a tour of the $\frac{1}{4}$ scale test facility which included:

- 1) a review of instrumentation layout and remote controls for the facility
- 2) visual inspection of facility, and
- 3) a review of videotapes from a recently completed scoping test.

The day concluded with a discussion on the status of the Hydrogen Control Program. HCOG commented on the recent NRC evaluation of Program Plan Tasks 1, 7, 9 and 12 and provided the NRC with a status update for the remaining ten tasks.

4.0 Test Program Status

The summaries and status of the HCOG test program as stated here do not reflect the HCOG position with respect to any test program and represent only an MP&L interpretation of these programs.

4.1 1/4 Scale Test Program Status

Shakedown tests required for verifying proper operation of facility systems and instrumentation were completed in early May. Scoping tests to assess the effects of variations in key parameters began May 13, 1985 and continued through the quarter.

4.1.1 Planned Activities for the 3rd Quarter of 1985

Complete scoping tests to assess the effects of variations in key parameters. Begin production testing in order to establish the thermal profiles necessary for evaluating equipment response to degraded core accidents.