

Quarterly Status Report for  
Quarter Ending September 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

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Quarterly Status Report - September 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 third calendar quarter of 1985 ending September 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

MP&L made no submittals to the NRC on the Degraded Core Accident Hydrogen Control Program during the third calendar quarter of 1985 ending September 30, 1985.

3.0 Summary of HCOG and NRC Meetings

HCOG and NRC meeting on July 17, 1985

The HCOG met with the NRC on July 17, 1985, to review scoping test results and to discuss revisions to the scoping and production test matrices.

Topics of discussion included the review of initial conditions at the Quarter Scale Test facility, facility instrumentation performance and a presentation on the general combustion phenomena observed to date in the test facility.

The HCOG also indicated in the meeting that they would agree to the hydrogen release histories proposed by the NRC in the letter dated June 24, 1985, from R. M. Bernero to S. H. Hobbs.

HCOG and NRC meeting on September 5, 1985

The HCOG met with the NRC on September 5, 1985, to discuss the following items:

- 1) Resolution of open items on the HCOG Program Plan as identified in the NRC staff July 8, 1985 letter
- 2) Resolution of open items effecting production testing as identified in the NRC staff August 16, 1985 letter
- 3) Agreement on the basis for initiating production testing in the Quarter Scale Test facility, and
- 4) to discuss the additional work in progress on the facility heat loss report.

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

Scoping tests to assess the effects of variations in key parameters continued throughout the quarter.

4.1.1 Planned Activities for the 4th Quarter of 1985

Complete two additional scoping tests to assess the effect of grating above the suppression pool surface and gas temperatures near drywell wall. Assessment of gas temperatures near the drywell wall is required to further evaluate the adequacy of the plume model in the Heat Loss Report. Production testing is expected to begin by the end of the fourth quarter.