



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

83 AUG 29 1983
AUG 26 9:27

JAMES P. MCGAUGHY, JR.
VICE PRESIDENT

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Suite 2900
Atlanta, Georgia 30303

Attention: Mr. J. P. O'Reilly, Regional Administrator

Dear Mr. O'Reilly:

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket No. 50-416/417
License No. NPF-13
File 0260/15525/15526/16694.4
PRD-83/09, Final Report,
Comsip Inc., Containment Gas
Analyzer Panels
AECM-83/0516

On July 27, 1983, Mississippi Power & Light Company notified Ms. J. Watson, of your office, of a Potentially Reportable Deficiency (PRD) at the Grand Gulf Nuclear Station (GGNS) construction site. The deficiency concerns the effect of iodine released in a maximum credible accident on the catalyst used in the Comsip Model K-III containment gas monitoring system.

MP&L has determined that this deficiency is reportable under the provisions of 10CFR21 for Unit 1 and reportable under the provisions of 10CFR50.55(e) for Unit 2. Details are provided in our attached Final Report.

Yours truly,

AD
ACP:dr
ATTACHMENT

cc: See page 2

8309060001 830826
PDR ADOCK 05000416
S PDR

OFFICIAL COPY

IC 27
11

Mr. J. P. O'Reilly
NRC

AECM-83/0516
Page 2

cc: Mr. J. B. Richard
Mr. R. B. McGehee
Mr. T. B. Conner

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

Mr. G. B. Taylor
South Miss. Electric Power Association
P. O. Box 1589
Hattiesburg, MS 39401

FINAL REPORT FOR PRD-83/09

1. Name and address of the individual ... informing the commission:

J. P. McGaughy, Jr.
Vice-President, Nuclear
P.O. Box 1640
Jackson, Mississippi 39205

Notification of Part 21 applicability made to Mr. J. P. O'Reilly, NRC, Region II by letter AECM-83/0516, August 26, 1983. This deficiency was also reported under 10CFR21 by COMSIP, Inc. to the NRC in their letter dated April 13, 1983.

2. Identification of the facility ... which ... contains a deficiency:

Grand Gulf Nuclear Station (GGNS) Units 1 and 2
Port Gibson, Mississippi 39150

10CFR21 is not applicable for Unit 2 as the hydrogen analyzers have not been turned over to MP&L.

3. Identification of the firm ... supplying the basic component which ... contains a deficiency:

The hydrogen analyzers were manufactured by COMSIP, Inc., and supplied to Grand Gulf by Bechtel Power Corporation, Gaithersburg, Maryland.

4. Nature of the deficiency ... and the safety hazard which ... could be created by such a deficiency ...:

A. Description of the Deficiency

The deficiency involves the catalyst used in the containment gas analyzer in the Combustible Gas Control System (E-61). COMSIP, Inc. has advised that the catalyst may be degraded due to fission-fragment iodine which may be present in the containment atmosphere of a LOCA with core meltdown.

The thermal conductivity of the sample is measured before and after recombination in the catalyst cell and thus provides an indication of hydrogen present in the sample. Since the primary requirement for an accurate reading is to completely react all the hydrogen, degradation of the catalyst will result in the analyzer indicating progressively less hydrogen than actually exists.

B. Analysis of Safety Implications

The hydrogen recombiners are manually initiated by the operator and the recombiner power level adjusted to control the rate of recombination and maintain the hydrogen concentration in the containment below an explosive concentration. A lower than actual indication of hydrogen, due to a degraded catalyst cell, could result in an explosive concentration of hydrogen in the containment during accident conditions.

5. The date on which the information of such deficiency ... was obtained.

Mississippi Power & Light received information of the deficiency on May 25, 1983. We reported the deficiency to Ms. L. Watson, of your office, as a Potentially Reportable Deficiency for Unit 2 on July 27, 1983. An evaluation for Part 21 has been completed and the MP&L "Responsible Officer," Mr. J. P. McGaughy, Jr., has been notified.

6. In the case of the basic component ... the number and location of all such components.

There are eight (8) catalyst cells contained in the hydrogen analyzers Q1E61J001A&B and Q1E61J002A&B for Unit 1 and Q2E61J001A&B and Q2E61J002A&B for Unit 2.

We do not have knowledge of the location of other defective equipment.

7. The corrective action which has been taken ... the name of the individual ... responsible for the action; and the length of time that has been ... taken to complete the action.

A. Corrective Actions Taken

COMSIP, Inc. has recommended a replacement kit in which the catalyst beds have been replaced. The replacement kits are presently being ordered and are expected to be installed on or before December 31, 1983. Our Architect-Engineer/Constructor has issued MCAR 146 to track this condition for Unit 2 which will remain open until the replacement kits have been installed and accepted.

B. Responsible Individual

C. K. McCoy
Plant Manager
Mississippi Power & Light Co.
Responsible for Unit 1

T. H. Cloninger
Unit 2 Project Manager
Mississippi Power & Light Co.
Responsible for Unit 2

C. Length of Time to Complete Actions

Corrective actions for Unit 1 are expected to be completed on or before December 31, 1983. Corrective actions for Unit 2 will be completed by our Architect-Engineer/Constructor prior to fuel load.

8. Any advice related to the deficiency ... that has been, is being, or will be given to purchasers or licensees:

As the deficiency did not originate with MP&L, we have no advice to offer.