



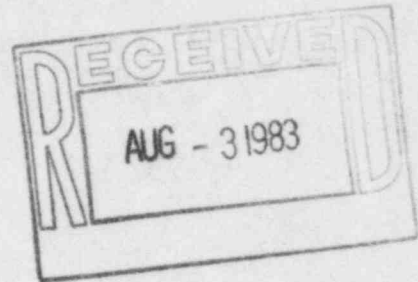
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July 28, 1983

W3I83-0248  
Q-3-A35.07.72

Mr. John T. Collins, Regional Administrator, Region IV  
U. S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76012



SUBJECT: Waterford SES Unit No. 3  
Docket No. 50-382  
Significant Construction Deficiency No. 72  
"Radiation Monitoring System RM-23 Control Modules"  
Final Report

REFERENCE: LP&L letter W3I83-0225 dated July 5, 1983

Dear Mr. Collins:

In accordance with the requirements of 10CFR50.55(e), we are hereby providing two copies of the Final Report of Significant Construction Deficiency No. 72, "Radiation Monitoring System RM-23 Control Modules".

If you have any questions, please advise.

Very truly yours,

F. J. Drummond  
Project Support Manager - Nuclear

Attachment

FJD/WAC/MAL:keh

cc: 1) Director  
Office of Inspection & Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555 (w/15 copies)

3) Mr. E. L. Blake

2) Director  
Office of Management  
Information and Program Control  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555 (w/1 copy)

4) Mr. W. M. Stevenson

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FINAL REPORT OF  
SIGNIFICANT CONSTRUCTION DEFICIENCY NO. 72  
"RADIATION MONITORING SYSTEM RM-23 CONTROL MODULES"

INTRODUCTION

This report is submitted pursuant to 10CFR50.55(e). It describes deficiencies which existed in the radiation monitoring system RM-23 modules. This deficiency is considered reportable under the requirements of 10CFR50.55(e).

General Atomic Technologies, Inc. of San Diego, California has informed LP&L that this problem has been reported to the Nuclear Regulatory Commission pursuant to 10CFR21.

DESCRIPTION

GA Technologies Inc. (the vendor) informed us that during start-up of a GA Radiation Monitoring System at a nuclear plant, an intermittent lock-up of the RM-23 display was observed. This lock-up apparently causes the "Channel Activity" display to freeze at the most recent activity value for each channel. Initially, it was thought that this condition was an anomaly related to the specific installation. However, as the RM-23 modules are safety related, further studies were conducted, and the results of these studies indicated that a general design problem within the RM-23 modules did exist.

SAFETY IMPLICATIONS

The main control board alarms for safety-related radiation monitors are connected to the RM-23 alarm contacts, which are dependent on RM-23 processed data. These monitors include the containment radiation monitors, the plant stack radiation monitors, the Fuel Handling Building radiation monitors, and other post-accident radiation monitors. Without operational RM-23 modules, the control room audible and visual alarms based on these monitors cannot be initiated. Although there are safety-related recorders which would provide radiation level information from these monitors as well as other indirect indications of the alarm condition, the primary alarm would be lost and therefore plant safety would be affected if this deficiency were left uncorrected.

CORRECTIVE ACTION

Nonconformance Report W3-5744 was initiated to track and document corrective action.

The vendor modified the RM-23 modules to provide them with more memory capacity which permits computer software changes to eliminate lock-ups.

All corrective action is complete and Ebasco (Engineering and Quality Assurance) has reviewed and accepted all the supporting documentation.

This report is submitted as the Final Report.