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March 21, 1983

L. V. MAURIN Vice President Nuclear Operations

W3183-0091 Q-3-A35.07.72

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

MAR 2 3 1983

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

REFERENCE: Telecon dated March 2, 1983, M. A. Livesay to W. A. Crossman

Dear Mr. Collins:

In accordance with the requirements of 10CFR50.55(e), we are hereby providing two copies of the Interim Report of Significant Construction Deficiency No. 72, "Radiation Monitoring System RM-23 Control Modules". This condition was originally identified as PRD 103.

If you have any questions, please advise.

Very truly yours,

V. Maurin

LVM/MAL:keh

Attachment

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PDR

- cc: 1) Director 3) Mr. Office of Inspection & Enforcement U. S. Nuclear Regulatory Commission Washington, D. C. 20555
 - Director Office of Management Information and Program Control U. S. Nuclear Regulatory Commission Washington, D. C. 20555

3) Mr. E. L. Blake

4) Mr. W. M. Stevenson

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

INTRODUCTION

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

To the best of our knowledge, this problem is being reported to the Nuclear Regulatory Commission pursuant to 10CFR21.

DESCRIPTION

GA Technologies Inc. informed us during start-up of one of (GA) Radiation Monitoring Systems at a nuclear plant, an intermittent lock-up of the RM-23 display was reported. 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, since the RM-23 modules are safety related, further studies were conducted and the results of these studies indicate that a general design problem with the RM-23 might exist.

SAFETY IMPLICATIONS

The main control room 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 wide range radiation monitors, the plant stack radiation monitors, the Fuel Handling Building radiation monitors, and other post-accident radiation monitors. Without RM-23, the audio 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 indictions of the alarm condition, the primary alarm would be lost and therefore plant safety would be affected if left uncorrected.

CORRECTIVE ACTION

Nonconformance Report W3-5744 was initiated to track and document corrective action. GA Technologies are modifying the RM-23's to provide them with more memory capacity which will permit computer software changes to eliminate these lock-ups.

Further information will be supplied to the NRC by May 10, 1983.