



**LOUISIANA**  
POWER & LIGHT

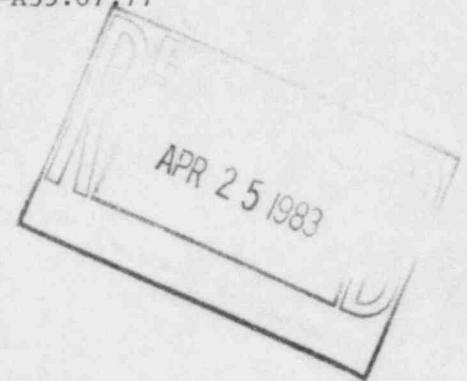
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April 20, 1983

L. V. MAURIN  
Vice President Nuclear Operations

W3I83-0129  
Q-3-A35.07, 77

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. 77  
"Inadequate Containment Purge Valves  
Closure Time and Flow Rate"

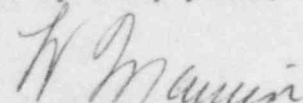
REFERENCE: Telecon from M. A. Livesay to J. Boardman (USNRC) on March 18, 1983

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. 77, "Inadequate Containment Purge Valves Closure Time and Flow Rate".

If you have any questions, please advise.

Very truly yours,

  
L. V. Maurin

LVM/MAL:keh

Attachment

- cc: 1) Director  
Office of Inspection & Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555
- 2) Mr. E. L. Blake
- 2) Director  
Office of Management  
Information and Program Control  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555
- 4) Mr. W. M. Stevenson

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FINAL REPORT OF  
SIGNIFICANT CONSTRUCTION DEFICIENCY NO. 77  
INADEQUATE CONTAINMENT PURGE VALVES CLOSURE TIME AND FLOW RATE

INTRODUCTION

This report is submitted pursuant to 10CFR50.55(e). It describes a condition relative to the closure time, as well as flow rate vs pressure drop for Containment Purge & Vent valves encountered during the Pre-Requisite Phase of Testing. The Containment Purge and Vent Valves failed to meet the maximum closure time required by design, as well as minimum flow predicted/established by Fisher Controls. This problem is considered reportable under the requirements of 10CFR50.55(e).

To the best of our knowledge this problem has not been reported pursuant to 10CFR21.

DESCRIPTION

During the prerequisite testing phase of Containment Purge and Vent Valves, it was realized that the valve closure time had varied between 11-18 seconds. This exceeds the designed closure time of 5 seconds. This deviation is attributed to the installation of one (1) solenoid valve instead of two (2) as required per original vendor's design. The removal of the second solenoid valve was made via design change notice DCN-NYC-IC-655. Also, DCN NYC-IC-1415 was issued to add the second pilot solenoid valve to improve valves venting time. It was also found that valves flow characteristics, namely flow and pressure drop, originally established by the vendor, could not be met. This had resulted in obtaining a flow rate of approximately 13,000 ACFM compared with a design flow rate of 17,000 ACFM. The total pressure drop was found to be approximately 16.5 INWG compared with a design value of approximately 10 INWG.

SAFETY IMPLICATIONS

The post accident off-site radiological dose calculations and the 10CFR50 Appendix K ECCS analysis were based on the Containment Purge Valves closing within their design closure time. Failure to do so could therefore invalidate these results and require reanalysis.

CORRECTIVE ACTION TAKEN

Nonconformance Report W3-5923 was issued on March 22, 1983, to monitor and track corrective action per the recommended disposition of this NCR, corrective action was implemented as dispositioned by our Engineering Site Support Group's response to CIWA's 833442 and 834307. However, due to the complexity, as well as time required to perform all needed testing, a final report will be issued to the USNRC by May 20, 1983.

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