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LOUISIANA / 142 DELARONDE STREET POWER & LIGHT / P. J. BOX 6008 • NEW ORLEANS. LOUISIANA 70174 • (504) 366-2345

July 29, 1981

D. L. ASWELL Vice President-Power Production

W3K -81-0275 Q-3-A35.07.31 Q-3-A35.02.01

Mr. K. V. Seyfrit, Director, Region IV U. S. Nuclear Regulatory Commission Office of Inspection and Enforcement 611 Ryan Plaza Drive, Suite 1000 Arlington, Texas 76012

SUBJECT: Waterford ^ES Unit No. 3 Docket No. 50-382 Interim Report of Significant Construction Deficiency No. 31 "Incorrect Friction Factor used in Design of Pipe Support Hangers"

Reference: T lecon - L. L. Bass (LP&L) to W. Hubacek (NRC) on July 7, 1981

Dear Mr. Seyfrit:

In accordance with the requirements of 10CFR50.55(e), we are hereby providing two copies of the Interim Report of Significant Construction Deficiency No. 31, "Incorrect Friction Factor Used in Design of Pipe Support Hangers."

If you have any questions, please advise.

Very truly yours,

DL aswell

D. L. Aswell

DLA/LLB/grf

Attachment

8108110331 910729

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PDR ADOCK

- cc: 1) Director Office of Inspection & Enforcement U. S. Nuclear Regulatory Commission Washington, D. C. 20555 (with 15 copies of report)
 - Director
 Office of Management
 Information and Program Control
 U. S. Nuclear Regulatory Commission
 Washington, D. C. 20555
 (with 1 copy of report)



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LOUISIANA POWER & LIGHT COMPANY

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WATERFORD SES UNIT NO. 3

Interim Report of Significant Construction Deficiency No. 31

Incorrect Friction Factor Used in Design of Pipe Support Hangers

Fin RJM: Miser Site Manager Reviewed by Milhiser -Reviewed by ¥ Superintendent Per Telecon Reviewed by Date Project 7-24-8/ Date Reviewed by Q. A. Site Supervisor Hartnett

July 24, 1981

INTERIM REPORT SIGNIFICANT CONSTRUCTION DEFICIENCY NO. 31 INCORRECT FRICTION FACTOR USED IN DESIGN OF PIPE SUPPORT HANGERS

INTRODUCTION

This report is submitted pursuant to 10CFR50.55(e). It describes a deficiency in the selection of friction factors used for the design of pipe supports supplied by Bergen Patterson. This problem is considered reportable under the requirements of 10CFR50.55(e). To the best of our knowledge, this problem has not been identified to the Nuclear Regulatory Commission pursuant to 10CFR21.

DESCRIPTION OF PROBLEM

In the design of supports for the Waterford 3 Project, Bergen Patterson used a variety of friction factors and eventually decided on a factor of 0.6 to be applied in the design calculations. It has been determined that friction factors other than 0.6 result ' in some supports which could not withstand design loads when the 0.5 factor was applied.

This deficiency has been reported via Nonconformance Report W3-2732 which identifies 289 pipe supports affected. At this time, we do not have a finite number of hangers affected. However, supplements to this Nonconformance Report will identify the total number.

The systems affected are as follows:

Safety-Related

Blowdown Boron Management Component Cooling Chemical Volume Control Containment Spray Emergency Diesel Generator Feedwater Fuel Pool Cooling Main Steam Reactor Coolant Safety Injection

Non-Safety-Related

Air Evacuation Auxiliary Steam Condensate Circulating Water Demineralized Water Extraction Steam Fuel Oil Fire Protection leater Drain Lube Oil Miscellanscus Drains Vent

SAFETY IMPLICATIONS

If this deficiency were left uncorrected, degradation of safety systems could possibly occur. Such degradation would occur by exceeding the design bending stresses of the subject pipe support structure. This deficiency also presents the potential for common mode failure within and between systems. Such failures are not analyzed in the FSAR.

CORRECTIVE ACTION

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Nonconformance Report W3-2732 has been written to identify and disposition this condition. As of this time, Bergen Patterson has completed a design re-review of 244 supports. Of these, Bergen Patterson has established that 108 supports require rework and 136 merely require paper work revisions (revised loads on hanger sketches). Rework of supports is being accomplished on a start-up system basis by Tompkins-Beckwith, Inc., Waterford 3 piping contractor. Corrective action will be completed by turnover of the system to LP&L. The Bergen Patterson review is presently scheduled to be completed by July 31, 1981. Corrective action will be accomplished and a Final Report submitted on or before April 1, 1982.