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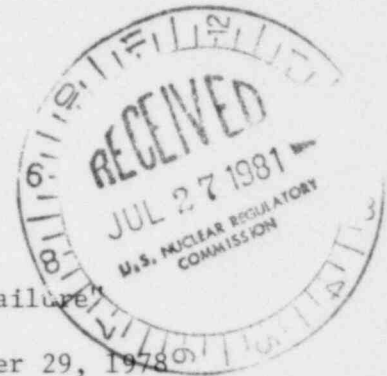
July 14, 1981

D. L. ASWELL
Vice President-Power Production

W3K81-0253
Q-3-A35.07.08

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 SES Unit No. 3
Docket No. 50-382
Supplemental Final Report for
Significant Construction Deficiency No. 8
"Containment Electrical Penetration Bolting Failure"



Reference: LP&L Letter to USNRC LPL 10342 dated December 29, 1978

Dear Mr. Seyfrit:

Attached herewith is a Supplemental Final Report on Significant Construction Deficiency No. 8 which provides a description of problems encountered in implementing the corrective action described in the Final Report of Significant Construction Deficiency No. 8 dated December 27, 1978, and the final corrective action taken to close this problem.

If you have any questions, please advise.

Very truly yours,

D. L. Aswell

DLA/LLB/grf

- cc: 1) Director
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555
(with 15 copies of report)
- 2) 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

WATERFORD SES UNIT NO. 3

SUPPLEMENTAL FINAL REPORT FOR
SIGNIFICANT CONSTRUCTION DEFICIENCY NO. 8
"CONTAINMENT ELECTRICAL PENETRATION BOLTING FAILURE"

Reviewed by *R. J. Milkiser* 7/6/81
R. J. Milkiser - Site Manager Date

Reviewed by *J. L. Wills* 7/6/81
J. L. Wills - Project Superintendent Date

Reviewed by *Joe Hart* 7-6-81
for J. Hart - Project Licensing Engineer Date

Reviewed by *R. A. Hartnett* 7-6-81
R. A. Hartnett - Q. A. Site Supervisor Date

July 6, 1981

SUPPLEMENTAL FINAL REPORT FOR
SIGNIFICANT CONSTRUCTION DEFICIENCY NO. 8
"CONTAINMENT ELECTRICAL PENETRATION BOLTING FAILURE"

INTRODUCTION

This report is submitted pursuant to 10CFR50.55(e) (3). It describes deficiencies in containment electrical penetrations at Waterford Unit No. 3.

BACKGROUND

A. Synopsis of Incident

During the installation of Conax Corporation containment electrical penetrations at the Waterford Unit No. 3 Project, it was noted that the bolted connections that connect the horizontal channel sections of the termination subassembly to the header mounting brackets were loose or disengaged. Conax Corporation has confirmed that this method of attachment was employed in 32 low voltage control and instrumentation penetrations.

B. Resolution

Conax Corporation has modified their design for Waterford 3 such that the pemnuts are welded in place, in lieu of the pressed connections in question.

DISCUSSION

The "pemnuts" were installed by Conax Corporation (manufacturer's drawings 7320-10001, Ebasco No. 1564-2332 R3). The problem identified at Waterford 3 cast doubt on the seismic capabilities of the "pemnuts" although further investigations would be necessary to make a conclusive statement. A management decision was made to modify the design rather than undertake an extensive evaluation program to justify the acceptability of the design.

We have been informed by Conax Corporation that the "press fit" pemnut design has been utilized in electrical penetration terminal block mounting brackets delivered to Millstone Nuclear Power Station Unit 3, North Anna Units 3 and 4, St. Lucie Plant Unit 2 and LaSalle County Station Unit 1.

SUPPLEMENTAL PROBLEM DESCRIPTION

Subsequent to receipt of the modified connections (welded pemnuts in lieu of pressed connections) at the Waterford Site and during attempts to install the brackets, it was detected that the workmanship of the weldments was not of desired quality and in some cases very poor. Deficiencies detected included pinholes, undercut and lack of fusion. These observations cast doubt and concern with regard to the capability of the pemnuts to remain in place and perform as required. Investigation into the cause revealed that the probable cause of this poor workmanship was attributed in part to the welding technique used, that being the lack of proper base metal preparation.

SUPPLEMENTAL CORRECTIVE ACTION

Due to construction schedule constraints, a site contractor, Tompkins-Beckwith, Inc., was permitted to perform weld repairs and reweld the pemnuts in accordance with Field Change Request FCR-E-911. The vendor, Conax, was apprised of the deficiencies detected and required to provide certification for subsequent shipments certifying that the pemnuts successfully passed a torque test of 100 inch-pounds in compliance with Conax procedure IPS-374 and IPS-151 R/1.

The Ebasco Site Quality Assurance organization confirmed the acceptability of the modification through visual inspection of the weldments and by subjecting the pemnuts to a torque test thereby establishing the capability of the modification.

Fischbach & Moore, Inc., completed the installation of the 98 electrical penetration mounting flanges on April 14, 1981. The mounting flange bolts were torqued to 75 ± 25 inch-pounds at time of installation in accordance with Conax procedure IPS-151 R/1.