

11. LOUISIANA POWER & LIGHT COMPANY  
WATERFORD SES - UNIT NO 3

FINAL REPORT OF  
SIGNIFICANT CONSTRUCTION DEFICIENCY NO 8

CONTAINMENT ELECTRICAL PENETRATION  
BOLTING FAILURE

DECEMBER 27, 1978

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INTRODUCTION

This report is submitted pursuant to 10CFR50.55(e)(3). It describes deficiencies in containment electrical penetrations at Waterford Unit 3.

BACKGROUND

A. Synopsis of Incident

During the installation of Conax Corporation containment electrical penetrations, at the Waterford Unit 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 (manufacturers 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.

CORRECTIVE ACTION

The termination sub-assembly connections have been redesigned to utilize welded pemnuts. The modified connections have now been received at the Waterford 3 project and the modification procedure has been approved. Work to change out the connections will be accomplished to support the construction plan.

POOR ORIGINAL