



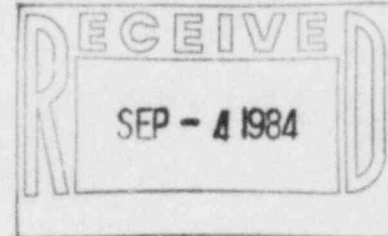
**LOUISIANA**

POWER & LIGHT/Waterford 3 SES/P. O. Box B/Killona, LA 70066

August 28, 1984

W3K84-2013  
Q-3-A35.07.116

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



REFERENCE: Telecon C. Hooper (LP&L) and R. Mullikin (NRC IV) on July 26, 1984

Dear Mr. Collins:

SUBJECT: Waterford SES Unit No. 3  
Docket No. 50-382  
Significant Construction Deficiency No. 116  
"Failure of Static Uninterruptable Power Supply (SUPS) Inverters"  
First Interim Report

In accordance with the requirements of 10CFR50.55(e), we are hereby providing two copies of the Interim Report of Significant Construction Deficiency No. 116, "Failure of Static Uninterruptable Power Supply (SUPS) Inverters." This item was previously identified as PRD No. 176.

Very truly yours,

T. F. Gerrets  
Corporate Quality Assurance Manager

TFG:CNH:VBR

Attachment

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

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cc: Director  
Office of Management  
Information and Program Control  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

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1800 M Street, N.W.  
Washington, D.C. 20036

Mr. W. M. Stevenson  
Monroe & Lemann  
1424 Whitney Building  
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Institute of Nuclear Power Operations  
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FIRST INTERIM REPORT  
SIGNIFICANT CONSTRUCTION DEFICIENCY NO. 116  
"FAILURE OF STATIC UNINTERRUPTABLE POWER SUPPLY (SUPS) INVERTERS"

INTRODUCTION

This report is submitted pursuant to 10CFR50.55(e). It describes a problem associated with the Static Uninterruptable Power Supply (SUPS), namely, capacitor failures in the inverter output at the Constant Voltage Transformer (CVT). It also describes subsequent corrective actions taken on the SUPS unit to preclude recurrence.

This has not been reported to the USNRC pursuant to 10CFR21.

DESCRIPTION

Waterford 3 had recently experienced numerous inadvertent trips of the safety related & non-safety related SUPS units which resulted in an investigation to determine the cause of the trips. A total of seven (7) failed capacitors were identified of which six (6) were found in the following class 1E inverters: SUPS 3MA-S, 3MB-S, and 3MD-S containing one (1), two (2), and three (3) failed capacitors, respectively. Additional problems have been experienced with setpoints on all AC and DC voltage sensing boards. The cause of capacitor failures is not conclusive, however, discussions with Solid State Controls Incorp. (SCI) have indicated that these failures are not unique to Waterford 3. We have transmitted four (4) failed and one (1) good capacitors for their evaluation of the cause of the failure as well as a request to examine whether or not this is a generic concern. All the capacitors supplied by SCI have identification code CDE KBXK1056PI, style 020138, and date coded 8139.

SAFETY IMPLICATIONS

If left uncorrected, a common-mode failure of the SUPS units due to failed CVT capacitors can result in the loss of power to all safety related buses, thereby compromising the capability to assure the safe operation of the plant.

CORRECTIVE ACTIONS

All capacitors (72) have been replaced with a newly qualified capacitor (style 020 139). Additionally, all AC-DC sensing boards have been replaced. Maintenance procedures have been revised for procedurally setting setpoints as well as the numerical value of the setpoints. FSAR commitments such as voltage regulation verification and response to transient conditions have been retested. No trips have occurred since replacement of capacitors and sensing boards. Test data is currently undergoing final review. Project Engineering in concert with SCI are still attempting to determine cause of capacitor failure.

An update or Final Report will be submitted to the USNRC on or before September 30, 1984.