



**LOUISIANA  
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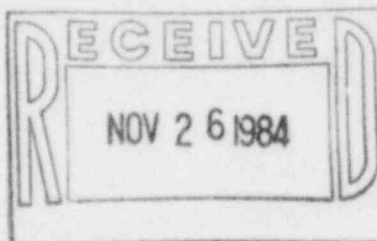
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November 21, 1984

W3P84-3250  
Q-3-A35.07.112  
3-A1.01.04  
A4.05

Mr. John T. Collins  
Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, TX 76011



Dear Mr. Collins:

Subject: Waterford 3 SES  
Docket No. 50-382  
SIGNIFICANT CONSTRUCTION DEFICIENCY NO. 112  
"Design Changes Via Memoranda"  
Final Report

Reference: LP&L letter W3P84-2696 dated October 30, 1984

The referenced letter submitted an interim report for SCD-112 with a Justification for Interim Operation pending completion of the review and evaluation of the Mercury NI instrument installations. Subsequently, NRC Region IV Inspector, C.E. Johnson, revisited the Waterford 3 site during the period of November 5-15, 1984 for final inspection toward closure of SCD-112. Additionally, the remaining corrective action for SCD-112 was completed.

LP&L has completed its evaluation and has determined that SCD-112 is not a reportable deficiency per 10CFR50.55(e) on the basis of unfounded significance to operational safety. Enclosed are two copies of the final report on SCD-112. Further details on the deficiency are available in our files should NRC desire additional information.

Very truly yours,

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PDR ADDCK 05000382  
S PDR

K.W. Cook  
Nuclear Support & Licensing Manager

KWC:GEW:sms

Enclosure

cc: NRC, Director, Office of I&E (15 copies)  
NRC, Director, Office of Management  
G.W. Knighton, NRC-NRR  
D.M. Crutchfield, NRC-NRR  
C.E. Johnson, NRC Region IV  
E.L. Blake  
W.M. Stevenson  
INPO Records Center (D.L. Gillipie)

IE-2711

FINAL REPORT FOR  
SIGNIFICANT CONSTRUCTION DEFICIENCY NO. 112  
"DESIGN CHANGES VIA MEMORANDA"

INTRODUCTION

This report is submitted pursuant to 10CFR50.55(e). It describes the transmittal of design changes without the issuance of an applicable design change document. The review has been completed with no items of safety significance identified. This item has since been determined not to be reportable pursuant to 10CFR50.55(e).

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

DESCRIPTION OF PROBLEM

During the Ebasco Quality Assurance Review of J.A. Jones Speed Letters and Engineering Information Requests (EIRs), 271 items were identified that transmitted design changes without reference to formal design change documents. This correspondence was between J.A. Jones and Ebasco Construction Engineering. The review of these items found that, for many, no formal design change documents had been issued. The subject of these changes consisted typically of relocations of embedded items to clear interferences and the addition of rebar splices.

SAFETY IMPLICATIONS

The safety significance of this concern is that design changes adversely affecting plant safety may have been made informally circumventing the programmatic review and follow-up action to formalize the change. Based on results to date, this has not been found to be the case.

The review for J. A. Jones did not find any changes that affect plant safety. The results of the review of all other safety related contractors has also been completed with no items of safety significance noted as indicated in Attachment 1. Therefore, if left uncorrected, the safe operation of the plant would not be adversely affected.

CORRECTIVE ACTION

A review of approximately 2100 J.A. Jones Speed Letters and EIR's was conducted. Of the 2100 documents reviewed, 271 appeared to convey design changes without proper documentation. These 271 have been evaluated and researched on a case-by-case basis. 104 were found to have proper documentation in the form of a FCR, DCN, NCR or specification governing J.A. Jones installations. The remainder have been determined to be acceptable-as-is by way of engineering analysis. As no rework was initiated as a result of this review, there is no impact on plant safety.

To determine if items which modified existing design were noted on informal documents, such as speed letter and EIR's by contractors other than J.A. Jones, a sample program was developed. The sample program consisted of a minimum 10% review of the documents of this nature for each contractor performing safety related work. Any contractor with 50 or less documents received a total review. Based on the type or number of findings, the reviews were expanded as deemed appropriate. The review and evaluation has been completed for all safety-related contractors. Attachment 1 presents a summary review of safety-related contractors with the exception of J. A. Jones which is summarized as stated in the Corrective Action.

A nonconformance report was written for a contractor, if required, to document the conditions found during the sampling of that contractor's information requests and track the information and approval of corrective action.

To preclude recurrence of this concern, Ebasco has further instructed those individuals involved in the implementation of ASP-IV-56 (Control of Information Requests Between Ebasco and Site Contractors). Emphasis was given to the appropriate documentation of design changes.

In addition, the Station Modification (SM) process, now in effect at Waterford (Plant Operating Manual Procedure PE-2-006), defines the method for accomplishing hardware modifications and the updating of documentation to reflect as-built conditions from initiation through closure. Use of a Detailed Construction Package Change (DCPC) document is also discussed in the procedure. A DCPC is a formal request for change when work associated with a station modification cannot be accomplished in accordance with the detail construction package instructions which requires the responsible engineer's approval prior to implementation. Subsequent to implementation, the DCPC is incorporated as a revision to the Station Modification Package.

## ATTACHMENT 1

SUMMARY OF REVIEW OF SAFETY RELATED CONTRACTORS

SAFETY RELATED CONTRACTORS	APPROXIMATE TOTAL QUANTITY OF DOCUMENTS	SAMPLE SIZE	ITEMS (1) IDENTIFIED	SAFETY SIGNIFICANCE
Tompkins-Beckwith	6600	661	0	0
Fischbach & Moore	6400	1271	3	0
Mercury	3052	3052	249 (2)	0
Nisco	559	56	0	0
Gulf Engineering	603	61	0	0
American Bridge	775	775	69 (8.9%)	0
Nooter	N/A	N/A	N/A	0
Combustion Engineering	N/A	N/A	N/A	0
GEO	46	46	0	0
B&B	541	N/A	N/A	0
Waldinger	1178	117	0	0
Fegles	42	42	8 (19%)	0
CBI	N/A	N/A	N/A	0
Sline	118	12	0	0
<u>Ebasco Construction</u>				
(1) Mechanical	105	105	37 (35%)	0
(2) Electrical	1500	155	0	0
(3) Instrumentation	540	54	0	0
(4) Pipe Supports	1700	174	10 (5.7%)	0
(5) Civil	42	42	20 (47%)	0
TOTAL	23,777	6,621	396 (5.9%)	0

(1) "Items Identified" is defined as the number of individual information requests which violated the design control program.

(2) In accordance with Design Installation Details (LOU 1564-B-430) Construction Engineering was authorized to approve minor deviations from the Installation Guidelines and Details.