



910 CLOPPER ROAD  
GAITHERSBURG, MARYLAND 20878-1399  
(301) 258-8000

PDR  
50-382

NUS-W3-A760  
November 30, 1984

Mr. J. M. Cain  
President and Chief Executive Officer  
Louisiana Power and Light Company  
317 Barrone Street  
New Orleans, Louisiana 70160

Dear Mr. Cain:

As indicated in its October 12, 1984 letter, the Task Force is continuing to complete its evaluations of individual LP&L responses to the 23 issues.

Issue 20, Construction Material Testing (CMT) Personnel Qualification Records

This issue, in the view of the Task Force, does not represent a constraint on fuel load or power operation of the plant.

Task Force members L. L. Humphreys and R. L. Ferguson have reviewed and concurred in this report. A letter from the Task Force authorizing my submittal of this report to you has been issued on this date and a copy will be sent directly to you and Mr. D. G. Eisenhut of the NRC.

Sincerely,

Peter V. Judd  
Project Manager  
Prelicensing Issues  
Task Force Support Group

PVJ/cn  
Enclosure  
cc D. G. Eisenhut  
D. Crutchfield

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## PRELICENSING ISSUES TASK FORCE REPORT

Issue 20: Construction Material Testing (CMT) Personnel Qualification Records

## 1. NRC Instructions

The NRC instructed LP&L to (1) conduct a review of supporting documentation for GEO corrective action stated in Attachment 6 of NCR W3-F7-116 (EBASCO W3-6497); (2) the review should focus on individuals who were apparently qualified on written statements by others attesting to the individual's training and qualifications; and (3) for such cases LP&L should pursue any new information or evaluations which could provide further assurance in support of the actual past work experience and training referenced by the written statements.

## 2. Task Force Evaluation

- a. The LP&L response to Issue 20, Revision 1, issued November 21, 1984, indicated LP&L performed a 100 percent review of GEO (CMT) inspection personnel qualification and certification records and, where possible, verified past work experience through a background investigation. This review was to verify that each inspector's qualifications met or exceeded the requirements of ANSI N45.2.6-1973 and/or -1978.

The TFSG requested GEO (CMT) to identify those inspectors who were responsible for Cadweld Splice Tensile Tests. GEO (CMT) supplied a list of 32 inspectors who were involved in Cadweld Splice Tensile Tests. The TFSG reviewed GEO (CMT) logs to verify that the list was correct and verified that 16 of the inspectors did not meet the requirements of ANSI N45.2.6. LP&L concurred with this finding; and Revision 1 of the LP&L response to Issue 20, issued November 21, 1984, addresses the disposition of the finding.

The Task Force Support Group (TFSG) as part of its validation effort randomly selected fifteen (15) GEO (CMT) inspector qualification and certification records for independent review out of a total of 64 inspectors who had been verified by LP&L as meeting the requirements of ANSI N45.2.6. The TFSG evaluation of these 15 inspectors' records resulted in the conclusion that those inspectors identified by the LP&L review as being qualified did meet the requirements of ANSI N45.2.6.

The final results of LP&L's review of GEO (CMT) inspection personnel identified 82 inspectors who did not meet the requirements of ANSI N.45.2.6. The TFSG verified that the inspectors who did not meet the requirements of ANSI N45.2.6 were properly identified, and a Corrective Action Report (CAR) EQA 84-21SI was issued for disposition. The TFSG reviewed the disposition action taken to resolve the CAR as stated in the LP&L response and in Reference 3 to that document, "Engineering Evaluation Report on the Review and Analysis of the Work of GEO (CMT)." The results of the TFSG review are covered in paragraphs b, c, and d of this report.

The Task Force considers the LP&L response to Issue 20, Revision 1, issued on November 21, 1984, to be appropriate to the NRC instructions.

- b. The TFSG concurs that a cylinder break test is an indicator of quality and strength of concrete placed in the structures and thus is the most important test. A technician can perform a break test satisfactorily after a brief training by a qualified individual. An improper testing of a concrete cylinder would result in a lower compressive strength value. The TFSG has reviewed the statistical studies of concrete compressive strength tests performed in accordance with American Concrete Code ACI-214 by LP&L. The TFSG has verified that the overall coefficient of variance for all concrete mixes ranged from 7.45 percent to 10.32 percent, indicating good to very good control, and the within-test coefficient of variation ranged from 1.07 percent to 2.00 percent, indicating very good to excellent control of testing operation as compared to the standards of control of ACI-214.
- c. The TFSG concurs with LP&L that an in-place density test determines whether the backfill material has been compacted as required by the specification and thus is the most important test. A technician can perform the in-place density test satisfactorily after being trained by a qualified individual. The TFSG has reviewed the backfill statistical studies performed on the in-place density tests and concluded that the Class "A" backfill was constructed in accordance with the relative density requirements of the EBASCO Specification LOU-1564.482, filler, and backfill. The standard deviation was found to be within the specified tolerances. Other field and laboratory tests were conducted to ensure a good control of the soil material and compaction process but did not provide direct data for determination of the specification compliance.
- d. The TFSG has reviewed the procedure to perform a break test on cadwelds and concluded that a technician can perform this test satisfactorily after being trained by a qualified individual. The TFSG has reviewed the cadweld break test results and found that the average tensile strength of the cadwelds is in compliance with the specification requirements.

### 3. Summary

The TFSG conducted a review of Corrective Action Report (CAR) EQA 84-21S1, Attachment 6 of NCR W3-F7-116 (EBASCO W3-6497), and the Engineering Evaluation Report on the Review and Analysis of the Work of GEO (CMT) (Reference 3 of the LP&L November 21, 1984, response to Issue 20). The Task Force concludes that LP&L has properly addressed the NRC concern and that appropriate corrective action has been taken.

### 4. Cause, Generic Implications, and Safety Significance

The cause of this issue was improper implementation of ANSI N45.2.6-1973. GEO (CMT) issued certifications to testing personnel without properly

documenting other factors used as substitution for education and experience. LP&L has performed 100 percent review of GEO (CMT) inspection personnel qualification records and has issued a Corrective Action Report for dispositioning the inspection activities of QC inspectors whose qualifications could not be verified. Based on the TFSG review and concurrence with the action taken to disposition CAR EQA 84-21S1, the Task Force believes that this issue has no remaining safety significance and therefore poses no constraint to fuel load or power operation of the plant.