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Task: Allegations A-112, A-131, A-269

Reference No.: 4-84-A-067; ~~4-84-A-068~~; ~~4-84-A-069~~ 151

Characterization: It is alleged that certain J. A. Jones Construction Company concrete placement packages were incomplete, inspectors were not certified to inspect concrete placements, (2) the placement packages had been tampered with. placement packages indicated a failure to implement specifications and procedures and that records in

Assessment of Allegation: The alleger stated that concrete placement packages 765-1-35, 570-S03-31, 593-S01-UZ3ZAA, 558-2-31, 503-9, and 503-10 had records missing from the folders, including required documentation related to installation, inspection, acceptance of safety-related items, and testing. It was also alleged based on a referenced memorandum that J. A. Jones inspectors involved in concrete placement activities were not certified to perform those activities, that available documents indicated failure of J. A. Jones inspectors to implement specification and procedure requirements, and that J. A. Jones inspectors accepted items outside the criteria set forth in the project specifications and procedures. Also, the alleger alluded to records tampering in the form of unauthorized changes and additions to concrete placement packages; a specific example was the absence a curing log for placement 593S01-UZ3ZAA, indicating a possible violation of 10 CFR 50, Appendix B, Criterion XVII.

The NRC staff reviewed placement packages 765-1-35 and 558-2-31 and judged them to be complete; the following documents appeared in the packages as required:

1. Concrete Pre-Placement Checklist Record (J. A. Jones),
2. Concrete Pre-Placement Checklist Record (Ebasco),
3. Daily Concrete Inspection,
4. Concrete Curing Data ~~(J. A. Jones)~~,
5. Concrete Placement Inspection,
6. Concrete Test Record,

7. Concrete Physical Tests.
8. Concrete Pour Plan.
9. Embed Map Log (if applicable).
10. Cadweld Location (if applicable).
11. Requisition on Warehouse (if applicable).
12. Concrete Mix Delivery Tickets.

The NRC staff also reviewed placement packages 503-9 and 503-10. The packages were complete for items 1 through 8 above; items 9 through 12 were not applicable since they referred to dry packing only.

The NRC staff found that Placement package 570-S03-31 did not contain concrete test records. However, discussions with Ebasco personnel indicated that the test records were filed separately by date and cross referenced to other concrete placement packages. A master test record existed; this was then verified by the NRC staff for placement package 570-S03-31.

The NRC staff review of J. A. Jones concrete placement packages indicated no safety-related problems. However, in order to provide a more generic assessment, the staff reviewed specific NCRs generated as a result of LP&L's 100% review after the allegation had been made. Thirty-three NCRs had been generated to define the deficiencies; the summary follows:

1.	Related to Mix Design	7
2.	Personnel Qualifications	16
3.	Curing Discrepancies	7
4.	Miscellaneous	3
	Total	33

Note: Each NCR, in general, addresses multiple placement packages.

As discussed below, the review of the engineering disposition of NCRs in Categories 1, 3 and 4 did not indicate any impairment of the structural integrity of concrete placements. The NRC staff agrees with the dispositions. The disposition of NCRs filed on missing documents indicated primarily a problem in classifying placements. For example, when a log or record contained information on multiple placements, it was placed in the documentation package of only one of the placements; however, the records were available. A number of Windsor probe tests were conducted when strength test records could not be located or deduced. Some of the mix design deficiencies were also resolved by conducting field tests. The mix designs AAA41D and E were accepted on the basis of a Portland Cement Association report. Also, curing log deficiencies were addressed by examining the weather conditions during the curing period, and by field tests in some cases. The NRC staff review indicated that the concerns raised in the allegation regarding the concrete placement packages were addressed adequately in the disposition of the NCRs.

The NRC staff informed the alleger of the results of LP&L's 100% review. Based on the discussion with the alleger, it was the NRC staff's impression that the alleger was primarily concerned ~~with completeness of~~ whether the review of the placement packages was completed ~~rather than the quality or structural adequacy of the~~ and whether all the facts related to the actual placements were considered by Ebasco engineering and the NRC.

For the aspects of this allegation related to Cadwelding activities and waterstops, the following allegations should be referred to:

Cadwelding - Missing Documents - A-147;
Uncertified Inspectors - A-110/~~A-~~130/~~A-~~148;
Failure to Implement Specifications and Procedures - A-146/157, A-115/155;

Waterstops - All Issues - A-129

Regarding the part of this allegation concerning unauthorized changes made to curing records of placement package 593S01-UZ3ZAA, the NRC staff made the following observations. Two copies of the curing log for placement package 593S01-UZ3ZAA were found in the records, one of the copies listed three other placements on the record without any appropriate explanations. LP&L found the original curing logs for two of the placements listed in the QA records. For placement package 593-S01-UZ4FHAA, which was also listed on the log, no original curing log was found. Assuming that the same inspector very likely observed curing of the four placements (columns in the fuel handling building) concurrently and that the conditions of the placements were very similar, LP&L decided to substitute the curing log for placement package 593S01-UZ3ZAA in the QA records of placement package 593-S01-UZ4FHAA. Based on the comparison of three original logs, the curing conditions were found to be very similar.

Further, noting that, for three of the four placements, original logs were located, it was reasonable for the NRC staff to assume that the original curing log for one placement was lost and that no marked differences in curing occurred for the four closely spaced columns. Thus, there did not appear to have been an attempt to manufacture curing records. Based on the explanations provided in LP&L's letter of April 27, 1984 to the NRC, it can be further concluded that, in general, there were no attempts to manufacture curing records. Also, as described earlier, all curing deficiencies were addressed by the NCRs noted above (NCR-3165 addressed the problem discussed above for some other placements).

Based on the review activity, the NRC staff concluded that the part of this allegation regarding incomplete concrete placement packages and alleged tampering with record was, generally, related to recordkeeping activities. It did not appear that safety significant deficiencies existed in these placement packages . Further, there was no evidence that there were significant J. A. Jones deviations from project specifications, although there appeared to be some laxness in recordkeeping and control.

This technical conclusion is contingent upon the results of investigations being performed by the NRC Office of Investigations, and further technical evaluations may be necessary depending on the outcome of these investigations.

The part of this allegation concerning uncertified J. A. Jones inspectors is addressed in Allegation A-110, A-130, and A-148.

Potential Violations: The failure of the licensee to maintain a concrete curing log for placement 593-S01-UZ4FHAA constitutes a failure to meet Criterion XVII of 10 CFR 50, Appendix B. It is required that sufficient records shall be maintained to furnish evidence of activities affecting quality, and that the records shall be retrievable.

Actions Required: None.

References

1. Concrete placement packages for placement Nos. 765-1-35, 570-S03-30 and 31, 593-S01-UZ3ZAA, 558-2-31, and 503-9 and 10.

2. NCRs: 7353, 7425, 7358, 7398, 7356, 7357, 7313, 7399, 7395, 7434, 7423, 7302, 7315, 7435, 3165

   reorder by no. indicated

3. Letter from R. S. Leddick of LP&L to D. G. Eisenhut of NRC, dated April 27, 1984.

4. Memorandum from J. Davis to R. S. Leddick, dated December 22, 1983.

5. W-SITP-7, Inspection of Concrete Placing, Curing, Finishing and Repair, J. A. Jones Site Inspection and Test Procedure.

6. Memorandum from J. Davis to M. Burgan, dated December 9, 1982.

Statement Prepared By: _____ _____
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