

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-498/85-23  
50-499/85-20

CP: CPPR-128 and 129

Docket: 50-498 and 50-499

Licensee: Houston Lighting & Power Company (HL&P)  
P. O. Box 1700  
Houston, Texas 77001

Facility Name: South Texas Project, Units 1 and 2

Inspection At: S. Levy Inc., Campbell, California

Inspection Conducted: September 11 through December 20, 1985

Inspectors: *B. A. Breslau* 2/12/86  
B. A. Breslau, Reactor Inspector, Project  
Section C, Reactor Projects Branch Date


*D. A. Powers* 2/13/86  
D. A. Powers, Enforcement Officer Date

*G. L. Madsen* 2/12/86  
G. L. Madsen, Reactor Inspector  
Comanche Peak, RIV Group Date

*G. L. Constable* 2/13/86  
G. L. Constable, Chief, Project Section C,  
Reactor Projects Branch Date

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Approved:

  
G. L. Constable, Chief, Project Section C,  
Reactor Projects Branch2/19/86  
DateInspection SummaryInspection Conducted Between September 11, 1985 and December 20, 1985  
(Report 50-498/85-23; 50-499/85-20)

Areas Inspected: Reactive, unannounced inspection of applicant's policies, procedures, and implementation relating to the identification and dispositioning of assertions associated with the Houston Lighting & Power Company vs. Brown & Root Litigation Record. The inspection involved 172 inspector-hours at the SLI facility located in Campbell, California, by four NRC inspectors. Additional inspector hours were spent reviewing documentation in Region IV offices.

Results: Within the areas inspected, no violations or deviations were identified.

DETAILS1. Persons Contacted

- \*D. F. Bednarczyk, Project QA Supervisor, HL&P
- \*J. B. Anderson, Senior QA Specialist, HL&P
- \*S. Levy, President, S. Levy, Inc. (SLI)
- \*C. B. Johnson, Team Leader, SLI (Manager)
- \*G. J. Walke, QA Manager, SLI
- \*M. R. Wisenburg, Manager, Nuclear Licensing, HL&P
- \*W. E. Baer, Attorney, Newman & Holtzinger, HL&P
- \*F. A. White, Lead Engineer, HL&P
- E. Duke, QA Specialist, SLI
- M. McKenna, Computations Manager, SLI
- V. Jones, Records Management, SLI
- R. Brugge, Training Instructor, SLI
- J. Kjembrup, Project Coordinator (Team Leader), SLI
- A. Engler, Reviewer, SLI
- G. Roy, Disposition Squad Leader, SLI

In addition to the above personnel, the NRC inspectors held discussions with various technical and administrative members of HL&P's and SLI's staff.

\*Denotes those present at exit interview.

2. Introduction

On August 30, 1985, Houston Lighting & Power Company (HL&P) submitted the South Texas Project (STP) Litigation Review Program to the NRC. During October 1985, S. Levy, Inc. (SLI) began the review of the litigation record for HL&P. The NRC has reviewed the review program and has completed three inspections of this review effort.

Training	September 11, 1985
Program Implementation	November 12-15, 1985
Resolution of Assertions	December 16-20, 1985

The results of these inspections are documented below.

The purpose of this inspection effort was to ascertain the effectiveness of the HL&P/SLI review effort and to determine if the review was being conducted in accordance with the review program and to review HL&P's resolution of NRC comments on their review program. To date, the review has identified approximately 5,600 assertions (potential deficiencies in systems, structures or components or their associated design or quality documents), many of which are redundant. The dispositioning of these assertions is in progress and is expected to be completed during January 1986. HL&P will issue a final report shortly after the completion of the review.

### 3. Organization

The NRC inspectors reviewed the litigation review organization to ascertain how the various elements of the organization implement the program.

The organization includes approximately 58 people. Many of the technical specialists are retired General Electric employees with many years of nuclear experience. The SLI QA organization consists of a QA manager and three QA specialists

The NRC inspectors interviewed individuals from the following organizational elements:

- Lead Engineer (HL&P)
- Project QA Supervisor (HL&P)
- Team Leader Project Manager (SLI)
- QA Manager (SLI)
- QA Specialist (SLI)
- Reviewer
- Computations Manager
- Training
- Records Management
- Project Coordinator/Team Leader (SLI)

The NRC inspectors observed that SLI management was heavily involved with the overall review. The review team leader (SLI manager) had personally reviewed the work of each reviewer and had acted to change his organization as necessary to achieve the objectives of the review. The NRC inspectors observed that all the work of some individuals was re-reviewed because of unsatisfactory results which had been identified by various evaluations.

The management and QA organizations have each identified weaknesses in program implementation. When identified, the problems were promptly and thoroughly resolved by stopping work, managing the reviewers and causing re-reviews and retraining to be conducted as necessary.

No violations or deviations were identified.

### 4. Qualification of Personnel

The NRC inspectors reviewed the resumes of the participants involved in the review process. The review indicated that the individuals met the managerial/technical experience and educational levels for the positions they were certified to perform. SLI had noted that one reviewer did not

possess an engineering degree. SLI requested and received a waiver from HL&P for this individual based upon the years of experience this individual possessed. Subsequently, this individual and two others were removed from the project because of inadequate document reviews. SLI has conducted a re-review of those documents which were previously reviewed by the individuals removed from the project.

No violations or deviations were identified.

## 5. Training

The NRC inspectors reviewed training course material for individuals utilized for identifying assertions in the litigation records and identifying project documents which show that the issues have been properly addressed. On September 11, 1985, an NRC inspector attended a SLI training session for personnel who were scheduled to perform the HL&P vs. Brown & Root litigation review. The training session was conducted at the SLI facilities in Campbell, California. Approximately a dozen people were in attendance as students or trainers. Classroom instruction was complemented by video tape presentations and two notebooks; one on the lesson plan and one on historical information, purpose of the project, work procedures, position descriptions, policies, etc. All personnel who will be working under the HL&P/SLI contract were informed of the mechanics of the work to be accomplished, admonished on the need to produce quality work, and informed of the incentive awards to be given at the conclusion of the contract's performance period. Also, during the training session personnel were instructed on the SLI and HL&P quality assurance program, which will run concurrently with the review effort. These programs oversee and randomly sample work products from all disciplines involved.

The quality of training, prepared material, and various steps that were taken to ensure reviewer alertness to assertions was deemed adequate for the purposes intended. Those in attendance as students and trainers appeared appropriately responsive to the guidance given.

An NRC inspector's review of training records revealed that all participants have received the required training and were certified to perform one or more of the following litigation review functions: (a) Reviewer, (b) Discipline Specialist, (c) Overview Specialist, and (d) Team Leader. HL&P and SLI QA coverage of the initial assertions review process noted items which were not being identified. The review process was stopped and all participants received a refresher training course. Litigation material that was reviewed prior to this time was re-reviewed. These training sessions appear to have provided adequate guidance for the identification of potential safety-related deficiencies in the design and construction work for STP.

No violations or deviations were identified.

## 6. Review of Procedures

The NRC inspectors reviewed the following Litigation Review Program implementing procedures. The purpose of the review was to determine, on a sample basis, that the implementing procedures provided adequate guidance when used in conjunction with the training program to assure that the overall program would be properly implemented.

<u>Title</u>	<u>Revision</u>
SLI Project Plan	0
SLI Review of HL&P vs. B&R Litigation Record	0
SLI Review of HL&P vs. B&R Litigation Record - Subject Groupings	0
SLI QA Audits, Surveillance and Reviews	0
SLI Deviation Reporting and Action Item Requests	0
SLI Guidelines for Review at HL&P vs. B&R Litigation Record	0

The NRC interviews (see paragraph 3 above) with selected project personnel revealed that each displayed a comprehensive knowledge of the procedures and were confident in performing their various functions. Each member maintains a personal (control copy) of the procedures. The NRC inspector reviewed twenty individuals' procedure books and found each to be an up-to-date copy. Additionally, the NRC inspectors reviewed detailed memoranda and instructions which were issued as supplements to the project procedures.

The NRC inspectors concluded that the procedures, as written, provided adequate guidance to implement the program. Revisions to procedures were reviewed during the course of the inspection. These revisions provided clarification on details of the program.

No violations or deviations were identified.

## 7. NRC Review of the Litigation Record

Initial screening of the litigation record was conducted by HL&P. The interrogatories, deposition transcripts and expert reports were screened to determine which of them are likely to contain technical information on STP design, construction or QA/QC. Those which were not screened out were sent to the SLI offices. Once the records were received by SLI, they were assigned document numbers. In some cases, individual documents were assigned multiple document numbers when the documents were too large to facilitate the review.

A few documents were forwarded to SLI in error and were not subsequently reviewed by SLI. The NRC inspector selected one of these documents (D-165) for NRC review in order to determine the basis for SLI not reviewing the document. This particular document was the deposition of J. B. Webb, Project Superintendent in the Power Division Maintenance Group.

The deposition was conducted on August 17, September 7-9, and October 17, 1983. The NRC inspector observed that Mr. Webb's job was described in the deposition as preparing proposals for maintenance and capital improvements and that he occasionally supervised maintenance projects. The NRC review of the deposition revealed that questions dealt with Mr. Webb's work as overall Lead Scheduler in 1974, 1975 and 1976. The subject of the deposition was limited to questions on planning and scheduling involving schedule milestones and progress reports.

The NRC inspector concluded that the decision not to perform a detailed review of this deposition was appropriate and in accordance with the intent of the review program.

No violations or deviations were identified.

#### 8. Identification of Assertions

As of December 16, 1985, SLI records indicate that the review and identification of assertions had been completed for 593 of 595 HL&P vs. B&R litigation records. SLI records also indicate that about 17 percent of the document reviews have received an independent evaluation, each reviewer had received at least one evaluation, and the work of five reviewers was subject to a less than ten percent evaluation.

During the initial phases of assertion identification, SLI and HL&P concluded that additional training was needed. The initial 20 documents were placed in a control group and received a 100 percent evaluation and review.

The NRC inspectors performed an independent review of ten litigation documents for which the reviews and evaluations had been completed and concluded that SLI is meeting the program objectives relative to the identification of assertions contained in the HL&P vs. B&R litigation record.

During the evaluation of the review identification records, the NRC inspector noted that some reviewers received limited evaluations beyond that which was conducted in association with the initial control group. The inspector indicated that the evaluation requirements of the program procedures had been met; however, the performance of additional evaluations for a limited number of reviewers would enhance the confidence factor for the evaluation of these reviewers. The NRC inspector was told that additional evaluations would be performed.

No violations or deviations were identified.

#### 9. Disposition of Assertions

The NRC inspectors reviewed the documentation associated with six disposition numbers (representing 20 assertions). The inspector noted that the documentation was readily retrievable and supported the positioning of the assertions.

The NRC inspectors also reviewed SLI's QA evaluations of completed disposition forms and reviewed the evaluations conducted on 12 of 49 completed dispositions and 3 dispositions which had not received a QA review or an evaluation review.

The NRC inspectors noted 160 dispositions, which addressed 374 assertions, had been determined to be classified as nonsafety (NS), Not An Assertion (NOA), or factually erroneous (FE). Three of those classified as (NS) were determined by the overview specialist as being safety-related and will receive further evaluations.

The NRC inspectors determined from the review of selected assertion closure information that the identified assertions are being adequately dispositioned.

#### 10. Management Oversight and Quality Assurance Programs

HL&P assigned a full time project manager, a project QA supervisor and a senior QA specialist to monitor the review effort at the SLI offices in Campbell, California. In addition, a Senior Advisory Panel was established to provide a management overview of the progress of the litigation review program.

HL&P began their oversight activities in August 1985 which included direct observation of SLI activities.

The NRC inspector reviewed the following documents:

- SLI Monthly Status Report (August 1985)
- SLI Monthly Status Report (September 1985)
- HL&P QA Monthly Status Report (October 1985)
- HL&P QA Interim Report (October 18, 1985)
- HL&P QA Monthly Report (September 1985)

In addition, as noted above, the NRC inspectors interviewed various managers and QA personnel during the course of the inspection.

The NRC inspectors observed that HL&P QA had reviewed the SLI procedures to verify that the program procedures adequately implemented the Litigation Review Program.

The NRC inspectors consider that the HL&P QA program is effectively performing its intended function.

The SLI QA program is tailored to ensure a comprehensive control is maintained throughout the short duration of the litigation review project. SLI has established a requirement to conduct two audits and approximately four surveillances per week.

SLI QA conducted the first audit early in the litigation review process to establish a base line and to determine potential problem areas. The scope



of the audit was to verify that the tasks described in the SLI litigation review 1985 Project Plan Manual were being implemented. This included the Project Plan, Project Procedures LRP-1 through LRP-6, LRP-1 Guideline and working level instructions. The SLI audit teams audited tasks that had been or were being performed.

The audit identified three deviations and five observations which addressed concerns of the auditors. Project management was responsive in addressing and dispositioning these items, no adverse impact on the quality of the project was observed by the NRC inspector.

The NRC inspector reviewed 29 completed SLI QA "Surveys" and 145 completed "Reviews." These were reviewed for thoroughness and degree of objectivity towards obtaining an adequate evaluation of the work being accomplished by the reviewers. Additionally, the NRC inspector reviewed the related inspection check lists and found them to be thorough and comprehensive. Based on these observations, the NRC inspector has determined that an adequate QA program is being maintained on this project.

#### 11. Conclusion

The litigation review effort appears to be progressing smoothly and may be ahead of schedule. HL&P and SLI seem to be committed to conducting substantive reviews and the QA organizations appear to be performing indepth technical evaluations and not merely limiting their effort to paper work reviews.

The NRC inspectors conclude that the litigation review program is being implemented as intended.

#### 12. Exit

Exit interviews were conducted on November 15, and December 20, 1985, with personnel as indicated in paragraph 1 of this report.