

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

RELATED CORRESPONDENCE

DOCKETED
10NRC

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
HOUSTON LIGHTING AND POWER
COMPANT, ET AL.
(South Texas Project,
Units 1 and 2)

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'81 NOV 27 P3:50

Docket Nos. 50-498
50-499

SECRETARY
& SERVICE
BENCH

CITIZENS CONCERNED ABOUT NUCLEAR POWER MOTION
TO FILE ADDITIONAL CONTENTIONS BASED ON NEW
INFORMATION AND TO ESTABLISH A DISCOVERY AND
HEARING SCHEDULE WITH RESPECT TO NEW CONTENTIONS

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U.S. NUCLEAR REGULATORS
COMMISSION

I. INTRODUCTION

A. Recent developments require consideration of admitting additional contentions to this operating license proceeding.

In the last eight weeks, a series of developments related to the South Texas Nuclear Project raised major new questions about the corporate character and technical competence of the Applicants.

On September 24, 1981, Houston Lighting and Power announced the firing of Brown and Root, Inc. as designer, engineer, and construction manager for the South Texas Nuclear Project.

On September 28, Houston Lighting and Power informed the Board and parties by letter that a copy of a report prepared by the Quadrex Corporation was about to be provided to the Board and selected party representatives. (See Attachment 1). Shortly thereafter, CCANI received a copy of the report.

On October 18, Houston Lighting and Power requested NRJ permission to continue significant construction activities, including major safety-related construction at the South Texas Nuclear Project

On October 26, the City Public Service Board of San Antonio

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agreed to send representatives, including Mayor Henry Cisneros, to Houston Lighting and Power to open formal discussions about the possibility HL&P would buy San Antonio's 28% share of the South Texas Nuclear Project.

On October 28, Citizens for Equitable Utilities filed its "Petition to Suspend Construction of the South Texas Nuclear Project" to the Commission and its "Motion to Suspend Construction" with the Board.

On October 30, the Board issued a Memorandum and Order setting a special hearing on December 8 to consider suspending all safety-related construction at the South Texas Nuclear Project.

On November 3, the City of Austin, a partner in the South Texas Nuclear Project, voted to end its participation by selling its 16% share.

On or about November 4, the NRC released I&E Report 81-28 which revealed

- HL&P management failed to ensure effective and timely corrective action of a known Brown and Root design deficiency,
- HL&P management hold widely different views on when a stop work order is appropriate,
- for a period in excess of two months, HL&P QA personnel believed it to be the policy of HL&P QA management that the FSAR and the new QA program description were just "licensing documents" and not regulatory items against which an NCR could be written,

- HL&P QA management failed to provide adequate guidance and/or direction to QA personnel, and

- HL&P QA personnel were confused about their authority to write NCRs. (See Attachment 2, corrected as per NRC)

On November 5, Houston Lighting and Power announced that Brown and Root would be terminating their role as constructor of the South Texas Nuclear Project.¹

On November 6, Mayor Cisneros said: "I think the relations between the partners are quickly falling apart."²

On November 9, Mayor Cisneros stated San Antonio should set aside money to prepare litigation against Houston Lighting and Power and against Brown and Root for mismanagement of the South Texas Nuclear Project.³

On November 9, Houston Lighting and Power announced that all construction activity, except maintenance and protection of in-place structures, would cease for a period of approximately six months.

On November 10, the Board cancelled the December 8 hearing as unnecessary in light of the voluntary cessation of construction work on the project.

On November 11, Brown and Root announced the reduction of

1. This project is the first nuclear plant in United States history to have both the architect-engineer and the constructor removed prior to the completion of the plant.

2. San Antonio Light; November 7, 1981; page 1.

3. Five of the eleven members of the San Antonio City Council, not including the Mayor, now favor San Antonio ending its participation in the South Texas Nuclear Project by selling San Antonio's 28% share.

the work force at the South Texas Nuclear Project from 2,210 to 300 before December 10.

On November 18, Mayor Cisneros accompanied by two other members of the San Antonio City Council traveled to Houston to discuss selling San Antonio's share of the South Texas Nuclear Project. HL&P refused to consider purchasing San Antonio's share.

On November 18, Mr. Jerome Goldberg, HL&P Vice President for Nuclear Engineering and Construction, traveled to San Antonio to attend a secret meeting with business leaders where he urged San Antonio not sue HL&P.⁴

On November 19, Mayor Cisneros said San Antonio should stop making payments to the South Texas Nuclear Project.

On November 19, in testimony before the Subcommittee on Energy and the Environment of the House Interior Committee, Mr. William J. Dircks, Executive Director of Operations, NRC, was very critical of the QA program at the South Texas Nuclear Project based on the past history and the findings of the Quadrex report.

On November 20, the City Council of Austin met with attorneys retained to prepare litigation against HL&P and Brown and Root.⁵

These events have major implications for the South Texas

4. At this meeting, Mr. Goldberg told what he thought was a funny story about the dilemma of the Austin City Council majority. Having convinced Austin voters that the South Texas Nuclear Project is a "lemon", these members now face the task of convincing some other utility the project is a good buy.

Nuclear Project and create the basis for considering new contentions in the operating license proceeding for this facility.

B. The views of the Commission support the admission of the new contentions to this operating license proceeding.

In its Memorandum and Order of September 22, 1980, the Commission denied Intervenors request for a public hearing on the Order to Show Cause but stated "alternative relief will be accorded Citizens in the context of a pending operating license proceeding for these facilities." Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), CLI-80-32 (1980), p. 1.

The Commission quoted the Staff argument that the requested public hearing was unnecessary because the issue Intervenors sought to litigate is " the issue which goes to the heart of the operating license proceeding, i.e. whether there is a reasonable assurance that the facility has been constructed soundly and therefore can be operated safely." Id., p. 11.

The Commission further stated that all relevant information regarding the safety of the nuclear plant is properly a part of the operating license proceedings. Id., p. 15.

The Commission's primary concern about the Order to Show Cause was the "critical conclusion" that Houston Lighting and Power lacked detailed knowledge and involvement in the construc-

5. In late 1980, Austin retained two law firms to prepare such litigation and budgeted \$750,000.00 towards attorneys' fees. To date, more than \$300,000.00 has been spent.

tion of the South Texas Nuclear Project and lacked an ability to adequately control the activities of Brown and Root. Id., p. 2.

The Commission quoted the conclusion of the Director of the Office of Inspection and Enforcement that "[t]he facts ... reflect a widespread noncompliance by the licensee and its principal contractor, Brown and Root, with 10 C.F.R. Part 50, Appendix B of the Commission's regulations." Id., p. 3.

The events surrounding and including the Quadrex report, I&E Report 81-28, the recent actions of the partners in the project, and the departure of Brown and Root raise issues which are relevant to the granting or denial of an operating license for the South Texas Nuclear Project. These events are evidence that Houston Lighting and Power lacked detailed knowledge of and involvement in the work conducted at the South Texas Nuclear Project. These events are part of or produced by HL&P's widespread noncompliance with NRC regulations.

The additional contentions based on these events should be admitted to the operating license proceeding.

B. The additional contentions are clearly within the scope of the expedited proceeding.

The events noted above raise questions which should be addressed in the expedited phase of the operating license proceeding. The additional contentions are inextricably intertwined with the concerns which caused the expedited proceeding to be convened.

In its Memorandum and Order of March 10, 1980, the Board invited comment on the idea of hold early hearings on Contentions 1 and 2.

In its Memorandum and Order on Discovery Motions dated August 1, 1980, the Board expressed its continued interest in early hearings on Contentions 1 and 2 and a willingness to incorporate any issues the Commission might determine should be added to these proceedings based on the Order to Show Cause. The Board stressed its concern was the "prompt resolution of the QA/QC issues" (p. 3)

In CLI-80-32, the Commission endorsed the Board's proposal for expedited treatment of the issues raised by the Order to Show Cause, "but for an additional and important reason that goes to the core of Citizens' complaint that Houston should not be operating a nuclear facility." (p. 17) The Commission then raised the new issue of "the basic competence and character of Houston." Ibid.

The Commission took the position that:

"the above issues related to technical competence and to character permeate the pleadings filed by Citizens. They do deserve a full adjudicatory hearing, as they will no doubt get in the operating license proceeding, and they do deserve expeditious treatment because they could prove disqualifying." Id., p. 18.

1. The findings of the Quadrex Corporation study are central to the issues mandated by the Commission to be heard in the expedited proceeding.

Based on conversations with various parties to this proceeding, CCANP is aware there exists a substantial difference of opinion among the parties as to what the Quadrex report really

signifies. For the Board, perhaps the most useful guidance on this question comes from the following:

"Briefly the Quadrex report found that Brown and Root apparently failed to properly implement a Quality Assurance program in the design area but also failed to properly implement an overall design process consistent with the need of a nuclear power plant.

As a result, verification of design information was apparently not performed in a timely manner and regulatory commitments for safety did not appear to be fully properly implemented to satisfy NRC requirements for licensability.

...

Though we were aware of Quality Assurance problems at South Texas and had cited the licensee for a breakdown in their Quality Assurance program in April, 1980, the magnitude of potential problems was not fully appreciated until we first reviewed the [Quadrex] report in August, 1981." Testimony of William J. Dircks, Executive Director for Operations, Nuclear Regulatory Commission before the Subcommittee on Energy and the Environment of the House Interior Committee, November 19, 1980. (Dictated over the telephone to CCANP; more specific referencing to be provided when hearing record available.)

Since Quadrex deals almost exclusively with the work of Brown and Root, the following is also worth keeping in mind:

"For STP Units 1 and 2, Brown & Root, Inc. (B&R) will perform the architect/engineer (A/E) and construction management services. HL&P retains full responsibility for the functional performance of the design of all systems in the plant." STP FSAR, Section 13.0, p. 13.1.1.

The Quadrex report coming eight years into the project is clear evidence that Houston Lighting and Power lacked detailed knowledge of and involvement in the design and engineering of the project. Similarly, the Quadrex report shows Houston Lighting and Power lacked adequate control over Brown and Root's design and engineering work. The Quadrex findings demonstrate a widespread noncompliance with NRC regulations. The Quadrex findings

are significant evidence of a lack of managerial character and technical competence on the part of Houston Lighting and Power.⁶

The findings of the Quadrex Corporation, therefore, fit within the scope of the issues to be determined by this expedited proceeding.

2. The Houston Lighting and Power failure to report more than three of the hundreds of findings in Quadrex to the NRC pursuant to 10 C.F.R. §50.55(e) is very significant evidence of noncompliance with NRC regulations.

There are four general elements of 50.55(e).⁷

First, the deficiency is one which could have adverse safety

6. The essential questions raised by the Quadrex report are the same questions raised by the investigation documented in I&E Report 79-19, the basis for the Order to Show Cause of April, 1980.

Quadrex and the testimony of Mr. Dircks, quoted above at page 8, strongly suggest that had the 79-19 investigation included design and engineering, similar findings and conclusions would have resulted. The expedited proceeding would, then, have already included the issues raised by Quadrex.

In fact, the Applicants would have been well served to treat Quadrex as a private order to show cause, to issue a stop work order on their own initiative, and spend the extensive time needed to assess and resolve the Quadrex findings prior to continuing construction or removing Brown and Root from the design and engineering functions.

7. 10 C.F.R. §50.55(e) states in part:

(e)(1) If the permit is for construction of a nuclear power plant, the holder of the permit shall notify the Commission of each deficiency found in design and construction, which, were it to have remained uncorrected, could have affected adversely the safety of operations of the nuclear power plant at any time throughout the expected lifetime of the plant, and which represents:

(i) A significant breakdown in any portion of the quality assurance program conducted in accordance with the requirements of Appendix B; or

(ii) A significant deficiency in final design as approved and released for construction such that the

** Footnote continued on next page **

effect. 10 C.F.R. §50.55(e)(1). It is not up to the construction permit holder to decide whether in fact the deficiency has an adverse effect on safety before reporting.

Second, the report is to be made within 24 hours of the deficiency's identification. 10 C.F.R. § 50.55(e)(2). This requirement reinforces the preliminary nature of the assessment noted in the first element. This requirement also highlights the fairly low threshold for a 50.55(e) decision to report.

Third, according to Sections (i) through (v) the deficiency should appear on its face as significant and in the case of

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design does not conform to the criteria and bases stated in the safety analysis report or construction permit; or
(iii) A significant deficiency in construction of ... a structure, system, or component which will require extensive evaluation, extensive redesign, or extensive repair to meet the criteria and bases stated in the safety analysis report or construction permit or to otherwise establish the adequacy of the structure, system, or component to perform its intended safety function; or
(iv) A significant deviation from performance specifications which will require extensive evaluation, extensive redesign, or extensive repair to establish the adequacy of a structure, system, or component to meet the criteria and bases stated in the safety analysis report or construction permit or to otherwise establish the adequacy of the structure, system, or component to perform its intended safety function.
(2) The holder of a construction permit shall within 24 hours notify the appropriate Nuclear Regulatory Commission Inspection and Enforcement Regional Office of each reportable deficiency.

...

(4) Remedial action may be taken both prior to and after notification of the Division of Inspection and Enforcement subject to the risk of subsequent disapproval of such action by the Commission."

sections (iii) and (iv) appear to require extensive evaluation, redesign, or repair. The purpose of these requirements is to protect the reporting system from being inundated with reports of unimportant items easily corrected by the construction permit holder.

Fourth, Section (4) places the ultimate authority for determining the adequate resolution of the deficiency in the hands of the NRC. Further, this section reinforces the purpose of 50.55(e) which is to assure the NRC is aware of any significant discoveries potentially adverse to safety and has the opportunity to exercise its regulatory function.

In two recent filings, Staff and Applicants gave their views of the meaning of a 50.55(e) report.⁸

The Staff argued that a 50.55(e) report "put all parties and this Board on notice of just how serious it [Applicant] considered the breakdown" (Staff, p. 4). Presumably, the Staff is using the word serious as synonymous with the word significant found in Sections (i) through (iv). Otherwise, the Staff position intrudes on the much lower threshold of Section (e)(1) - specifically the use of the word could - with a discretion to determine ultimate seriousness before reporting. Such discretion is not provided in the decision making process leading to a report pursuant to 10 C.F.R. § 50.55(e).

Assuming the Staff used the two words interchangeably,

8. "NRC Staff Response to Replies of CEU and CCANP" dated November 13, 1981 (Staff) and "Applicants' Brief in Reply to CEU and CCANP Pleadings Regarding Proposed Contentions" (App.).

CCANP agrees that a decision to report or not to report demonstrates just how serious or significant the construction permit holder considers the deficiency.

The Applicants argues in their recent brief that "[f]iling a §50.55(e) report constitutes a statement of belief of the existence of a significant deficiency which, were it to have remained uncorrected, could have affected adversely the safety of operations of the plant." (App., p. 4). CCANP agrees that only a "belief" in the existence of a significant deficiency is sufficient to trigger a 50.55(e) report.

Applying this analysis of 10 C.F.R. § 50.55(e) to the Quadrex report, CCANP concludes Applicants committed a clear violation of this regulation.

The Quadrex Corporation chose a ranking method for their findings which included Most Serious Findings. Quadrex defined Most Serious Findings as, in part, "those that pose a serious threat to plant licensability because ... (c) the finding addresses a matter of serious concern to the NRC at this time." This classification alone should have cause Applicants to report all findings in this classification to the NRC. The Applicants did not do so.

The Applicants' letter of September 28 states:

"[The Quadrex report] was not an audit pursuant to our QA program. Thus, the report contains many subjective opinions which are largely unsupported by the underlying data" (p. 2).

CCANP is not sure why a report which is not made pursuant to a QA program would automatically ("Thus") contain subjective,

unsupportable opinions. Putting that aside for the moment, CCANP learned in conversation with Applicant representatives that such a judgment is particularly applicable by Applicants to the generic findings of Quadrex. (Section 3.0, p. 3-1 et seq.)⁹

CCANP, however, notes that the report itself states:

"The findings of this design review are extremely significant to both B&R and HL&P; consequently, the officers and line directors of Quadrex Corporation have participated in the program by reviewing the program plan, the initial question set provided to HL&P, technical adequacy assessments provided by individual Quadrex reviewers, and the Volume I executive summary report in both draft and final versions. These Quadrex individuals include:

- Mr. Sherman Naymark, President
- Mr. Robert H. Dempsey, Senior Vice President, Operations
- Mr. J. Larry Wray, Vice President, Engineering
- Mr. Ronald L. Naymark, Vice President, Projects
- Mr. Anton F. Kitz, Vice President, Marketing

In addition to the Section 4 assessment of design output technical adequacy, for each discipline, the extensive exposure of Quadrex reviewers to these varied B&R engineering disciplines over a six week period has provided a clear indication that certain practices, policies and procedures adopted by B&R continue to have a generic impact on most, if not all, of the technical disciplines. These observations are provided in Section 3 of the executive summary. (Section 2.0, p. 2-15) emphasis added.

Applicants' letter of September 28 further states: "The Quadrex review was undertaken at the direction of HL&P executive management in order to provide a third party review of the STP engineering status." (p. 2).

9. CCANP can well imagine the consternation on the part of Houston Lighting and Power regarding the generic findings, particularly the Most Serious Finding which states: "HL&P has indicated that their organization structure is closely aligned with that of B&R, and that no systems engineering function exists within the utility either." (Section 3.0, p. 3-1)

Applicants now wish to maintain that the Quadrex Corporation staff, including their top corporate officials, produces reports less reliable than those of Houston Lighting and Power's Quality Assurance team. Applicants also wish to maintain that the conclusions reached by top management personnel of the third party reviewer selected by HL&P are subjective and unsupportable.

Such a position raises a whole new question of HL&P's ability to select a third party reviewer competent to carry out a very important task such as the review of the STP engineering status.

More to the point of this motion, however, any effort by HL&P to challenge the quality of the Quadrex findings or, as their September 28 letter puts it, "to place these matters in proper perspective" is a matter going to the merits of the contentions, not their admissibility. For purposes of these contentions, CCANP treats all the Quadrex findings as the product of a competent third party reviewer and as deserving a presumption of credibility. For purposes on deciding admissibility, CCANP urges this same treatment be given by the Board.

Turning to the findings themselves, recapitulation of only a handful of the hundreds in the report demonstrates an obvious violation of 10 C.F.R. 50.55(e) in HL&P's failure to report.

1. Section 4.3.2.1, p. 4-21 of the Quadrex report contains the following Most Serious Finding:

"[T]he following I&C finding, if left uncorrected, would be a violation of 10 CFR 50 and would seriously impact plant licensability. An overall review should be made to determine if this is a generic design error, as similar problems could exist in other portions of the

design:

- (a) The common instrument air line, as depicted in the FSAR drawing 9.4.2- 2 attached to Question R-6, does not meet the single failure criterion required by IEEE 279-1971 and 10 CFR 50

...

In most organizations, the I&C discipline would detect and immediately correct this type of design error by performing a rigorous examination of the separation provided between redundant divisions in the safety-related portions of the plant for all involved disciplines."

Here we have a finding whose opening sentence reads like a 50.55(e)(1). This finding cites a very specific deficiency as clearly violating 10 C.F.R. Part 50. The deficiency is obviously significant. The deficiency suggests the possibility of a generic design error requiring extensive evaluation. Finally, the deficiency is the type which would be readily detected and corrected in most design organizations.

Houston Lighting and Power did not report this finding pursuant to 10 C.F.R. §50.55(e).

2. 10 C.F.R. § 50.55(e)(1)(i) makes reportable "a significant breakdown in any portion of the quality assurance program conducted in accordance with the requirements of Appendix B."

a. Criterion II (Quality Assurance Program) of Appendix B states: "The quality assurance program shall provide control over activities affecting the quality of identified structures, systems, and components, to an extent consistent with their importance to safety."

The Quadrex report, Section 3.1(h), p. 3-11 states: "The absence of specific reliability requirements in both mechanical

and electrical equipment specifications, and the inability to produce a standard checklist of postulated failures to be considered casts doubt on the rigor of the safety-related evaluation process.

This finding calls into question the entire safety-related evaluation process, an essential component of a quality assurance program. Surely this finding would create in Applicants a belief in the existence of a significant breakdown in the quality assurance program.

The Applicants did not report this finding.

b. Criterion III (Design Control) of Appendix B states: "Measures shall be established for the identification and control of design interfaces and for coordination among participating design organizations."

The Quadrex report, Section 3.1(a), p. 3-2 states: "A working interface relationship among the disciplines is not routine particularly regarding follow-through at the discipline input-output interface."

The clear parallel between Criterion III and the Quadrex finding on lack of routine interface gives this finding an automatically reportable status.

The Applicants did not report this finding.

3. 10 C.F.R. § 50.55(e)(1)(ii) makes reportable "a significant deficiency in final design as approved and released for construction such that the design does not conform to the criteria and bases stated in the safety analysis report or construction permit."

Section 3.1(f), p. 3-8 of Quadrex states: "In a number of areas the FSAR is out-of-date."

Section 3.1(c), p. 3-4 states that there are no written design bases to guide the designer and that design criteria have not been updated since 1975.

Section 3.1(g), p. 3-8 states: "There is little evidence of a well-thought-out and consistent basis for design."

If the FSAR is out-of-date, if there are no written bases for design, if design criteria are not updated, and if there is no well-thought-out or consistent basis for design, then final designs are in conformance with obsolete documents and/or have no design basis to conform to.

The Applicants did not report this finding.

4. 10 C.F.R. § 50.55(e)(1)(iii) makes reportable "a significant deviation from performance specifications which will require extensive evaluation, extensive redesign, or extensive repair to establish the adequacy of a structure, system, or component to meet the criteria and bases stated in the safety analysis report ... or to otherwise establish the adequacy of the structure, system, or component to perform its intended function."

Section 3.1(g), p. 3-8 of Quadrex states:

"A consistent and documented B&R position regarding Code and Standards interpretations was not evident. These interpretations are left to individuals or to vendor suppliers. The ASME Code interpretation area appears to be particularly weak. (See Question M-30)."

Question M-30 contains a Quadrex Assessment which states:

"Five specifications were examined, and all had deficiencies.

Some of the deficiencies are potentially serious."

If the specifications are deficient, then conformance with them becomes meaningless.

Quadrex went on to recommend in Question M-30 that "a systematic review be provided for all NRC and industry revised requirements to determine their impact on procured equipment."

Systematic review of all NRC and industry requirements sounds very much like "extensive evaluation."

The Applicants did not report this finding.

The above examples could be replicated dozens of times using other findings from Quadrex.¹⁰ In fact, there exists a strong argument that the entire Quadrex report rather than individual findings should have been turned over to the NRC within 24 hours of receipt by Houston Lighting and Power. The report taken as a whole creates the belief that all construction to date is based on inadequate design and engineering.

Furthermore, there is prima facie evidence that the report constitutes a significant finding in the safety-related area of design and engineering requiring extensive evaluation. Applicants are paying Bechtel to spend months to do just such an evaluation.

For the above and foregoing reasons, CCANP concludes that

10. At a meeting in NRC Headquarters, Bethesda, Maryland, on October 6, 1981, John Collins, Region IV Administrator, NRC, politely asked HL&P representatives if they intended to report further Quadrex findings pursuant to 50.55(e). Mr. Oprea replied that HL&P had made no decision on that question.

the failure of Applicants to deliver the Quadrex report to the NRC within 24 hours of receipt by Applicants is clear evidence of a very serious noncompliance with an NRC regulation.

3. Houston Lighting and Power's failure to release Quadrex to the NRC for a six month period was a deliberate decision to withhold significant safety-related information from the NRC and clearly belongs in the expedited proceeding as an issue.

The September 28 letter to the Board states:

"As mentioned in Mr. Goldberg's testimony on May 19, 1981 (Tr. 2404-06) HL&P has already filed several reports pursuant to 10 C.F.R § 50.55(e) on design matters. Some of these items were identified in a report prepared for HL&P by Quadrex Corporation. Written notices on two of these matter have been submitted to the Staff, the Board, and the Parties. A third item relating to shielding calculations was orally reported to the NRC staff but, as later confirmed in writing, was subsequently determined not to be a reportable deficiency."

A review of Mr. Goldberg's testimony cited in the letter reveals Mr. Goldberg did not in fact mention anything about 10 C.F.R § 50.55(e) or HL&P filing deficiencies pursuant to that section.

The testimony itself shows that Mr. Reis asked Mr. Goldberg: "Now, as to design, what are the principal areas where you have found them [Brown and Root] lacking?" (Tr. 2405).

In response, Mr. Goldberg cited on three areas: heating, ventilating, and air conditioning (HVAC); shielding calculations; and synchronization of engineering and construction activities. (Tr. 2405-2408). Synchronization is not the subject of any 50.55(e) report to date which has come to the attention of CCANP. The shielding calculations, according to the September 28 letter, were orally reported pursuant to 50.55(e) but later

found not to be reportable.

So we are left with Mr. Goldberg telling this Board that the principal areas where Brown and Root has been found lacking, at least to Mr. Goldberg's recollection, are one nonreportable deficiency, one deficiency which turned out to be nonreportable, and one area of continued concern.

CCANP believes that the Quadrex report must have been in the hands of HL&P prior to the convening of the first expedited hearing where Mr. Goldberg gave his testimony. Based on the September 28 letter and Mr. Goldberg's testimony, CCANP assumes the items from Quadrex, other than the shielding calculations, reported to the NRC pursuant to 50.55(e) appear in the two letters appended hereto as Attachments 3 and 4.

The first letter, dated June 5 is from Mr. George Oprea, Jr., Executive Vice President, HL&P, but is signed by Mr. Goldberg. This letter discusses computer program verification. Such a finding is in Section 4.2, p. 4-12 et seq. of the Quadrex report. This section of Quadrex contains more numerous and more serious findings than appear in the June 5 letter.

The June 9 letter is also from Mr. Oprea and signed by Mr. Goldberg. This letter discusses faulted condition heat loads in the design of HVAC. Such a finding is in Section 4.4, p. 4-27 et seq. of the Quadrex report. This section of Quadrex contains more numerous and equally serious findings than appear in the June 9 letter.

Neither letter mentions the Quadrex report.

Both letters note that the first report to the NRC of the

deficiency occurred on May 8. The cover sheet of the Quadrex report is dated May, 1981. CCANP infers from the cover sheet date and the May 8 notification dates that HL&P received the final Quadrex report in the first week of May at the latest.

Yet the report was not sent to the NRC until on or about September 28. Based on the public record and information available to CCANP, CCANP contends there is a strong inference that Houston Lighting and Power deliberately withheld the Quadrex report from the NRC and thereby obstructed the NRC's performance of its lawful duties.¹¹

First of all, as argued above, the report itself practically cries out to be reported to the NRC.

Furthermore, the history of how the report actually reached the NRC shows that HL&P took no initiative to put the report in the NRC's hands.

On Sunday, June 21, at approximately 8:00 a.m., a CCANP representative received a telephone call from a person identifying himself as an HL&P inspector. He spoke very quickly and would permit very few questions. As it later turned out, the name was false and the telephone call was placed from a pay telephone, so CCANP had no way of knowing the credibility of the call.

The caller said Mr. Frazer, HL&P QA Manager, and Mr. Barker, HL&P Project Manager, prevented HL&P QA from issuing a

11. As documented in I&E Report 81-11, Brown and Root construction personnel once engaged in a similar obstruction though given the personnel and the acts involved, the finding in 81-11 is trivial compared to the allegation regarding Quadrex.

stop work order to Brown and Root design engineering. The QA personnel wanted to issue the stop work order because Brown and Root design engineering had lacked an implementation plan for the past five years.

CCANP reported this allegation, along with several others, to the Region IV NRC office.

In July, a Region IV investigator met with the reporting CCANP representative to discuss and clarify the allegations. An NRC investigation of these allegations subsequently occurred. The investigation is documented in I&E Report 81-28 attached hereto.

During the investigation, the long standing problem of Brown and Root's access design arose. As part of the documentation of that allegation, the NRC investigator found the Quadrex report. The subsequent I&E report stated: "In addition, the investigation disclosed that a consultant report dated May, 1981 from the Quadrex Corporation ... had also identified B&R access design problems."

The August date of the investigation conforms to Mr. Dircks statement quoted earlier that the NRC "first reviewed the report in August, 1981."

Through conversations with Applicant and Staff representatives CCANP has reconstructed the subsequent events.

At the September 14 hearing in this proceeding, held in Houston, an NRC official asked HL&P for a copy of the Quadrex report to review. He knew of the report from 81-28. He spent most of an entire morning reviewing the report.

The NRC reviewer then communicated the essence of the report to NRC attorneys involved in this proceeding. The NRC staff decided the Board should be notified of the report and so recommended to Houston Lighting and Power.

The September 28 letter followed.

From the above history, CCANP concludes that the Quadrex report would be hidden from the NRC to this date except for:

- a frustrated HL&P QA person reaching outside the project to ask an Intervenor for help,

- the subsequent cooperation of the Intervenor with the NRC, and

- a thorough NRC investigation.

Given the serious and widespread deficiencies found by the Quadrex Corporation, the fact that this proceeding was on going and concerned especially with QA issues, and the obviously heightened NRC concern about this project since the Order to Show Cause, CCANP infers a deliberate policy on the part of HL&P to withhold the Quadrex report from the NRC.

This allegation, if proven, constitutes the deliberate withholding of significant safety-related information from the NRC. The direct involvement of top HL&P management personnel in this effort certainly makes this allegation the most serious challenge to Houston Lighting and Power's corporate character to date. If true, Houston Lighting and Power should have the decency to withdraw their application for an operating license and remove themselves as managing partner of this project. If proven, this allegation is disqualifying as to the operating

license application.

CCANP contends this entire matter clearly must be heard in the expedited proceeding.¹²

4. The Quadrex findings and the withholding of the report from the NRC cast substantial doubt on the credibility of Applicant's case to date in the expedited proceeding.

The Quadrex report raises serious questions about the case already presented by the Applicants. For example, HL&P has argued that one of their most important steps in responding to the Order to Show Cause has been the hiring of highly qualified people. The Applicants most frequently pointed to Mr. Jerome Goldberg as evidence of a great step forward in assuring the NRC of HL&P's character and competence.

As noted earlier, Mr. Reis of the NRC asked Mr. Goldberg: "Now as to design, what are the principal areas where you have found them [Brown and Root] lacking?" (Tr. 2405).

The evidence strongly suggests Mr. Goldberg had read the

12. CCANP notes a strong similarity between this sequence of events and the sequence of events leading to the Order to Show Cause. In 1978, Mr. Daniel Swayze came to the same CCANP representative involved in the Quadrex incident. Mr. Swayze gave an account of shoddy construction and intimidation of inspectors. CCANP filed contentions based on Mr. Swayze's information, contentions forming the basis of the Board's suggestion to have an expedited hearing.

CCANP's contentions prompted an NRC investigation. In this instance, however, CCANP was not satisfied with the NRC investigation. CCANP and CEU went to the F.B.I. and national media with the Swayze story.

Following the release of the F.B.I. report to the NRC and the appearance of Mr. Swayze's story in the national media, the NRC initiated special investigation 79-19 which produced the Order to Show Cause.

Again, a project worker unable to get satisfactory resolution by project management of what he considered serious problems went to an Intervenor. Intervenors, in turn, cooperated with law enforcement agencies to bring the problems to light.

Quadrex report in some detail in order to make the two 50.55(e) report decisions. Since, according to CCANP's information, Mr. Goldberg initiated the Quadrex study, presumably he was one of the first to see it. Also, given his position as Vice President for Nuclear Engineering and Construction, presumably he understood the serious nature of what Quadrex found.

Yet, Mr. Goldberg's answer is contained in four pages of transcript and addresses only three areas of concern in a superficial way. (Tr. 2405-2408).

Mr. Goldberg's answer to Mr. Reis demonstrates, therefore, a distinct lack of candor. Only by recalling Mr. Goldberg can the Board judge the nature of his prior testimony, his credibility, and the value of his addition to the HL&P management structure.

Examining Mr. Goldberg on these events is essential to completing the record prior to any initial decision. Similarly, Messrs. Jordan, Oprea, Frazer, and Barker need to be recalled and questioned regarding their knowledge and involvement in the Quadrex affair prior to any initial decision in this proceeding.

5. I&E report 81-28, as further evidence of noncompliance with NRC regulations and a lack of managerial character and competence, is within the scope of the expedited proceeding.

a. The investigative findings on Allegation 1 of I&E 81-28 reveals that HL&P management failed to ensure effective and timely corrective action of a long standing Brown and Root deficiency. (p. 4-6) The report notes that access design problems were documented as early as July, 1979. On June 5, 1981, the problem had still not been addressed, so HL&P QA personnel

proposed a stop work order. Apparently, HL&P QA had been unable to get Brown and Root's attention for almost a year to what the QA personnel thought was a serious problem.¹³

Reasonable inferences from these events are:

- Brown and Root design and engineering were so fouled up everywhere, they could not find the time to address this deficiency and

- HL&P knew about the condition of Brown and Root's design and engineering program but was unable to adequately remedy it.

Despite the support of at least four HL&P QA personnel for the stop work order, Mr. Barker (Individual Y) decided to use his personal influence rather than a stop work order to get the matter resolved. In June, Mr. Barker contacted Brown and Root upper management to require immediate corrective action. More than a month later, Mr. Barker was able to get an appointment to see Brown and Root personnel and actually initiate corrective action. The actual implementation of corrective action was scheduled for October, 1981, twenty seven months after the first documentation of the deficiency.

This entire event is significant evidence that even a year after the Order to Show Cause, HL&P management was unable to

13. CCANP is reminded of the August 13, 1979 letter from Mr. Ferguson of HL&P to Mr. Dodd of B&R which threatened to fire B&R from their construction role if B&R did not correct numerous long standing deficiencies in their construction process. HL&P witnesses have testified in this hearing that this letter was an attempt to get Brown and Root's attention.

This letter is evidence in these proceedings because an anonymous individual passed the letter to Intervenors through an intermediary.

achieve a prompt corrective action by Brown and Root as required by Criterion XVI of 10 C.F.R. Part 50, Appendix B.

The inadequacy of HL&P's response to a legitimate QA concern is reflected in the telephone call to CCANP. This inability to adequately respond to legitimate QA concerns is adverse to a finding of the requisite character and competence for receiving a license to operate a nuclear plant.

One additional item emerges from this event. Three HL&P management personnel [Barker, Frazer (X), and V] believed a two year delay in resolving a deficiency in access design did not warrant a stop work order. A fourth HL&P manager (W) disagreed. This proceeding already contains testimony about confusion regarding the issuance of stop work order by QC. Apparently, a similar confusion exists to this day at the HL&P management level.

b. The investigative findings on Allegation 2 reveal that for a period in excess of two months, HL&P audit personnel understood from remarks by Mr. Frazer that NCRs were not to be written against the FSAR or the new QA program because these documents were merely paper for the licensing process, not regulatory mandates.

At least five individuals (B,N,S,O, and Z) interpreted Mr. Frazer's remarks at a June 11, 1981 meeting to mean that HL&P management policy was to consider the FSAR and the new QA program as merely "licensing documents." The meeting was held to discuss the writing of NCRs against the FSAR and the QA program. The five individuals came away from the meeting that since these commitments to the NRC were just "licensing documents", there was no basis for writing an NCR against them. Z even went so

understanding of Frazer's remarks. Individual I wrote a memorandum further substantiating Mr. Frazer's position. Barker could not remember what Frazer said at the June 11 meeting.

Frazer admitted to being aware there was confusion resulting from his comments but believed the confusion had been resolved by the time of the investigation. Frazer claimed he had not read Z's June 30 letter until on or about August 19. On August 24, in the midst of the NRC investigation, Frazer wrote a letter which apparently stated that the FSAR and the new QA program were indeed regulatory mandates against which NCRs could be written for items of noncompliance.

The incident reveals that at least five QA audit personnel did not act in compliance with NRC regulations for a period of more than two months. The basis for their noncompliance was the position they perceived on the part of HL&P management that noncompliance was exactly what management wanted.¹⁵

Frazer's claim that he was unaware of the situation because he did not read his mail is not credible.

Also disturbing is that Individual Z waited almost three weeks to write his letter.

This entire event raises a very serious question about HL&P management's commitment to comply with NRC regulations.

15. CCANP is reminded of Mr. Swayze's allegation that QC inspectors played cards for four or five months because their management would not take adequate steps to prevent intimidation of the inspectors. Mr. Swayze said he made his decision on the basis that management's approach indicated management did not want QC to do the job QC was hired to do.

far as to write Frazer a letter on June 30 setting forth this

The event also raises a serious question whether HL&P management views this Board as a necessary nuisance requiring the generation of paperwork.

Even assuming the HL&P manager was misunderstood by six people, the existence of the misunderstanding for two months demonstrates a lack of managerial character and competence. Corrective action only took place in the face of an NRC investigation.¹⁶

c. The investigative findings on Allegation 4 reveal HL&P management failed to provide adequate guidance and/or direction to HL&P procurement personnel clearly having difficulties performing their task. One result was confusion on the part of HL&P QA personnel over authority and responsibility for writing NCRs.

Mr. Frazer clearly knew that Individual C was having a hard time performing his tasks in HL&P procurement. Mr. Frazer also knew that he was not giving C the kind of assistance C needed. But Mr. Frazer was just too busy to respond to Individual C's needs.

One of Individual C's problems was that he did not carefully read the HL&P procedure which allowed either HL&P or Brown and Root to write NCRs. When C was told to have Brown and Root write up a particular NCR, he thought he was being told he could not do so.

This event demonstrates an HL&P failure as late as August, 1981 to implement an effective quality assurance program. The failure of Mr. Frazer to delegate responsibility, if he was

16. Much like the Order to Show Cause episode.

unable to assist Individual C, who clearly needed assistance, demonstrates a lack of managerial competence.

The contentions based on 81-28 belong in the expedited proceeding.

A final note on 81-28. The anonymous caller's last words on June 21, 1981, to the CCANP representative were:

"Whistle blowers never win. I tried for [deleted] years to change things. Thank God for people like you and Peggy Buchorn. I believe in nuclear power, believe it can be done right, but this is all wrong."

Mr. Daniel Swayze might well say "Amen".

6. The collapse of the South Texas Nuclear Project partnership can be traced directly to HL&P's long history of noncompliance with NRC regulations and to HL&P's lack of managerial character and technical competence.

The collapse of the partnership building the South Texas Nuclear Project is a direct outgrowth of HL&P failure to comply with NRC regulations and of HL&P's lack of managerial character and technical competence. The moves by partners holding 44% of this project to extricate themselves from the partnership is at least, in part, their judgment on the character and competence of Houston Lighting and Power as a managing partner. This judgment is based on the poor construction record, the Order to Show Cause, the length of time passing before Brown and Root's removal from the project, the Quadrex report, and a concern this Board will determine the pending issues adversely to the Applicants. The judgment of the partners has high probative value in assessing whether Houston Lighting and Power should be allowed to go forward with this project.

This issue also belongs in the expedited proceeding.

7. The decision making process by HL&P regarding the departure of Brown and Root from the South Texas Nuclear Project is a matter deserving expedited treatment.

Houston Lighting and Power had no nuclear experience prior to the South Texas Nuclear Project. Houston Lighting and Power hired Brown and Root to be architect-engineer and constructor for the South Texas Nuclear Project knowing of Brown and Root's lack of experience in nuclear plants, particularly the absence of any experience as architect-engineer.

Among the fruits of this ill-fated arrangement are widespread noncompliance with NRC regulations, an Order to Show Cause, Commission mandated issues of character and competence in the licensing proceeding, the Quadrex report, and a collapsing partnership.

Houston Lighting and Power now proposes to start all over again. This Board needs to assess whether Houston Lighting and Power should be allowed to continue to exercise the privilege bestowed by the public in the granting of a construction permit. While the Board's position is that the Commission has not given this Board the power to revoke the construction permit, the Board recognizes that it clearly has the power to recommend such a revocation to the Commission.¹⁷ The Board also has the power to deny the operating license based on the expedited

17. CCANP believes the facts set forth in this motion are a sufficient basis for the issuance of an Order to Show Cause as to why the construction permit should not be revoked and the convening of a hearing on such an Order either before this Board, another Board appointed by the Commission, or the Commission itself. CCANP urges the Board to seriously consider such a recommendation to the Commission. As far as CCANP is concerned, enough is enough.

proceeding.

To decide the central questions of Houston Lighting and Power's continued role at this nuclear plant, the Board would be well served by fully exploring the final stages of the Houston Lighting and Power and Brown and Root relationship.

Houston Lighting and Power's public position is that Brown and Root was "reallocated" out of design and engineering because Brown and Root could not attract and hold enough qualified engineers and because Brown and Root design and engineering could not keep pace with the construction schedule. Manpower and scheduling concerns are a far cry from the findings of the Quadrex report.

Was Quadrex central, part of, or peripheral to the decision making process which led to the firing of Brown and Root? Was HL&P satisfied with the quality as, opposed to the quantity of Brown and Root's design and engineering work? Was Houston Lighting and Power a contributing cause to Brown and Root's difficulties? Does the site of the South Texas Nuclear Project make it impossible to attract and hold enough qualified engineers to build the plant in a timely fashion? If so, will construction pressures adversely affect the designers and engineers who are working on the project?

Houston Lighting and Power's public position is that Brown and Root is leaving as constructor because a contract to continue as constructor could not be successfully negotiated. Engaging in such negotiations indicates Houston Lighting and Power wanted Brown and Root to stay. Does this mean Houston Lighting and

Power found Brown and Root's activities to date in construction and quality control acceptable?

These questions are only some of the issues raised by Brown and Root's departure and Houston Lighting and Power's public position on that departure. Answering these questions will assist the Board in finding out what lessons, if any, Houston Lighting and Power learned over the last eight years.¹⁸

Given Houston Lighting and Power's lack of experience in nuclear plants and given the history of this project, Houston Lighting and Power's ability to learn is a critical issue to address at this time. Whether Houston Lighting and Power has the managerial character and technical competence to go forward on this project is an essential issue to the expedited hearing.

CONCLUSION: All of the new contentions fit within the mandate of CLI-80-32 and within the rationale the Board expressed for having an expedited hearing. These contentions do "deserve a full adjudicatory hearing and they do deserve expeditious treatment because they could prove disqualifying." CLI-80-32, p. 18.

Additionally, CCANP contends the evidence supporting the additional contentions is already under Issue A in the expedited

18. As noted at footnote 17, CCANP contends time has run out for Houston Lighting and Power to learn. Should the Board not agree and believe that remedial acts still have meaning, then before Houston Lighting and Power is allowed to continue, the Board should be absolutely assured the situation of the last eight years will never happen again.

proceeding. Issue A states:

"If viewed without regard to the remedial steps taken by HL&P, would the record of HL&P's compliance with NRC requirements ... be sufficient to determine that HL&P does not have the necessary managerial competence or character to be granted licenses to operate the STP?"

While four specific areas of noncompliance are identified in the issue, these are not exhaustive but only among the issues to be considered.

There exists a prima facie case that the Quadrex report contains numerous items relevant to the record of HL&P's compliance with NRC regulations. Furthermore, the allegation of deliberate withholding of the Quadrex report and the allegation regarding Mr. Frazer's remarks in 81-28 raise an issue that noncompliance is not limited to particular events but is now corporate policy.

The evidence contained in the remainder of 81-28 shows noncompliance with NRC requirements and a lack of managerial character and competence.

The evidence of the collapse of the partnership is relevant because the history of HL&P's inability or unwillingness to comply with NRC requirements is a central cause of the collapse. The evidence of the collapse is also evidence of HL&P's failure to demonstrate the corporate character and technical competence required of a managing partner and nuclear plant license applicant.¹⁹

19. While not raised as a contention at this time, the actions of Austin and San Antonio may produce a situation where Houston Lighting and Power lacks the financial capability to finish the South Texas Nuclear Project.

The evidence related to the decision to remove Brown and Root is also relevant and probative of Issue A. Inherent in the concept of compliance with NRC requirements is the technical ability to do so. If HL&P is not technically competent to detect and correct substandard work, HL&P is per se incapable of complying with NRC regulations. The entire self-policing process so central to NRC regulation also requires a construction permit holder to be well informed about and responsive to conditions at the plant during construction.

Based on Houston Lighting and Power's public positions on the removal of Brown and Root, there is a prima facie case that Houston lacks the requisite competence.

II. CONTENTIONS

CCANP has divided the additional contentions into two categories: generic and itemized. The generic contentions are the broad conclusions which can be drawn from a series of more particularized events or facts. The itemized contentions are the specific findings of violations evidenced by particular findings in the Quadrex report or by particular acts or omissions by Applicants.²⁰

A. Generic Contentions

1. The Quadrex report shows that Houston Lighting and Power abdicated too much responsibility to Brown and Root for design and engineering of the South Texas Nuclear Project in violation

20. CCANP appreciates the Quadrex Corporation's help in seeing the importance of this distinction.

- of FSAR commitment 3.0 and of Criteria I and II of 10 C.F.R. Part 50, Appendix B.
2. The Quadrex report shows that Houston Lighting and Power failed to keep itself knowledgeable about the necessary design and engineering activities at the South Texas Nuclear Project in violation of Criteria I and I of 10 C.F.R. Part 50, Appendix B.
3. The Quadrex report shows that Houston Lighting and Power permitted a design and engineering process adverse to quality to continue at the South Texas Nuclear Project for years in violation of Criteria I, II, and III of 10 C.F.R. Part 50, Appendix B.
4. Houston Lighting and Power reported only three findings of the Quadrex report to the Nuclear Regulatory Commission pursuant to 10 C.F.R. § 50.55(e) in violation of the requirements of 10 C.F.R. § 50.55(e).
5. Houston Lighting and Power management personnel deliberately withheld significant safety-related information (the Quadrex report) from the Nuclear Regulatory Commission in violation of their FSAR commitments, their construction permit, and 10 C.F.R. Part 50.
6. Section 3.1(f), p. 3-7 et seq. of the Quadrex report shows that Houston Lighting and Power failed to assure the design and engineering of the South Texas Nuclear Project met commitments made to the Nuclear Regulatory Commission in the Final Safety Analysis Report.
7. The failure of Houston Lighting and Power to issue a stop

work order to Brown and Root design and engineering after receipt of the Quadrex report is a failure to properly execute a quality assurance program in violation of Criteria I and III of 10 C.F.R. Part 50, Appendix B.

8. After receipt of the Quadrex report, the repeated requests by Houston Lighting and Power to the NRC to continue construction based on the design and engineering produced by Brown and Root are a fundamental violation of the entire thrust of 10 C.F.R. Part 50, Appendix B, which is to prevent any activity potentially detrimental to the safe operation of a nuclear power plant.

9. Based on the Quadrex report, there is no reasonable assurance that the structures now in place at the South Texas Nuclear Project are in conformity with the construction permits and the provisions of Commission regulations.

- A. "Much of the plant design basis is rooted in engineering judgment, and the rationale for this judgment has not been documented in a retrievable manner." (Section 3.1(a), p. 3-1)
- B. "[F]undamental background information regarding the STP design is difficult to retrieve since many current B&R engineers are not sufficiently familiar with the STP design or its bases." (Section 3.1(g), p. 3-10)
- C. "In several instances, design activities that affected plant safety were designated as non-S/R [non-safety-related]." (Section 3.1(d), p. 3-6)
- D. There is doubt "about the rigor of the safety-related evaluation process." (Section 3.1(h), p. 3-11)
- E. "A working interface relationship among the disciplines is not routine particularly regarding follow-through at the discipline input-output interface." (Section 3.1(a), p. 3-2)
- F. "There is little evidence of a well-thought-out and consistent basis for design." (Section 3.1(g), p. 3-8)

G. "There were many inconsistencies noted between the FSAR and other design and procurement documents." (Section 3.1(f), p. 3-7)

H. "In a number of areas the FSAR is now out-of-date." (Section 3.1(f), p. 3-8)

10. The collapse of the South Texas Nuclear Project partnership is a result of Houston Lighting and Power's noncompliance with NRC regulations, lack of corporate character, and lack of technical competence.

11. Given the serious deficiencies in the Brown and Root design and engineering programs, Houston Lighting and Power's public position that Brown and Root was "reallocated" from design and engineering for reasons of manpower shortages and scheduling difficulties demonstrates an inadequate appreciation by HL&P for the quality deficiencies in B&R's design and engineering programs.

12. The fact that Houston Lighting and Power was still trying to give Brown and Root responsibility for construction and quality control in October, 1981 demonstrates an inadequate appreciation by HL&P for the quality deficiencies in B&R's construction and quality control programs.

B. Itemized Contentions

For each itemized contention related to Quadrex findings, examples of such findings are offered as supportive evidence. The supportive list is not, however, an exhaustive list of all findings which would tend to support the contention. The itemized contentions are numbered sequentially with the generic contentions for ease of reference.

13. The Quadrex report shows that Houston Lighting and Power failed to establish and effectively execute an acceptable quality assurance program in violation of Criteria I and II of 10 C.F.R. Part 50, Appendix B.

- A. "It was observed on many occasions that B&R uses a very sharp distinction between S/R and non-S/R categorizations for both equipment and calculations. A non-S/R designation results in the design outputs not being subjected to design verification. In several instances, design activities that affected plant safety were designated as non-S/R." (Section 3.1(d), p. 3-5)
- B. "It was frequently stated during the design review that only NRC requirements must be met whether or not those requirements are accurate, reasonable, or even meet the intent of the regulations." emphasis in original (Section 3.1(d), p. 3-6)
- C. "The absence of specific reliability requirements in both mechanical and electrical equipment specifications, and the inability to produce a standard checklist of postulated failures to be considered casts doubt on the rigor of the safety-related evaluation process." (Section 3.1(h), p. 3-11)
- D. An "abnormally high error rate was observed in Brown and Root calculations for the nuclear, as opposed to the conventional, aspects of the engineering work." (Section 3.1(j) [sic], p. 3-11)

14. The Quadrex report shows that Houston Lighting and Power failed to adequately verify safety-related design and engineering work at the South Texas Nuclear Project in violation of Criteria I and XVIII of 10 C.F.R. Part 50, Appendix B.

- A. "Input data to a technical group does not appear to be consistently reviewed by that group for its reasonableness prior to use." (Section 3.1(b), p. 3-3)
- B. "Significant quality variations were also observed in the design review comments provided for internal documents prior to their initial issue or their subsequent revision." (Section 3.1(g), p. 3-9)
- C. The current design includes design details "obtained from other PWR plants and used without confirming their

appropriateness for this application." (Section 3.1(g), p. 3-10)

- D. "There were no documented standards regarding the minimum qualifications required for a design verifier." (Section 3.1(j), p. 3-13)
- E. "The only evidence of a completed design verification is a signature, since B&R does not require either the use or completion of design verification checklists. Consequently, there is evidence that the key design verification questions are not being adequately addressed." (Section 3.1(j), p. 3-13)

15. The Quadrex report shows that Houston Lighting and Power failed to assure adequate documentation in an identifiable and retrievable manner of the safety-related design and engineering work at the South Texas Nuclear Project in violation of Criteria II and XVII of 10 C.F.R. Part 50, Appendix B.

- A. "There is no indication that an effective systems integration and overview function exists within the B&R design process. ... A major concern is with the achievement of internal consistency among various design documents and the maintenance of that consistency over time with personnel turnover."
- B. "Much of the plant design basis is rooted solely in engineering judgment, and the rationale for this judgment has not been documented in a retrievable manner." (Section 3.1(g), p. 3-10)
- C. "B&R does not require use of ... individual engineer log-books to record key bases, assumptions, or decisions. ... Consequently, fundamental background information regarding the STP design is difficult to retrieve since many current B&R engineers are not sufficiently familiar with the STP design or its bases." (Section 3.1(g), p. 3-10)

16. The Quadrex report shows that Houston Lighting and Power failed to properly identify safety-related versus non-safety-related aspects of the design in violation of Criterion II of 10 C.F.R. Part 50, Appendix B.

A. "In several instances, design activities that affected plant safety were designated as non-S/R." (Section 3.1(d), p. 3-6)

B. There is doubt "about the rigor of the safety-related evaluation process."

17. The Quadrex report shows that Houston Lighting and Power failed to establish and effectively execute adequate design control at the South Texas Nuclear Project in violation of Criterion III of 10 C.F.R. Part 50, Appendix B.

A. "There is no indication that an effective systems integration and overview function exists within the B&R design process." (Section 3.1(a), p. 3-1)

B. "HL&P has indicated that their organizational structure is closely aligned with that of B&R, and that no systems engineering function exists within the utility either." (Section 3.1(a), p. 3-2)

C. "A working interface relationship among the disciplines is not routine particularly regarding follow-through at the discipline output interface." (Section 3.1(a), p. 3-2)

18. The Quadrex report shows that Houston Lighting and Power failed to assure that applicable regulatory requirements, design bases, and other requirements for design and engineering of the South Texas Nuclear Project were included or referenced in the documents for procurement or services from subcontractors involved in design and engineering work for the South Texas Nuclear Project in violation of Criterion IV of 10 C.F.R. Part 50, Appendix B.

A. "Brown and Root does not provide adequate guidance to vendors stipulating acceptable analysis and testing methods, required data, and report format." (Section 3.1(b), p. 3-4)

19. The Quadrex report shows that Houston Lighting and Power

failed to adequately prescribe by documented instructions, procedures, or drawings the safety-related design and engineering activities at the South Texas Nuclear Project in violation of Criterion V of 10 C.F.R. Part 50, Appendix B.

- A. "No written design bases are provided to guide the designer in what combinations of events and plant modes must be considered." (Section 3.1(c), p. 3-4)
- B. "Consideration of degraded equipment performance was also not evident." (Section 3.1(c), p. 3-4)
- C. "No guidelines exist on what types of failures should be considered for various types of equipment." (Section 3.1(e), p. 3-7)
- D. "There was little evidence of a well-thought-out and consistent basis for design." (Section 3.1(g), p. 3-8)
- E. "A number of key front-end criteria documents are missing from STP." (Section 3.1(g), p. 3-9)
- F. "A plan to identify and develop these TRDs on the project was not evident." (Section 3.1(g), p. 3-9)

20. The Quadrex report shows that Houston Lighting and Power failed to adequately control the issuance of documents, such as instructions, procedures, and drawings, including changes thereto, which prescribed safety-related design and engineering in violation of Criterion VI of 10 C.F.R. Part 50, Appendix B.

- A. "A major concern is with the achievement of internal consistency among various design documents and the maintenance of that consistency over time with personnel turnover." (Section 3.1(a), p. 3-2)
- B. "Design criteria provided in issued Design Descriptions (SDDs) and Technical Reference Documents (TRDs) ... do not adequately address more recent developments," particularly developments in the post-1975 period. (Section 3.1(c), p. 3-4)
- C. "There many inconsistencies noted between the FSAR and other design and procurement documents." (Section 3.1(f), p. 3-7)

D. "There did not appear to be any method to assure that timely updating of the FSAR was being accomplished." (Section 3.1(f), p. 3-8)

E. "In a number of areas the FSAR is now out-of-date." (Section 3.1(f), p. 3-8)

21. The Quadrex report shows that Houston Lighting and Power failed to adequately establish measures to assure that purchased safety-related engineering and design services conformed to the procurement documents in violation of Criterion VII of 10 C.F.R. Part 50, Appendix B.

A. "It was noted that the Materials Group does not review subcontractor material selection." (Section 3.1(g), p. 3-9)

B. "The amount of nuclear-related analysis that is subcontracted by B&R is higher than a typical A/E's practice. The technical guidance provided by some of these Group for subcontracted consultants, such as EDS and NUS, does not appear adequate." (Section 3.1(j), p. 3-12)

22. The Quadrex report shows that Houston Lighting and Power failed to establish and execute effectively a program for inspection of safety-related design and engineering work to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity in violation of Criterion X of 10 C.F.R. Part 50, Appendix B.

A. "No documented criteria exists governing the evaluation process for vendor reports." (Section 3.1(b), p. 3-3)

B. "Brown and Root continues to pursue a policy that work performed by major subcontractors or suppliers, such as EDS Nuclear and Westinghouse, is design verified by these firms and can therefore be assumed to be correct." (Section 3.1(b), p. 3-3)

C. There were numerous differences between EDS practices and FSAR promises. (Section 3.1(f), p. 3-8)

23. As evidenced by the investigative results in Allegation 1 of I&E Report 81-28, Houston Lighting and Power management failed to assure prompt corrective action by Brown and Root in the area of access engineering in violation of Criterion XVI of 10 C.F.R. Part 50, Appendix B.

24. As evidenced by the investigative results in Allegation 1 of I&E Report 81-28, Houston Lighting and Power management does not have a consistent policy on the issuance of stop work orders in violation of Criterion I of 10 C.F.R. Part 50, Appendix B.

25. As evidenced by the investigative results in Allegation 2 of I&E Report 81-28, Houston Lighting and Power management personnel are not committed to respecting the mandates of NRC regulations, especially Criteria I and II of 10 C.F.R. Part 50, Appendix B.

26. As evidenced by the investigative results in Allegation 4 of I&E Report 81-28, HL&P management failed to effectively implement a quality assurance program in violation of Criterion I of 10 C.F.R. Part 50, Appendix B.

As a result of the foregoing, the Commission cannot make the findings required by 10 C.F.R. §§ 50.57(a), (1), (2), (3), (4), and (6).

III. JUSTIFICATION FOR LATE FILING

A. There is good cause for the lateness in filing additional contentions.

CCANP recognizes that the time for filing contentions expired in 1978. But CCANP contends that the developments

delineated in the introduction to this motion created an entirely new situation. The Board's Memorandum and Order (Concerning Changed in Schedule for Hearings dated October 8, 1981, recognized "the extent and significance of the organizational changes, and their clear impact on the issues encompassed within CLI-80-32 (as well as on intervenors' contentions)" (p. 4) This recognition came even before the November announcement of Brown and Root's termination as constructor and when Quadrex had only been in the hands of the Board for a few days at most. The special prehearing conference scheduled for December 8 is precisely for the purpose of determining what the impact of these recent events will be on this proceeding.

These events also provided information never previously available to Intervenors, either because the information was hidden by the Applicants or because unpredictable events transpired.

For these reasons, there is good cause for filing additional contentions by CCANP.

B. Assuming good cause for lateness is established, the balancing of the five factors in 10 C.F.R. § 2.714(a)(i-v) determines whether the contentions are admitted.

According to previous rulings of the Commission, late filed contentions are first examined to see if there is good reason for lateness and then a balancing test is conducted of the five factors in 10 C.F.R. §2.714(a)(i-v) to determine if the contentions are admitted. Pacific Gas and Electric Company (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-81-5, 13 NRC 361, 364 (1981).

The five factors are:

(1) Good cause, if any, for failure to file on time.

(2) The availability of other means whereby petitioner's interests will be protected.

(3) The extent to which petitioner's participation may reasonably be expected to assist in developing a sound record.

(4) The extent to which the petitioner's interest will be represented by existing parties.

(5) The extent to which the petitioner's participation will broaden the issues or delay the proceedings.

1. The additional contentions are filed on time.

The events creating the basis for the additional contentions all occurred within the last six weeks. These events included the release of a report (Quadrex) in three volumes of more than 500 pages and containing hundreds of findings. CCANP filed the additional contentions within a reasonable time of petitioner's receipt of the new information. The first factor, therefore, favors admission.

2. Only admission of the additional contentions can protect Intervenor interests.

As with CEU's additional contentions filed regarding American Bridge steel, there are really two elements to the Intervenor's interests.²⁰

The first element is the actual past events, acts, or omissions and their probative value in judging the competence

21. "Citizens for Equitable Utilities Motion to File New Contentions Based on New Information and to Establish a Discovery and Hearing Schedule with Respect to the New Contentions."

and character of Applicants. The only place the competence or character of Applicants is at issue is in this proceeding.

The NRC staff has already taken the position that the Applicants have the requisite character and competence. CEU has taken the position that they wanted Brown and Root off the job as their only goal. Only CCANP is arguing that Applicants do not have the requisite character and competence. Thus, only CCANP can protect its interest in arguing this position.

The second element is the effectiveness of remedial acts taken. In the case of the CEU additional contentions on American Bridge steel, the Staff and Applicants argued that the problem of remedies was being addressed by the Applicants pursuant to the 50.55(e) process and any resolution would be reviewed for adequacy by the NRC.²²

CCANP rejected and continues to reject this argument. The Order to Show Cause of April, 1980 was in essence a reverse 50.55(e) report with the NRC reporting significant findings which could adversely affect safety. The NRC charged Applicants with responding to the Order to Show Cause and the NRC retained the review function. Yet the Order to Show Cause was admitted to these proceedings under issues A, B, C, D, and E.

In the case of the additional contentions related to Quadrex proposed herein, the continued refusal of HL&P to report more than three Quadrex findings pursuant to 50.55(e) rules out

22. "NRC Staff Response in Opposition to CEU' Motion to File Additional Contentions", p. 4; "Applicants' Brief in Opposition to CEU Motion to File Additional Contentions", p. 11.

even the 50.55(e) argument previously made by Staff and Applicants.

Nor has the NRC conducted an investigation similar to Quadrex or taken any enforcement action based on Quadrex.

The additional contentions based on I&E Report 81-28 are again a matter of evaluating a past act as reflecting on the character and competence of the Applicants. Again, the NRC Staff has taken a position that the Applicants have the required character and competence. Only CCANP argues to the contrary.

The contention on the collapse of the partnership is also a uniquely CCANP contention.

In the case of the additional contentions related to the firing and withdrawal of Brown and Root, apparently only the Intervenors have an interest in an in depth exploration of the decision making process and the post decision implications as to the character and competence of the Applicants. The NRC has not indicated any interest in examining the process or the implications.

3. Absent the admission of new contentions, the record of this proceeding will be seriously flawed.

The essence of Issue A is the history of HL&P's noncompliance with NRC requirements as a basis for judging character and competence. This same concern is at the heart of Issues B, C, D, and E.

All of the new contentions go directly to HL&P's noncompliance history and the implications of that history for the issue of character and competence. Competence and character are

a generic finding for which the underlying universe of proof is limited only to evidence directly related to noncompliance with NRC regulations. In the partnership issue, evidence^{is} in the nature of direct character evidence.

Excluding these contentions from the expedited operating license proceeding would create a record denied highly probative evidence. The new developments call for the issues to be read broadly.

This motion is adequate evidence that CCANP can make a substantial contribution to development of a sound record and, indeed, that CCANP is essential to that task.

The third factor also favors admission.

4. The issue of CCANP's interests being represented by existing parties is moot.

As an admitted intervenor, CCANP is already recognized as representing an independent viewpoint. This factor is uniquely applicable to a petition requesting intervention status.

The fourth factor is, therefore, irrelevant to the balancing process.

5. The contentions are already included in the issues currently before this Board. While admission of the new contentions will lengthen the expedited hearing, much of the delay is attributable the omissions of the Applicants.

As argued at pages 32-34 above, the additional contentions are based on evidence already admissible under Issue A. The contentions provide a framework for the orderly presentation of evidence, findings of fact, and conclusions of law. Admission of the contentions will in no way broaden the issues currently before the Board.

Admitting these additional contentions will certainly lengthen the expedited hearing. Discovery, preparation of testimony, and identification of witnesses take time.

At the same time, a major area of discovery - Quadrex - could have been ready for hearings now, if the Applicants had released the report last May. To exclude the Quadrex contentions on the basis of delay would be to reward the Applicants for withholding the report.

The contentions based on I&E Report 81-28 emerges from fresh events. If the NRC were not so short of investigative staff in Region IV, the allegation reported in June would have been investigated at that time. Preparation for testimony could easily have been completed by now.

The contention based on collapse of the partnership also emerges from very recent events. Had Houston Lighting and Power been a better managing partner, this collapse may never have happened.

If Houston Lighting and Power had not waited eight years to remove Brown and Root from the project, the contention on this matter could have been adequately prepared by now. To exclude the contentions based on delay would be to reward Houston Lighting and Power for failing to take prompt corrective action in an area of known deficiency, that is rewarding Houston Lighting and Power for violation of Criterion XVI of 10 C.F.R Part 50, Appendix B.

While admission of the new contentions will occasion delay, that delay is more the responsibility of the Applicants than

CCANP.

The fourth factor, therefore, weighs against admission, but there are mitigating circumstances.

A balancing of the four relevant factors in 10 C.F.R. § 2.714(a)(1)(i-v) favors the admission of all the new contentions.

IV. DISCOVERY AND FURTHER HEARINGS

Upon acceptance of any new contentions, CCANP moves for a ninety day discovery period, beginning on the date of acceptance, to provide adequate time for interrogatories, taking of depositions, development of testimony, and identification of new witnesses.

After the discovery period is completed, the expedited hearings would continue.

Respectfully submitted,

Lanny Sinkin

Lanny Sinkin
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Citizens Concerned About
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2207 D Nueces
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Dated November 21, 1981

UNITED STATES OF AMERICA ^{DOCKETED}
 NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Certificate of Service

I hereby certify that copies of CCANP's letter to the Atomic Safety and Licensing Board dated November 21, 1981 and of "CITIZENS CONCERNED ABOUT NUCLEAR POWER MOTION TO FILE ADDITIONAL CONTENTIONS BASED ON NEW INFORMATION AND TO ESTABLISH A DISCOVERY AND HEARING SCHEDULE WITH RESPECT TO NEW CONTENTIONS" have been served on the following individuals and entities by deposit in the United States mail, first class, postage prepaid, on this ~~21st~~ ^{23rd} day of November, 1981.

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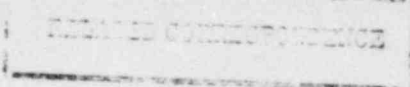
Atomic Safety and Licensing Board
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September 28, 1981

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RE: Houston Lighting & Power Co. et al.
South Texas Project, Units 1 & 2,
Docket Nos. STN-50-498, STN 50-499

Dear Members of the Board:

As indicated in our letter of September 24, 1981, regarding the reallocation of responsibilities in connection with the South Texas Project, it is HL&P's plan to undertake a comprehensive review of the existing design, engineering and construction in order to "benchmark" the status of the Project and to verify compliance with applicable requirements.

As mentioned in Mr. Goldberg's testimony on May 19, 1981 (Tr. 2404-06) HL&P has already filed several reports pursuant to 10 C.F.R. § 50.55(e) on design matters. Some of these items were identified in a report prepared

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Charles Bechhoeffer, Esquire
Dr. James C. Lamb
Ernest E. Hill
September 28, 1981
Page Two

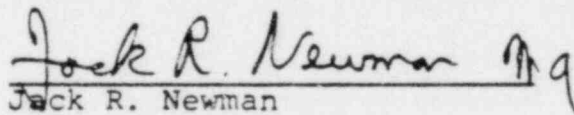
for HL&P by Quadrex Corporation. Written notices on two of these matters have been submitted to the Staff, the Board and the Parties. A third item relating to shielding calculations was orally reported to the NRC Staff but, as later confirmed in writing, was subsequently determined not to be a reportable deficiency.

The Quadrex review was undertaken at the direction of HL&P executive management in order to provide a third party review of the STP engineering status. It was not an audit pursuant to our QA program. Thus, the report contains many subjective opinions which are largely unsupported by the underlying technical data; the reportable deficiencies identified to date are those referred to above.

The Quadrex Report is still under review by B&R and HL&P and, as mentioned above, the review of such matters will also be a part of Bechtel's initial task in connection with the STP. The results of this review, which will be provided to the Board and the parties, will additionally serve to place these matters in proper perspective.

The Quadrex document is a large, multi-volume report. A copy of the entire report will be sent under separate cover to the members of the Board and to Messrs. Jordan, Reis and Sinkin.

Respectfully submitted,


Jack R. Newman

Of Counsel:

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Attorneys for HOUSTON LIGHTING & POWER COMPANY,
Project Manager of the South Texas Project, acting
herein on behalf of itself and the other Applicants,
CITY OF SAN ANTONIO, TEXAS, acting by and through
the city Public Service Board of the City of San
Antonio, CENTRAL POWER AND LIGHT COMPANY and CITY
OF AUSTIN, TEXAS.

cc: Certificate of Service

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
HOUSTON LIGHTING AND POWER) Docket Nos. 50-498 OL
COMPANY, ET AL.) 50-499 OL
)
(South Texas Project,)
Units 1 and 2))

CERTIFICATE OF SERVICE

I hereby certify that copies of Applicants' letter to the Atomic Safety and Licensing Board dated September 28, 1981, have been served on the following individuals and entities by deposit in the United States mail, first class, postage prepaid, on this 28th day of September, 1981.

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Washington, D. C. 20555

Maurice A. [unclear]

RELATED CORRESPONDENCE

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

DOCKETED
USNRC

REGION IV

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Investigation Report: 50-498/81-28; 50-499/81-28

Dockets: 50-498; 50-499

Licensee: Houston Lighting and Power Company
P. O. Box 1700
Houston, Texas 77001

Facility: South Texas Project, Units 1 and 2

Investigation at: Houston, Texas
South Texas Project, Matagorda, Texas

Investigation Conducted: July 29 - August 26, 1981

Investigator: *R. K. Herr*
R. K. Herr, Senior Investigator
Investigation and Enforcement Staff

2 Oct 1981
Date

Inspector: *H. S. Phillips*
H. S. Phillips, Resident Reactor Inspector

10/2/81
Date

Approved by: *J. E. Gagliardo*
J. E. Gagliardo, Director
Investigation and Enforcement Staff

11/2/81
Date

Summary

Investigation conducted on July 29 - August 26, 1981 (Report 50-498/81-28; 50-499/81-28).

Areas Investigated: Alleged improper activities by HL&P QA management concerning: nonsupport of QA Department requested stop work order; nonsupport of QA audit personnel to write NCR's against licensed documents; nonsupport of QA procurement personnel in initiating NCR's; and disguised welding rework activities. This investigation involved 90 investigative hours by one NRC investigator and one NRC inspector.

Results

Investigation disclosed that HL&P QA management had authority and acted within HL&P procedures to correct NCR deficiencies in the absence of a stop work order; that HL&P QA management through misunderstanding did prevent QA auditors from writing NCR's against licensing documents; that welding was not disguised in any manner; and that HL&P QA procurement personnel were instructed properly by HL&P QA management in regards to initiating NCR's.

SUMMARY

The investigation disclosed that HL&P QA personnel supported a stop work order based on an NCR that was written in June 1981; however, upper management personnel (HL&P QA and Project Managers) did not support a stop work order and chose to accelerate correction of the nonconformance in order to avoid a stop work order. The investigation reflected that the NCR in question was being properly addressed in that a final resolution had been agreed upon by Brown & Root and HL&P, and was pending final implementation by Brown & Root. Secondly, the investigation disclosed that HL&P QA management told QA auditor personnel not to write up NCR's on things which were out of compliance with the FSAR and/or QA program description during a June 1981 meeting; however, HL&P QA management explained that a great amount of confusion and/or misunderstanding had occurred. This particular issue has been resolved with the issuance of an HL&P position statement that gives auditors the freedom to write NCR's against the FSAR and/or QA program description. Thirdly, the investigation disclosed that one individual in the HL&P QA organization had directed his personnel to direct Brown & Root personnel to write NCR's when discrepancies occurred; however, this was in accordance with HL&P and B&R procedures. Finally, the investigation disclosed that multiple welds were accomplished during welding (aluminum/bronze) operations, and B&R procedures require engineers to evaluate the effects on the mechanical properties. In addition, informational radiographs of welds were performed and reviews were documented on these repairs/reworks to ensure proper welding in accordance with proper welding codes and procedures.

BACKGROUND

On June 22, 1981, Individual A telephonically notified the reporting investigator and stated that he had received a telephone call from an individual who identified himself as "Joe Duncan." According to Individual A, "Mr. Duncan" claimed to be a QA inspector for HL&P while located at the South Texas Project. Individual A stated that "Mr. Duncan" provided allegations set forth in this report; however, he refused to provide further details or information which might identify him. Individual A remarked that efforts to identify "Duncan" as an HL&P employee were negative. The investigator was unable to identify "Mr. Duncan" on current or past HL&P organizational charts or rosters. HL&P indicated that personnel records showed that no such person ever worked for HL&P.

DETAILS1. Persons ContactedPrincipal Houston Lighting and Power Company (HL&P) Employees

R. Frazar, QA Manager
D. Barker, Project Manager

Principal Brown & Root (B&R) EmployeeOther Individuals

• Individuals A through Z

2. Investigation of AllegationsAllegation No. 1

That Individuals X and Y, HL&P management personnel, disagreed with HL&P QA personnel who wanted to issue a stop work order to Brown & Root design engineering relating to the fact that Brown & Root design engineering effort was falling behind construction activities which might produce construction errors. While an NCR had been issued on this topic, HL&P QA personnel thought a stop work order should have been issued.

Investigative Findings

Investigation disclosed an HL&P memorandum (Attachment 1) dated June 5, 1981, executed by Individual K, concerning design review accessibility. This memorandum identifies HL&P QA concerns about the lack of design access criteria supplied by Brown & Root, and stated that Individuals C and L would develop an NCR (subsequently identified as ST-5A, Attachment 2) and utilize this as a basis for a potential stop work order regarding access design review activities.

Individual C stated that upon receipt of Attachments 1 and 2 he drafted a stop work letter; however, he withdrew the letter after a subsequent meeting with Individual Y. Individual C explained that Individual Y requested the opportunity to try and obtain Brown & Root's immediate attention relative to correcting the condition described in the NCR and if

he were unsuccessful then the NCR should be elevated to a stop work order. Individual C remarked that his main goal, and the goal of his management, Individuals I and X, was to get the attention of Brown & Root management for appropriate action in this area in order for them to readdress priorities and ensure that adequate access design (procedures) measures were established and implemented in a timely manner. Individual C pointed out that the original NCR (ST-5) concerning this area was executed in November 1980. Individual C stated that subsequent contact with Brown & Root management on August 10, 1981, resulted in a satisfactory action/response to NCR ST-5A which is scheduled to be implemented on or about October 1981.

Individuals X and V, HL&P management personnel, advised that they supported Individual Y's position that a stop work order was not needed at this time and additional overall information was needed to resolve the subject NCR.

Individuals J, K, S, and M, HL&P QA personnel, all supported a stop work order explaining that access design problems were identified as early as July 1979, in audit report BR-25 and again in HBR-43 (performed May - June 1981). In addition, the investigation disclosed that a consultant report dated May 1981, from the Quadrex Corporation, 1700 Del Ave., Campbell, California had also identified B&R access design problems.

Individuals J, K, S, and M stated that the stop work order is not the main issue but effective and timely corrective action by Brown & Root is the real issue. Individuals J, K, S, and M remarked they did not care what mechanism was utilized to achieve the desired results, explaining that getting the attention of Brown & Root management to assure implementation of the corrective procedures is the important aspect.

Individual Y stated that he could not specifically recall having a meeting with Individual C; however, he recalled NCR ST-5A and remarked that he personally contacted Brown & Root upper management in June 1981, and requested immediate corrective action. Individual Y stated that subsequent to August 1981, a joint meeting was held between HL&P QA and Brown & Root personnel and that proper action was initiated by Brown & Root. He added that implementation of that action would correct the condition identified in the NCR. Individual Y did not believe that a stop work order in this case would have accomplished the corrective action as quickly as his efforts did.

Individual W, HL&P QA management individual, advised that he did not become aware of the NCR in question until August 22, 1981. Individual W remarked after a review of the NCR ST-5A that he would have supported a stop work order based on the B&R's failure to take effective and timely corrective action on the NCR regardless of the seriousness of the NCR. Individual W stated that he would look into this situation, and if in his judgment, Brown & Root's implementation of the proposed corrective action was not timely enough, he would not hesitate to immediately issue a stop work order.

Allegation No. 2

That Individual ~~████████~~^X told HL&P audit personnel not to write up NCR's on things that were out of compliance with the FSAR or the new QA program description given to NCR, because "it is just a licensing document not a regulatory item."

Investigative Findings

Interviews of Individuals B, N, S, and O, HL&P QA personnel, disclosed that an audit (No. HBR-43) was conducted at South Texas Project (STP). Individuals B, N, S, and O remarked that during this audit a meeting was held at STP with cognizant personnel including Individuals B, N, S, O, and Z. According to Individuals B, N, and S this meeting was held because questions were raised by HL&P QA management relative to management's concerns that the HL&P auditors were writing NCR/ADR's against the FSAR and/or the new QA program description. According to Individuals B, N, S, and O Individual X stated during this meeting words to the effect, that the FSAR and the new QA program description given to NRC are just licensing documents and not regulatory items and that NCR/ADR's were not to be written on things that were identified as being out of compliance. This interpretation was further substantiated in part by Individual Z who wrote a letter (Attachment 3) to Individual X setting forth the general position of Individual X during the June 11, 1981, meeting. In addition, Individual I submitted an HL&P office memorandum dated July 24, 1981, (Attachment 4 - selected portions) that further substantiates, in part, the comments made by Individual X. Individual Y remarked he was present during the June 11, 1981, meeting at STP but could not clearly recall what was stated. Individuals N, O, and J each stated that as a result of the June 11, 1981, meeting, and the remarks made by Individual X, a great deal of misunderstanding had occurred, and an HL&P's position on this matter was not clear.

Interview of Individual X resulted in Individual X stating that he was aware that some misunderstanding occurred as a result of his comments but believed the issue had been clarified. Individual X remarked that he did not specifically state that auditors should not write NCR/ADR's on things out of compliance with the FSAR or the new QA Program Description given to NRC because they are licensing documents and not regulatory items. Individual X stated that he recognized that further dialogue was necessary after the meeting to clarify certain issues. Individual X stated that he only read the letter from Individual Z within the past day or so (August 19, 1981) and that he does not agree with the contents. Individual X remarked that he will write a letter to Individual Z, clarifying the HL&P QA organization's position and further make the letter available to cognizant QA audit personnel. Individual X executed a response letter (Attachment 5) to Individual Z which stated HL&P QA's position, and clarifies the issue. Subsequent contact with HL&P auditors disclosed that Attachment 5, cleared up all misunderstanding and emphasized that they support this position.

Allegation No. 3

That welding is being done six or seven times to get acceptable weld; however, when welding six or seven times on the same weld one destroys the tensile strength. While welds are being done again, the welding is called "informational" rather than rework in an attempt to disguise the multiple effect.

Investigative Findings

Interviews of Individuals P, Q, and R and review of selected records resulted in the identification of instances where multiple repair or rework was accomplished in accordance with standard repair procedures. Interviews with an HL&P Welding Supervisor, an HL&P QA Specialist, and a B&R Welding Engineer resulted in identifying the area where the highest reject/repair rate occurs. The Essential Cooling Water (ECW) System is the area. The investigators reviewed HL&P and B&R welding trend reports; HL&P correspondence No. BC32953, June 30, 1981, and B&R correspondence No. BC32961. The trends in these reports cover the periods since ASME welding was restarted in October 1980 until August 15, 1981. These reports track the rejection rate, welder performance analysis and the welder/welding operator proficiency to reduce welding problems or identify welders needing additional training. The investigators determined that excessive repair rates are closely monitored and engineers must evaluate welds where more than three major repairs occur. This is required by welding procedure MECD-4. Investigators selected weld number 0001 in the ECW system which represented the "worst case analysis." This weld had been repaired as many as six times as a result of informational radiographic examinations identifying weld defects that had to be repaired. All of the welding that had been performed since October 1980, had been or was in the process of being

re-examined and repaired as a result of commitments made to the NRC in the licensee's response to the Show Cause Order. All of the welding repairs reviewed were accomplished in accordance with B&R procedures MECP-4, Revision 15, Section 8.12, Weld and Base Metal Repairs, and in accordance with ASME Code Division 1, Class 3 requirements. The subject code does not require radiographic examination; however, the licensee elected to perform informational radiographic examinations of the aluminum-bronze material because it is a difficult material to weld. "Informational radiography" is a term used to describe radiographs of a weld that are not required by ASME codes, but is a test or examination which the licensee performs for his own benefit or information. Through further discussions with a Brown & Root Welding Engineer, the investigators found that, in general, Brown & Root had not welded materials where multiple repairs would have an adverse affect on the tensile strength of the materials. The only material that had been welded and could be adversely affected was the stainless steel piping; however, there had been no such multiple repairs on stainless steel piping since October 1980.

Interviews with Individuals T, E, and D, Brown & Root QC inspectors (mechanical), disclosed that all repair or rework was documented in accordance with Brown & Root procedures. Further, all repair work that was ordered had an engineering evaluation and the orders were signed by the appropriate engineer.

None of the above individuals had any knowledge of undocumented repair work. Individual T advised that there had been about five different welds (aluminum/bronze) that required five to six repairs around the weld joint circumferences (not on the same spot), and each time a radiograph was taken to ensure proper welding. Individual U stated that any welds performed on an identical location on the circumference/joint in excess of three times had been cut out and removed.

Allegation No. 4

Individuals C and F, both of HL&P QA Procurement Program, are "screwing up everything" because of no experience. In addition, they are the only ones who could write up NCR's. Also, when other HL&P QA personnel asked for an NCR to be written up they are told by Individuals C and F to go have Brown & Root write it up.

Investigative Findings

Review of background experience of Individuals C and F by the investigator/inspector disclosed both Individuals C and F have adequate education and

experience for their respective positions. Interview of Individual X, Individual C's former supervisor, resulted in his explaining that he did not provide Individual C with enough guidance and/or direction due to numerous other high priority commitments and the fact that he (Individual X) was physically located about 90 miles away. Individual X explained that a number of minor problems developed in Individual C's office as a result of a lack of positive leadership from himself and/or other management supervisors. Individual X noted that HL&P Procedures Manual PSQP-A9, page 7, paragraph 6.3.3.3, states in part, "Nonconformance Reports and/or Corrective Action Requests shall be generated by Brown & Root or HL&P." Individual X stated that in accordance with HL&P procedures it would be proper for Individuals C or F to instruct subordinates to tell Brown & Root personnel to write up or generate an NCR when they discovered a nonconforming condition. Individual X remarked that anyone in HL&P can write up an NCR.

During an interview of Individual W, Individual C's present supervisor, he explained that he recognized that Individual C did not receive adequate supervision in the past and there was a lack of proper guidance and direction on the part of HL&P management. Individual W stated that although Individual C is physically located in excess of 90 miles away from his location, he had spent at least 1 day a week with Individual C to give him guidance and direction. Individual W stated that he had discovered during these 1 day a week conferences with Individual C that there was a need for additional personnel, including clerical assistance, which was presently being considered. Individual W remarked that he was clarifying Individual C's job function and believed Individual C is a qualified and a capable individual.

Individuals D, E, F, G, and H, HL&P QA personnel, were interviewed. Interviews showed there was some confusion as to who actually writes up an NCR. Three individuals stated they had not found any discrepancies and therefore had not written an NCR within the past 6 months. One individual advised that when he discovered an NCR condition, he identified his concerns to Individual C and Individual C told him to "tell Brown & Root to write up the NCR," adding that this was in accordance with HL&P procedures. Individuals D, E, F, G, and H advised that there had been two training classes regarding HL&P procedures, including the PSQP-A9. However, one individual admitted that he was absent during one of the training periods.

Individual C stated that he keeps a log of NCR's that are written in his department, adding that his QA department did not normally write a great deal of NCR's. Individual C stated that he has written about six NCR's during the past 6 months which have been entered into the Brown & Root NCR system in accordance with HL&P Procedure PSQP-A9.

CAPTIONED DOCUMENTS

A copy of all documents identified herein as attachments, relating to these allegations, are maintained in the NRC, Region IV Office. The following is a list of documents utilized in this report.

1. Document 1 - HL&P office memo #Q-7050, dated June 5, 1981
2. Document 2 - HL&P office memo #Q-9000, dated June 11, 1981
3. Document 3 - B&R letter, SFN #Q-0100, dated June 30, 1981
4. Document 4 - HL&P office memo #Q-5000, dated July 24, 1981
5. Document 5 - HL&P letter, SFN #Q-3200, dated August 24, 1981

INSPECTION FILE

**The Light
company**

Houston Lighting & Power P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

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June 5, 1981
ST-HL-AE-678
SFN: V-0530

Mr. Karl Seyfrit
Director, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76012



Dear Mr. Seyfrit:

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498; STN 50-499
First Interim Report Concerning
Computer Program Verification

On May 8, 1981, Houston Lighting & Power Company, pursuant to 10CFR50.55(e), notified your office of an item concerning computer program (code) verification. The verification methods lack adequate visibility to the user as to whether or not the program versions in use have been verified.

An assessment of computer codes used on the South Texas Project is in progress. This assessment includes a review of the computer program verification reports (CPVR) to evaluate the qualification of the computer codes used on the South Texas Project and a review of calculations for appropriate application of computer codes. To date, there has been no technical inadequacy identified in the use of computer programs which would preclude the safe operations of the plant. The next interim report concerning this item will be submitted to your office by August 28, 1981.

If you have any questions concerning this item, please contact Mr. Michael E. Powell at (713) 676-8592.

Very truly yours,

G. W. Oprea, Jr.
G. W. Oprea, Jr.
Executive Vice President

MEP/amj

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The Light company

Houston Lighting & Power P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

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June 9, 1981
ST-HL-AE-676
SFN: V-0530

SECRETARY
SERVICE
ANCH

Mr. Karl Seyfrit
Director, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76012

Dear Mr. Seyfrit:

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
First Interim Report Concerning
Heating, Ventilation and
Air Conditioning Design

On May 8, 1981, pursuant to 10 C.F.R. 50.55(e), Houston Lighting and Power Company notified your office of a potentially reportable item concerning the consideration of certain faulted condition heat loads in the design of portions of the Heating, Ventilating and Air Conditioning (HVAC) system. Based on our assessment of preliminary thermal environmental data, certain spaces and cubicles within the Mechanical-Electrical Auxiliary Building and the Fuel Handling Building might require additional HVAC capacity.

A conceptual design for supplemental HVAC based on equipment design qualification temperatures and equipment heat losses for all modes of plant operation should be available by July 1, 1981. The design modifications will supplement the existing HVAC design. Final HVAC design will be consistent with equipment operability requirements under the most limiting plant operating conditions. Specific design modifications are dependent upon the results of our current evaluations.

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SFN: V-0530
Page 2

The next interim report concerning this item will be submitted to your office by July 30, 1981. Should you have further questions concerning this item, please contact Mr. M. E. Powell at 676-8592.

Very truly yours,

G. W. Oprea for

G. W. Oprea
Executive Vice President

MEP/LRJ

Houston Lighting & Power Company

cc: J. H. Goldberg

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C. G. Robertson

Howard Pyle

R. L. Waldrop

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Director, Office of Inspection & Enforcement

Nuclear Regulatory Commission

Washington, D. C. 20555

June 9, 1981

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Page 3

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(Read-Poland, Inc.)

(Baker & Botts)

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6-9-81