

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

RELATED CORRESPONDENCE

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

HOUSTON LIGHTING AND POWER  
COMPANY, ET AL.

(South Texas Project, Units 1  
& 2)

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§

Docket Nos. 50-498  
50-499

STATE OF TEXAS'S FIRST SET OF  
INTERROGATORIES TO APPLICANTS  
ON QUADREX



These interrogatories are to be answered by Applicants' personnel having knowledge of the facts. Each interrogatory is to be answered separately and fully in writing. Each person participating in answering any question is to sign an affidavit or affirmation as to the truth and correctness of the answers he participated in answering. A copy of the answers is to be served on all parties within 14 days after service of the interrogatories on applicants.

1. Please list the date and identification number of all B&R management audits of the Corporate QA program.

2. a. Did B & R develop a readily recognizable release stamp for all design documents in response to MAC audit dated June 3, 1977 at 0107074?

b. When?

c. Please provide a sample showing what this stamp looked like.

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PDR ADOCK 05000498  
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3. a. Were the MAC audits dated June 25, 1976 and June 3, 1977 given to HL&P by B&R?

b. If so, on what dates?

c. Please provide copies of transmittal correspondence or other transmittal record.

4. a. Please produce any audit of design calculations and complete code verification done by the B&R Audit Group in response to the MAC audit dated July 17, 1978, Audit Recommendation II (last page).

b. Please produce a copy of the review performed by the Project Quality Engineer referred to in the same recommendation.

5. Audit BR-8 differs from previous audits in the BR series in that the audit categories are revised to eliminate the "upgrading" category. Please explain this deletion and provide all records related to this change.

6. Please provide definitions of the following terms as used in the design and engineering process on STNP.

a. backup design calculations

b. review and approve

c. verify

d. design input

e. design output

f. preliminary data

g. aperture card file

7. Please trace the process (step by step) at STNP during 1975-1981 by which a design proceeded from initial calculations or drawing to a final design for:

- a. internally generated designs (HL&P/B&R)
  - b. subcontracted designs
  - c. all other designs (if any)
8. Please provide a copy of
- a. the Engineering Design Deficiency (EDD) log
  - b. any predecessor logs
  - c. ADR logs
9. a. Please identify all design items which have produced 50.55(e) reports by HL&P to the NRC.
- b. Is it HL&P's position that each of these reports represented a final design released for construction?
10. a. Please identify all design items which have produced 10 C.F.R. Part 21 reports regarding STNP to the NRC from HL&P or other source.
- b. Please give the rationale for reporting these design items with citations to the clause(s) in Part 21 which led to the report being made.
11. Please identify all personnel, except clerical, and their positions in the HL&P Nuclear Licensing Administration Section as of January 1981.
12. On Purchase Order ST-49 for the Quadrex Corporation is the following notation: "NOTEL SHIPMENT BY PIGGY BACK (PLAN II 1/2) IS NOT ACCEPTABLE." What does this notation mean?
13. On purchase Order ST-49 Supp. #2, the date is January 22, 1982. If this date is incorrect, please specify the correct date.
14. Is there in fact no contract between HL&P and the Quadrex Corporation other than the purchase orders provided on June 28, 1983?
15. Who approved the various purchase orders sent to the

Quadrex Corporation?

16. During the period January 1, 1981 to October 1, 1981, please provide the positions of:

- a. D. G. Barker
- b. Cloin Robertson
- c. Joe Briskin
- d. John Blau
- e. J. R. Sumpter
- f. J. R. Geurts
- g. S. H. Grote
- h. M. E. Powell
- i. L. R. Jacobi

17. The January 5, 1981 letter from Loren Stanley to Dr. J.R. Sumpter refers to a request by HL&P for "a brief two week engineering audit of Brown and Root covering a number of technical disciplines."

a. What purpose was to be served by the Quadrex study as originally proposed, i.e. a brief two week audit?

b. What led to the Quadrex study becoming much more extensive?

c. Please detail over the period from January 5, 1981 to May 7, 1981 the changes made in the scope of the study including but not limited to topics added, technical disciplines added, and specific concerns added.

18. a. Were all documents requested in the January 19, January 20, and February 2, 1981 letters from Loren Stanley to Dr. J.R. Sumpter in fact provided for Quadrex review?

b. If not, please identify those not provided and explain why they were not provided.

c. For each drawing supplied to Quadrex, please specify whether at the time supplied or at any time prior to May 7, 1981 that drawing had been used by construction.

19. a. Did Quadrex review design and engineering work at the site as well as at the home office of Brown and Root and HL&P?

b. If the answer to interrogatory 19a is "Yes," please specify which Quadrex findings resulted in whole or in part from reviews of design and engineering at the site.

20. As of May 7, 1981, please identify the following HL&P personnel:

- a. Engineering Team Leader, Nuclear Safety and Licensing
- b. Engineering Coordinator
- c. Supervisory Project Engineer, Design Engineering
- d. Manager, Licensing
- e. Project QA Manager
- f. Project QA Supervisor
- g. Resident Reactor Inspector, NRC

21. Is the position supervisory Project Engineer the "licensing engineer" referred to in the Revision Summary to PEP-11? See June 12, 1981 Memo, Barker to Robertson, ST-HL-19394, Attachment 2.

22. For each Quadrex finding, please specify the organization (HL&P, B&R, NUS, etc.) performing the item reviewed.

23. The transmittal memo from Stanley to Sumpter dated May 5, 1981 is stamped " Received November 30, 1981 J.R. Sumpter." Please explain the date of that stamp.

24. In the May 8, 1981 letter from Salterelli to Goldberg, Salterelli refers to a Brown and Root "Design Review."

- a. Please explain the nature of this Design Review.
  - b. What were the dates this Design Review took place?
25. a. When was STP-QCP-44 first issued
- b. Please provide a copy of the original STP-QCP-44 and all revisions.

26. For each Quadrex finding, please give the Applicants' position as to why there was or was not an obligation to notify the NRC of that finding.

27. Please specify what obligations Applicants had on May 7, 1981 to report information to the NRC. Please provide citations to the rules, regulations, case law, or other sources for the obligations identified.

28. Did the Applicants' review of the Quadrex Report on May 7-8, 1981 or subsequently include a determination of whether notification/reporting requirements other than 10 C.F.R. Section 50.55(e) had been met?

29. If the answer to interrogatory 28 is "no," why were no other determinations made of compliance with notification/reporting requirements?

30. If the answer to interrogatory 28 is "Yes," please detail what determinations were made and what the results of those determinations were.

31. Please describe as of May 7, 1981, the general and customary HL&P procedure for determining whether to notify the NRC pursuant to 50.55(e) of a particular discovered deficiency. Include the names of particular people and/or organizations represented in the decision making process. For each person, please describe their position in the project and responsibilities in the 50.55(e) process.

32. On March 11, 1980 (See Staff Exhibit No. 52, I&E Report 80-04 at 10-11), the NRC Staff supplied guidance on notification/reporting requirements to HL&P. Please

a. list all persons receiving the NRC guidance at that time.

b. list all persons to whom HL&P distributed the guidance subsequent to that time.

33. In Section 3.2 of NUREG-0948, the NRC discusses their classification of Quadrex findings as "safety significant." Do Applicants have any disagreements with the classification or its application to the Quadrex findings?

34. Please specify the total number of hours and total cost involved in the Bechtel analysis and resolution to date of the Quadrex findings.

35. Please specify for the period May 7, 1981 to September 24, 1981 what study, inquiry, design reviews, design changes, or other response to the Quadrex Report took place within

a. Brown and Root

b. HL&P

36. Please identify the Bechtel Power Corporation (BPC) personnel who prepared the Bechtel Assessment Report or Task Force Report on Quadrex dated March 1982. (Hereinafter these personnel are referred to as the BPC Task Force.)

37. For each Quadrex finding, please give the BPC Task Force position as to why there was or was not an obligation to notify the NRC of that finding.

38. Please specify what obligations to report information to the NRC the BPC Task Force considered potentially applicable



to HL&P at the time of their preparing the TFR. Please provide citations to the rules, regulations, case law, or other source for the obligations identified.

39. Did the BPC Task Force review of the Quadrex Report include a determination of whether notification/reporting requirements other than 10 C.F.R. Section 50.55(e) had been met?

40. If the answer to interrogatory 39 is "no," why were no other determinations made of compliance with notification/reporting requirements?

41. If the answer to interrogatory 39 is "yes," please detail what determinations were made and the results of those determinations.

42. For each of the items the BPC personnel found to be reportable pursuant to 50.55(e), please provide:

a. the position of the BPC Task Force on why the item was reportable with reference to specific 50.55(e) clauses.

b. an explanation of why the clause noted in answer 42a applied to that particular Quadrex finding.

43. Please detail the involvement of HL&P personnel in the preparation and editing of the Quadrex Report.

44. In the Quadrex Reports sent to the ASLB and parties there are passages underlined.

a. Who did the underlining?

b. Whose copy was used to make the copies for the ASLB and parties.

45. What specific HL&P questions did Quadrex not answer in the mid-April meeting between HL&P and Quadrex? (Goldberg Statement dated February 9, 1982 at 1)



46. Please specify which Quadrex findings HL&P challenged on May 7, 1981 and which findings HL&P considered valid. Please provide the bases for the challenges and the considered validity.

47. How many hours did Quadrex put into the study which resulted in the Qaudrex Report?

48. Please specify as of May 7, 1981 the problems for which Quadrex used the present tense which "related to activities which were recognized and corrected previously." (Robertson Statement at 3)

49. Please specify the "opinions of Quadrex as to the best ways of performing engineering functions which [HL&P] did not necessarily agree with." (Robertson Statement at 3)

50. Please specify the experiences prior to May 7, 1981 in applying the notification requirement criteria of 10 C.F.R. Section 50.55(e) of :

- a. Jerome Goldberg
- b. Jim Sumpter
- c. Cloin Robertson

51. Please specify the experiences prior to May 7, 1981 in NRC licensing proceedings of:

- a. Jerome Goldberg
- b. Jim Sumpter
- c. Cloin Robertson

52. Had Mr. Goldberg, Mr. Sumpter, or Mr. Robertson ever had occasion prior to May 7, 1981 to notify an NRC licensing board of any document, report, finding, or other item of information? Please describe the occasion, the information conveyed, and the rationale for notifying the licensing board.

53. In their review of Brown and Root work, please specify where Bechtel has found deficiencies or potential deficiencies.

54. As of January 1, 1981,

a. how many people did HL&P have performing quality assurance for design and engineering.

b. how many people did B&R have performing quality assurance for design and engineering

c. please provide the names and backgrounds of the people counted in 54a and 54b.

d. please provide the current position of the people counted in 54a and 54b

55. On April 7, 1982, Mr. Goldberg sent a letter to Mr. Halligan of BPC (ST-HL-YB-0507) in which Mr. Goldberg stated: "In this connection, please note that, although it may not be evident by reading the Quadrex Report due to its lack of explicit detail, three items (Line items 1,100, and 146) are also related to deficiencies reported to NRC prior to the Quadrex review." Please explain how each line item is related to the reported deficiency.

56. Please state the basis for HL&P's decision to terminate Brown and Root from

a. design and engineering

b. construction management

57. Please list, with the classifications for each item as safety-related or non-safety related at the time of performance, all construction items performed at STNP between May 7, 1981 and September 24, 1981. For each item provide the date that item

of construction was performed.

58. Please list all items reclassified as safety-related from non-safety-related since January 1, 1981

59. Who was involved in preparing the Applicants' List of Consultants to HL&P and the Management Committee on Project Management, QA/QC, or Inspection of Completed Construction Work dated 5/21/81 and provided to the parties in this proceeding?

60. Did any officer of HL&P, including but not limited to Mr. Jordan, Mr. Oprea or Mr. Goldberg, ever consult with an attorney regarding HL&P's obligation to turn the Quadrex report over to the NRC or to report findings to the NRC? If so, please specify the dates and persons involved in such discussions.

61. Please provide Mr. Jordan's records which reflect his involvement and knowlege regarding the Quadrex study and his involvement, if any, in the decisions regarding notification of the NRC regarding Quadrex findings. Please include the date on which Mr. Jordan first received a copy of the Quadrex Report.

62. What is the estimated cost to the STNP partners of removing Brown and Root as architect-engineer-construction manager and the consequent delays in the project. Please include increased cost of the project, costs of maintenance for the interim period prior to resumption of construction, and costs of the Brown and Root/Bechtel transition effort.

63. Please provide HL&P's description of how Mr. Herr and Mr. Phillips came to see the Quadrex Report in August 1981.

64. Please identify the witnesses Applicants intend to call on Quadrex issues at the Phase II hearings and summarize their testimony.

65. Please identify and produce each document upon which the Applicants rely as support for their positions stated in their responses to this first set of interrogatories.

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