7/1/80

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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| In the Matter of | § | |
| | § | |
| HOUSTON LIGHTING & POWER COMPANY | § | Docket No. 50-466 |
| | § | |
| (Allens Creek Nuclear Generating | § | |
| Station, Unit 1) | § | |



HOUSTON LIGHTING & POWER COMPANY'S
ANSWERS TO DOGGETT'S AND PERRENOD'S
FIRST SET OF INTERROGATORIES

In response to the First Set of Interrogatories propounded by Stephan A. Doggett and W. Matthew Perrenod, Houston Lighting & Power Company ("Applicant") answers as follows:

INTERROGATORY NO. 1:

(a) Identify each witness, other than an expert witness, who Applicant may call in this proceeding with respect to consolidated contentions Doggett 4 and Perrenod 1, and provide a summary of the testimony which each such witness is expected to offer.

(b) Identify all documents upon which each such witness may rely in any way, and provide copies of any such documents.

ANSWER:

Applicant anticipates that Mr. Hollis Dean will testify, if required, on the contentions related to financial qualifications. Mr. Dean is the chief financial officer of the Company with ultimate responsibility for the accounting, auditing, computer services and treasury departments of the

Company. In his capacity Mr. Dean is familiar with the financial integrity of the Company and he is expected to testify that the Company is financially qualified to construct the Allen Creek facility. At this time, Mr. Dean has not prepared his testimony nor has he identified any documents upon which he intends to rely for purposes of his testimony.

INTERROGATORY NO. 2:

a) Identify each expert witness who Applicant expects to call in this proceeding with respect to consolidated contentions Doggett 4 and Perrenod 1.

(b) State the qualifications and credentials of each such expert witness.

(c) Provide a summary of the testimony which each such witness is expected to offer.

(d) State the factual basis for each conclusion or opinion each such witness expects to present or draw in such expert's testimony.

(e) Identify all documents prepared by, for, or under the supervision of each such expert witness, or reviewed or relied upon by such expert in formulating the expert's opinions and conclusions, including workpapers, preliminary outlines and memoranda, and communications between such expert and Applicant. Provide copies of any such documents.

ANSWER:

See answer to Interrogatory No. 1.

INTERROGATORY NO. 3:

Applicant has advertised that it estimates construction delays of the proposed Allens Creek plant are costing $200 million a year and that to date the project has been delayed three years.

(a) How was this $200 million per year figure calculated?

(b) Who calculated this figure?

(c) Has this cost figure been included in the plan for obtaining necessary funds to cover the estimated cost of construction and related fuel cycle cost?

(d) How does Applicant define the word "delay" as used in its advertisements?

(e) Does "delay" include Applicant's announcement of indefinite deferral of the Allens Creek project from September 15, 1975 to October 7, 1976?

(f) Is any of the $200 million a year estimate attributable to increases in the cost of the quality assurance program of Applicant?

(g) Is any of the $200 million a year estimate attributable to increases in the cost of the quality assurance program of Ebasco Services or General Electric Company?

ANSWER:

(a) Applicant has not been able to determine the exact source of this number or the exact method of calculation. However, Applicant believes that this number includes approximately $100 million per year for escalation and approximately $100 million per year for purchased power for each year the plant is delayed.

(b) See answer to Interrogatory 3(a).

(c) Escalation costs resulting from the three year delay of the estimated commercial operation date of the Allens Creek plant are included in the current estimate for the final construction costs and related fuel cycle costs of

the Allens Creek plant, and as such, are included in the plan for obtaining necessary fur to cover the estimated cost of construction and relat uel cycle costs. Differential fuel costs as a result of such delay are not included in estimated plant costs for Allens Creek.

(d) The word "delay" means to cause to be late or behind in movement or progress.

(e) No.

(f) No.

(g) No.

INTERROGATORY NO. 4:

(a) Have there been any cuts in the budgeted funding of Applicant's quality assurance for ACNGS program since inception of the Allens Creek project?

(b) Describe any changes in the number of quality assurance employees which have occurred since the inception of the Allens Creek project.

ANSWER:

(a) No.

(b) The number of quality assurance employees has been increased since inception of the Allens Creek project.

INTERROGATORY NO. 5:

SER Supplement No. 2, p. 20-1 states that "the earliest date for commercial operation of the Allens Creek Nuclear Generating Station, Unit 1, is estimated to be March 1985." Recent advertisements by Applicant list completion for ACNGS to be 1988.

(a) What is Applicant's current estimate of commercial operation?

(b) Does Applicant believe the three years difference in estimated date of commercial operation requires reevaluation of its financial qualifications analysis in SER Supplement No. 2.

(c) Please describe in detail any additional analysis which has been done by Applicant on the issue of financial qualifications.

(d) List any documents which have been submitted to the NRC concerning financial qualifications since the preparation of SER published March, 1979.

(e) Has Applicant detected any change in the availability of viable capital markets referred to on p. 20-1 SER Supplement No. 2 since publication of same?

(f) Has Applicant detected any change in rational regulatory policies referred to on p. 20-1 SER Supplement No. 2 since publication of same?

(g) Has Applicant revised its analysis to take into account increased interest rates for borrowed funds?

(h) Has there been any significant change in Applicant's ability to sell common stock since publication of SER Supplement No. 2?

ANSWER:

(a) Applicant plans to have ACNGS available to serve the peak load in the summer of 1988.

(b) Applicant did not prepare the financial qualifications analysis in SER Supplement No. 2. Nonetheless, Applicant believes that the basic assumptions upon which the NRC bases the financial analysis in the Supplement are still sound. Further, Applicant does not believe that a reanalysis of its financial qualifications is required for any reason.

(c) Applicant updates annually the information set forth in Table 20.1 of SER Supplement No. 2.

(d) None.

(e) The reference to viable capital markets was an assumption made by Staff in doing its analysis. Applicant believes, therefore, the question would be more appropriate for the Staff to answer since Applicant has no idea as to whether the Staff still considers that to be a valid assumption. Applicant can answer that it has experienced no difficulties with respect to availability of capital.

(f) See answer to Interrogatory 5(e).

(g) Applicant does not know what analysis is being referred to in this interrogatory. Applicant's planning process does take into account existing and anticipated interest rates.

(h) There have been no significant changes in the Applicant's ability to sell common stock since publication of SER Supplement No. 2.

INTERROGATORY NO. 6:

What was the reason or reasons for Applicant's "indefinite deferral" of Allens Creek project in 1975-1976?

ANSWER:

Applicant deferred the Allens Creek project in 19 5 because o (1) anticipated difficulties in financing

its construction program in view of rapidly increasing construction costs and in light of the problems it was having in obtaining rate relief which it had requested in February, 1975; and (2) reduced estimates of the growth in electric peak load requirements.

INTERROGATORY NO. 7:

List and describe in chronological order any and all changes in design, in materials used, or in modes or method of construction, which have been attempted since the publication of SER in November, 1974 with the primary purpose of decreasing costs?

ANSWER:

(a) Cost Reductions Initiated Upon Reactivation in 1977:

1. ACNGS Unit 2 was cancelled and the lake size was reduced from 8000 to 4800 acres.
2. The plant layout was modified so that the Fuel Handling Building, Control Building, and Radwaste Building contain equipment for one unit rather than two.
3. The Turbine Building volume was reduced thus reducing steel, concrete, piping and cabling footage, and heating/ventilating/air conditioning load. No systems were added or deleted.

4. The Diesel Generator Building volume was reduced.

5. NRC Regulatory Guide 1.27 established emergency water supply requirements for 30 days. The Ultimate Heat Sink had been designed for 120 days. The resulting reactivated design is one 47-acre area rather than two 175-acre areas.

(b) Cost Reductions Subsequent to Reactivation:

1. Use dry Cask Handling System 2 and associated Fuel Handling Building foundation configuration.
   - Change made 7/78, savings $14,000

2. Move Ultimate Heat Structure closer to the plant as described in PSAR response 361-4.
   - Change made 11/78, savings $824,000

3. Elected to purchase pressure gauges and switches through the instrument cabinet supplier rather than separately. Commercial change only.
   - Change made 3/79, savings $32,000

4. Modified Condensate System design.
   - Change made 11/79, savings $264,000

5. Modified Circulating Water Intake Structure
   - Change made 10/79, savings $370,000

6. Use composite HVAC, cable tray, and piping support structure rather than separate supports. In addition to design savings below, simplified construction and reduced likelihood of interferences point to greater savings.

   - Change made 11/79, savings $90,000

7. Eliminate powered mechanical trash rakes from the Circulating Water Intake Structure.

   - Change made 12/79, savings $420,000

INTERROGATORY NO. 8:

List and describe in chronological order any and all changes in design, in materials used, or in modes or method of construction made since publication of SER in November, 1974 which in the opinion of Applicant have resulted in decrease in cost or cost savings to Applicant.

ANSWER:

See answer to Interrogatory No. 7.

INTERROGATORY NO. 9:

Does Applicant have any system or unit charged with responsibility for monitoring safety problems of already existing nuclear generating stations of same or similar design to ACNGS or with same as similar components as ACNGS?

ANSWER:

The Applicant's nuclear engineering staff and licensing staff both monitor developments on other nuclear projects.

INTERROGATORY NO. 10:

If the answer to question 9 is no, is the reason for not having such a system or unit based on cost considerations?

ANSWER:

Not applicable.

INTERROGATORY NO. 11:

Report of The President's Commission on The Accident at Three Mile Island, October, 1979, states on p. 44: "Met Ed had a plan for a quality assurance program that met NRC requirements. The NRC requirements, however, were inadequate because they did not require quality assurance programs to be applied to the plant as a whole, but only to systems classified as 'safety-related' . . . The NRC did not require the level of independent review (i.e., outside of line management) normally found in quality assurance programs of safety-critical industries."

(a) Does Applicant's quality assurance program apply to the ACNGS plant as a whole or only to systems classified as "safety-related"?

(b) If the answer to 11(a) is no, is the reason for not having such a program based on costs considerations?

(c) Does Applicant's quality assurance program provide for periodic independent audits (that is, outside HL&P, Ebasco, or General Electric Company) of the effectiveness of the quality assurance program.

(d) If the answer to 11(c) is no, is the reason for not having such a program based on cost considerations?

(e) Has Applicant budgeted sufficient funds to employ enough inspectors to do the inspections required under the present quality assurance plan for ACNGS?

(f) Has Applicant budgeted funds to require reporting, resolution, and trending of problems which are not classified as "safety-related" for ACNGS?

ANSWER:

(a) Applicant's Quality Assurance Program applies to systems other than those classified as safety-related.

(b) N/A.

(c) HL&P performs periodic independent audits of Ebasco, General Electric, other contractors or vendors. There are no planned periodic independent (outside HL&P, except NRC) audits provided in the quality assurance program for ACNGS.

(d) No.

(e) Yes.

(f) Yes.

INTERROGATORY NO. 12:

Has Applicant stated in advertising published in April, 1980 that " . . . during the 1980's we'll be challenged by a multitude of problems. Problems that threaten our ability to provide reliable service. Problems so serious that we can't guarantee you that you won't run short of electricity during the next few years - despite the biggest construction program in our company's history"?

ANSWER:

Yes.

INTERROGATORY NO. 13:

How does the STNP quality assurance program differ from the ACNGS quality assurance program?

ANSWER:

The contractor QA program will differ in that Ebasco, not Brown & Root, will be responsible for construction at ACNGS. The HL&P quality assurance program for ACNGS will be basically the same as the STNP Quality Assurance Program except that program improvements learned from the experience on STNP will be added to the ACNGS quality assurance program.

INTERROGATORY NO. 14:

Does Applicant believe quality control problems at STNP have been caused by the project contractor's emphasis of higher work production and lower costs at the expenses of quality control?

ANSWER:

Applicant cannot answer this question without specific identification of the quality control problem referred to in this interrogatory. On April 30, 1980, the NRC issued an enforcement order on STP and set forth numerous specific instances of alleged deficiencies in the QA/QC program at STP. Applicant replied to each allegation on May 23, 1980.

INTERROGATORY NO. 15:

What measures are included in the ACNGS quality assurance program to prevent or remedy threatening or harrassment of quality control inspectors by construction personnel?

ANSWER:

a. Construction personnel shall be instructed not to threaten or harrass quality control inspectors and told that activity of this type will not be tolerated by HL&P and that proper disciplinary action will be taken.

b. All personnel shall be encouraged and told how to report any incidents of this type to their supervisors or management, to HL&P or to the NRC without fear of disciplinary action for reporting the incident.

c. HL&P shall increase its surveillance activity to be more visible on site in order to reduce the opportunities for these incidents.

INTERROGATORY NO. 16:

The following interrogatories refer to Applicant's Response to Baker's First Set of Interrogatories to Applicant.

(a) Regarding Applicant's answer to Baker Interrogatory 1(b), could the term "construction" be construed to possible include ACNGS?

(b) Regarding Applicant's answer to Baker Interrogatory 4(b): (1) has Applicant contacted any insurance companies regarding coverage; (2) does Applicant have a current estimate as to the extent of coverage which will be available at the time of operation of ACNGS; (3) define the words "other insurance" used in the answer.

(c) Regarding Applicant's answer to Baker Interrogatory 5, has Applicant "speculated" or attempted to make calculations as to what its costs may be under alternative waste disposal program and if so, what was the result of such speculation?

ANSWER:

(a) As indicated in the answer to Baker Interrogatory 1(b), the reference was non-specific as to any particular aspect of Applicant's construction program.

(b) (1) Applicant has contacted American Nuclear Insurers with regard to insurance coverage.

(2) While Applicant does not know the exact amount of insurance that will be available upon operation of ACNGS, the coverage presently available is $300 million for property insurance and $560 million for liability insurance.

(3) The term "other insurance" as used in the answer to Baker Interrogatory 4(b) refers to insurance other than property insurance that may be available at the time of operation of ACNGS such as liability insurance, insurance for replacement of power, or any other insurance which would provide coverage on an economic basis.

(c) No.

INTERROGATORY NO. 17:

List and describe what steps Applicant has taken or will take to insure that it will not engage in substandard construction practices at ACNGS in the event it ever experiences a shortage of funds?

ANSWER:

Applicant does not make plans based on such remote speculation.

INTERROGATORY NO. 18:

What has the cost of such steps been?

ANSWER:

Not applicable.

INTERROGATORY NO. 19:

List and describe what steps Applicant has taken or will take to insure that it will not engage in substandard construction practices at STNP in the event it ever experiences a shortage of funds?

ANSWER:

Applicant does not make plans based on such remote speculation.

INTERROGATORY NO. 20:

What has the cost of such steps been?

ANSWER:

Not applicable.

INTERROGATORY NO. 21:

SER Supplement No. 2 March, 1979, p. 20-1 states that total nuclear production plant costs including transmission, distribution, and general plant costs estimate is $1,055,000. Applicant's answer to Baker Interrogatory 2 states that the most current estimate of final construction costs to be $1,484,783,000, which estimate was made in January, 1980.

(a) Does this most current estimate include transmission, distribution, and general plant costs?

(b) Does the most current estimate include the same factors as the SER Supplement No. 2 estimate?

(c) Was the SER Supplement No. 2 estimate prepared by the Project Management Department?

(d) Explain why Applicant's estimates made approximately one year apart differ by almost $430 million or almost one-third of the current estimated cost.

(e) How often does Applicant review or reevaluate its costs estimate for ACNGS?

ANSWER:

(a) No.

(b) It appears that at page 20-1 of Supplement No. 2 the Staff misstated the information provided in Amendment 2 to the Application. Amendment 2 provides that the total nuclear production plant costs including interest during construction and transmission, distribution and general plant costs equals $1,372,042,000. The estimate in Amendment 2 of $1,055,000,000 related only to production plant costs and excludes interest during construction.

(c) The Supplement was prepared by the Staff; Applicant's estimate was set forth in Amendment 2 to the Application.

(d) The Applicant's estimates are three years apart, not one year apart, which makes it impossible to answer the question as asked.

(e) The estimate is reviewed at least annually and may be reviewed more often if the need arise.

Respectfully submitted,

J. Gregory Copeland

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STATE OF TEXAS §
§
COUNTY OF HARRIS §

BEFORE ME, THE UNDERSIGNED AUTHORITY, on this day personally appeared H. R. Dean, who upon his oath stated that he has answered Interrogatory Nos. 1, 2, 3, 5, 6, 12, 16 and 21 of Houston Lighting & Power Company's Response to Doggett's and Perrenod's First Set of Interrogatories to Houston Lighting & Power Company in his capacity as Group Vice President-Accounting and Finance for Houston Lighting & Power Company.

H. R. Dean

SUBSCRIBED AND SWORN TO BEFORE ME by the said H. R. Dean, on this 30 day of June, 1980.

Notary Public in and for
Harris County, Texas

My Commission Expires: March 14, 1984

STATE OF TEXAS §
§
COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this day personnally appeared Paul A. Horn, who upon his oath stated that he has answered Interrogatory Nos. 4, 7, 8, 9, 10, 11, 13, 14, 15, 17, 18, 19 and 20 in Houston Lighting & Power Company's Answers to Stephen A. Doggett's and W. Matthew Perrenod's First Set of Interrogatories to Houston Lighting & Power Company in his capacity as Project Manager.

Paul A. Horn
(Paul A. Horn)

SUBSCRIBED AND SWORN TO BEFORE ME on this the 30th day of June, 1980.

Jo Ann J. Keont
NOTARY PUBLIC IN AND FOR
HARRIS COUNTY, T E X A S

My Commission Expires: 11-26-81

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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## CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Applicant's Response to Doggett's and Perrenod's First Set of Interrogatories to Houston Lighting & Power Company in the above-captioned proceeding were served on the following by deposit in the United States mail, postage prepaid, or by hand-delivery this 1st day of July, 1980.

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