July 29, 1981

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
TEXAS UTILITIES GENERATING COMPANY, et. al.	)	Docket Nos. 50-445 50-446
(Comanche Peak Steam Electric Station, Units 1 and 2)	)	(Application for Operating Licenses)

APPLICANTS' ANSWERS TO CFUR'S SIXTH SET OF INTERROGATORIES; AND MOTION FOR PROTECTIVE ORDER

Pursuant to 10 C.F.R. §2.740b, Texas Utilities Generating Co., et al. ("Applicants"), hereby submit answers to "CFUR's Sixth Set of Interrogatories to Applicants," filed July 10, 1981. Applicants will respond to CFUR's request to produce pursuant to and on the schedule provided for in 10 C.F.R. §2.741(d). Also, pursuant to the Board's directive in its July 23, 1981 Memorandum and Order, Applicants include below a motion for protective order with respect to those interrogatories to which the Applicants object.

I. Scope of Interrogatories

As with CFUR's previous sets of interrogatories, CFUR does not specify the contentions at which each of the interrogatories in this sixth set is directed. It appears to the Applicants that all of those interrogatories are directed solely at Contention 3. Accordingly, Applicants' responses

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are predicated on the assumption that the interrogatories are concerned with Contention 3, which reads as follows:

> Contention 3. The computer codes used in the CPSES/FSAR must be tested and, if necessary, modified to accept the parameters reflecting the sequence of events at Three Mile Island and then to realistically predict plant behavior.

II. Applicants' Answers to CFUR's Interrogatories

Applicants set forth below their answers and objections to CFUR's sixth set of interrogatories. Applicants also move the Board, pursuant to 10 C.F.R. §2.740(c), to issue a protective order with respect to those interrogatories for which the Applicants have filed objections. Applicants' motion for a protective order is set forth in Section III, below.

A. Objection to CFUR's Interpretation of the Scope of Contention 3.

Applicants object to the interrogatories in CFUR's sixth set to the extent they seek information regarding accident analyses listed in "Exhibit A" to CFUR's interrogatories that are not relevant to the "sequence of events at TMI." Contention 3 is concerned solely with whether computer codes used in the FSAR adequately reflect the particular TMI sequence of events. However, CFUR has for the most part simply listed in Exhibit A the accident sequences identified in the table of contents of Chapter 15 of the Comanche Peak FSAR, most of which do not relate to or reproduce the TMI scenario. Thus, those unrelated accident sequences are not relevant to Contention 3.

Applicants discuss in detail their position on the scope of Contention 3 in "Applicants' Answers to CFUR's Motions (1) to Compel Responsive Answers to CFUR's Fourth Set of Interrogatories and (2) to Find Applicants Default and Request for Oral Argument," served July 6, 1981. Accordingly, Applicants also rely on the discussion in that pleading as setting forth their position on the scope of Contention 3.

The TMI event began with a loss of feedwater which resulted in a PORV sticking open. If the loss of feedwater transient had continued, it would have been modelled most directly by accident sequence AI, "loss of feedwater." However, feedwater was restored at TMI about eight minutes after its loss. The sequence of events which followed, which was the controlling sequence of events at TMI, was the equivalent of a small-break loss of coolant accident ("SB LOCA") consisting of a stuck open PORV. In Exhibit A, this event sequence is most similar to accident sequence Y, "the inadvertent opening of a pressurizer safety or relief valve," which is a SB LOCA through the top of the pressurizer. Accordingly, Applicants' responses to CFUR's interrogatories are based upon the Applicants' SB LOCA analysis.

B. Answers to Interrogatories.

1.a.-d. In addition to the objection discussed in Section II.A., supra, Applicants object on other grounds to Interrogatories 1.a.-d. as seeking information irrelevant to Contention 3. These interrogatories are directed at particular "mathematical relationships" used in Applicants' accident sequence analyses and the values of certain "parameters" and "variables" in those mathematical relationships. Such inquiries concern the detailed formulas upon which Applicants' accident sequence analyses rely in performing mathematical calculations. Contention 3, on the other hand, is concerned with the separate topics of the results of those analyses, whether they "realistically predict plant behavior" and whether they consider certain failure mechanisms which CFUR describes as "parameters." Such matters are beyond the scope of Contention 3.

Nevertheless, in the interest of expediting the discovery process and of providing information concerning the use of computer codes in the Applicants' FSAR to evaluate accident sequences, Applicants provide the following responses to Interrogatories 1.a.-d.

1.a. The mathematical model used to evaluate SB LOCA's is referrenced in the FSAR. See Chapter 15, Section 15.6.5. The references cited therein describe the mathematical relationships used to evaluate SB LOCA's.

1.b. These values are discussed in the referenced model referred to in the response to Interrogatory 1.a.

1.c. See response to Interrogatory 1.b.

1.d. These values are found in the sections of the FSAR describing the particular system or components that are modelled by the accident analyses.

1.e. Automatic protective actions and safety system setting are described in Chapter 15 of the FSAR for SB LOCA's.

1.f. No non-automatic protective actions are assumed to take place.

1.g. Applicants object to this interrogatory as being insufficiently specific to frame a response and as requiring conjecture and speculation. CFUR has raised Contention 3 which CFUR has indicated is concerned with whether Applicants' computer codes adequately reflect operator and maintenance actions in accident analyses. Applicants have explained to CFUR how those computer codes consider human error. See "Applicants' Answers to CFUR's Fourth Set of Interrogatories," June 1, 1981 at pp. 3-4. Applicants are not required to specify CFUR's concerns for it.

2-5. Applicants object to these interrogatories to the extent they concern accident sequence analyses not relevant to the sequence of events at TMI, for the reasons set forth in Section II.A., supra. To the extent these interrogatories are relevant to Contention 3, Applicants respond, as follows:

There is no consensus within the nuclear industry regarding "state-of-the-art" evaluation models. Thus, it is not possible to identify particular models as state-of-the-art as requested by this interrogatory. Applicants would note, however, that state-of-the-art models historically have implied the most realistic models available. 10 C.F.R. Part 50, Appendix K, requires some models used in LOCA evaluations to be bounding while other models are to be more realistic. For other models, Appendix K does not specify the type of model to be used in LOCA evaluations. The Applicants' computer codes

are developed to insure a margin of safety accepted by the NRC. Other codes have shown comparable results in predicting SB LOCA experimental results.

6. Applicants object to this interrogatory to the extent it concerns accident sequence analyses which are irrelevant to Contention 3, for the reasons set forth in in Section II.A., supra. To the extent this interrogatory is relevant to Contention 3, Applicants respond as follows:

   a. Sensitivity studies for SB LOCA's have been performed for various break sizes in the top of the pressurizer. The SB LOCA sizes correspond to flow areas of one PORV, three PORV's, two safety valves stuck open and three safety valves stuck open.

   b. As discussed in the documents to be provided in response to Interrogatory 6.c., no core uncovery results from SB LOCA's in the top of the pressurizer with the size of the flow area of one PORV, three PORV's, two safety valves or three safety valves.

   c. Applicants will respond to this request for production of documents, and provide documents which reflect the sensitivity studies and margins of safety discussed in the responses to Interrogatories 6.a. and b., pursuant to and on the schedule provided in 10 C.F.R. §2.741(d).

7. Applicants object to this interrogatory to the extent it concerns accident sequence analyses which are irrelevant to Contention 3, for the reasons set forth in Section II.A., supra. To the extent this interrogatory concerns accident sequences which are relevant to Contention 3, Applicants respond, as follows:

   Control rods are assumed to be fully withdrawn at transient initiation for all SB LOCA's.

8. Not applicable.

9. Applicants object to this interrogatory to the extent it concerns accident sequence analyses which are irrelevant to Contention 3, for the reasons set

forth in Applicants general objection in Section II.A., supra. To the extent this interrogatory concerns accident sequences which are relevant to Contention 3, Applicants respond, as follows:

Limiting case power distributions are obtained with the control rods withdrawn for SB LOCA's.

10. See response to Interrogatory 9.

11. Applicants object to this interrogatory to the extent it concerns accident sequence analyses which are irrelevant to Contention 3, for the reasons set forth in Section II. A., supra. To the extent this interrogatory concerns accident sequences which are relevant to Contention 3, Applicants respond, as follows:

For SB LOCA's, the control rods are assumed to be moving during the accident, as described in the response to Interrogatory 12.

12. Applicants object to this interrogatory to the extent it concerns accident sequence analyses which are irrelevant to Contention 3, for the reasons set forth in Section II. A., supra. To the extent this interrogatory concerns accident sequences which are relevant to Contention 3, Applicants respond, as follows:

In SB LOCA analyses, the control rods are assumed to fall into the core upon receipt of the reactor trip signal by the control rod drive mechanisms.

13. Not applicable in that Applicants' response to Interrogatory 12 addresses the accident analyses which are relevant to Contention 3. See Section II.A., supra.

14. Not applicable.

15. The Applicants are not seeking a license for the use of mixed-oxide fuels at Comanche Peak.

16.-18. See response to Interrogatory 15.

III. Applicants' Motion For Protective Order

Pursuant to 10 C.F.R. §2.740(c), and in accordance with the Board's directive regarding discovery in its July 23, 1981 Memorandum and Order, at p. 10, Applicants hereby move the Board for a protective order with respect to the interrogatories in CFUR's sixth set to which Applicants have objected. For the reasons set forth below, the Applicants move the Board to order that the scope of discovery sought by CFUR in those interrogatories is unduly broad and that those interrogatories are irrelevant to Contention 3.

A. Scope of Contention 3.

Applicants object to CFUR's interpretation of the scope of Contention 3 to the extent CFUR would have Applicants respond to discovery requests which concern each of the accident sequences listed in Exhibit A to CFUR's sixth set of interrogatories which are irrelevant to Contention 3. This objection relates to portions of Interrogatories 1-14. Discovery requests must be relevant to the subject matter of the proceeding which has been identified by the licensing board following a prehearing conference. 10 C.F.R. §2.740(b)(1); see Pennsylvania Power and Light Co., (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-613, 12 NRC 317, 330 (1980). As Applicants have noted previously, Contention 3 is concerned solely with the sequence of events which occurred at TMI. See Applicants' July 6, 1981 Answers to CFUR's motions. Applicants will not repeat that

discussion here, but invite the attention of the Board to it in support of the Applicants' instant motion. Accordingly, Applicants move the Board to order that the requested discovery on Contention 3 with respect to accident suequences other than as discussed in Section II.A., supra, is impermissable.

B. Interrogatories 1.a.-d.

Applicants also object to Interrogatories 1.a. through 1.d. on the grounds that they are seeking information which is irrelevant to Contention 3. These interrogatories request the particular "mathematical relationships" used in the Applicants' accident sequence analyses, and the "value(s)" of certain "parameters," and "variables", used in those mathematical relationships. Such information concerns the detailed mechanisms and calculations by which Applicants perform accident analyses. On the other hand, Contention 3 is directed at the results of Applicants' analyses (whether they realistically predict plant behavior) and whether particular failures (which CFUR describes as "parameters", e.g., operator error) are considered in those analyses. Contention 3 does not take issue with the details of calculations for Applicants' accident analyses. Accordingly, Applicants move the Board to order that Interrogatories 1.a.-1.d inquire of matters irrelevant to Contention 3 and need not be responded to by Applicants.

C. Interrogatory 1.g.

This interrogatory requests that Applicants "describe in detail all feasible but improbable actions . . . assumed not to occur which have possible safety significance." This interrogatory is not sufficiently specific or limited in scope to enable Applicants to frame an answer. In addition the interrogatory calls for speculation and conjecture as to any possible actions which could have safety significance. Interrogatories which are overly broad and call for speculation and conjecture are not proper uses of the discovery process in a proceeding of this kind. See e.g., Boston Edison Co. (Pilgrim Nuclear Generating Station, Unit 2), LBP-75-42, 1 NRC 159, 168-70 (1975). Accordingly, Applicants move the Board to order that Interrogatory 1.g is too vague and need not be responded to by Applicants.

Respectfully submitted,

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Counsel for Applicants

July 29, 1981

STATE OF TEXAS)
)
COUNTY OF DALLAS)

Homer C. Schmidt, being duly sworn, deposes and says:

That he is Manager, Nuclear Services, Texas Utilities Services, Inc., and knows the contents of the foregoing Applicants' Answer to CFUR's 6th Set of Interrogatories; that the same is true of his own knowledge except as to matters therein stated on information and belief, and as to that, he believes them to be true.

Homer C. Schmidt

SWORN to and subscribed
before me on this 29th
day of July, 1981

Lorene O. Hellerd
Notary Public

My Commission Expires:
6-1-85

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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TEXAS UTILITIES GENERATING COMPANY, et al.	)	Docket Nos. 50-445 50-446
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "Applicants' Answers To CFUR's Sixth Set of Interrogatories; And Motion For Protective Order," in the above-captioned matter were served upon the following persons by deposit in the United States mail, first class postage prepaid this 29th day of July 1981:

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