

July 20, 1981

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)

TEXAS UTILITIES GENERATING)
COMPANY, et al.)

(Comanche Peak Steam Electric)
Station, Units 1 and 2))

Docket Nos. 50-445

50-446

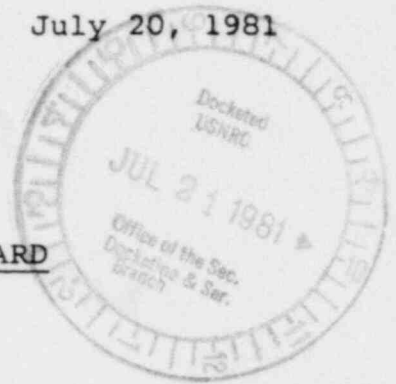
(Application for
Operating Licenses)

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

Pursuant to 10 C.F.R. §2.740(b), Texas Utilities
Generating Co., et al. ("Applicants") hereby submit answers
to "CFUR's Fifth Set of Interrogatories To Applicants and
Requests to Produce," dated June 30, 1981. In addition,
Applicants move the Board to issue a protective order
barring discovery by CFUR with respect to two Board raised
questions which stem from contentions proposed by CFUR but
which the Board rejected.

I. Scope of Interrogatories

As with CFUR's previous sets of interrogatories, CFUR
does not identify in this fourth set the contention at which
each of the interrogatories is directed. It appears to the
Applicants that Interrogatories 1 through 24 are directed



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solely at Contention 9, Interrogatories 25(a)-(g) are directed at the contentions and Board Question identified therein, Interrogatory 27 is not directed at any specific contention, Interrogatories 29 through 37 are directed at Contention 4, and Interrogatories 25(h) and (i), 26, 28 and 38 through 44 are directed solely at Board Questions 2 and 3. The Applicants seek a protective order with respect to the latter set of Interrogatories. Accordingly, Applicants responses are predicated on the assumption that the interrogatories are concerned with those Contentions and Board Questions, which read as follows:

Contention 4. Some accident sequences heretofore considered to have probabilities so low as to be considered incredible, based, in part, upon the findings of WASH-1400, are in fact more probable in light of additional findings, such as those of the Lewis Committee and should be evaluated as credible accidents for CPSES. This evaluation should include a hydrogen explosion accident. In order to insure conservatism, the probabilities associated with such accident sequences should be the highest probabilities within the specified confidence band.

Contention 9. Applicants have failed to make any effort to determine the effect of radioactive releases on the general public other than at the exclusion boundary. Various transport mechanisms may cause, in certain cases, the bulk of the health effects to occur some distance from the exclusion boundary.

Board Question No. 1. Describe in detail the planned method for handling any hydrogen gas in the CPSES containment structure.

Board Question No. 2. Applicant and Staff should describe in detail the operating quality assurance program for CPSES. A description of the provisions for conduct of QA audits should be provided, including a description of how reactor operations and reactor operator training will be audited.

Board Question No. 3. Describe the status of resolution of Safety Issue TAP A-9 (ATWS) as it relates to CPSES 1 and 2.

II. Applicants Answers to CFUR's
Interrogatories.

1. 50 miles.
2. Regulatory Guide 1.70 Rev. 2, Section 11.3. See also 10 C.F.R. §50.34(b), Part 50, Appendix I, and Part 100, and Regulatory Guides 1.4 and 1.109 where additional requirements concerning evaluation of radioactive releases for different purposes are set forth, but do not require such evaluations for Comanche Peak at distances beyond 50 miles from the site.
3. Discussions throughout the Comanche Peak Final Safety Analysis Report ("FSAR"), Chapters 11 & 12, address all aspects of reducing radioactive releases to unrestricted areas to levels which are as low as is reasonably achievable.
4. The use of a realistic model for the effluent release evaluation of normal plant operation is specified by the Nuclear Regulatory Commission, for determination of compliance with 10 C.F.R. Part 50 Appendix I.

Sections 50.34a and 50.36a of 10 C.F.R. Part 50 contain provisions to ensure that release of radioactive material from nuclear power reactors to unrestricted areas during normal reactor operation, including expected operational occurrences, are kept as low as is reasonably achievable. Appendix I to 10 C.F.R. Part 50 provides numerical guidance for radioactive effluent design objectives and technical specification requirements for limiting conditions of operation for light-water-cooled nuclear power plants.

Appendix I is applicable to all light-water-cooled nuclear power plants. The limits of Appendix I are met by using conservative source term models in the design basis relating to shielding design and component failure. This is standard industry practice and in accordance with NRC guidelines, positions and regulatory requirements. Realistic models are used to perform only the Appendix I evaluations as specified in NUREG-0017.

Appendix I provides guidance on doses to the public resulting from releases that are as low as is reasonably achievable. For these evaluations "realistic" source terms and assumptions are used. Regulatory Guide 1.109 describes the basic features of the calculational models and assumptions accepted by the NRC staff for the estimation of these doses.

5. The ANS draft source term standard was utilized as it conservatively represents the source terms expected from normal operation of CPSES. In addition, the draft source terms are accepted by the NRC and are in NUREG-0017, which sets forth the methodology for Appendix I calculations. The draft standard has subsequently become ANS Standard N237.

- 6.(a) The use of the word "assumed" indicates that for the purpose of the analysis in FSAR Section 11.1.2, the Gaseous Waste Processing System (GWPS) functions according to its design basis, i.e., it is assumed to operate as designed, rather than assumed not to operate.

In regard to gas stripping itself, it is a process whereby gases dissolved in solution leave the solution. A simple example of the process is gas bubbles leaving a carbonated drink. Gas "stripping" has been extensively studied and is well understood. Gases are stripped in the Volume Control Tank and then routed to the GWPS.

- 6.(b) The GWPS is designed to reliably function as described in Section 11.3 of the FSAR.
- 6.(c) This type of system has been in operation in numerous other nuclear power plants and has been proven reliable in many years of actual plant operation.
- 6.(d) The "Y parameter" and "stripping fraction" are defined differently. However, both indicate the fraction of gas that leaves the volume control tank liquid. The Y parameter is defined in ANS N237-1976 as a ratio of gases. The term "stripping fraction" is standard in the chemical processing industry and is described by Henry's law.
- and
- (e)

- 6.(f) Regulatory Guide 1.70 Rev. 2, Section 11.3.
7. Releases from Condition II events are not discussed in FSAR Chapter 15 as, by definition of a Condition II event (see FSAR Section 15.0.1.2). these events do not propagate to cause a more serious event. Therefore, for the purposes of the Chapter 15 accident analyses, the releases from Condition II events are bounded by the releases from either a Condition III or IV event.
- Additionally, the design basis for the Comanche Peak GWPS includes provisions for the occurrence of the Condition II events, in accordance with NRC regulatory guidance. ^{1/} The Appendix I evaluation includes these "anticipated operational occurrences".
8. The quantity of radioactive gases released, as
and the result of the limiting Condition III & IV
9. events (See Regulatory Guide 1.70, Rev. 2, Section 15.X), is described in FSAR Chapter 15. The source terms and methodology used in the dose evaluations of Condition III & IV events are those prescribed by Regulatory Guide 1.4.
- 10., 11., The events listed in FSAR Chapters 15.0.1.2,
and 12. 15.0.1.3 and 15.0.1.4 are assigned to frequency groups, as described in Regulatory Guide 1.70, Rev. 2, Section 15.X. Probabilistic evaluations of these events are not required by NRC regulations and have not been performed by the Applicants.
13. The basis for FSAR Figure 11.3-4 considers gas wastes accumulated due to normal operation and anticipated operational occurrences under the

^{1/} See Regulatory Guide 1.70 Rev. 2, pp. 11-1 & 11-4. The radiological assessment of Condition III and Condition IV events are not subject to the regulatory requirements of 10 C.F.R. Part 50, Appendix I and 10 C.F.R. §20.1(c). These events are governed by the regulatory requirements of 10 C.F.R. §50.34(b). Regulatory Guide 1.70, Rev. 2 describes methods for complying with both Appendix I requirements and the accident evaluations (as associated with Condition III & IV events).

extremely conservative assumption of 1% failed fuel over the entire 40 year life of the plant. A single Condition II event, or the occurrence of multiple Condition II events over the 40 year life of CPSES is bounded by the design basis for the GWPS and consequently will have no effect on the quantities of gaseous waste accumulated, particularly when the assumption of 1% failed fuel, noted above, is considered.

14. See answer to Interrogatory 13.
15. Not Applicable. See answer to Interrogatory 13. Also, see FSAR Section 11.3 for a discussion of the underlying assumptions to FSAR Figure 11.3-4.
16. See answer to Interrogatory 13.
17. See answer to Interrogatory 13.
18. See answer to Interrogatory 15.
19. A description of the GWPS is contained in FSAR Section 11.3.2. As indicated therein, the GWPS is designed to retain radioactive gases for indefinite periods. Routine releases from the GWPS are thereby precluded. Proper design and operation of the GWPS reduces the radioactive gas release potential for normal operation and anticipated operational occurrences. The GWPS meets the applicable design requirements of the NRC, as discussed in FSAR Section 11.3.
20. Condition III and IV events are analyzed without
and taking credit for the active operation of the
21. GWPS. The GWPS is not designed to mitigate the
consequences of these events by its operation
subsequent to the occurrence of the initiating
Condition III or IV event. A GWPS tank failure
is categorized as a Condition III event.
22. See answer to Interrogatory 20.
23. By definition, Condition IV events are the most limiting. NRC regulations do not require consideration of accidents more serious than those listed as Condition IV events in FSAR Section 15.0.1.4 for the purpose of FSAR Chapter 15 accident analyses. Also, see answer to Interrogatory 20.

24. See answer to Interrogatory 23.
- 25.(a)-(g) Applicants have not prepared any report, study or analysis for the purpose of responding to the listed contentions and Board Question.
- 25.(h)-(i), See answers below, following answer to Inter-
26., 28., rogatory 37.
and 38-44.
27. Applicants object to Interrogatory 27 as not
and being sufficiently specific to enable Applicants
28. to provide an answer. The interrogatory does
not identify any particular area of concern
within the scope of CFUR's contentions that
would enable the Applicants to frame a response.
Similarly, to the extent Interrogatory 28
relates to Interrogatory 27, Applicants object
to both Interrogatories on the same grounds.
29. Both containments for Comanche Peak Units 1 and
2 have a free volume of 2.985 million cubic
feet.
30. This interrogatory is unclear and fails to
pose a comprehensible question. Nevertheless,
in the interest of expediting discovery, Appli-
cants provide the following answer which is
responsive to the question Applicants believe
CFUR apparently intends to ask.
- Should an equal amount of zirconium metal in one
of the Comanche Peak reactor vessels react with
water under the same conditions as existed in
the TMI-2 reactor vessel at the time of the
TMI-2 accident, approximately the same amount of
hydrogen would be produced. One estimate of the
amount of hydrogen produced at TMI-2 is given in
the NRC Special Inquiry Group Report ("Rogovin
Report"), at page 535 of Volume II, part 2.
31. In that this interrogatory relies on Interroga-
tory 30, the Applicants' answer to this inter-
rogatory is also based on the question which
Applicants believe CFUR intends to ask.
- Should a burn of the type speculated to have
occurred at TMI-2 occur at Comanche Peak, the
peak pressure spike would be less at Comanche
Peak because the volumes of the Comanche Peak

containments are each significantly greater than the TMI-2 containment. The pressure spike that occurred at TMI-2 is less than the Comanche Peak containment design pressure.

32. No.
33. Not applicable.
34. The hydrogen concentration in the Comanche Peak containments can be maintained at a safe level by redundant, in containment, electric hydrogen recombiners and a back-up hydrogen purge system. Hydrogen levels inside the containment can be measured by redundant hydrogen monitors. See also, response to Interrogatory 31. In any event, there have been no new NRC requirements for hydrogen control within large atmospheric containments such as Comanche Peak as a result of the TMI investigations.
35. Yes.
- 36.(a), (b), and (c) See, "Response to the NRC Action Plan Developed as a Result of the TMI-2 Accident," Section II.B.1, in Volume XIV of the Comanche Peak Final Safety Analysis Report.
37. Not applicable.
- 25.(h)-(i), 26., 28., and 38-44. Each of these interrogatories is directed at the Board's Questions as set forth in its June 16, 1980 Order. Applicants object to these Interrogatories as involving matters on which CFUR should not now be permitted to conduct discovery, for the reasons set forth below in Section III.

III. Applicants Motion For A Protective Order

10 C.F.R. §2.740(c) authorizes the Atomic Safety and Licensing Board to issue an order "to protect a party from undue burden . . ." with respect to discovery requests. Pursuant thereto, Texas Utilities Generating Company, et al. ("Applicants") hereby move the Board to issue a protective

order barring the discovery sought by CFUR in Interrogatories 25(h) and (i), 26, 28 (as it applies to Interrogatory 26), and 38 through 44, of CFUR's Fifth Set of Interrogatories to Applicants, filed June 30, 1981. In support thereof, Applicants maintain, as will be discussed below, that they will be subjected to unnecessary and undue burden if they are required to respond to these specific Interrogatories.

In its June 16, 1980 Order the Board ruled on proposed contentions submitted by all intervenors to the proceeding. As part of that Order, the Board rejected several proposed contentions of CFUR including proposed contention 4B (which concerned the adequacy of managerial and administrative controls) and proposed contention 9 (involving hardware modifications and Anticipated Transients Without Scram (ATWS)). The Board ruled that proposed contention 4B lacked an adequate basis and was not sufficiently specific, and proposed contention 9 was too speculative and appeared to be outside the jurisdiction of the Board. The Board, however, was "interested" in both questions and asked the Applicant and Staff to submit an evidentiary response on specific aspects of these subjects, which it identified. See Board Questions No. 2 and 3, June 16, 1980 Order at 5-6.

The interrogatories for which the Applicants seek a protective order concern matters related to CFUR's rejected contentions 4B and 9, and addressed in Board Questions 2

and 3. Specifically, Interrogatories 25(h), 26 and 28 are directed at Board Question 2, which as the Board noted in its Order is the same "line of inquiry" as proposed contention 4B (Order at 5), and Interrogatories 25(i) and 38 to 44 concern Board Question 3, which concerns the AWS issue raised in proposed contention 9.

Applicants contend that if the June 16, 1980 Order is to have meaning, it should preclude CFUR from taking discovery on these questions. Specifically, the Board has already found that CFUR could not make the requisite showing necessary to have its contentions, which are now embraced within Board Questions 2 and 3, admitted. Now to allow CFUR discovery on its rejected contentions would, in effect, render that earlier decision a nullity and would permit discovery by a party who has already demonstrated an inability to contribute to the proceeding with respect to these issues. This latter point takes on added significance when it is recognized that CFUR had almost a year following the first prehearing conference Order ("Order Relative to Standing of Petitioners to Intervene," June 27, 1979) in which it was admitted as a party (during which time the parties negotiated as to the wording and admissibility of proposed contentions) to specify its concerns and to demonstrate a basis for those contentions before the Board ruled on their admissibility. CFUR should not be allowed now to

escape the consequences of its failure to satisfy the NRC Rules of Practice during this lengthy time span by using Board Questions 2 and 3 as if they were its own contentions. 2/

2/ Applicants further contend that the NRC Rules of Practice do not contemplate discovery by the Intervenor on questions raised by the Board. 10 C.F.R. §2.740(b)(1) provides that in a proceeding for an operating license, discovery "shall relate only to the matters in controversy which have been identified by the . . . presiding officer." (Emphasis added). Thus, before Intervenor can take discovery as a matter of right, such discovery must be shown to relate only "to the matters in controversy" identified by the presiding officer.

Board questions are not "matters in controversy." 10 C.F.R. §2.760a provides that with respect to such sua sponte questions, "matters not put into controversy by the parties will be examined and decided by the presiding officer only where he or she determines that a serious safety . . . and security matter exists . . ." (emphasis added). See also, 10 C.F.R. §§2.104(c) and 2.785(b)(2), and 10 C.F.R. Part 2, Appendix A, §§VIII(b) and IX(a) which identify Board raised issues as those "not raised by the parties." Accordingly, the language of 10 C.F.R. §2.740(b)(1), upon which CFUR relies in propounding the interrogatories identified above, precludes the discovery sought by such inquiries.

Applicants would note that an examination of NRC case law fails to disclose a case directly on point. Northern States Power Company (Prairie Island Nuclear Generating Plants, Units 1 and 2), ALAB-244, 8 AEC 857 (1974) provides some general insight. That case concerned the rights of parties to cross-examine on matters encompassed by issues in an operating license proceeding which are raised by a Licensing Board sua sponte. Therein, the Appeal Board suggests in dicta that in such instances parties may be entitled to "full participational rights" (Prairie Island, supra at 869), with the practical effect that theretofore "uncontested issues," i.e. Board raised questions, would be converted into "matters in controversy" (Id. at 870, n. 18). Applicants maintain that such a

[Footnote continued on next page].

Conclusion

In light of the foregoing, Applicants hereby request a protective order barring discovery on Interrogatories 25(h) and (i), 26, 28 (as it applies to Interrogatory 26), and 38 through 44, served upon the Applicants by Citizens for Fair Utility Regulation in its June 30, 1981 "Fifth Set of Interrogatories to Applicants." 3/

Respectfully submitted,

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July 20, 1981

[Footnote continued from previous page].

position is at odds with 10 CFR §2.760a, as discussed above. However, this Board need not involve itself with reconciling these disparate positions inasmuch as the unique factual setting of the instant case forms a sufficient basis for granting the requested protective order.

- 3/ CFUR has also propounded several interrogatories which concern Board Question 1, viz., Interrogatories 25(g) and 29-37. Applicants do not, however, seek a protective order with respect to these interrogatories since that Board Question is closely related to a CFUR proposed contention which was admitted, as part of Contention 4, viz., proposed contention 3B, and thus these interrogatories do not present the unique situation involved with the interrogatories directed at Board Questions 2 and 3.

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' Answers to CFUR's Fifth 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 20th
day of July, 1981

Glenda Benson
Notary Public

My Commission Expires: Feb. 17, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "Applicants' Answers To CFUR's Fifth 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 20th day of July 1981:

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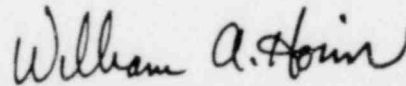
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