

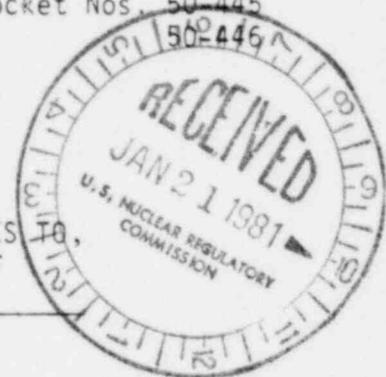
01/19/81

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



NRC STAFF'S FIRST SET OF INTERROGATORIES
AND REQUEST FOR THE PRODUCTION OF
DOCUMENTS FROM, INTERVENOR CFUR

The Nuclear Regulatory Commission (NRC) Staff hereby requests that Intervenor CFUR, pursuant to 10 CFR § 2.740(b) and in accordance with the Atomic Safety and Licensing Board's (hereafter "the Board") Order Subsequent To The Prehearing Conference of April 30, 1980", dated June 16, 1980, and the Board's Memorandum and Order of December 31, 1980,^{1/} answer separately and fully, in writing under oath or affirmation, the following interrogatories within fourteen (14) days after service hereof.^{2/}

^{1/} The Board's Memorandum and Order of December 31, 1980, contains the Board's rulings on 1) consolidation of the intervenors, 2) appointment of lead intervenors and 3) miscellaneous motions and other matters. The Board consolidated the intervenors for certain contentions, with CFUR being appointed lead intervenor for consolidated contention 4 and, as sole sponsor of contentions 1, 2, 3, 6, 7, 8, and 9, for those contentions as well. The Board provided that the lead party-intervenor for a particular contention is lead for all purposes, which would include discovery. Accordingly, the Staff has directed interrogatories for consolidated contention 4 to CFUR only, as lead intervenor for that contention. It is the Staff's expectation that in responding to those interrogatories, CFUR will consult with the other intervenors. CFUR's responses should be the joint responses of the intervenors consolidated for these contentions and should reflect the views and positions of all of the consolidated intervenors.

^{2/} The Staff has attempted to avoid duplication of any of Applicants' previously filed interrogatories to CFUR and has not included interrogatories which, in its view, seek precisely the same information CFUR has provided in response to Applicants' interrogatories to CFUR.

For each response to the interrogatories set forth below, identify the person or persons who prepared or substantially contributed to the preparation of the response.

The NRC Staff further requests that Intervenor CFUR, pursuant to 10 CFR § 2.741, provide copies of, or make available for Staff inspection and copying, the documents designated by Intervenor in response to certain of the accompanying interrogatories within thirty (30) days after service hereof.

I. GENERAL INTERROGATORIES^{3/}

G-1. State whether or not you intend to call any person or persons as witnesses in this proceeding in support of

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|------------------|------------------|------------------|
| (a) Contention 1 | (d) Contention 4 | (g) Contention 8 |
| (b) Contention 2 | (e) Contention 6 | (h) Contention 9 |
| (c) Contention 3 | (f) Contention 7 | |

and provide the names, addresses, educational backgrounds and professional qualifications of those persons you intend to call.

G-2. Indicate which of those persons identified in response to Interrogatory G-1 will appear voluntarily and which persons you intend to subpoena.

^{3/} Interrogatories in this section should be answered with respect to each contention. The contentions referred to are those contentions raised by Intervenor as modified, renumbered and admitted by the Licensing Board in its 1) Order Subsequent To The Prehearing Conference of April 30, 1980, dated June 16, 1980 and 2) Rulings on Objections to Board's Order of June 16, 1980 and on Miscellaneous Motions, dated October 31, 1980.

G-3. Provide summaries of the views, positions, or proposed testimony on

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|------------------|------------------|------------------|
| (a) Contention 1 | (d) Contention 4 | (g) Contention 8 |
| (b) Contention 2 | (e) Contention 6 | (h) Contention 9 |
| (c) Contention 3 | (f) Contention 7 | |

of all persons named in response to Interrogatory G-1 that you intend to present during this proceeding.

G-4. Identify by author, title, date of publication and publisher, all books, documents and papers that you intend to employ or rely upon in presenting your direct case on

- | | | |
|------------------|------------------|------------------|
| (a) Contention 1 | (d) Contention 4 | (g) Contention 8 |
| (b) Contention 2 | (e) Contention 6 | (h) Contention 9 |
| (c) Contention 3 | (f) Contention 7 | |

and provide copies of, or make available for Staff inspection and copying, those items.

G-5. If the representations made in

- | | | |
|------------------|------------------|------------------|
| (a) Contention 1 | (d) Contention 4 | (g) Contention 8 |
| (b) Contention 2 | (e) Contention 6 | (h) Contention 9 |
| (c) Contention 3 | (f) Contention 7 | |

are based in whole or in part on any documents prepared by the Applicants or NRC Staff which you contend are deficient, identify the documents and specify the particular portions thereof you regard as deficient and explain why they are deficient.

G-6. Identify by author, title, date of publication and publisher all books, documents or papers that you intend to employ or rely upon in conducting your cross-examination of prospective NRC Staff witnesses testifying in connection with

- (a) Contention 1 (e) Contention 4 (h) Contention 8
- (b) Contention 2 (f) Contention 6 (i) Contention 9
- (c) Contention 3 (g) Contention 7
- (d) Board Questions 1, 2 and 3 as set forth in the Board Order Subsequent To The Prehearing Conference, dated June 16, 1980.

II. INTERROGATORIES RELATED TO SPECIFIC CONTENTIONS^{4/}

Contention 1

Statement of Contention

Applicants have not demonstrated technical qualifications to operate CPSES in accordance with 10 CFR §50.57(a)(4) in that they have relied upon Westinghouse to prepare a portion of the Final Safety Analysis Report (FSAR) (CFUR 1).

C1-1. Define the term "demonstrated" as that term is used in Contention 1.

C1-2. State your understanding of the term "technical qualifications" as that term is used in Contention 1.

^{4/} The contentions referred to are those contentions raised by Intervenor as modified, renumbered and admitted by the Licensing Board in its 1) Order Subsequent To The Prehearing Conference, dated June 16, 1980 and 2) Rulings on Objections to Board's Order of June 16, 1980 and on Miscellaneous Motions, dated October 31, 1980.

C1-3. State the basis for your assertion that Applicants have relied upon Westinghouse to prepare a portion of the Final Safety Analysis Report (FSAR) and describe specifically that portion of the FSAR which you assert was prepared by Westinghouse.

C1-4. Do you assert in Contention 1 that Applicants' reliance on Westinghouse to prepare a portion of the FSAR means that Applicants have not demonstrated technical qualifications to operate CPSES? If so, state the basis for your position in this regard.

C1-5. State with specificity in what ways you contend the Applicants have failed to demonstrate to compliance with NRC regulations and/or licensing requirements relating to their technical qualifications to operate CPSES. Specify the NRC regulations and/or requirements which you contend Applicants must comply with in this regard.

C1-6. State with specificity in what ways 10 CFR §50.57(c)(4) requires that Applicants demonstrate technical qualifications to operate CPSES. State the basis for your position in this regard.

C1-7. What do you contend Applicants must do to demonstrate that they are technically qualified to operate CPSES? State the basis for your position in this regard.

C1-8. What do you contend is necessary in order for the Commission to be able to make the finding required by 10 CFR §50.57(a)(4) that Applicants

are technically qualified to operate CPSES? State the basis for your position in this regard.

C1-9. Have you reviewed the Applicants' Final Safety Analysis Report ("FSAR")? If so, please answer the following questions.

a. Do you object to any of the information, data or analysis contained or referenced therein with respect to Applicants' technical qualifications to operate CPSES?

b. If your response to a. is in the affirmative, please specify your objections by identifying the sections of the FSAR to which you object and the substance of your objections?

c. What are your bases for your responses to a. and b.?

Contention 2

Statement of Contention

One or more of the reports used in the construction of computer codes for the CPSES/FSAR have not been suitably verified and formally accepted; thus conclusions based upon these computer codes are invalid. (CFUR 2A)

C2-1. Specifically identify the "reports" and the "computer codes" referred to in the contention.

C2-2. Define what is meant by the terms "suitably verified" and "formally accepted" as those terms are used in the contention. State the basis for such definitions.

C2-3. State the basis for your assertion in Contention 2 that the reports referred to have not been "suitably verified" and "formally accepted".

C2-4. Do you contend that the "reports" identified in your response to Interrogatory C2-1 must be "suitably verified" and "formally accepted" by the NRC Staff? If so, state the basis for your position in this regard. If not, identify the persons or organizations which you contend must "suitably" verify and "formally" accept such reports. State the basis for your position in this regard.

C2-5. Indicate the verification and acceptance of the reports used in the construction of computer codes for the CPSES/FSAR which you would consider to be adequate and provide the basis for your position in this regard.

C2-6. Define what is meant by the phrase "thus conclusions based on these computer codes are invalid".

C2-7. Identify with specificity the "conclusions" based upon the computer codes referred to in Contention 2 which you assert are invalid and state the basis for your assertion that such conclusions are invalid.

C2-8. Set forth with specificity the NRC requirements (e.g., statutes, regulations) which you contend mandate that the reports used in the construction of computer codes for CPSES/FSAR be "suitably verified" and "formally accepted".

C2-9. For each "report" and "computer code" identified in your response to Interrogatory C2-1, state what you contend would be the safety consequences of a failure to "suitably verify" and "formally accept" such "reports" and "computer codes". State the basis for your position in this regard.

Contention 3

Statement of Contention

The computer codes used in 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. (CFUR 2B)

C3-1. What are the "computer codes" used in the Applicants' Final Safety Analysis Report ("FSAR") which you contend have not been "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"?

C3-2. What is the basis for your response to Interrogatory C3-1?

C3-3. Do you contend that any of the codes identified in your response to Interrogatory C3-1 are inaccurate?

C3-4. If your response to Interrogatory C3-3 is in the affirmative, please identify those codes and specify the nature and substance of each alleged inaccuracy.

C3-5. What is your basis for your response to Interrogatory C3-4?

C3-6. Define the terms "tested", "modified", "accept" and "parameters" as those terms are used in Contention 3. State the basis for such definitions.

C3-7. Do you contend that the NRC Staff should not accept the use in Applicants' FSAR of the computer codes identified above?

C3-8. If your response to Interrogatory C3-7 is in the affirmative please specify those computer codes which you contend should not be accepted. Please specify the precise objections you have to use of those computer codes.

C3-9. What is your basis for your response to Interrogatory C3-8?

C3-10. Describe specifically and in detail the "parameters reflecting the sequence of events at Three Mile Island" referred to in the contention and state the basis for your assertion that 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".

C3-11. For each of the "parameters" described in your response to Interrogatory C3-10, state in what ways such "parameters" are related to the safe operation of Comanche Peak. State the basis for your position in this regard.

C3-12. Define the terms "realistically predict plant behavior" as those terms are used in Contention 3. Does the term "plant behavior" refer to

CPSES? State the basis for your assertion that the computer codes used in CPSES/FSAR must be tested and if necessary, modified to "realistically predict plant behavior."

C3-13. Precisely what do you contend the Applicants must do to have the computer codes identified above "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"?

C3-14. Precisely what do you contend the NRC Staff must do to have the computer codes identified above "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"?

C3-15. What are the bases for your responses to Interrogatories C3-13 and C3-14?

C3-16. What do you contend the Applicants must do to demonstrate that the computer codes identified above have been "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"?

C3-17. What do you contend the NRC Staff must do to demonstrate that the computer codes identified above have been "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"?

C3-18. What are your bases for your responses to Interrogatories C3-16 and C3-17?

C3-19. Do you intend to challenge in the upcoming hearings the accuracy of any of the computer codes identified above?

C3-20. If your answer to Interrogatory C3-19 is in the affirmative, please specify those computer codes which you intend to challenge in the upcoming hearings.

C3-21. If your response to Interrogatory C3-19 is in the affirmative, please set forth with specificity the nature and substance of your challenge(s).

C3-22. What is the basis for your response to Interrogatory C3-21?

C3-23. Have you reviewed the Applicants' Final Safety Analysis Report ("FSAR")? If so, please answer the following:

a. Do you object to any of the information, data or analyses contained or referenced therein with respect to computer codes?

b. If your answer to a. is in the affirmative, please identify those objections by the section of the FSAR to which you object and the substance of each of your objections.

c. What is the basis for your response to b.?

C3-24. Do you contend that the Licensing Board must review each of the computer codes used in the FSAR?

C3-25. If your response to Interrogatory C3-24 is in the affirmative, please specify the basis for your response. Also, specify the type of review and the evidence which you contend must be presented by the Applicants and/or the NRC Staff to demonstrate the acceptability of those computer codes to the Board.

C3-26. If your response to Interrogatory C3-24 is in the negative, do you contend that the Board must review any of the computer codes set forth in the FSAR?

C3-27. If your response to Interrogatory C3-26 is in the affirmative, please specify those computer codes which you contend the Board must review and the basis for your response. Also, specify the evidence which you contend must be presented by the Applicants and/or the NRC Staff to demonstrate the acceptability of those computer codes to the Board.

C3-28. If your response to Interrogatories C3-24 and C3-26 are in the affirmative, what kind of review do you contend the Board must conduct? Please specify the roles and responsibilities of the Applicants, the Staff and the Board in this review.

C3-29. What is your basis for your response to Interrogatory C3-28?

C3-30. Precisely what do you believe is the purpose of each computer code which you contend must be "tested and, if necessary, modified, to accept the parameters reflecting the sequence of events at Three Mile Island and events to realistically predict plant behavior"?

C3-31. Do you contend that any of the computer codes which you believe have not been "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" do not serve the purpose for which they are intended as set forth in your response to Interrogatory C3-30? If so, please specify your objections.

C3-32. What are your bases for your responses to Interrogatories C3-30 and C3-31?

Contention 4

Statement of Contention

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. (CFUR 3A, 3B, and ACORN 11)

C4-1. Describe specifically and in detail each of the "accident sequences" referred to in the contention and state the basis for your assertion that each

such "accident sequence" should be evaluated as a "credible accident" for CPSES.

C4-2. Define specifically and in detail the term "credible accidents" referred to in the contention.

C4-3. Define the terms "evaluated as credible accidents" for CPSES.

C4-4. Do you assert that the NRC Staff should evaluate the "accident sequences" identified in your response to Interrogatory C4-1 as "credible accidents for CPSES"? State the basis for your position in this regard.

C4-5. Do you assert that the Applicants should evaluate "the accident sequences" identified in your response to Interrogatory C4-1 as "credible accident sequences for CPSES"? State the basis for your position in this regard.

C4-6. Precisely what do you contend the NRC Staff must do to "evaluate the accident sequences" identified in your response to Interrogatory C4-1 as "credible accidents for CPSES"? State the basis for your position in this regard.

C4-7. Precisely what do you contend the Applicants must do to "evaluate the accident sequences" identified in your response to Interrogatory C4-1 as "credible accidents for CPSES"? State the basis for your position in this regard.

C4-8. What do you contend the NRC Staff must do to demonstrate that the "accident sequences" identified in your response to Interrogatory C4-1 have been evaluated as "credible accident sequences for CPSES"? State the basis for your position in this regard.

C4-9. What do you contend the Applicants must do to demonstrate that the "accident sequences" identified in response to Interrogatory C4-1 have been "evaluated as credible sequences for CPSES"? State the basis for your position in this regard.

C4-10. Identify the "findings", in addition to those of WASH-1400, referred to in the contention.

C4-11. Define the term "more probable" as it is used in the contention.

C4-12. Identify the "additional findings", other than those of the Lewis Committee, referred to in the contention.

C4-13. Describe specifically and in detail the "hydrogen explosion accident" referred to in the contention and state the basis for your assertion that the "hydrogen explosion accident" described should be evaluated as a "credible accident" for CPSES.

C4-14. Do you assert in Contention 4 that the requirements in 10 CFR §50.44 regarding hydrogen generation would not be complied with respect to CPSES? If so, state the basis for such assertion.

C4-15. Do you assert in Contention 4 that there is a credible accident scenario which entails hydrogen gas generation or combustion leading to offsite radiation doses in excess of Part 100 guidelines? If so, state the basis for such assertion.

C4-16. a) Define specifically and in detail what is meant by the phrase the "probabilities associated with such accident sequences should be the highest probabilities within the specified confidence band."

b) State the basis for your assertion that "probabilities associated with such accident sequences should be the highest probabilities within the specified confidence band".

C4-17. Have you reviewed the Applicants' Final Safety Analysis Report ("FSAR")? If so, please answer the following:

a. Do you object to any of the information, data or analysis contained or referenced therein with respect to "accident sequences" which have been evaluated for CPSES?

b. If your answer to a. is in the affirmative, please identify those objections by the section of the FSAR to which you object and the substance of each of your objections.

c. What is the basis for your response to b.?

C4-18. Do you contend the Licensing Board must review each evaluation of accident sequences in the FSAR?

C4-19. If your response to Interrogatory C4-18 is in the affirmative, please specify the basis for your response. Also, specify the type of review and the evidence which you contend must be presented by the Applicants and/or the NRC Staff to demonstrate to the Board the acceptability of their respective evaluations of "accident sequences" for CPSES.

C4-20. If your response to Interrogatory C4-18 is in the negative, do you contend that the Board must review any of the evaluations of "accident sequences" set forth in the FSAR?

C4-21. If your response to Interrogatory C4-20 is in the affirmative, please specify those evaluations of "accident sequences" which you contend the Board must review and the basis for your response. Also, specify the evidence which you contend must be presented by the Applicants and/or the NRC Staff to demonstrate the acceptability of their evaluation of those "accident sequences".

C4-22. If your response to Interrogatories C4-18 and C4-20 are in the affirmative, what kind of review do you contend the Board must conduct? Please specify the roles and responsibilities of the Applicants, the Staff and the Board in that review. Also, state the basis for your responses.

C4-23. Precisely what do you believe is the purpose of evaluations of "accident sequences" for CPSES?

C4-24. Do you contend that any of the "accident sequences" used in the FSAR are not applicable to Comanche Peak? If so, please specify and state the basis for your position in this regard.

C4-25. If your response to Interrogatory C4-24 is in the affirmative, do you contend that the Applicants must demonstrate the applicability of the "accident sequences" to Comanche Peak? If so, how do you contend that the Applicants must demonstrate that applicability? State the basis for your position in this regard.

C4-26. If your response to Interrogatory C4-24 is in the affirmative, do you contend that the Staff must demonstrate the applicability of the "accident sequences" to Comanche Peak? If so, how do you contend that the Staff must demonstrate that applicability? State the basis for your position in this regard.

C4-27. Do you contend that the Staff's method of evaluation of "accident sequences" is inadequate?

C4-28. If your response to Interrogatory C4-27 is in the affirmative, what is the basis for your response?

C4-29. If your response to Interrogatory C4-27 is in the affirmative, please specify the nature and substance of the inadequacies which you contend are present in the Staff's method of evaluation.

C4-30. Do you agree that all "accident sequences" used in the Applicants' FSAR which are not identified in your response to Interrogatory C4-1 have been suitably evaluated?

C4-31. If your response to Interrogatory C4-30 is in the negative, please explain. Please set forth the nature and substance of your disagreement with that statement. State the basis for your position in this regard.

C4-32. Specify those NRC requirements you contend are not satisfied because certain "accident sequences" have not been "evaluated as credible accident sequences for CPSES". State the basis for your position in this regard.

Contention 6

Statement of Contention

There is no assurance that the Spent Fuel Pool area can withstand the effects of tornadoes, as required by 10 CFR Part 50, Appendix A, Criterion 2 because:

- a. The analyses upon which the Design Basis Tornado (DBT) is based are perfunctory, outdated and unreliable;
- b. The loading analyses based on the Design Basis Tornado (DBT) are inappropriate because they fail to consider the potential loading combination of the DBT and a tornado-generated missile.
- c. The assignment of a loading factor of 1.0 for load combination equations incorporating tornado loadings in combination with "normal and accident conditions" is unacceptable.
- d. The DBT parameters used in FSAR Section 3.3.2.1 are less conservative than the parameters found in NRC Regulatory Guide 1.76.c.2. (CFUR 5)

C6-1. Describe specifically and in detail the area which corresponds to the "Spent Fuel Pool area" referred to in the contention.

C6-2. Describe specifically and in detail the "tornadoes" (including wind velocities, atmospheric pressure changes and rates of changes in atmospheric pressure) referred to in the contention. State the basis for your response.

C6-3. State what is meant by the term "withstand" as it is used in the contention.

C6-4. Do you contend that tornadoes could affect the Comanche Peak "Spent Fuel Pool area"? State the basis for your response.

C6-5. Describe specifically and in detail the "effects of tornadoes" referred to in Contention 6.

C6-6. Do you assert in Contention 6 that specific sections of 10 CFR Part 50, Appendix A, criterion 2, are not met by the Comanche Peak "Spent Fuel Pool area"? If so, state the basis for your assertion and identify the specific sections of 10 CFR Part 50, Appendix A, of criterion 2, which you assert are not met by the Comanche Peak "Spent Fuel Pool area".

C6-7. Have you reviewed the Applicants' FSAR? If so, please answer the following:

a. Do you object to any of the information, data or analysis contained in the FSAR with respect to the ability of the "Spent Fuel Pool area" to withstand the effects of tornadoes?

b. If your answer to a. is in the affirmative, please specify those sections of the FSAR to which you object and state the substance of your objections.

c. What is your basis for your responses to a. and b.?

d. Please specify what information, data and/or analysis you contend must be included in the FSAR to satisfy your objections under Contention 6.

e. What is your basis for your response to d.?

C6-8. What do you contend Applicants must do to demonstrate that the Comanche Peak "Spent Fuel Pool area" can withstand the effects of tornadoes? State the basis for your position in this regard.

C6-9. What do you contend the NRC Staff must do to demonstrate that the Comanche Peak "Spent Fuel Pool area" can "withstand the effects of tornadoes"? State the basis for your position.

C6-10. As to Contention 6.a:

a. Identify the "analyses" referred to in the contention.

b. Describe specifically and in detail your understanding of the phrase "Design Basis Tornado (DBT)" as it is used in the contention.

c. State what is meant by the phrase "perfunctory, outdated and unreliable" as it is used in the contention.

d. State the basis for your assertion that the analyses are "perfunctory, outdated and unreliable".

e. Have you reviewed the Applicants' FSAR with respect to the discussion of the ability of the Comanche Peak "Spent Fuel Pool area" to "withstand the effects of tornadoes"? If so, please answer the following questions:

i. Do you object to any of the information, data or analysis contained or referenced therein with respect to the discussion of the "Design Basis Tornado"?

ii. If your answer to i. is in the affirmative, please specify those objections by identifying the sections in the FSAR to which you object and the substance of your objections.

iii. What are your bases for your objections identified in ii.?

iv. If your answer to i. is in the affirmative, please identify with specificity the information, data and/or analysis which you contend Applicants must consider with respect to the "Design Basis Tornado" to satisfy your objections in 6(a).

v. What is your basis for your response to iv.?

f. What do you contend Applicants must do to demonstrate that the analyses upon which the Comanche Peak "Design Basis Tornado" is based are not "perfunctory, outdated and unreliable"? State the basis for your position in this regard.

g. What do you contend the NRC Staff must do to demonstrate that the analyses upon which the Comanche Peak "Design Basis Tornado" is based are not "perfunctory, outdated and unreliable"? State the basis for your position in this regard.

h. Specify the NRC requirements (e.g., statutes or regulations) which you contend are not met because "the analyses upon which the Design Basis Tornado (DBT) is based are "perfunctory, outdated and unreliable". State the basis for your position in this regard.

C6-11. As to Contention 6b:

- a. Identify the "loading analyses" referred to in the contention.
- b. Define what is meant by "loading analyses, based on the Design Basis Tornado".
- c. Define what is meant by the term "inappropriate" as it is used in contention 6.b.
- d. Describe the "tornado-generated missile" referred to and state the basis for the assertion that such a missile could be generated by a tornado and could strike the Comanche Peak "Spent Fuel Pool area".
- e. Have you reviewed the Applicants' Final Safety Analysis Report ("FSAR")? If so, please answer the following questions.
 - i. Do you object to any of the information, data or analysis contained or referenced therein with respect to "the loading analyses based on the Design Basis Tornado"?
 - ii. If your response to i. is in the affirmative, please specify your objections by identifying the sections of the FSAR to which you object and the substance of your objections.
 - iii. What are your bases for your responses to i. and ii.?
- f. What do you contend Applicants must do to demonstrate that the "loading analyses based on the Design Basis Tornado" appropriately consider "the potential loading combination of the DBT and a tornado-generated missile"? State the basis for your position in this regard.

g. What do you contend the NRC Staff must do to demonstrate that the "loading analyses based on the Design Basis Tornado (DBT) appropriately consider "the potential loading combination of the DBT and a tornado-generated missile"? State the basis for your position in this regard.

h. Specify the NRC requirements (such as statutes or regulations) which you contend are not met because the "loading analyses based on the Design Basis Tornado (DBT)" are inappropriate because they fail to consider the potential loading combination of the DBT and a tornado-generated missile". State the basis for your position in this regard.

C6-12. As to Contention 6.c:

a. Define what is meant by "assignment of a loading factor of 1.0." and "load combination equations incorporating tornado loadings".

b. Describe specifically and in detail the "normal and accident conditions" referred to in the contention. Specify the "accident conditions" to which you refer. How would "normal conditions" differ from "accident conditions"?

c. State what is meant by the term "unacceptable" as it is used in the contention.

d. State the basis for your assertion that "the assignment of a loading factor of 1.0 for load combination equations incorporating tornado loadings in combination with 'normal and accident conditions' is unacceptable".

e. Have you reviewed Applicants' FSAR? If so, please answer the following questions.

i. Do you object to any of the information, data or analysis contained or referenced therein with respect to "the assignment of a loading factor of 1.0 for load combination equations incorporating tornado loadings in combination with 'normal and accident conditions'?"

ii. If your response to a. is in the affirmative, please specify your objections by identifying the sections of the FSAR to which you object and the substance of your objections.

iii. What are the bases for your responses to i. and ii.?

f. What do you contend the Applicants must do to demonstrate that "the assignment of a loading factor of 1.0 for load combination equations incorporating tornado loadings in combination with normal and accident conditions" is "acceptable"? State the basis for your position in this regard.

g. What do you contend the NRC Staff must do to demonstrate that "the assignment of a loading factor of 1.0 for load combination equations incorporating tornado loadings in combination with normal and accident conditions" is "acceptable"? State the basis for your position in this regard.

h. Specify the NRC requirements which you contend are not satisfied because of "the assignment of a loading factor of 1.0 for load combination equations incorporating tornado loadings in combination with normal and accident conditions". State the basis for your position in this regard.

C6-13. As to Contention 6.d:

a. Define what is meant by the phrases "DBT parameters used in FSAR Section 3.3.2.1", "less conservative" and "the parameters found in NRC Regulatory Guide 1.76.c.2.", as those phrases are used in the contention.

b. State the basis for your assertion in Contention 6.d. that "the DBT parameters used in FSAR Section 3.3.2.1 are less conservative than the parameters found in NRC Regulatory Guide 1.76.c.2".

c. Have you reviewed Applicants' FSAR, Section 3.3.2.1? If so, please answer the following interrogatories:

i. Do you object to any of the information, data or analyses contained or referenced therein regarding "the DBT parameters"?

ii. If your response to i. is in the affirmative, please specify your objections by describing the aspects of Section 3.3.2.1 which you find objectionable.

iii. What are the bases for your responses to i. and ii?

d. Do you contend that Applicants are required to adhere to the "parameters found in NRC Guide 1.76.c.2? If so, state the basis for your position.

e. Do you assert in Contention 6(d) that "the DBT parameters used in FSAR Section 3.3.2.1" are unsatisfactory because they are "less conservative than the parameters found in NRC Regulatory Guide 1.76.c.2."? If so, state the basis for your position.

f. What do you contend Applicants must do to demonstrate that "the DBT parameters used in FSAR Section 3.3.2.1" are not "less conservative than the parameters found in NRC Regulatory Guide 1.76.c.2."? State the basis for your position in this regard.

g. What do you contend the NRC Staff must do to demonstrate that "the DBT parameters used in FSAR Section 3.3.2.1" are not "less conservative than the parameters found in NRC Regulatory Guide 1.76.c.2."? State the basis for your position in this regard.

h. What do you contend the NRC Staff must do to demonstrate that "the DBT parameters used in FSAR Section 3.3.2.1." are acceptable for the design of the Comanche Peak facility? State the basis for your position in this regard.

i. What do you contend the Applicants must do to demonstrate that "the DBT parameters used in FSAR Section 3.3.2.1." are acceptable for the design of the Comanche Peak facility? State the basis for your position in this regard.

j. Specify those NRC requirements which you contend are not satisfied because "the DBT parameters used in FSAR Section 3.3.2.1 are less conservative than the parameters found in NRC Regulatory Guide 1.76.c.2."? State the basis for your position in this regard.

Contention 7

Statement of Contention

Applicants have failed to adequately evaluate whether the rock "overbreak" and subsequent fissure repair using concrete grout have impaired the ability of Category I structures to withstand seismic disturbances. (CFUR 6)

C7-1. Describe the rock "overbreak" referred to in the contention and state the basis for your assertion that such an overbreak has occurred.

C7-2. Describe the "subsequent fissure repair using concrete grout" referred to in the contention.

C7-3. Define specifically and in detail the "seismic disturbances" referred to in the contention.

C7-4. Define what is meant by the phrase "impaired the ability of Category I structures to withstand seismic disturbances", as it is used in the contention.

C7-5. Describe specifically the "Category I structures" referred to and state the basis for your assertion that the "rock overbreak and

subsequent fissure repair using concrete grout have impaired the ability of Category I structures to withstand seismic disturbances".

C7-6. Do you contend that the NRC Staff is unable or has failed to "adequately evaluate" the "rock overbreak" and "subsequent fissure repair"? If so, explain your response and provide the basis for your response.

C7-7. Do you object to any of the information, data or analysis contained or referenced in NRC Inspection Reports relating to the "rock overbreak" and "subsequent fissure repair"? If your response is in the affirmative, please specify those objections by describing the information, data or analysis to which you object and the substance of your objection.

C7-8. Do you object to any of the information, data or analysis contained or referenced in Applicants' FSAR with respect to the evaluation of the "rock overbreak" and "subsequent fissure repair"?

C7-9. If your answer to C7-8 is in the affirmative, please specify those objections by identifying the sections of the FSAR to which you object and the substance of your objection.

C7-10. What are your bases for your responses to C7-7 through C7-9?

C7-11. Specifically, do you contend that any of the specifications or procedures used in repairing rock overbreak are inadequate?

C7-12. If your answer to C7-11 is in the affirmative, please specify and explain the substance and nature of your objections.

C7-13. What are your bases for your responses to C7-11 and C7-12?

C7-14. Do you contend that Applicants' evaluation and determination of the static, dynamic and engineering properties of the materials underlying the site are inadequate? If so, please specify your objections and state the basis for your objections.

C7-15. Do you contend that any of the investigations or other activities required by 10 CFR Part 100, Appendix A have not been properly performed? If so, please specify and state the basis for your response.

C7-16. Do you contend that the Applicants' determination of the safe shutdown earthquake for the site is erroneous? If so, please specify the nature and substance of your objections and state the basis for your response.

C7-17. Do you contend that any tests must be done to evaluate the concerns which you have with respect to Contention 7? If so, please specify the purpose and procedure for each such tests with particularity. Also, state the basis for your response and identify who you believe should conduct such tests.

C7-18. Do you contend that reports and/or analyses must be done with respect to your concerns expressed in Contention 7? If so, please specify

the nature and substance of those reports and/or analyses and state the basis for your response.

C7-19. Do any of your responses to the above Interrogatories differ for the various structures identified in your response to Interrogatory C7-5? If so, please specify which interrogatories your answers differ on and set forth the answer for those interrogatories with respect to each of those structures. Also, state the basis for your response.

C7-20. Indicate the "evaluation by Applicants of the rock overbreak and subsequent fissure repair using concrete grout" which you would consider to be adequate and provide the basis for your position in this regard.

Contention 8

Statement of Contention

Applicants have failed to adequately evaluate the impacts of the drawdown of the groundwater under CPSES during and as a result of plant operation. (CFUR 7)

C8-1. Describe specifically and in detail the "impacts of the drawdown of groundwater under CPSES during and as a result of plant operation" and provide the basis for your assertion that groundwater will be withdrawn under CPSES during and as a result of plant operation.

C8-2. State what is meant by the phrase "adequately evaluate".

C8-3. State the basis for your assertion that Applicants have failed to adequately evaluate the impacts of the drawdown of the groundwater under CPSES during and as a result of plant operation.

C8-4. Do you object to any of the information, data or analysis contained or referenced in Applicants' Environmental Report - Operating License Stage (ER-OL") with respect to the effects of groundwater withdrawal during operation of Comanche Peak?

C8-5. If your answer to C8-4 is in the affirmative, please specify those objections by identifying the sections of the ER-OL to which you object and the substance of your objections.

C8-6. What are your bases for your responses to C8-4 and C8-5?

C8-7. Do you contend that Applicants must perform additional studies or analysis with respect to the potential effects of groundwater withdrawal during operation of Comanche Peak? If so, please specify the nature and substance of those reports or analyses which you contend must be done and state the basis for your position in this regard.

C8-8. What is the maximum rate of groundwater withdrawal which you contend should be permitted during the operation of Comanche Peak? State the basis for your position in this regard.

C8-9. What is the maximum level of groundwater drawdown which you contend should be permitted during operation of Comanche Peak?

C8-10. Do you contend that a particular level of groundwater must be maintained to assure an acceptable environmental impact on the environment regardless of whether water supplies can be obtained from sources other than groundwater? If so, what is that level? State the basis for your position.

C8-11. Do you contend that a particular level of groundwater must be maintained to assure the safe operation of Comanche Peak regardless of whether water supplies can be obtained from sources other than groundwater? If so, what is that level? State the basis for your position.

C8-12. What are the adverse effects on the Comanche Peak environs that you contend would occur if the groundwater level drops below the level specified in your response to Interrogatory C8-10? State the basis for your position.

C8-13. What are the adverse effects on the Comanche Peak operation that you contend would occur if the groundwater level drops below the level specified in your response to Interrogatory C8-11? State the basis for your position in this regard.

C8-14. Do you contend that Applicants should not withdraw groundwater at all during the operation of Comanche Peak? State the basis for your position in this regard.

C8-15. Do you contend that Applicants should reduce their use of groundwater during operation of Comanche Peak to levels other than those specified in the ER-OL? If so, please explain and state the basis for your position in this regard.

C8-16. Indicate the evaluation of the impacts of the drawdown of groundwater under CPSES during and as a result of plant operation that you would consider to be adequate and provide the basis for your position in this regard.

Contention 9

Statement of Contention

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. (CFUR 8)

C9-1. Describe specifically and in detail the "effect of radioactive releases" referred to in the contention.

C9-2. Define specifically and in detail what is meant by "general public" and "exclusion boundary". What geographical area corresponds to the area for which you contend the Applicants must "determine the effect of radioactive releases" on the "general public"? Specify the distance from the Comanche Peak site of that area. State the basis for your position in this regard.

C9-3. Do you assert in contention 9 that as a result of operation of Comanche Peak, there will be "radioactive releases"? If so, state the basis for such assertion. Do you contend that such "radioactive releases" will result from normal operation or only as a result of an accident? State the basis for your position in this regard.

C9-4. State the basis for your assertion that there will be "effects of radioactive releases on the general public other than at the exclusion boundary".

C9-5. State the basis for your assertion that the Applicants "have failed to make any effort to determine the effect of radioactive releases on the general public other than at the exclusion boundary".

C9-6. Identify the "various transport mechanisms" referred to in the contention.

C9-7. Define what is meant by "certain cases" as that term is used in the contention.

C9-8. Describe specifically and in detail the terms "bulk of the health effects" and "some distance". What distance from the exclusion boundary corresponds to "some distance"?

C9-9. State the basis for your assertion that "various transport mechanisms may cause, in certain cases, the bulk of the health effects to occur some distance from the exclusion boundary".

C9-10. The Commission's regulations governing release of radioactive materials during normal reactor operation require, in 10 CFR §50.36a, that such releases be kept "as low as is reasonably achievable" and Appendix I to 10 CFR Part 50 provides "numerical guidance" in this regard:

a. Do you assert in contention 9 that Applicants will fail to comply with these regulations? If so, state specifically and in detail the basis for your assertion. If you have no basis, so state.

b. Do you assert in contention 9 that the effects (impacts) of releases within the limits of the regulations should be considered? If so, state the basis for your position. If you have no basis, so state.

C9-11. Have you reviewed Applicants' Environmental Report - Operating License Stage ("ER-OL")? If so, answer the following questions.

a. Do you object to any of the information, data or analyses contained or referenced therein concerning "the effects of radioactive releases on the general public"?

b. If your answer to a. is in the affirmative, please specify your objections by identifying the sections of the FSAR to which you object and the substance of your objection.

c. What are the bases for your responses to a. and b?

C9-12. Do you contend that the NRC Staff must "determine the effect of radioactive releases on the general public other than at the exclusion boundary"? If so, state the basis for your position.

C9-13. Specify the NRC requirements (such as statutes and regulations) which you contend are not satisfied because "Applicants have failed to make

any effort to determine the effect of radioactive releases on the general public other than at the exclusion boundary"? State the basis for your position.

C9-14. Indicate the determination of "the effects of radioactive releases on the general public other than at the exclusion boundary" which you would consider to be adequate and provide the basis for your assertion in this regard.

Respectfully submitted,

Marjorie Ulman Rothschild

Marjorie Ulman Rothschild
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 19th day of January, 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

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S FIRST SET OF INTERROGATORIES TO, AND REQUEST FOR THE PRODUCTION OF DOCUMENTS FROM, INTERVENOR CFUR" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system, this 19th day of January, 1981:

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