July 10, 1981

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CFUR'S SIXTH SET OF INTERROGATORIES
TO APPLICANTS AND REQUESTS TO PRODUCE

Pursuant to 10 C.F.R. §§2.740b and 2.741, Citizens for Fair Utility Regulation ("CFUR"), hereby serves CFUR's Sixth Set of Interrogatories and Requests to Produce upon Texas Utilities Generating Company, et al ("Applicants"). Each interrogatory shall be answered fully in writing, under oath or affirmation, and include all pertinent information known to Applicant, its officers, directors or members as well as any pertinent information known to its employees, advisors or counsel. Each request to produce applies to pertinent documents which are in the possession, custody or control of Applicant, its officers, directors or members as well as its employees, advisors or counsel. In answering each interrogatory and in responding to each request, please recite the interrogatory or request preceding each answer or response.

These interrogatories and requests shall be continuing in nature. Thus, any time Applicant obtains information which renders any previous response incorrect or indicates that a response was incorrect when made, Applicant should supplement its previous response to the appropriate interrogatory or request to produce. Applicant should also supplement its responses as necessary with respect to identification of

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each person expected to be called at the hearing as an expert witness, the subject matter of his or her testimony, and the substance of that testimony. The term "documents" shall include any writings, drawings, graphs, charts, photographs, and other data compilations from which information can be obtained. We request that at a date or dates to be agreed upon, Applicant make available for inspection and copying all documents subject to the requests set forth below.

I.

CFUR'S INTERROGATORIES AND REQUESTS TO PRODUCE

1. For each accident sequence analysis listed in Exhibit "A" hereto, answer the following separately for each listed analysis:

Set out the mathematical relationships which were used to approximate each accident sequence. Provide your technical justification for each such mathematical relationship.

b. Provide the specific value of each controlling (endogenous) parameter used in each above-listed mathematical relationship. Provide your technical justification for each such value.

c. Provide the range of values that realistically could occur for each controlling (endogenous) parameter used in each above-listed mathematical relationship. Provide your technical justification for each such range of values.

d. Provide the specific value of each exogenous or environmental variable used in each above-listed mathematical relationship. Provide your technical justification for each such value.

e. Describe in detail each automatic protective action which is assumed to take place. Provide the limiting safety system settings used for each automatic protective action.

f. Describe in detail each non-automatic protective action (including but not limited to operator action, etc.) which is assumed to take place. Describe the measures taken to insure that each such non-automatic protective action will take place.

g. Describe in detail all feasible but improbable actions (including but not limited to operator and maintenance actions) assumed not to occur which have possible safety significance.

2. For each accident sequence analysis listed in Exhibit "A" hereto, describe the state of the art (including but not limited to two phase flow models) for each evaluation model used to verify a design basis.

3. If any of the state of the art evaluation models referenced in your response to the preceeding Interrogatory were not used in evaluating any of the accident sequence analyses listed in Exhibit "A," list each such state of the art evaluation model not used and explain in detail why it was not used.

4. For each state of the art evaluation model not used, as listed in your response to the preceeding Interrogatory, describe in detail how it differs from the evaluation model actually used.

5. For each state of the art evaluation model not used, describe the differing level of safety and margin of conservation between it and the evaluation model actually used. What is your basis for each such difference or lack of difference?

6. For each accident sequence analysis listed in Exhibit "A" hereto, answer the following separately for each listed analysis:

a. Describe in detail all sensitivity studies performed.

b. Describe in detail the margin of safety (or level of safety and margin of conservatism) determined.

c. Provide for inspection and copying all documents which reflect the sensitivity studies and the margins of safety (or levels of safety and margins of conservatism) referred to in the preceeding subparts of this Interrogatory.

7. In any of the accident sequence analyses listed in Exhibit "A" hereto, is assumed that one or more of the control rods will be moving at the time the transient or accident sequence begins?

8. If your response to the preceeding Interrogatory is any but "No," list each accident sequence analysis in which it is assumed that one or more control rods will be moving. For each such accident sequence analysis describe in detail the control rod movement assumed.

9. For each accident sequence analysis in Exhibit "A" which is not listed in your response to the preceeding Interrogatory, explain separately for each such accident sequence analysis not listed why it is assumed that no control rods will be moving at the time the transient or accident sequence begins?

10. If your response to Interrogatory 7 is anything but "Yes," state separately for each accident sequence analysis listed in Exhibit "A" hereto, why it is not assumed that one or more control rods will be moving at the time the transient or accident sequence begins?

11. If any of the accident sequence analyses listed in Exhibit "A" hereto, is it assumed that one or more of the control rods will be moving during the accident sequence.

12. If your response to the preceeding Interrogatory is anything but "No," list each accident sequence analysis in which it is assumed that one or more control rods will be moving. For each such accident sequence analysis describe in detail the control rod movement assumed.

13. For each accident sequence analysis in Exhibit "A" which is not listed in your response to the preceeding Interrogatory, explain separately for each such accident sequence analysis not listed why it is assumed that no control rods will be moving during the accident sequence.

14. If your response to Interrogatory 11 is anything but "Yes," state separately for each accident sequence analysis listed in Exhibit "A" hereto, why it is not assumed that one or more control rods will be moving during the accident sequence.

15. Do the Applicants intend for the CPSES operating license to be applicable for the use of mixed-oxide fuels?

16. If the Applicants intend for the CPSES operating license to be applicable for the use of mixed-oxide fuels, what effects would the use of such fuels have on the computer codes and/or reports used in the FSAR? Please answer separately for Unit 1 and Unit 2.

17. How is the use of mixed-oxide fuels addressed in the computer codes and reports in the FSAR? Please answer separately for Unit 1 and Unit 2.

18. If the Applicants have not addressed the use of mixed-oxide fuels in the computer codes and reports in the FSAR, explain in detail why this was not done. What is your basis for failing to address the use of mixed-oxide fuels in the computer codes and reports in the FSAR?

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "CFUR'S SIXTH SET OF INTERROGATORIES TO APPLICANTS AND REQUESTS TO PRODUCE, were served upon the following persons by deposit in the United States mail, first class postage prepaid this 18th day of June, 1981:

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EXHIBIT "A"

ACCIDENT SEQUENCE ANALYSIS LIST

A. Feedwater system malfunctions that result in a decrease in feedwater temperature.

B. Feedwater system malfunctions that result in an increase in feedwater flow.

C. Steam pressure regulator malfunction or failure that results in increasing steam flow.

D. Inadvertant opening of a steam generator relief or safety valve.

E. Spectrum of steam system piping failures inside and outside of containment in a PWR.

F. Loss of external electric load.

G. Turbine trip (stop value closure).

H. Inadvertant closure of main steam isolation valves.

I. Loss of condenser vacuum.

J. Coincident loss of onsite and external (offsite) a.c. power to the station.

K. Loss of normal feedwater flow.

L. Feedwater pipeline break.

M. Single and multiple reactor coolant pump trips.

N. Reactor coolant pump shaft seizure.

O. Reactor coolant pump shaft break.

P. Uncontrolled control rod assembly withdrawal from a sub-critical or low pump startup condition.

Q. Uncontrolled control rod assembly withdrawal at the particular power level that yields the most severe results.

R. Control rod maloperation.

S. Startup of inactive reactor coolant loop at an incorrect temperature.

T. Chemical and volume control system malfunction that results in decrease in the boron concentration in the reactor coolant.

U. Inadvertant loading and operation of fuel assembly in an improper position.

V. Spectrum of rod ejection accidents.

W. Inadvertant operation of ECCS during power operation.

X. Chemical and volume control system malfunction (or operator error) that increases reactor coolant inventory.

Y. Inadvertant opening of a pressurizer safety or relief valve.

Z. Break in instrument line or other lines from reactor coolant pressure boundary that penetrate containment.

AA. Steam generator tube failure.

AB. LOCA resulting from the spectrum of postulated piping breaks.

AC. Radioactive gas waste system leak or failure.

AD. Radioactive liquid waste system leak or failure.

AE. Postulated radioactive releases due to liquid tank

failures.

AF. Design basis fuel handling accidents in the containment and spent fuel storage building.

AG. Spent fuel cask drop accidents.

AH. Inadvertant control rod withdrawal.

AI. Loss of feedwater.

AJ. Loss of A.C. power.

AK. Loss of electrical load.

AL. Loss of condenser vacuum.

AM. Turbine Trip.

AN. All ECCS analyses.

AO. All hydrogen analyses.

AP. All seismic analyses.