UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

THE ATOMIC SAFETY AND LICENSING BOARD

Elizabeth S. Bowers, Chairman
Dr. Richard F. Cole
Dr. Forrest J. Remick

In the Matter of	)	
	)	
TEXAS UTILITIES GENERATING COMPANY, ET AL.	)	Docket Nos. 50-445 OL 50-446 OL
	)	
(Comanche Peak Steam Electric Station, Units 1 and 2)	)	

ORDER SUBSEQUENT TO THE
PREHEARING CONFERENCE OF APRIL 30, 1980

(June 16, 1980)

On March 19, 1980, this Board issued an order scheduling a prehearing conference for April 30, 1980. The order stated that we would hear the position of the parties on those contentions to be ruled on by the Board and we would hear oral argument on the language of the quality assurance/quality control contention admitted by the Board. The order also directed the parties to submit to the Board not later than twenty (20) days prior to the prehearing conference a complete report on their position on each contention--identifying those on which agreement had or had not been reached. The order further stated that the Board's consideration would not be limited to those contentions in dispute but all contentions would be considered.

In a brief opening statement, the Staff referred to an April 22, 1980, Appeal Board decision in Allen's Creek concerning

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the general principles to be applied to the admissability of contentions under 10 CFR §2.714. [1/] The Staff furnished copies to the parties and the Board and the proceeding recessed briefly to review the decision. The Staff also stated that it had changed its position on several contentions from that stated in the April 10 filing after receipt of the Allen's Creek decision and would discuss this fact as the particular contentions come up. At the request of the Applicant, the Board granted permission to the parties to submit briefs on the Allen's Creek decision if they chose to do so. The briefs on this matter and on the proposed language of the quality assurance/quality control contention were scheduled to be served by May 12, 1980.

Identification of Key Issues and Contentions

After careful analysis of the proposed contentions, the positions as stated at the prehearing conference, the filings of all parties, and in consideration of the requirements of 10 CFR §2.714(b) and Commission case law, the Board has determined the following relative to each contention:

[1/] Houston Lighting and Power Company (Allen's Creek Nuclear Generating Station, Unit 1, ALAB-590, 11 NRC __ (1980).

Contentions of CFUR[2/]

The Board accepts CFUR contentions 1, 2A, 2B (as modified), 3A and 3B (as modified and combined with ACORN 11), 4A (as modified and included in intervenors' joint QA/QC contention), 5, 6, 7, and 8.

CFUR contention 2B was modified to provide for realistic prediction of the CPSES Westinghouse reactor system response to the sequence of events at TMI-2.

Prior to June 9, 1980, CFUR contentions 3A and 3B along with ACORN 11 and CASE contention 8 would have been denied as a matter of Commission policy.[3/] Each of these contentions involve consideration of Class 9 accidents. On June 9, 1980, the Commission issued a "Statement of Interim Policy"[4/] that not only permits

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[2/] On April 22, 1980, CFUR, Applicant and Staff moved for Board approval of a "Stipulation". There was no agreement among the parties on the substance of any contention but to a limited extent, agreement was reached on the wording of certain contentions in dispute but not all. We announced at the prehearing conference on April 30 and May 1, 1980 that we were deferring our ruling on the "Stipulation". As stated in our order scheduling the prehearing conference, we would hear from each party on each contention. Considerable information was obtained at the prehearing conference and Commission issuances since the conference have pursuaded us that the "Stipulation" is now stale and we do not grant the motion for approval.

[3/] Long Island Lighting Co. (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831 (1973); Offshore Power Systems (Floating Nuclear Plants), ALAB-489, 8 NRC 194 (1978); Offshore Power Systems (Floating Nuclear Plants), CLI-79-9, 10 NRC 257 (1979); and Public Service Co. of Alabama, et al. (Black Fox Station, Units 1 and 2), CLI-80-8, 11 NRC __ (1980).

[4/] "Nuclear Power Plant Accident Considerations Under the National Environmental Policy Act of 1969", A Statement of Interim Policy U.S. Nuclear Regulatory Commission, June 9, 1980, 45 Fed. Reg. __.

consideration of accident sequences previously referred to as "Class 9" accidents but directs the NRC Staff to include in its Environmental Impact Statements "consideration of the site-specific environmental impacts attributable to accident sequences that lead to releases of radiation and/or radioactive materials, including sequences that can result in inadequate cooling of reactor fuel and to melting of the reactor core." CASE contention 8 is rejected because of the Commission statement in the middle paragraph on page 10 since the ER was issued prior to July 1, 1980. A copy of this recent Commission policy document is attached.

With specific reference to CFUR contention 3B, in addition to any attentions provided to the hydrogen gas explosion issue in the combined Class 9 contention (renumbered contention 3), the Board expects the Applicant and Staff to address the following during the forthcoming evidentiary sessions.

Board Question No. 1

Describe in detail the planned method for handling any hydrogen gas in the CPSES containment structure.

As regards CFUR contention 4A, the Board is of the opinion that the language proposed by the NRC Staff is sufficiently broad to encompass the subject matter of each intervenor's QA/QC contention.

he Board denies CFUR contentions 4B and 9. CFUR contention ich concerns the adequacy of managerial and administrative rols is denied as lacking adequate basis and specificity. Board is, however, interested in this line of inquiry and pounds the following question for Applicant and Staff dentiary response.

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.

CFUR contention 9 concerning hardware modifications and icipated Transients Without Scram (ATWS) is denied as being speculative and insofar as it suggests the Board override future possible Commission-granted exemptions for ATWS-ated hardware modifications, it appears to be outside the juris-tion of this Board. The Board does, however, direct the licant and Staff to respond in evidentiary hearing to the lowing question:

Board Question No. 3

Describe the status of resolution of Safety Issue TAP A-9 (ATWS) as it relates to CPSES 1 and 2.

CFUR contentions as accepted and renumbered in sequential order by the Board are contained in a letter section of this Order.

Contentions of ACORN

The Board accepts ACORN contentions 1, 3, 4 (as modified), 5, 6, 7, 9, 10, 11 and 14 (each as modified in joint contentions with CASE and/or CFUR), 13 (as modified), 15, 20, 22, 24 (as combined with CASE 12), 25 (as modified and combined with CASE 9), and 31 (as modified and combined with CASE 6(a)(b)(d), and CASE 7.

The Board denies ACORN contentions 2, 8, 12, 16, 17, 18, 19, 21, 23, 26, 27, 28, 29, and 30. Each of these contentions was denied, at least in part, because intervenor ACORN failed to provide the basis required under 10 CFR §2.714(b). In addition, contentions 2 and 12 were impermissibly vague, contentions 8, 16, 17, 19 and 23 failed to demonstrate the requisite nexus to the CPSES facility and contentions 2, 16, and 18 lacked specificity. Regarding contentions 12, 17, 18, 21 and 23, the intervenors basis that these issues were unresolved safety issues

dissolved with publication of NUREG-0510[5/] which removed these items from the unresolved safety issue category.

ACORN contentions 26 and 27 both relate to the "need for power" from the facility. Contention 26 states that the Texas Public Utility Commission Docket No. 14 establishes that the power is "unneeded, unsolvable and uneconomically priced". Contention 27 states that the ER presents: (1) reserve margins that establish adequate margins through 1985 without CPSES and (2) the figures in the ER are inaccurate, incomplete and out of date relative to Applicant's capabilities, demands and reserves.

In order for a contention to meet the criteria of 10 CFR §2.714 there must be a "basis" stated that can be litigated. It is also necessary at the Operating License proceeding that the "basis" for an issue that was considered in the Construction Permit proceeding to contain "significant new information developed after the Construction Permit review." Detroit Edison Co. (Enrico Fermi Atomic Power Plant, Unit 2), LBP-79-1, 9 NRC 73, 86 (1979). The Appeal Board has observed on numerous occasions that "inherent in any forecast of future demands is a substantial margin of uncertainty." Niagara Mohawk Power Corp. (Nine Mile Point, Unit 2), ALAB-264, 1 NRC 347 (1975).

5/ U.S. Nuclear Regulatory Commission, "Identification of Unresolved Safety Issues Relating to Nuclear Power Plants", a report to Congress. NUREG-0510 (January 1979).

The utility has an obligation to provide adequate and reliable service and therefore be conservative and possibly err on the high side in predicting demand growth. Duke Power Co. (Catawba Nuclear Station, Units 1 and 2) ALAB-355, 4 NRC 397, 410-11 (1976). The question before us is not whether the power is needed today since the license, if granted, will cover a period of forty years. The Appeal Board has also held that the most that can be required is a reasonable forecast on the available information. Kansas Gas and Electric Co. (Wolf Creek Generating Station, Unit 1), ALAB-462, 7 NRC 320, 327-28 (1978), aff'd per curiam. Mid-America Coalition for Energy Alternatives v. NRC, 590 F. 2nd 356 (D.C. Cir. 1979).

We do not have before us significant new information that would establish that the "need for power" has changed from the information available to the Licensing Board at the Construction Permit proceeding. Texas Utilities Generating Company (Comanche Peak Steam Electric Station, Units 1 and 2), LBP-74-75, 8AEC673, 689 (1974). Accordingly, the contentions are therefore denied. ACORN contentions as accepted and renumbered are shown in a later section of this order.

Contentions of CASE

The Board accepts CASE contentions 6(a), (c), (d), (as modified), 7 (as modified), 9 (as modified), 12, 16, and 19 (as modified).[6/]

The Board denies CASE contentions 1, 3, 6(b), (e), (f), 8, and 10. CASE contention 1 alleges that the record of Applicant demonstrates an unwillingness to voluntarily comply with procedures and regulations necessary to insure the health and safety of the public. The contention is rejected as being too vague and overly broad.

CASE contention 3 has two main thrusts--there is no need for the power from the facility and alternatives are available, e.g., lignite, gas, coal, energy conservation, peak load pricing and solar. As stated in our rejection of ACORN's contentions 26 and 27, the criteria of significant new information must be met to make the issues of need for power and alternative sources of energy acceptable at the Operating License proceeding. We have determined that no significant new information has been presented for these issues which were considered at the Construction Permit proceeding and the contention is rejected. Contention 6(b) is denied as being too speculative for litigating while 6(e) is considered a challenge to Commission Regulations (Summary Table

[6/] Contention numbers used here refer to CASE's filing of April 10, 1980 wherein certain contentions were withdrawn and others combined to form fewer contentions. "Position on Contentions by CASE (Citizens Association for Sound Energy)".

S-4, 10 CFR 51). Contention 6(f) is rejected as not meeting the basis requirements of 10 CFR §2.714(b). CASE contention 8 is denied as not being required as stated previously on page 3 of this Order. CASE contention 10 is rejected for lack of adequate basis and as being too speculative for litigation.

CASE contentions as accepted are included in the following list of accepted contentions.

Accepted Contentions

Contention 1. 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)

Contention 2. 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)

Contention 3. 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)

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

Contention 5. The Applicants' failure to adhere to the quality assurance/quality control provisions required by the construction permits for Comanche Peak, Units 1 and 2, and the requirements of Appendix B of 10 CFR Part 50, and the construction practices employed, specifically in regard to concrete work, mortar blocks, steel, fracture toughness testing, expansion joints, placement of the reactor vessel for Unit 2, welding, inspection and testing, materials used, craft labor qualifications and working conditions (as they may affect QA/QC, and training and organization of QA/QC personnel, have raised substantial questions as to the adequacy of the construction of the facility. As a result, the Commission cannot make the findings required by 10 CFR §50.57(a) necessary for issuance of an operating license for Comanche Peak. (CFUR 4A-ACORN 14-CASE 19 Joint Contention)

Contention 6. 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 on 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)

Contention 7. 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)

Contention 8. 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)

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. (CFUR 8)

Contention 10. The CPSES design fails to adequately account for the effect of asymmetric loading resulting from a pipe break in the areas between the reactor vessel and the shield wall. (ACORN 1)

Contention 11. Neither the Applicants nor the Staff has a reliable method for evaluating or insuring that Class IE safety-related equipment is designed to accommodate the affects of and to be compatible with the environmental conditions associated with the most severe postulated accident; thus General Design Criterion 4 has not been satisfied. (ACORN 3)

Contention 12. Neither the Applicants nor the Staff has reliable methods for evaluating and insuring that structures, systems and components important to safety are designed to withstand the affects of the safe shutdown earthquake without losing the capability to safely shutdown the plant; thus, General Design Criterion 2 has not been satisfied. (ACORN 4)

Contention 13. Present fire protection measures proposed by Applicants are not adequate to minimize the probability and effect of a fire from disabling the electric cables for all redundant safety systems; thus, General Design Criterion 3 has not been satisfied. (ACORN 5)

Contention 14. The D C Power System for the CPSES plant fails to meet the single failure criterion as defined in 10 CFR Part 50, Appendix A. (ACORN 6)

Contention 15. The CPSES design does not provide adequate, reliable instrumentation to monitor variables and systems affecting the integrity of the reactor core, the pressure boundary of the containment after an accident, in violation of General Design Criterion 13 of Appendix A of 10 CFR Part 50. (ACORN 7)

Contention 16. The CPSES design does not provide adequate equipment outside of the control room to promptly put the reactor in hot shutdown and so maintain it until attaining cold shutdown (also from outside the control room) as required by General Design Criterion 19 of Appendix A to 10 CFR Part 50. (ACORN 9)

Contention 17. Neither the Applicants nor the Staff has adequately considered the effects of aging and cumulative radiation on safety-related equipment which must be seismically and environmentally

qualified, thus, General Design Criterion 4 has not been satisfied. (ACORN 10)

Contention 18. The CPSES design fails to present a means for dealing with pressure transients produced by component failure, personnel error, or spurious valve actuation which exceed the pressure/temperature limits of the reactor vessel. (ACORN 13)

Contention 19. The CPSES design fails to protect against corrosion within the steam generators which causes cracking of pipes and leakage of radioactive water. (ACORN 15)

Contention 20. The CPSES design does not adequately insure that safety-related water supplies will be available for plant operation in the event of ice buildup at the service water intake structure. (ACORN 20)

Contention 21. The CPSES design fails to protect against accidents involving the movement and handling of heavy loads in the vicinity of spent fuel at the facility. (ACORN 22)

Contention 22. Applicants have failed to comply with 10 CFR Part 50, Appendix E, regarding emergency planning, for the following reasons:

a. The FSAR does not identify state or regional authorities responsible for emergency planning or who have special qualifications for dealing with emergencies. (CASE 12(a))

b. No agreements have been reached with local and state officials and agencies for the early warning and evacuation of the public, including the identification of the principal officials by titles and agencies. (CASE 12(b))

c. There is no description of the arrangements for services of physicians and other medical personnel qualified to handle radiation emergencies and arrangements for the transportation of injured or contaminated individuals beyond the site boundary. (CASE 12(c))

d. There are no adequate plans for testing by periodic drills of emergency plans and provisions for participation in the drills by persons whose assistance may be needed, other than employees of the Applicant. (CASE 12(d))

e. There is no provision for medical facilities in the immediate vicinity of the site, which includes Glen Rose. (CASE 12(e))

f. There is no provision for emergency planning for Glen Rose or the Dallas/Ft. Worth metroplex. (CASE 12(f) and ACORN 24)

Contention 23. Neither the Applicants nor the Staff has adequately considered the health effects of low-level radiation on the population surrounding CPSES in as much that the CPSES design does not assure that radioactive emissions will be as low as is reasonably achievable. (ACORN 25 and CASE 9)

Contention 24. A favorable cost/benefit balance cannot be made because the Applicant has failed to adequately consider:

a. The costs of safely decommissioning the facility after its useful life (ACORN 31 and CASE 6(a))
b. The costs in terms of health, as well as the economic costs of a possible accident in the on-site storage of spent fuel (CASE 7)
c. The fuel costs and supply (CASE 6(c))
d. The costs of waste storage (CASE 6(d))

Contention 25. The requirements of the Atomic Energy Act, as amended, 10 CFR 50.57(a)(4) and 10 CFR 50 Appendix C have not been met in that the Applicant is not financially qualified to operate the proposed facility. (CASE 16)

We are aware that to a degree informal discovery has been proceeding for some months. Considering the fact that the Staff documents are not expected to be released until "early 1981", we do not believe a tight schedule is required or appropriate at this time. We have not been asked by the parties to adopt a set schedule for discovery requests and responses but would urge that discovery requests be submitted with reasonable promptness and also responses thereto.

IT IS SO ORDERED.

FOR THE ATOMIC SAFETY AND
LICENSING BOARD

Elizabeth S. Bowers

Elizabeth S. Bowers, Chairman

Dated at Bethesda, Maryland
This 16th day of June 1980.

Attachment: "Nuclear Power Plant Accident Considerations Under the National Environmental Policy Act of 1969", A Statement of Interim Policy, U. S. Nuclear Regulatory Commission, June 9, 1980, 45 Fed. Reg. _____.