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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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In the Matter of

TEXAS UTILITIES GENERATING  
COMPANY, et al.

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

Docket Nos. 50-445-D  
and 50-446-b

OFFICE OF SECRETARY  
DOCKETING & SERVICE

CASE'S MOTION AND OFFER OF PROOF

REGARDING

CASE'S FIRST MOTION FOR SUMMARY DISPOSITION  
REGARDING CERTAIN ASPECTS OF THE IMPLEMENTATION  
OF APPLICANTS' DESIGN AND QA/QC FOR DESIGN

CASE (Citizens Association for Sound Energy), as the sole remaining Intervenor in these proceedings, bears a responsibility which is different from, and in many ways more difficult than, that of any of the other parties. This is especially true in the case of the issues of design and QA/QC for design because of the highly unusual nature of the method which has been adopted by the Board (with the concurrence of all parties) regarding these issues.

As part of that procedure, Applicants chose certain specific issues on which to file Motions for Summary Disposition. CASE has now answered fifteen out of eighteen of those Motions and we are in the process of working on our answers to the remaining three. We have now received all of the documents requested regarding the issue of stability (except as it relates to cinched-up U-bolts, which is covered under a separate motion) and expect to receive the remaining requested documents shortly regarding the other two issues, cinched-up U-bolts and design QA.

However, there is an additional matter which is of such importance and significance that we believe it is essential for the Board to be aware of it and include it in its deliberations regarding the design/design QA issues. As discussed in the attached Motion (CASE's First Motion for Summary Disposition Regarding Certain Aspects of the Implementation of Applicants' Design and QA/QC for Design), this was a need perceived by CASE Witness Jack Doyle when certain information came to his attention (see pages 1 through 3 of attached Affidavit of CASE Witness Jack Doyle).

The following summarizes just a few of the points made by Mr. Doyle:

"Having stood back and taken a long look at the overall picture of what is going on regarding the Applicants' Motions for Summary Disposition, I perceived the need to file additional information for the Board pointing out and summarizing the following which outlines the failure by Applicants to comply with the provisions of" certain specified NRC regulations, codes, and laws.

"In short, Applicants' QA/QC program for engineering at Comanche Peak not only has suffered, but currently is suffering, from a complete collapse, thus allowing for fundamental engineering errors to be incorporated into Comanche Peak on such a massive scale that the health and safety of the public are at risk." (Affidavit at pages 1 through 3.)

"[NRC Staff Witness] Dr. Chen, on the matter of instability, stated that he looked at the exhibits and identified about 30 supports which were identified as 'suffering from this disease' (of instability), that he looked at some piping systems to see if any of those supports were all grouped together, and that he didn't see any cases of that in the piping stress analysis which he looked at . . . Mr. Walsh asked Dr. Chen whether there might be three or four unstable supports which were adjacent to each other . . . After some discussion, Dr. Chen stated 'I believe I saw one piping run where the supports had about three intervening supports' and that was the closest he found them . . . Dr. Chen elaborated on this and stated that the piping was not in the same direction in both locations, and therefore the instability would not have been additive . . . " (Affidavit at page 14.)

"However, the fact is that the main steam lines have five unstable supports in a row, and in fact, the sixth support is unstable since it is double-pin-ended (clamp and strut) but all of the other supports cannot assist in giving the strut on the sixth support stability. But

neglecting the sixth support, there are still five unstable supports in a row at the critical main steam isolation valve and pressure relief valves. . ." He then details the supports and his understanding of their current status at this time. (Affidavit at pages 14 and 15; emphases in the original.)

Regarding the 9 calculations reviewed by Mr. Doyle during the evaluation of the Cygna Phases 1 and 2 material:

" . . . for the nine supports I reviewed for Phase 1 of the Cygna Report, which were all vendor certified, one had a fatal structural failure and required modifications, three were analyzed by procedures which are not applicable to the structures in question and one other contained incomplete analysis; the final support contained a deceptive equation to avoid the provisions of the code. In other words, 2/3 of this sample were not in accordance with 10 CFR Part 50, Appendix B, Criterion III requirements . . ." (Affidavit at page 49, emphasis in the original; see also Affidavit at pages 23 and 36.)

Regarding the 22 main steam supports reviewed as Phase 3 of the Cygna Report, Mr. Doyle states:

"Of the 22 supports reviewed by Cygna, which are all Class 2 supports, 18 contained gross errors . . ." (Affidavit at page 49; emphasis in the original; see also summary at Affidavit pages 37 through 48.)

"Summing up . . . a total of 9 calculations and drawings from Cygna Report Phase 1 and 22 supports reviewed in Volume 3 of Phase 3 have been discussed. These supports were final vendor certified, and the total is 31.

"Of the 31 supports in question, 24 have gross errors which escaped detection through 9 levels of review prior to final vendor certification. This represents a 77.5 per cent error rate, which is fatal for any discipline and a health and safety concern of monumental proportions." (Affidavit at page 51; emphases in the original.)

"Of the 89 supports reviewed in the three previous answers, therefore, a total of 30 have been rebuilt to prevent their collapse, and this represents 34 per cent of the sample -- obviously a fatal level of failure and a threat to the public health and safety." (Affidavit at page 52.)

"In a cursory review of the component cooling system . . . I found that 70 per cent of the calculations contained gross engineering errors." (Affidavit at page 73; emphases in the original.)

At pages 76 through 78 of his Affidavit, Mr. Doyle briefly summarizes the main points made; then he states:

"From the preceding, the Comanche Peak facility can only be considered indeterminate at best and dangerous as a definite possibility. The fact that at a minimum 72 to 78 per cent of the calculations which I reviewed contained gross errors -- even after some ten levels of checking by Applicants, and that at a minimum four of these supports required rework to prevent failure, shows that regardless of how many erroneous calculations can later be shown to be within allowables, at least some of the about 90 calculations (or neglect to do calculations) proved fatal to complying with the intent of the codes.

"The safety of this plant is therefore in doubt unless a 100 per cent reinspection -- by parties not dependent on the nuclear industry for their livelihood -- identifies the massive errors which have been incorporated, with oversights and proper corrective measures as required to bring the plant up to the level of confidence required to insure the public health and safety." (Affidavit at pages 78 and 79; emphases in the original.)

"The fact is that regardless of whether or not the support or procedure will ultimately prove acceptable, the installation and acceptance of indeterminate structures in nuclear power plants is a crime under the law." (Affidavit at page 56; emphases in the original.)

It should be noted that CASE's position is still as was stated in CASE's 8/22/83 Proposed Findings of Fact and Conclusions of Law (Walsh/Doyle Allegations), at pages XXX - 24 through - 26, which states, in part:

"This lack of adequate oversight has allowed numerous generic (to Comanche Peak) problems to develop, expand, and become built into the basic design of many of the safety-related pipe support systems throughout the plant. Further, the extent of these built-in problems and deficiencies is so great and so far-reaching that, CASE believes, it will be extremely difficult and probably impossible for all of them to ever be identified -- much less adequately corrected. CASE submits that this renders the quality of construction and design at Comanche Peak indeterminate (at best) or totally inadequate -- thereby making it impossible for the Licensing Board to grant Applicants a license to operate Comanche Peak." (Emphases in the original.)

The attached information, coupled with additional information which has been presented in the intimidation hearings, the design/design QA hearings,

and the Motions for Summary Disposition and their answers, has reinforced CASE's beliefs and position. The information documented in the attached Motion, Offer of Proof, and affidavit of CASE Witness Jack Doyle is a vitally important and essential piece of the total picture which the Board is trying to put together regarding Comanche Peak.

It should be noted that, in several places in his Affidavit, Mr. Doyle discusses the requirements of NRC regulations, applicable codes, laws, etc. As has been stated before, CASE is aware that the Board has in the past taken the position that expert testimony is not necessary (or even wanted) regarding legal matters. However, Mr. Doyle has demonstrated a very knowledgeable grasp of legal requirements involved in the design and construction of nuclear power plants. Should the Board decide, however, not to consider Mr. Doyle's testimony in this regard, CASE adopts his statements and arguments and incorporates them herein by reference. In addition, as these proceedings have progressed, CASE has become more and more convinced that some of the problems at Comanche Peak are directly attributable to the fact that individuals at Comanche Peak who should be familiar with (and designing and constructing the plant in accordance with) NRC regulations, codes, laws, etc. are not familiar with those requirements, and thus Comanche Peak is not being constructed in accordance with those requirements. We ask that the Board consider this as a possibility.

The attached information also has a bearing on another issue which CASE (as has been stated previously) believes the Board must deal with in these proceedings -- that of the credibility of all the witnesses. This is an issue which has been raised not only by CASE, but continually by Applicants



in these proceedings (for a recent example, see Applicants' 9/7/84 Proposed Findings of Fact in the Form of a Partial Initial Decision on welding issues, section II.B.). CASE believes that it is important for the Board to weigh the evidence and decide how and why and at whose instigation the problems in design and design QA have occurred at Comanche Peak; further, it should decide which and how many of the problems occurred due to incompetence or by intent, whether or not witnesses have been candid and truthful with the Board (not just in actual testimony, but in withheld information of which witnesses may have had knowledge), etc.

It is frankly difficult for CASE to accept, for example, that the number of calculational errors which are discussed by Mr. Doyle in the attached Affidavit, can all be unintentional and the result of incompetence rather than intent. However, although CASE believes it is important for the Board to make such determinations, we submit that in one manner of speaking, it does not matter whether the problems have been caused by incompetence, by ignorance of the regulatory requirements and the codes, by deliberate brushing aside of regulations in order to speed up production, etc. The fact remains that the quality of the design and construction of Comanche Peak is so indeterminate (and much of what is known indicates severe problems) that the plant cannot be granted an operating license.

Another reason the Board should accept this Motion is that Applicants have chosen to address, in their Motion for Summary Disposition on design QA /1/, primarily procedural aspects of design QA. However, CASE's attached Motion primarily addresses certain implementation aspects of design QA.

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/1/ Applicants' Motion for Summary Disposition Regarding Allegations Concerning Quality Assurance Program for Design of Piping and Pipe Supports for Comanche Peak Steam Electric Station.

CASE will, of course, answer Applicants' Motion for Summary Disposition on design QA; however, we submit that, regardless of how pretty Applicants' procedures may appear on paper, they are essentially meaningless unless they are properly implemented, and that the attached information regarding certain aspects of that implementation is necessary for the Board to have a complete record on which to base its decision and should be accepted as such.

CASE is certain that Applicants (and probably the NRC Staff as well) will adamantly oppose the Board's acceptance of CASE's attached Motion. One of their arguments will undoubtedly be that such information should have been supplied only at the invitation of the Board. However, in this particular instance, there was simply no way that this procedure could have been followed, because there is no way that the Board would have been aware of this information (and thus would have known that it was necessary for a complete record) unless the Board had done the same kind of analysis and summary as Mr. Doyle did. This is the reason we are making this offer of proof, and we believe that our actions are in accordance with 10 CFR 2.749 and 2.743(e) and that our pleading should be accepted accordingly.

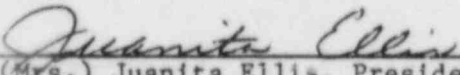
Further, because of the unusual manner in which this portion of the proceedings is being handled, we believe that this pleading is necessary in order to avoid surprise to the other parties and to allow them an opportunity to respond.

In addition, again because of the unusual manner in which this portion of the proceedings is being handled, and because the Board (as CASE understands it) plans to rule on these particular issues based on the

Motions for Summary Disposition and their answers, CASE's pleading is necessary because there may not be another opportunity to make proposed findings of fact and conclusions of law (as discussed in 10 CFR 2.754) regarding these particular issues. Therefore, CASE's pleading is necessary to assure a complete record in this regard.

For the reasons set forth herein, CASE moves that the Board accept the attached CASE's First Motion for Summary Disposition Regarding Certain Aspects of the Implementation of Applicants' Design and QA/QC for Design.

Respectfully submitted,

  
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