

# CASE

(CITIZENS ASSN. FOR SOUND ENERGY)

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March 29, 1991

Mr. W. G. Council  
Vice Chairman  
TU Electric  
2001 Bryan Tower, Suite 1900  
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Dear Mr. Council:

Subject: Scaling Calculation Dispute  
Comanche Peak Steam Electric Station (CPSES),  
Units 1 and 2, Docket Nos. 50-445 and 50-446

Re: Office of Nuclear Reactor Regulation, U. S.  
Nuclear Regulatory Commission, Final Report  
Addressing Scaling for Comanche Peak Steam  
Electric Station (CPSES), Unit 1, Enclosure 1,  
dated: February 1991

CASE is in receipt of the referenced U. S. Nuclear Regulatory Commission (NRC) final report encompassing:

1. the U. S. NRC letter to CASE President Mrs. Juanita Ellis, dated February 27, 1991, responding to the dispute regarding the scaling calculation issue at CPSES;
2. the U. S. NRC scaling calculation final report; and
3. the U. S. NRC Notice of Violation (NRC Inspection Report Nos. 50-445/90-47; 50-446/90-47), dated February 26, 1991, reporting NRC inspection results conducted December 14, 1990, through February 21, 1991, encompassing the scaling calculation program at CPSES.

The NRC inspection report identified "the failure to promptly identify and correct deficiencies with scaling documentation for initial setup and calibration of instrumentation loops." Additionally, the NRC was concerned that "significant involvement from a former employee and from CASE over an extended period of time" was required "before the deficiencies with scaling documentation were adequately identified and corrected."

The Notice of Violation reported that TU Electric was in violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the problems identified by the former employee during the 1986/1987 time frame which were not corrected to the satisfaction of the NRC until 1990.

The NRC requested TU Electric to provide, within 60 days (of February 26, 1991), "a written explanation of how scaling activities will be performed for CPSES, Unit 2, to assure that documentation problems are prevented or

promptly identified and corrected. Also, because of our [the NRC's] concern with your [TU Electric's] delay in responding to an employee's concern in this instance, we [the NRC] request that you [TU Electric] provide a written response describing how employee concerns will be handled to prevent delays and to encourage prompt identification and correction of potential safety issues."

We are therefore providing, for your evaluation in responding to the NRC, what is intended to be constructive input resulting from our review of the referenced report. Additionally, even though the NRC considers TU Electric's actions (in this instance) regarding the "corrective action" issues to be acceptable, and has not required a written response, CASE feels obligated to address the matter of corrective action as well as the other violations of 10 CFR Part 50, Appendix B, reported in our final report of July 9, 1990.

The many-faceted concerns raised in the CASE draft report of December 6, 1989, followed by the detailed CASE final report of July 9, 1990, reported on both the safety-related and balance-of-plant programmatic and technical scaling issues for CPSES, Unit 1, as well as violations of 13 of the 18 criteria of 10 CFR Part 50, Appendix B. In CASE's view, the balance-of-plant programmatic and technical scaling issues also had safety-related implications.

As reported by the NRC in its inspection report, scaling concerns were initially raised (by Mr. Gary Bodiford) in the 1986/1987 time frame. Additionally, these concerns were included in one of a few lawsuits which were outstanding at the time of the July 1988 CASE/TU Electric Settlement Agreement and CASE/TU Electric/NRC Staff Joint Stipulation. TU Electric committed to work with CASE to try to resolve Mr. Bodiford's concerns; these concerns, however, were still not resolved as late as 1990.

CASE, however, also recognizes and appreciates the efforts of TU Electric subsequent to the initial meeting of May 1989 between Mr. Bodiford, TU Electric, and CASE to investigate and resolve the scaling concerns identified by Mr. Bodiford. CASE does not agree with the recently stated position of TU Electric that the scaling project was intended to be merely an "aid" to the I&C and Operations field effort. This was never CASE's understanding of the purpose of the scaling calculation program at CPSES. Had that been the case, we would certainly not have devoted the massive amount of time, money, and effort to the identification, articulation, documentation, and resolution of Mr. Bodiford's concerns which we invested. Had that been the case, there were many other safety-related issues to which CASE could have, and would have, devoted its resources. Further, even had that been the case, once a commitment was made by TU Electric (beginning as early as 1979 with the inception of the scaling program conducted by Westinghouse) that the scaling calculation program was to be included and covered by the requirements of 10 CFR Part 50, Appendix B, from that point on the TU Electric inspection and audit program should

have come fully into play and promptly identified and corrected the problems identified by Mr. Bodiford and CASE.

Additionally, CASE remains extremely concerned that TU Electric appears to have chosen to select Criterion XI, Test Control, of 10 CFR Part 50, Appendix B, as the sole management standard (irrespective of all others) to control and assure that the safety-related activities were effective in implementing the scaling calculation program. At a minimum, TU Electric has apparently disregarded equally important prevention aspects of 10 CFR Part 50, Appendix B, such as: assuring quality over cost and schedule and that an appropriate quality assurance program is effectively developed, maintained, and executed, including that of the contractor(s) (Criterion I, Organization); assuring that the quality assurance program is regularly reviewed for both status and adequacy (Criterion II, Quality Assurance Program); assuring that design bases are correctly translated into specifications, drawings, procedures, and instructions, and that deviations from such standards are controlled including verifying or checking the adequacy of design (Criterion III, Design); assuring that purchased services conform to procurement requirements (Criterion VII, Control of Purchased Material, Equipment, and Services); and, that audits are carried out to verify compliance with all aspects of the quality assurance program (Criterion XVIII, Audits).

As previously stated, however, throughout CASE's involvement with Mr. Bodiford and TU Electric, the scaling effort was always visibly administered as a safety-related project, attempting to implement (by process of the organizational and programmatic controls by both the contractor and TU Electric), the tenets of 10 CFR Part 50, Appendix B. Nothing else was expected, and nothing less should have been achieved during the conduct of the program. Two previous vendors (Westinghouse and Gibbs & Hill) to the present organization (Stone and Webster Engineering Corporation, SWEC) were contracted by TU Electric in an attempt to achieve a satisfactory end product (scaling calculations) which required all the discipline and checks and balances included in 10 CFR Part 50, Appendix B. This was not achieved by the implementation of either the contractors' or the utility's Quality Assurance programs.

CASE does not agree that the only violation to 10 CFR Part 50, Appendix B, involved Criterion XVI, "Corrective Action" (although we certainly agree that Criterion XVI was violated). At a minimum, CASE suggests that TU Electric closely evaluate the Audit and Surveillance programs administered by both the contractors and TU Electric to evaluate why the many inspections conducted by these organizations failed to adequately follow-up on the concerns identified by Mr. Bodiford to: the contractor (SWEC) in the 1986/1987 time frame; the SAFETEAM in November of 1987; and by TU Electric in May 1988 (NE-19097). It is the assessment of CASE that each of these organizations totally failed to conduct critical examinations in accordance with Criterion XVIII, "Audits," which should have detected and corrected the various violations identified in the CASE reports. A dynamic, properly



implemented QA audit program has the capability of, and is relied upon for, detecting and correcting programmatic and implementation deficiencies and weaknesses associated with the other seventeen Criteria of Appendix B.

In fact, it is CASE's further evaluation that had the special audit (ATP-89-146S) not been performed with the significant planning input and in-process monitoring by CASE (i.e., Gary Bodiford and CASE Consultant Owen Thero), the issues identified by the audit, which resulted in resolution of the many audit deficiencies/observations and the significant action plan developed by TU Electric, would not have occurred. This programmatic failure of the audit and surveillance programs, in CASE's assessment, must be evaluated as a potential root cause for the breakdown in the project's corrective action program.

It is also CASE's assessment that TU Electric should not take solace in the fact that the NRC (see Section VII. General Conclusions, NRC Final Report) states, in part:

" . . . [B]ecause the scaling documentation was considered by the licensee to be an aid to the initial setup and calibration process, and not a primary design tool, the [NRC] staff does not consider the poor implementation of the scaling documentation process to be indicative of a pervasive breakdown of the QA program during the time period in question (1986 to 1988). . . . The staff further concludes that, while the licensee's initial performance was poor in the development of the scaling-related documentation, the safety of plant operation was not compromised due to the corrective actions taken in the latter part of the licensing stage (assisted by the efforts of the CASE organization) along with in-place testing of the 7300 series system by knowledgeable personnel and evaluation results obtained from hot functional and pre-operational testing." (Emphasis added.)

CASE basically agrees with the NRC and TU Electric that apparently a strong I&C and Operations program would and did uncover the majority (though not necessarily all) of the deficient conditions created by the deficiencies identified by Mr. Bodiford and as documented in the CASE reports/meetings. That was not the primary issue in CASE's pursuing the resolution of Mr. Bodiford's concerns.

Obviously, TU Electric did not purposely elect to poorly implement the scaling program just because they planned to manage and depend on a much stronger preoperational test program, any more than they would have purposely implemented a poor weld inspection and NDE program just because they planned to have and rely on a strong hydrostatic testing program for their piping system. Title 10 of the Code of Federal Regulations (10 CFR) requires/mandates a strong total approach to quality (10 CFR Part 50, Appendix B) when safety-related programs and controls are encountered by a

licensee. This was not done by either the responsible contractors or TU Electric during the implementation of the scaling project for Unit 1.

Although it is gratifying to CASE to receive recognition for its work, the fact is that CASE is not part of the QA program for CPSES. Moreover, although CASE will continue to do what it can with its limited resources to assure public health and safety, it must be remembered that TU Electric is the licensee; as such, TU Electric has the greatest responsibility and must also shoulder its own burden in this regard to meet the goal of assuring the public health and safety. Of particular concern to CASE is the fact that CASE's role is scheduled to soon be over in some portions of the monitoring of Comanche Peak (notably the monitoring of audits under paragraph A.11 of the CASE/TU Electric/NRC Staff Joint Stipulation). CASE is still very concerned that the QA audit program mandated by 10 CFR Part 50, Appendix B, Criterion XVIII, is not achieving the purpose which was intended and which is necessary. A strong and critical QA audit program must be relied on to fulfill an essential and effective auditing responsibility. CASE implores TU Electric to assure that this critical evaluation encompassing audits/surveillances is developed and implemented to incorporate issues arising from lessons learned from Unit 1 activities, employee concerns, and other areas reported as being deficient (ONE/TUE forms, test programs, PIR's/LER's, trending, etc.) and that the results of the evaluation are incorporated into these assessment programs, and thereby utilized in a positive and constructive manner.

Also, since the audits/surveillances are a very brief snap-shot in time, incorporating a small evaluation sample, it is imperative that the functions be performed with a critical eye. "Adequate" cannot be acceptable when audit evaluations are concerned. Extreme caution must be exercised to determine when an audit-found deficiency is determined to be "isolated" and when an auditor allows a ONE/TUE form to be initiated by the audited organization rather than by the auditor, thereby mitigating the need to perform additional inspections and to perform a root cause analysis -- and thereby negating, in advance, much of the effectiveness of the audit program.

The experience of the CASE Monitors has been that too often QA auditors who otherwise may be experienced, qualified, capable individuals appear to find it difficult or impossible to bring themselves to take a hard line with the audited organization and to accept the role of what amounts to the internal policemen of the nuclear industry. CASE understands that no one wants to be disliked by the people one works with and that this is indeed a difficult position for the auditors to be in; however, it is also a necessary function of a QA auditor, and one which will ultimately be most beneficial to the audited organization, TU Electric, and the public health and safety. CASE urges that TU Electric do everything possible to turn around what we believe to be a continuing inadequacy in the QA audit function. CASE believes that this is an area where TU Electric upper management can be extremely helpful

in making certain that both the auditors and the audited organizations fully understand what is expected of them and why.

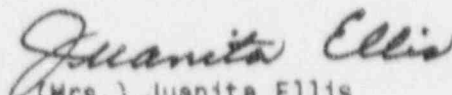
Additionally, it is requested that TU Electric review all PIR's/LER's to determine if a deficient or enhanced scaling calculation could have prevented and/or mitigated the condition from occurring, and that any such enhancements be incorporated into the scaling effort for Unit 2.

It is also requested that the examples provided in the CASE final report for enhancements of the 1-SC-8800 Scaling Manual be evaluated for incorporation into the Scaling Manual for Unit 2.

CASE offers this assessment and these suggestions in the hope that TU Electric will consider them as constructive criticism and utilize them to improve the project's fulfillment of its audit responsibilities in complying with regulatory requirements, thereby protecting the public health and safety.

Sincerely,

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Energy)

  
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