



Q4. What subject matter does this testimony address?

A4. This testimony addresses a portion of Contention 6 and the initial portion of Contention 8 which state the following:

"6. The verification program failed to verify that the design of safety-related equipment supplied to PG&E by Westinghouse met licensing criteria."

"8. The ITP failed to develop (and implement) in a timely manner a design quality assurance program in accordance with 10 CFR Part 50, Appendix B to assure the quality of the recent design modifications to the Diablo Canyon facility."

Q5. With regard to Contention 6, was the design quality of all the safety-related equipment supplied to PG&E by Westinghouse assured by a QA Program or programs which met each and every requirement of each and every criterion of Appendix B to 10 CFR Part 50 (see Contention 6)?

A5. No.

Q6. How was the design quality of such equipment assured?

A6. The construction permit for Diablo Canyon Unit 1 was issued in 1968 prior to the promulgation of the Appendix B criteria. At that time, design work on safety-related equipment supplied by Westinghouse was already underway. Governing this work was the quality assurance commitments described in the PSAR, Supplement No. 5, response to question 3.4. In mid-1970, the QA

criteria in Appendix B to 10 CFR were promulgated and the NRC (then AEC) required conformance to the new regulation for all new and on-going design activities (i.e., Appendix B was required to be applied to Diablo Canyon Unit 1 in a prospective manner). PG&E committed to meeting the requirements of Appendix B to the extent possible, noting that much design work had already been accomplished. This commitment is described in the FSAR (p. 17.0-1). The NRC staff review of the proposed program for acceptability at the PSAR stage utilized "Division of Reactor Licensing, Quality Assurance Program Review Checklist for Nuclear Power Plants" dated October 27, 1970.

- Q7. With regard to Contention 8, did the ITP commit to utilize a design quality assurance program satisfying the requirements of 10 CFR Part 50, Appendix B, in a timely manner to assure the quality of the recent design modifications to Diablo Canyon?
- A7. Yes. PG&E and its contractor, Bechtel, as Completion Manager, developed a quality assurance program composed of the NRC-approved QA Programs of PG&E for the operations phase of Diablo Canyon, and of Bechtel for design activities. These QA Programs satisfy the requirements of Appendix B to 10 CFR 50 and include controls for design engineering, modifications, procurement, and construction completion. Prior to the retention of Bechtel as the Completion Manager, activities necessary to correct design deficiencies at the Diablo Canyon facility as identified by the IDVP and ITP were controlled by PG&E's QA Program for the operational phase. All commitments to develop the necessary QA Programs to control these activities for Diablo Canyon were made to the NRC staff in a timely manner.

Q8. Identify the documents relied upon to support your response to Q7 and indicate how the documents support your testimony.

A8. The documents relied upon are as follows:

- (a) FSAR for Diablo Canyon, Chapter 17, through Amendment 85 (9/3/80); describes the PG&E QA program for operations.
- (b) NUREG-0675, Safety Evaluation Report, Supplement No. 13 for the operations phase of Diablo Canyon, dated April 1981, pp. 17-1 to 17-4; presents the staff's evaluation of PG&E's operational QA program.
- (c) Bechtel Topical Report on Quality Assurance, BQ-TOP-1, Rev. 3A; describes Bechtel QA program for design activities.
- (d) Letter, W. P. Haass to R. M. Collins, "NRC Acceptance of Revised Bechtel Topical Report on Quality Assurance," dated October 16, 1980.
- (e) Commitment to apply the QA Program for operations, approved by the NRC as satisfying Appendix B, to the modifications required for Diablo Canyon Unit 1, "Transcript of Meeting with PG&E to Discuss Seismic Design Review, Diablo Canyon Unit 1," dated February 3, 1982, Bethesda, Maryland, pp. 185-186.
- (f) Letter, P. Crane to F. Miraglia, describing commitment to apply the Bechtel Topical Report on Quality Assurance, BQ-TPO, Rev. 3A for the remaining project work on Diablo Canyon, dated June 18, 1982.
- (g) Letter, P. Crane to G. Knighton, describes final QA Program (Rev. 2) for completion of Diablo Canyon consisting of Bechtel QAP for design, and PG&E QAP for procurement and construction, dated 12/21/82.

- (h) Letter, D. Eisenhut to P. Crane, indicating acceptance of the combined Bechtel and PG&E QA programs for completion of the Diablo Canyon project work, dated 1/26/83.
- (i) NRC staff guidance documents for the review of the operational QA program for Diablo Canyon are:

WASH-1284, "Guidance on Quality Assurance Requirements During the Operations Phase of Nuclear Power Plants," dated October 26, 1983.

WASH-1309, "Guidance on Quality Assurance Requirements During the Construction Phase of Nuclear Power Plants," dated May 10, 1974.

WASH-1283, "Guidance on Quality Assurance Requirements During Design and Procurement Phase of Nuclear Power Plants," Rev. 1, dated May 24, 1974.