

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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USNRC

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



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

APPLICANTS' MOTION FOR SUMMARY
DISPOSITION OF CASE'S CONTENTION 5

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May 10, 1982

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Affidavit of David N. Chapman Regarding the QA/QC
Organization At Comanche Peak

Affidavit of Antonio Vega Regarding Comanche Peak
QA Program Satisfaction of 10 C.F.R. Part 50,
Appendix B

Affidavit of Susan L. Spencer Regarding Disposition
of NRC I&E Reports

Affidavit of R.J. Vurpillat Regarding Brown & Root
Response to ASME Survey and Resurvey

Affidavit of Roger F. Reedy Regarding ASME Survey
of Brown & Root At Comanche Peak

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APPLICANTS' MOTION FOR SUMMARY
DISPOSITION OF CASE'S CONTENTION 5

Pursuant to 10 C.F.R. § 2.749, Texas Utilities Generating Company, et al. ("Applicants") hereby move the Atomic Safety and Licensing Board ("Board") for summary disposition of Contention 5, raised by Citizens Association for Sound Energy ("CASE"). As demonstrated in the accompanying affidavits and statement of material facts, there is no genuine issue of fact to be heard regarding Contention 5. Applicants urge the Board to so find, to conclude that Applicants are entitled to a favorable decision as a matter of law, and to dismiss Contention 5 as an issue in this proceeding.

I. BACKGROUND

On June 16, 1980 the Board issued its Order Subsequent to the Prehearing Conference of April 30, 1980, in which it admitted Contention 5, as follows:

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 C.F.R. 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 C.F.R. § 50.57(a) necessary for issuance of an operating licensing for Comanche Peak.

On March 25, 1982, the Board issued a Revised Schedule in which it established a prehearing schedule leading to further evidentiary hearings to commence June 7, 1982, at which the issues raised in, inter alia, Contention 5 would be addressed. That schedule called for the parties to file by no later than May 10, 1982 motions for summary disposition regarding the topics scheduled for hearing.

The attempts by Applicants and the NRC Staff to take discovery on CASE 1/ regarding Contention 5 have been of

1/ See Applicants' First, Third and Fifth Sets of Interrogatories to CASE, dated August 1, 1980, February 26, 1982 and April 5, 1982, respectively. CASE responded to these interrogatories on September 3, 1980 with a December 1, 1980 Supplement (First Set), March 16, 1982 (Third Set) and April 20, 1982 (Fifth Set). See also NRC Staff's First and Fourth Sets of Interrogatories to CASE, dated January 19, 1981 and February 22, 1982, respectively. CASE responded to these interrogatories on February 17, 1981 (supplemented April 6, 1981) and March 15, 1982, respectively.

little benefit in narrowing or refining the issues for trial. In the main, CASE has been unwilling or unable to respond to inquiries seeking specifics. The result is that few specific issues have been identified, and the contention remains largely a general issue as to Applicants' compliance with 10 C.F.R. Part 50, Appendix B with a few specific issues that Applicants infer CASE seeks to raise. These general and specific issues are the subject of this motion.

II. APPLICANTS' MOTION FOR SUMMARY
DISPOSITION OF CONTENTION 5

A. Applicable Legal Authority and Commission Policy
Compel Summary Disposition in the Absence of
Documented Issues of Material Fact

CASE should not be permitted to retain and go to trial on Contention 5 in the absence of a demonstrated genuine issue of material fact. The Commission and its adjudicatory boards have placed great stock in the availability of summary disposition as the counterbalance for the lenient standards for admission of contentions. This has led to admission of contentions based upon little more than the allegation of facts, with the promise that the contention would be dismissed when tested in the crucible of summary disposition if, for example, no genuine issue of material fact is demonstrated through affidavits (see 10 C.F.R. § 2.749). However, NRC practice has been less than perfect where summary disposition is concerned.

In the case at bar, the Board declined to dispose of Contention 25 summarily even though the motion was supported by affidavits of the Applicants and Staff and uncontroverted by affidavits by the intervenors. The reasons for the Board's reluctance to grant the Staff's motion are not clear from the record. 2/ Perhaps it felt compelled to receive the evidence of the Applicants and Staff (CASE presented none) on Contention 25 because the parties were already assembled. Suffice it to say that Applicants certainly would not object if the Board dismissed all or part of Contention 5 at any time before the hearing (even during the prehearing conference), although the ideal course would be Board action as soon as possible.

In any event, we trust that the Board will grant full or partial summary disposition of Contention 5 if the pleadings indicate that no genuine issues of material fact exist, and certainly if the affidavits of Applicants are uncontroverted by affidavits by CASE.

2/ See Tr. at 235. See also December 18, 1981 Order Subsequent to Prehearing Conference of December 1, 1981 at p. 3, where the Board simply stated it was "unable to agree with the Applicants and Staff that there is no genuine issue as to any material fact."

1. Applicable Legal Authority

Pursuant to 10 C.F.R. § 2.749(d), upon an appropriate motion for summary disposition, "the presiding officer shall render the decision sought" where it is shown "that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law." To provide more definitive guidance in rendering such judgments, the Commission stated that Section 2.749 "has been revised to track more closely the Federal Rules of Civil Procedure." See 37 Fed. Reg. 15135 (1972). 3/

In accordance with the Federal Rules, to defeat an appropriate motion for summary disposition an opposing party must present facts in the proper form; conclusions of law will not suffice. 4/ The opposing party's facts must be material, 5/

3/ See also, Alabama Power Company (Joseph M. Farley Plant, Units 1 and 2), ALAB-182, 7 AEC 210, 217 (1974); Gulf States Utilities Co. (River Bend Station, Units 1 and 2), LBP-75-10, 1 NRC 246, 247 (1975); Public Service Company of New Hampshire (Seabrook Station, Units 1 and 2), LBP-74-36, 7 AEC 877, 878 (1974).

4/ Pittsburg Hotels Association, Inc. v. Urban Redevelopment Authority of Pittsburg, 202 F. Supp. 486 (W.D. Pa. 1962), aff'd, 309 F.2d 186 (3rd Cir. 1962), cert. denied, 376 U.S. 916 (1963).

5/ Egyes v. Magyar Nemzeti Bank, 165 F.2d 539 (2nd Cir. 1948).

and of a substantial nature, 6/ not fanciful, or merely suspicious. 7/ One cannot avoid summary disposition

on the mere hope that at trial he will be able to discredit movant's evidence; he must...be able to point out to the court something indicating the existence of a triable issue of material fact. [6 Moore's Federal Practice 56.15(4). (Emphasis added)].

One cannot "go to trial on the vague supposition that something may turn up." 6 Moore's Federal Practice 56.15(3). See Radio City Music Hall v. United States, 136 F.2d 715 (2nd Cir. 1943); see also Orvis v. Brickman, 95 F. Supp. 605 (D.D.C. 1951), where the Court in granting the defendant's motion for summary judgment under the Federal Rules said:

All that plaintiff has in this case is the hope that on cross-examination . . . the defendants . . . will contradict their respective affidavits. This is purely speculative, and to permit trial on such basis would nullify the purpose of Rule 56, which provides summary judgment as a means of putting an end to useless and expensive litigation and permitting expeditious disposal of cases in which there is no genuine issue to any material facts.

Fundamental precepts of the administrative process mandate that CASE be required in response to this motion to present

6/ Beidler and Bookmeyer v. Universal Ins. Co., 134 F.2d 828, 831 (2nd Cir. 1943).

7/ Griffin v. Griffin, 327 U.S. 220, 236 (1946); Banco de Espana v. Federal Reserve Bank, 28 F. Supp. 958, 973 (S.D.N.Y. 1939) aff'd, 144 F.2d 433 (2nd Cir. 1940).

material and disputed facts in affidavit form supporting its position at this stage of litigation. If CASE fails to do so, the Board should rule favorably on Applicants' motion. To permit otherwise would be to countenance unnecessary litigation and unwarranted delay. In this regard see 10 C.F.R. § 2.749(b), where it is stated that:

When a motion for summary decision is made and supported as provided in this section, a party opposing the motion may not rest upon the mere allegations or denials of this answer; his answer by affidavits or as otherwise provided in this section must set forth specific facts showing that there is a genuine issue of fact. If no such answer is filed, the decision sought, if appropriate, shall be rendered.

Further, the Appeal Board has emphasized that admission of a contention does not "carry with it any implication that ... the contention [is] meritorious." Houston Lighting and Power Company (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 549 (1980). Thus, even though a contention might be admitted to a proceeding it does not perforce follow that the contention must be taken up at an evidentiary hearing. See Allens Creek, ALAB-629, 13 NRC 75, 76 (1981). In this regard the Commission's summary disposition procedures set forth in 10 C.F.R. § 2.749 "provide in reality as well as theory, an efficacious means of avoiding unnecessary and possibly time-consuming hearings on demonstrably insubstantial issues." Allens Creek, supra, ALAB-590, 11 NRC at 550.

2. Commission Policy

Finally, the Commission in its Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 NRC 452 (May 20, 1981), recognized the difficult problems facing the NRC in meeting its responsibilities in the licensing area. The Commission noted that it will seek to avoid delays in the licensing process by utilizing existing procedures consistent with the Commission's commitment to a fair and thorough hearing process. In this regard the Commission urged both its Licensing and Appeal Boards to employ procedural tools available to expedite the hearing process. Id. at 453. Among the tools which the Commission urged to be used by the Boards are the summary disposition procedures, so that where there is indeed no genuine issue of material fact to be heard, evidentiary hearing time is not devoted to such issues. Id. at 457. Accordingly, upon a finding of no genuine issue of material fact with respect to Contention 5, the Board should grant the instant motion for summary disposition.

B. Scope of Contention 5

Contention 5 involves the question of whether the Applicants have established and followed a Quality Assurance/Quality Control ("QA/QC") program for the construction of the Comanche Peak facility which conforms to the requirements of

10 C.F.R. Part 50, Appendix B. As framed, the contention cites numerous construction activities as to which it is alleged that Applicants have not followed proper QA/QC procedures. CASE apparently attempts to support Contention 5 by reference to NRC Inspection & Enforcement ("I&E") Reports. The status and implications of the expiration and renewal of the Brown & Root ASME Certificates of Authorization for Comanche Peak also are apparently issues raised by CASE.

CASE identifies in its answers to Interrogatories numerous I&E Reports as providing the bases for support of its position on Contention 5. 8/ Specifically, in response to Applicants' Interrogatories seeking the bases for CASE's concerns, if any, with respect to the list of construction practices in Contention 5, CASE quotes from a previous motion 9/ wherein it states that the information contained in I&E Reports "supports and confirms" its proposed QA/QC Contention. CASE states as follows:

[I]t is our present thinking that although the specific wording of the contention was not CASE's wording but was taken in many instances

8/ See generally CASE's March 16, 1982 Answers to Applicants' Third Set. See also CASE's answers to Interrogatories of Applicants and the NRC Staff to CASE cited at note 1, supra.

9/ CASE's May 12, 1980 Motion in Support of Retaining Present Wording of Quality Assurance/Quality Control Contention.

from pleadings of ACORN and CFUR as well, many of the other two Intervenor's concerns came from I&E reports. CASE has always said that we intended to pursue all the I&E Reports in these proceedings. We will therefore adopt most of the concerns expressed by ACORN and CFUR as our own, since they do indeed supplement and support many of our own concerns. 10/

Further, in response to specific Interrogatories, CASE cites only items raised in I&E Reports as specifically presenting support for its position on Contention 5. 11/

Applicants have attempted to determine through discovery the specific concerns raised in the I&E Reports cited and viewed by CASE as issues on this Contention. Rather than specify its concerns, CASE has responded by listing all I&E Reports on a particular topic (e.g., concrete) as support for its position on that topic. CASE indicates only that these I&E Reports are indications of an inadequate QA program, but has not identified specific problems for each construction activity listed in Contention 5. Finally, in response to an Interrogatory seeking to determine whether CASE intended to include issues raised in I&E Reports which have been resolved, CASE was

10/ CASE's March 16, 1982 Answers to Applicants' Third Set, at 4.

11/ CASE's March 16, 1982 Answers to Applicants' Third Set, at 2-15. CASE does cite other potential bases for its Contention but does not identify any other information on which it has decided to rely.

only able to respond "Very probably. Unknown at this time. We will supplement." 12/

In view of the above, the proper scope of Contention 5 is broadly whether Applicants have established and implemented a construction QA/QC program in compliance with 10 C.F.R. Part 50, Appendix B, whether there are any issues raised in I&E Reports cited by CASE which have not been or are not being properly resolved and whether there are any adverse implications from the expiration and renewal of the Brown & Root ASME Certificates of Authorization for Comanche Peak.

Applicants demonstrate below (1) that they have established an effective QA/QC Organization (affidavit of David N. Chapman) and implemented a QA/QC program in full compliance with each of the criteria in 10 C.F.R. Part 50, Appendix B (affidavit of Antonio Vega); (2) that all issues raised by I&E Reports cited by CASE either have been resolved, and that such resolutions have been confirmed by the NRC Office of Inspection & Enforcement, or Applicants have taken measures in response to those issues, subject to verification and acceptance by the NRC Office of Inspection and Enforcement, to assure that there will be no adverse impact on the safe operation of Comanche Peak (affidavit of Susan L. Spencer);

12/ See Response to Interrogatory 12, March 16 Answers to Applicants' Third Set. No supplement to CASE's response has been received by Applicants to date.

and (3) that matters raised by the ASME Survey Team regarding the Brown & Root ASME QA Program for Comanche Peak have been properly addressed and resolved (affidavits of R.J. Vurpillat and Roger F. Reedy). Accordingly, the Board should summarily dismiss Contention 5 as an issue in this proceeding.

C. Applicants Have Established An Effective QA/QC Organization

During the construction phase at Comanche Peak, an effective QA/QC organization was established and has been maintained to assure construction activities are performed in accordance with applicable standards and regulations and that deficiencies are promptly identified and corrected. The organizational structures of the QA program at Comanche Peak have been modified, as necessary, by Texas Utilities Generating Company ("TUGCO"), the lead Applicant, to assure continued responsiveness to the demands of the Comanche Peak project and aggressive performance of the QA/QC function.

1. History of Comanche Peak QA Program

From the beginning of the Comanche Peak project, TUGCO has maintained ultimate responsibility for the QA/QC program at Comanche Peak. TUGCO has carefully monitored all aspects of the QA/QC program to assure that construction of the facility was performed in conjunction with an effective QA/QC program. Affidavit of David N. Chapman at 2.

During the initial phases of construction, Brown & Root, Inc., the Construction Manager/Constructor, managed QA/QC activities applicable to work performed by them and their contractors. While Brown & Root satisfactorily fulfilled their responsibilities in this role, TUGCO determined the need for an even more aggressive QA program that was essential to meet TUGCO's QA/QC goals for the project. Affidavit of David N. Chapman at 2.

In July, 1977, TUGCO initiated action requiring that all vendor release inspections have direct TUGCO QA involvement. Subsequently, upon assessing the success of that direct involvement, TUGCO determined that it would provide overall technical management of QA/QC functions for CPSES except for those activities under the jurisdiction of the ASME Code, Section III, Division 1. Brown & Root continued to supervise ASME code work under the applicable QA program. These measures have resulted in a QA/QC Organization which encourages identification and resolution of problems and which is tailored specifically for and responsive to the needs of the Comanche Peak project. Affidavit of David N. Chapman at 2-3.

In addition to TUGCO and Brown & Root, Gibbs & Hill as Architect-Engineer and Westinghouse as nuclear steam supply system ("NSSS") supplier provide QA programs for activities within the scope of their responsibilities. Their roles have remained unchanged throughout the life of the plant and are described more fully below. Affidavit of David N. Chapman at 3.

2. Present QA/QC organization at Comanche Peak.

There are five organizations with direct responsibility for providing QA programs for particular aspects of design and construction at Comanche Peak. As discussed above, TUGCO, as the lead Applicant, has ultimate responsibility for the engineering, design, procurement, construction, operation, and quality assurance activities for Comanche Peak. Texas Utilities Services Inc. ("TUSI"), the Texas Utilities Company ("TU") engineering service organization, is designated by TUGCO to have the authority to conduct the required engineering, design, and construction technical support activities for Comanche Peak, including implementation of the Quality Assurance Program at the site. Affidavit of David N. Chapman at 3-4.

Gibbs & Hill, as the Architect-Engineer, provides TUSI with engineering, design, and procurement services as requested. Gibbs & Hill provides the QA program for QA

activities within its scope of work. Westinghouse Electric Corp. ("Westinghouse"), as NSSS supplier, provides the QA program for the NSSS structures, systems and components. As discussed above, Brown & Root provides the QA program for ASME Code work and provides QA functions as requested by the TUGCO Quality Assurance Manager. Affidavit of David N. Chapman at 4.

a. TUGCO/TUSI

The TUGCO Quality Assurance organization was established to provide effective control of quality activities related to its nuclear plants. This control extends to all organizations performing quality related services during the engineering, design, procurement, and construction phases. The TUGCO/TUSI QA organizations participating in the design and construction phase of nuclear power plants are discussed in the Affidavit of David N. Chapman at 4-6.

(1) TUGCO Quality Assurance Division

The TUGCO QA Division, which is responsible for the development, implementation, and "surveillance" of the TUGCO/TUSI Quality Assurance program for design and construction, is headed by the Manager, Quality Assurance. That individual reports directly to the Vice President, Nuclear, thus assuring a reporting arrangement that eliminates undue construction cost and scheduling considerations from influencing activities performed by the Manager, Quality Assurance.

He has authority to "stop work" in the engineering, design, procurement and construction phases. Affidavit of David N. Chapman at 5.

The Manager, Quality Assurance, also supervises the Site QA Supervisor at Comanche Peak who is responsible for assuring the implementation of the Comanche Peak QA program on a daily basis at the site. Affidavit of David N. Chapman at 5.

2. TUSI Project Management

For the Comanche Peak project, the Vice President and Project General Manager of TUSI coordinates and controls the engineering, procurement, and construction activities. He is responsible for cost and schedule and is charged with implementing quality requirements during design and construction. The Vice President and Project General Manager reports to the Executive Vice President of TUSI. Affidavit of David N. Chapman at 6.

Reporting to the Vice President and Project General Manager is the Engineering and Construction Manager. The Engineering and Construction Manager is responsible for the Comanche Peak Steam Electric Station design, engineering and procurement. These activities are normally delegated to Gibbs & Hill, Inc., Westinghouse and other contractors/vendors. TUSI however retains overall responsibility for these activities and performs design functions as necessary. Affidavit of David N. Chapman at 6.

b. Gibbs & Hill

TUGCO has retained Gibbs & Hill to provide experienced personnel to assist TUGCO QA with the overall QA Program. In addition, a Gibbs & Hill Project Manager has been appointed to direct and guide the engineering, design, and procurement functions and to establish and maintain project relations with TUSI. The Project Manager has the authority to "stop work" on engineering and design activities performed by Gibbs & Hill. Affidavit of David N. Chapman at 6-7.

c. Brown & Root

Brown & Root provides the QA program for ASME Code Section III, Division 1 construction and other QA functions as requested by the TUGCO QA Manager. Technical direction of all site QA and QC activities other than ASME Code work is provided by the TUGCO Site QA Supervisor. Brown & Root's QA personnel have the organizational freedom and authority to carry out the program in an orderly, effective manner. Affidavit of David N. Chapman at 8.

d. Organizational Interfaces

For Comanche Peak, TUGCO/TUSI has established interfaces of the participating organizations in the QA Program which are summarized in the Affidavit of David N. Chapman at 9.

D. Applicants' QA Program Satisfies Each of the
Criteria of 10 C.F.R. Part 50, Appendix B

In conjunction with the effective construction QA/QC organization at Comanche Peak, a QA/QC program has been developed and implemented throughout the construction phase of the project. This program provides reasonable assurance that construction has been accomplished in compliance with regulatory requirements and applicable codes and standards and that when construction is complete there will be a high level of assurance that the units will be operated as a safe and dependable source of electricity.

To accomplish this goal, the quality assurance program has been structured to address each of the 18 criteria of 10 C.F.R. Part 50, Appendix B, as well as the commitments contained in the Preliminary (PSAR) and Final Safety Analysis Reports (FSAR). Measures taken to satisfy the requirements of each of these criteria are described below, based on the Affidavit of Antonio Vega.

1. Criterion I - Organization

The QA/QC organization has been described in the Affidavit of David N. Chapman. In sum, TUGCO retains ultimate responsibility for the proper construction of the facility, including the proper design, procurement, and installation of components. The overall QA program is a coordinated effort involving Texas Utilities Services, Inc. (TUSI), the engineering service organization; Gibbs & Hill, the Architect-Engineer; Brown & Root, the Construction Manager/Constructor; and Westinghouse Electric Corporation, the nuclear steam supply system (NSSS) supplier. FSAR § 17.1.1. Affidavit of Antonio Vega at 2-3.

2. Criterion II - QA Program

The CPSES Quality Assurance Plan and the FSAR are the primary documents by which TUGCO/TUSI assure effective control of all project quality-related activities. The CPSES QA Plan is attached to the Affidavit of Antonio Vega. It addresses the provisions of 10 C.F.R. Part 50, Appendix B and applicable ANSI N45.2 series standards. The

Plan incorporates the objectives of the ANSI standards and draft standards as presented in the NRC text "Guidance on Quality Assurance Requirements During Design and Procurement Phase of Nuclear Plants," dated June 7, 1973, and subsequent comments by the NRC Staff. Affidavit of Antonio Vega at 3.

To implement the QA program, procedures are established which define the organizations within which the programs are implemented and delineate the authority and responsibility of the persons and organizations performing design, engineering, procurement, and construction activities affecting the quality of design. These procedures provide a system within each discipline to assure that activities conform to the license commitments, meet the requirements of applicable codes and standards, fulfill applicable regulatory agency requirements, and implement the provisions of the CPSES QA program. FSAR § 17.1.2. Affidavit of Antonio Vega at 3-4.

3. Criterion III - Design Control

The CPSES QA program provides for multi-level design control. Gibbs & Hill, Westinghouse, and TUSI each have levels of control within their respective organizations. Further, the CPSES QA program requires that the prime contractors meet applicable NRC Regulatory Guide requirements

meet applicable NRC Regulatory Guide requirements for all safety-related activities. The CPSES QA program requires verification by design review, audit and surveillance that applicable NRC Regulatory Guide requirements have been met in this regard. FSAR § 17.1.3. Affidavit of Antonio Vega at 4-5.

4. Criterion IV - Procurement
Document Control

The CPSES QA program establishes appropriate requirements to assure that procurement documentation is controlled and accurately reflects applicable regulatory requirements, design bases, and other appropriate requirements, such as industry codes and standards. FSAR § 17.1.4. Affidavit of Antonio Vega at 5-6.

5. Criterion V - Instructions,
Procedures, and Drawings

Appropriate requirements have been established by the CPSES QA program to assure the quality-related activities for Comanche Peak are prescribed by documented instructions, procedures, or drawings; accomplished in accordance with such documents; and that approved acceptance criteria are met. The various participating organizations are responsible for development of methods to implement these activities, subject to TUGCO audit. In its review activities, TUGCO QA

assures that instructions, procedures, and drawings contain appropriate quantitative (such as, dimensions, tolerances, and operating limits) or qualitative (such as workmanship samples) acceptance criteria for determining that important activities have been satisfactorily accomplished. FSAR § 17.1.5. Affidavit of Antonio Vega at 6-7.

6. Criterion VI - Document Control

The CPSES QA program assures that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel. It requires a system to control the issuance of design and procurement documentation (i.e., specifications, drawings, instructions, procedures, reports and changes thereto) for all safety-related equipment. It further requires that manufacturing and construction documents and records required for traceability, evidence of quality, and substantiation of the "as built" configuration be controlled. Procedures identify those individuals or groups responsible for reviewing, approving and issuing documents and revisions thereto. FSAR § 17.1.6. Affidavit of Antonio Vega at 7.

7. Criterion VII - Control of Purchased
Material, Equipment, and Services

Control of purchased material, equipment, and services is required by the CPSES QA program. Potential vendors are evaluated in accordance with established procedures prior to placing them on the approved vendors list. The evaluation involves the review of historical data on vendor performance and capability, the review of the vendor's quality assurance program and/or the results of shop surveys, inspections and audits. Vendors eligible to supply material, equipment, and services for Q-listed (quality controlled) items are selected from the approved vendors list. This list is maintained by TUGCO QA in accordance with established procedures. Affidavit of Antonio Vega at 7-8.

The CPSES program requires that suppliers provide a quality verification package. Documented, objective evidence is required for evaluation by TUGCO/TUSI or the prime contractors to assure conformance to design requirements, drawings, specifications, codes, standards regulatory requirements, and other applicable criteria. FSAR § 17.1.7. Affidavit of Antonio Vega at 8.

8. Criterion VIII - Identification and Control of Materials, Parts and Components

The CPSES QA program requires continuous and accurate identification and control of materials, parts, and components to prevent inadvertent use. Contractors and vendors are required to utilize procedures which establish and document a system for physically identifying Q-material and equipment. Upon receipt of such material and equipment on site, QC inspections are performed and documented. Site procedures and instructions for the storage and handling of Q-material and equipment require nonconforming items to be tagged with the appropriate status tag (i.e., "hold" or "reject") and controlled to prevent inadvertent use. This control system established for Comanche Peak provides assurance that only acceptable items are used for safety-related functions.

FSAR § 17.1.8. Affidavit of Antonio Vega at 8-9.

9. Criterion IX - Control of Special Processes

The CPSES QA program requires prime contractors to prepare written procedures and controls to assure that special processes, including welding, heat treating, casting, coating applications, nondestructive testing, and concrete

batching are accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards and specifications. These procedures describe, as appropriate, the operations to be performed and their sequence, the characteristics involved and their limits, process controls, measuring and testing equipment utilized and documentation required. FSAR § 17.1.9. Affidavit of Antonio Vega at 10.

10. Criterion X - Inspection.

The CPSES QA program requires inspections of activities affecting quality. The organization having the responsibility for providing services, structures, systems, components and materials has the primary task for inspecting such items and activities. TUGCO/TUSI performs reviews, surveillances or audits of the inspection procedures utilized by these organizations. Inspections are performed by independent, trained and qualified individuals not responsible for the activity being inspected. FSAR § 17.1.10. Affidavit of Antonio Vega at 10-11.

11. Criterion XI - Test Control.

The CPSES QA program requires that appropriate tests be performed and documented at specific stages of manufacturing, fabrication, and construction. Testing is conducted in accordance with written procedures with well-defined acceptance limits. The CPSES test program covers safety-related activities such as prototype, qualification, production, in process, performance and hydrostatic testing. FSAR § 17.1.11. Affidavit of Antonio Vega at 11.

12. Criterion XII - Control of
Measuring and Test Equipment

The CPSES QA program requires that organizations using measuring and test equipment have written procedures to assure that only properly calibrated equipment is used. The program requires that the standards used for accuracy verification be traceable to the U.S. Bureau of Standards or other appropriate sources. A calibration system has been established, records of calibrations maintained and equipment properly marked with the date and the due date of the next calibration. FSAR § 17.1.12. Affidavit of Antonio Vega at 12.

13. Criterion XIII - Handling,
Storage, and Shipping

The CPSES QA program requires the establishment of procedures for cleaning, handling, storage, shipping, and preservation of materials and equipment to prevent damage or deterioration. TUGCO verifies through review, inspections, and audit that these procedures are being properly implemented. When necessary, these procedures may require special environmental facilities such as inert gas, humidity controlled, or temperature controlled storage areas. FSAR § 17.1.13. Affidavit of Antonio Vega at 12.

14. Criterion XIV - Inspection,
Test, and Operating Status

The CPSES QA program requires procedures to identify the inspection, test, and operating status of safety-related structures, systems, and components. The inspection and test status of items are maintained through the use of status indicators such as physical location, tags, markings, shop travelers, stamps, or inspection records. This assures that only items that have received the required inspections and tests are used. FSAR § 17.1.14. Affidavit of Antonio Vega at 13.

15. Criterion XV - Nonconforming
Materials, Parts, or Components

The CPSES QA program requires the identification, documentation, segregation, and disposition of nonconforming material, parts, or components. Procedures require evaluation and documented dispositions. Procedures also control further processing, fabrication, delivery, or installation of items for which disposition is pending.

The CPSES QA program requires measures to assure that departures from design specifications and drawing requirements that are dispositioned "use as is" and "repair" are reported to affected organizations. TUGCO performs reviews, inspections and audits to assure compliance with this requirement. FSAR § 17.1.15. Affidavit of Antonio Vega at 13-14.

16. Criterion XVI - Corrective action

The CPSES QA program requires that conditions adverse to quality be promptly identified, reported, and corrected. Contractors, subcontractors, and vendors are responsible for performing corrective actions within their own areas of activity. In the case of significant conditions adverse to quality, the cause of the condition is determined and corrective action implemented. Corrective action procedures require thorough investigation and documentation of significant

conditions adverse to quality. The cause and corrective action is reported in writing to the appropriate levels of management. FSAR § 17.1.16. Affidavit of Antonio Vega at 14.

17. Criterion XVII - Quality Assurance Records

The CPSES QA program requires a quality records system which provides documented evidence of the performance of activities affecting quality. These procedures require that the QA record system include data documenting quality assurance programs and plans, identification of activities and protection of records against deterioration and damage. Also, adequate classification and indexing of records, definition of record keeping responsibilities, and a method for transfer of records must be maintained. FSAR § 17.1.17. Affidavit of Antonio Vega at 15.

18. Criterion XVIII - Audits

The CPSES QA program requires that planned and periodic audits be performed to verify compliance with all aspects of the Quality program and to determine its effectiveness. TUGCO performs such audits on Westinghouse, Gibbs & Hill, Brown & Root, TUSI, and others as necessary to provide an objective evaluation of the effectiveness of their

programs; to determine that their programs are in compliance with established requirements and to verify implementation of corrective actions. The TUGCO audits, both internal and external, are conducted primarily by members of the TUGCO QA staff. Consultants are utilized by TUGCO on audits as required.

The Audit team has sufficient expertise in the area being audited but has no direct responsibilities in that area. Auditors use checklists to identify those activities which will be examined in each audit. An audit report is sent to management responsible for the area audited for review and corrective action for deficiencies. Finally, reauditing of deficient areas is performed as necessary to verify implementation of required corrective actions. FSAR § 17.1.18. Affidavit of Antonio Vega at 16-17.

E. All Matters Raised in I&E Reports
Cited by CASE Have Been Resolved

As discussed above in Section I.B.1, CASE cites as the basis for its position on Contention 5 specific NRC I&E Reports concerning Comanche Peak. Applicants demonstrate below that no genuine issue of material fact exists with respect to matters raised in those I&E Reports. All matters raised in those reports either have been resolved and such resolution confirmed by the NRC Staff, or Applicants have taken responsive measures, subject to verification by the

NRC office of Inspection & Enforcement, to confirm that Comanche Peak was constructed in accordance with applicable requirements and assure that the plant can be operated safely.

In addition, Applicants demonstrate below that no genuine issue of material fact exists with respect to four specific matters raised in I&E Reports which CASE has cited in support of its position on Contention 5. These issues are (1) honeycombing in steam generator compartment walls of Unit 2, (2) mislocated reactor vessel support structure, (3) placement of concrete on Unit 1 dome, and (4) inspection of coatings of miscellaneous steel and supports. These matters have either been resolved and such resolution confirmed by the NRC Staff, or Applicants have taken necessary corrective action which is subject to verification by the NRC Office of Inspection & Enforcement prior to formal close-out by the NRC Staff.

1. Procedure

The NRC retains a Resident Reactor Inspector ("RRI") on-site at the Comanche Peak facility. This individual and other Region IV Staff personnel perform, on a routine basis, inspections at the plant of the activities authorized by the Construction Permits for Comanche Peak. Following each inspection, the inspector prepares a report which details the

findings during the inspection. These findings may include instances which require further examination or information to determine acceptability, but which do not constitute existing variations from NRC requirements. These matters are identified in the report as "unresolved items." Where apparent variations from NRC requirements (including apparent variations from procedures or instructions established to assure compliance with NRC requirements) are discovered, the NRC Office of Inspection and Enforcement will transmit either a Notice of Violation (involving a deficiency, infraction or violation) or a Notice of Deviation, depending upon the severity of the variation. Applicants are required to respond to any matters which are cited either as unresolved items or as a Notice of Deviation or Violation. The NRC may require additional information as necessary to resolve the issues satisfactorily. Affidavit of Susan L. Spencer at 2-3.

2. Status of I&E Reports at
Comanche Peak.

Since 1973, the NRC has performed routine inspections of preparations for and actual construction activities, as documented by I&E Reports. Over 150 inspections involving more than 8000 NRC inspector hours on-site have been conducted at Comanche Peak during the construction phase. The results of these inspections and Applicants' response to each, when required, are a matter of public record. Affidavit of Susan L. Spencer at 4.

All but two items raised in I&E Reports which are cited by CASE as pertinent to Contention 5 13/ have been resolved and such resolutions verified by the NRC Staff. Such resolutions, in all but one instance, have been by formal close-outs in subsequent I&E Reports. The open items involve alleged failures to follow certain procedures for the inspection of coatings, 14/ and a concrete pour on the Unit 1 dome. 15/ In addition to these two open items, two other matters have been raised by CASE. Those matters are honeycombing in the walls of the Unit 2 steam generator compartment, and placement of the Unit 2 Reactor Vessel. Affidavit of Susan L. Spencer at 4-5. The details of the resolution of each matter is discussed in a.-d. below.

13/ See CASE's March 15, 1982 Answers to the NRC Staff's First Set of Interrogatories. The same I&E Reports are cited by CASE in its March 16, 1982 Answers to Applicants' Third Set of Interrogatories. These Interrogatories sought the complete bases for CASE's positions on each matter identified in the text of Contention 5. See also CASE's responses to Applicants' and NRC Staff's Interrogatories, identified in the affidavit of Susan L. Spencer at footnote 1. An item raised in I&E Report 80-09 regarding excessive groundwater withdrawal rates also remains open. It is not addressed here because it involves no issue concerning Quality Assurance (affidavit of Susan L. Spencer at 4) and is in any event, an environmental matter. Thus, it is not within the scope of Contention 5.

14/ I&E Report 81-15, attached to Affidavit of Susan L. Spencer as Attachment 3.

15/ I&E Report 79-11, attached to Affidavit of Susan L. Spencer as Attachment 4.

In addition, CASE also sought expedited production from the NRC Staff of I&E Report 81-20, which concerns the Systematic Assessment of Licensee Performance ("SALP"). The Staff mailed a copy to CASE (with copies to the Service List) on April 9, 1982. This Report evaluated the performance of the Applicants in constructing the facility during the period July 1, 1980 to June 30, 1981. The Report concluded that "the licensee has demonstrated an overall combination of attributes exhibiting Category I performance during the appraisal period." SALP at 6. Category I is assigned where it is found

a combination of attributes which demonstrate achievement of superior safety performance; i.e., licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used such that a high level of performance with respect to operational safety or construction is achieved. [SALP at 2.]

CASE has not supplemented its response to Interrogatories to indicate whether it intends to rely upon this Report in support of its position on Contention 5.

a. Honeycombing in Unit 2 Steam
Generator Compartment Walls

In October 1979, routine Quality Control inspections identified and documented areas in the concrete placement of the Unit 2 steam generator compartment walls where exposed concrete contained honeycombed conditions. Following

engineering review of the condition, repair work was authorized to begin in early December 1979. During repairs, Engineering and Senior Quality Control personnel recommended that the integrity of inaccessible portions of the placement be investigated further. It was determined on the basis of that recommendation that further investigation was required. Affidavit of Susan Spencer at 5-6.

On December 13, 1979, Applicants notified the NRC RRI of the existence of honeycombing of concrete in the Unit 2 steam generator compartment walls. At that time, Applicants informed the RRI that a consultant would be hired to perform a sonic (microseismic) investigation of the walls involved. Affidavit of Susan Spencer at 6.

In early January 1980, services of a consultant were retained for the purpose of microseismically evaluating the inaccessible portions of the subject placement. A series of measurements of the placement were taken over a period of four days from both sides of the placement. In addition, Engineering personnel conducted physical investigations to ascertain better the nature of certain anomalies identified by the microseismic investigation. Subsequently, further microseismic tests were then conducted based on the data derived from the physical investigations. Affidavit of Susan L. Spencer at 6.

Upon evaluation by Engineering personnel based on all data available, it was concluded that the inaccessible

portions of the placement, excluding the honeycombed portions already identified, met or exceeded design requirements or contained no hidden internal defects which would be detrimental to the safety or utility of the structure. Affidavit of Susan Spencer at 7.

A subsequent examination by the NRC RRI of the repair work on the honeycombing was conducted in March, 1980. At that time the RRI found that work was being accomplished in accordance with detailed instructions generated at the site and the recommendations set forth in "applicable portions of the U.S. Bureau of Reclamation 'Concrete Manual', a recognized authoritative publication on concrete work." 16/ The NRC Staff conducted extensive additional reviews in April and May, 1980 and concluded that no items of noncompliance or deviations existed. 17/ Further, TUGCO/TUSI QA personnel verified that all repair work was conducted in accordance with appropriate specifications and procedures. Affidavit of Susan L. Spencer at 7.

b. Mislocated Reactor Vessel
Support Structure

On February 20, 1979, Applicants reported to the NRC RRI that an error had been discovered in the design of

16/ I&E Report 80-08, at p. 6, attached to Affidavit of Susan L. Spencer as Attachment 5.

17/ I&E Report 80-11, attached to Affidavit of Susan L. Spencer as Attachment 6.

the Unit 2 reactor vessel support structure. 18/ Applicants reported that the reactor vessel support shoes, the ventilation duct work, and the surrounding reinforcing steel had been rotated forty-five degrees from correct positions through a design error. Affidavit of Susan Spencer at 7-8.

The Unit 2 pressure vessel support misorientation resulted from several factors, including inadequate communication of evolving design criteria to designs and a breakdown in the vendor drawing review interface between Gibbs & Hill and Westinghouse. Affidavit of Susan Spencer at 8.

As reported to the NRC, Applicants chose to place additional reinforcing steel in the reactor vessel support structure under each new location of the vessel pads to correct this situation. This corrective action required coring holes in existing concrete to embed new tiebolts and reinforcing steel. During the performance of this corrective action, the NRC RRI identified as an unresolved item the replacement of reinforcing steel which had been severed by the drilling holes to existing concrete. 19/ This item was later resolved upon examination of the reinforcing steel being added to replace the reinforcement cut during drilling. 20/

18/ I&E Report 79-03, attached to Affidavit of Susan L. Spencer as Attachment 7.

19/ I&E Report 79-07, at pp. 3-4, attached to Affidavit of Susan L. Spencer as Attachment 8.

20/ I&E Report 79-13, at p. 2, attached to Affidavit of Susan L. Spencer as Attachment 9.

On March 27, 1979, Applicants and NRC representatives held a meeting to discuss the repair procedures for relocating the vessel support pads. At that meeting, Applicants presented their position that the repair has no safety impact and that the repaired pedestal will not be structurally different from the Unit 1 design. The NRC concluded that "no unresolved safety concerns associated with the repair design for the Unit 2 pedestal were identified at the meeting." 21/ Affidavit of Susan Spencer at 9.

c. Placement of Concrete on Unit 1 Dome

As described in I&E Report 79-11, 22/ on March 30, 1979, the NRC Region IV office received a telephone call from an individual who identified himself as a former CPSES employee. The individual alleged that during a concrete pour on the Unit 1 dome in January, 1979, a rain washed away part of newly poured concrete. Affidavit of Susan L. Spencer at 9-10.

Subsequent investigation by the NRC RRI indicated that the incident apparently occurred on January 18, 1979. It was determined that on that day a concrete pour on the Unit 1

21/ NRC Meeting Summary, May 15, 1979, "Summary of March 27, 1979 Meeting on Repair of Reactor Vessel Support Pedestal for Comanche Peak, Unit 2, attached to affidavit of Susan L. Spencer as Attachment 10.

22/ I&E Report 79-11, attached to Affidavit of Susan L. Spencer as Attachment 4.

dome was begun under good weather conditions which subsequently deteriorated to the point that heavy rain stopped work at about 7:30 p.m. The pour area was covered and the shift was instructed to clean the area so the pour could resume the next day. The RRI subsequently identified time sheets of individuals which indicated they had been "placing concrete" during the later shift. Affidavit of Susan Spencer at 10.

On April 17, 1979, two senior Brown & Root construction management personnel asked the RRI whether they could check with their personnel regarding the allegations. They were informed they could do so. The next day, the Applicants reported to the RRI that they had identified the craft General Foreman who was involved. As a result of interviews with this individual it was determined that concrete placement had occurred that evening to replace concrete which had washed away in the rain. The General Foreman had himself mixed the concrete (one-half yard) in accordance with design mix data for the dome concrete, although no QA personnel were present. Consequently, a Notice of Violation was issued, citing a breakdown in the QA program on the evening of January 18, 1979. Affidavit of Susan Spencer at 11.

The NRC Office of Inspection and Enforcement formally closed the Infraction cited in I&E Report 79-11 in a later

Report, I&E Report 79-24/23. 23/ As stated in that Report, Applicants notified the Region IV Office of Inspection & Enforcement that reviews by consultants and Gibbs & Hill had been completed and the in-place concrete was found satisfactory. In addition, Applicants informed the Region IV Office of Inspection and Enforcement that construction supervisory personnel have informed that should a similar situation occur, no additional concrete shall be batched or placed without prior notification to senior construction management. Affidavit of Susan L. Spencer at 12.

d. Inspection of Coatings

In I&E Report 81-15, 24/ the NRC raised certain matters concerning documentation of coating applications for miscellaneous steel, cable tray supports or pipe supports inside Units 1 and 2 Containment Buildings. Also, the records reviewed by the RRI for the Unit 2 Containment Steel Liner revealed incomplete checklists without recorded visual inspections and Dry Film Thickness readings. In this regard,

23/ I&E Report 79-24/23, at p. 2, attached to Affidavit of Susan L. Spencer as Attachment 11. The integrity of the concrete used in this pour was cited as an unresolved item pending in I&E Report 79-24/23. This item will be closed out following the Structural Integrity Tests to be performed on the Unit 1 and Unit 2 containments, described in SER § 3.8.1 at p. 3-18.

24/ I&E Report 81-15, attached to Affidavit of Susan L. Spencer as Attachment 3.

the seal coat had allegedly been applied over surfaces to which the records review pertained. Affidavit of Susan L. Spencer at 12.

The discrepancies cited in I&E Report 81-15 have been identified as nonconforming conditions in accordance with established QA procedures. In response, reinspections of the subject coatings using both scratch and adhesion tests to evaluate the condition of the applied coatings were conducted. A complete review of existing records and reinspection of affected areas was conducted. Any discrepancies were identified and corrected in accordance with approved procedures. Affidavit of Susan L. Spencer at 12.

To prevent recurrence of this matter, Application (Construction) Procedures were revised and reissued to clearly indicate pot life at all temperatures within the applicable range for application of the coating system. In addition, Inspection (Quality) Procedures/Instructions were revised to clarify applicable requirements and were reissued. Also, an identification system providing traceability of inspection documentation from blasting through installation and final coating for miscellaneous steel and supports was established. Formal close-out of this item will occur upon verification by the NRC Office of Inspection & Enforcement of satisfactory completion of the actions described above. Affidavit of Susan L. Spencer at 12-13.

In sum, all matters raised in NRC I&E Reports cited by Intervenor CASE as pertinent to Contention 5 have been resolved and such resolutions verified by the NRC Staff, or Applicants have taken corrective action which is subject to verification by the NRC Office of Inspection and Enforcement prior to formal close-out of the item by the NRC.

F. There Are No Outstanding Issues Regarding
the Brown & Root ASME Certificates of
Authorization for Comanche Peak

CASE raises in its March 15, 1982, Answers to NRC Staff Interrogatories, at pp. 49-51, the November 23, 1981 findings of an ASME Survey Team regarding the Brown & Root QA program for ASME Code work at Comanche Peak. CASE cites this matter as an example of alleged "lack of compliance" with NRC regulations regarding the Applicants' QA/QC program. Applicants will demonstrate below that all comments made by the ASME Survey Team as a result of the October 12, 1981 Survey, and comments following a Resurvey of the Brown & Root program during January 18-20, 1982, have been resolved and present no instances of noncompliance with ASME Code requirements or NRC regulations for either past or ongoing ASME Code work by Brown & Root. Accordingly, there is no genuine issue of material fact to be heard regarding the ASME findings concerning Brown & Root's QA program for ASME code work at Comanche Peak.

As demonstrated in the Affidavits of Roger F. Reedy and R. J. Vurpillat, the Brown & Root ASME Code work at Comanche Peak meets the requirements of the ASME Code in that (1) Code procedures have been followed for all work, including that performed during the period (January 8 to March 15, 1982) after the Brown & Root ASME Certificates of Authorization had expired and before they were reissued, and the work has been accepted or is subject to acceptance by the Authorized Nuclear Inspector and (2) all findings by the ASME Survey Team during the recertification process have been addressed and the activities evaluated to determine that work performed satisfied ASME Code requirements.

1. ASME Nuclear Code.

Work performed on components of the nuclear power reactors at Comanche Peak is performed in accordance with established standards for boilers and pressure vessels set forth in Section I of the American Society of Mechanical Engineers ("ASME") Boiler and Pressure Vessel Code for nuclear components. Affidavit of Roger F. Reedy at 2-4.

Brown & Root's authority to perform work at Comanche Peak pursuant to the ASME Nuclear Code and to certify such work as complying with all the applicable requirements of the Code is evidenced by issuance of ASME Certificates of Authorization which permit the stamping of an item with an

ASME Code Symbol Stamp following completion. These stamps are issued only upon a demonstration to the ASME that an acceptable Quality Assurance ("QA") program exists for the work to be performed pursuant to the requested authority. Affidavit of Roger F. Reedy at 3.

At Comanche Peak, Brown & Root has been issued both "NA" and "NPT" Stamps. The "NA" Symbol Stamp is a stamp which indicates that the equipment has been installed or assembled to Code requirements. The "NPT" Stamp for parts of ASME Nuclear Code components signifies that the designated work has been accomplished. An NPT Stamp does not include responsibility for design. Affidavit of Roger F. Reedy at 4.

2. ASME Third-Party Inspections of Nuclear Construction

In addition to periodic surveys of QA programs by ASME representatives, frequent inspections by an Authorized Nuclear Inspector are made of all components subject to ASME code requirements. Specifically, a fundamental and controlling principle of the ASME Boiler and Pressure Vessel Code is that a component must receive "third-party authorized inspection" during construction to assure compliance with all Code requirements. The signature of an Authorized Nuclear Inspector on an ASME Data Report, verifying that the component has been constructed in accordance with all applicable Code requirements, is a key element in the ASME

accreditation system. This third-party inspection is performed by the Authorized Nuclear Inspector who is generally employed by an insurance company which underwrites insurance for the type of equipment being constructed. At Comanche Peak, the Authorized Nuclear Inspector is employed by the Hartford Steam Boiler Inspection and Insurance Company. Affidavit of Roger F. Reedy at 5.

3. Construction performed in the absence of effective Certificates of Authorization

Before construction activities on a nuclear component can be initiated, it is necessary for the organization doing the work to have an agreement with an Authorized Inspection Agency for providing their services and those of Authorized Nuclear Inspectors. The Authorized Inspection Agency must review and accept the Quality Assurance Manual of the organization and determine that the organization is capable of properly implementing the QA Manual. Affidavit of Roger F. Reedy at 6.

Once these activities have been accomplished, it is acceptable for the organization to begin ASME Code work on the item which is to be Code Stamped with the concurrence of the Authorized Nuclear Inspector. That ASME Code work may include Code design and construction activities prior to receiving a Certificate of Authorization from ASME. It is common practice for organizations to begin work in this

way, in order that the ASME Survey Team can verify implementation of the QA Program when the survey is performed.

Affidavit of Roger F. Reedy at 6-7.

Similarly, work performed during a time when no Certificate of Authorization is in effect, as occurred at Comanche Peak following expiration of the Brown & Root Certificates on January 8, 1982, and prior to their reissuance on March 15, 1982, is treated as work performed by a contractor prior to the initial ASME Survey. The acceptance of the work performed during this period of time is at the discretion of the Authorized Nuclear Inspector and his Supervisor.

Affidavit of Roger F. Reedy at 7.

4. ASME Quality Assurance Program and Controls

In general, the purpose of a Quality Assurance Program is to establish an organizational plan for performing and assuring that the work on a project is accomplished in accordance with applicable design, fabrication and installation requirements. The Quality Assurance Manual describes the essential features of the QA Program by detailing the responsibilities of personnel and controls needed for the work performed. The QA Manual, in conjunction with necessary supplementary implementing procedures, provides the specific details for control and documentation of the work. In the ASME Code, it is a requirement that the QA Manual describe

the essential controls of the Quality Assurance system. The Code permits the QA Manual to be supplemented by implementing procedures. Affidavit of Roger F. Reedy at 8.

5. ASME Survey of Brown & Root
ASME QA Program

In performing a review of an ASME QA Program, an ASME Survey Team will first examine in detail the subject QA Manual. After the QA Manual has been reviewed, the Survey Team must establish that the work is being carried out in accordance with the provisions of the Manual. In commenting on the Brown & Root QA Program for Comanche Peak, the ASME Survey Team identified details where they required changes to both the QA Manual and in certain practices in order to more clearly control the implementation of activities as they are described in the Manual. The ASME Survey Team comments on the ASME QA Program for Comanche Peak are set forth in the ASME letter of November 23, 1982, attached to the Affidavit of R.J. Vurpillat. These comments are discussed separately, below:

a. Brown and Root QA Manual

(1) Essential elements of control

The ASME Survey Team commented, as follows:

The manual was vague, failed to establish required controls, responsibilities, or provide for objective evidence that required activities were satisfactorily performed.

The ASME Code requires that a QA Manual self-contain the essential elements of control for the QA program. The Manual may be supplemented by the implementing procedures. As long as the QA Program (Manual plus implementing procedures) adequately addresses the Code requirements, there is no technical violation of the Code. Affidavit of Roger F. Reedy at 10.

The QA Manual which was reviewed by the ASME Survey Team had been revised by Brown & Root several months before the ASME Survey. These revisions had been approved by the Authorized Nuclear Inspector. However, when making these changes, some of the essential features that had been described both in the original QA Manual and the implementing procedures were taken out of the QA Manual, although they remain in the procedures. Affidavit of R. J. Vurpillat at 2-3.

This concern was corrected by revising the QA Manual to include the specifics which had remained in the procedures. Affidavit of R. J. Vurpillat at 3. Because the essential control features were still a part of the Brown & Root QA Program, the technical requirements of the ASME Code were met during this period. Based upon the findings of the Survey Team with regard to Brown & Root implementation of the manual, Code work was not adversely affected by the revisions to the QA Manual. Affidavit of Roger F. Reedy at 11.

(2) Use of Code addenda

The Survey Team commented, as follows:

The manual established the Summer 1974 Addenda for piping and the Winter 1974 Addenda for component supports as the Code effectivity. The manual addressed activities only permitted by later Code addenda; such as NX-2610, NA-3867.4(f) and supply of material - NCA-3820(e), without any identification of the applicability of these provisions.

The ASME Code requires that the provisions of the ASME Edition and Addenda specified by the Owner must be followed. The only time new alternative provisions in later Code Addenda may be used is when detailed in the design documents. Affidavit of Roger F. Reedy at 11-12.

This comment is concerned with the use of specific ASME Code provisions from later Code Addenda than the Addenda specified in the QA Manual for the work being performed. This is permitted by the rules of the ASME Code. The Code does not specifically require that use of later Addenda paragraphs be documented in the QA Manual. Affidavit of Roger F. Reedy at 12. In fact, Brown & Root has documented evidence in their design documents that the use of these later Addenda paragraphs was permitted, and the ASME has been so advised. Affidavit of R. J. Vurpillat at 3. Accordingly, this means that the technical requirements of the ASME Code were satisfied. Affidavit of Roger F. Reedy at 12.

(3) Manual control system

The ASME survey team commented, as follows:

The manual control system did not contain the exhibits displayed in the manual or any manual approval method.

The ASME Code requires that typical record forms used to document or control work may be included as typical exhibits in the QA Manual. Affidavit of Roger F. Reedy at 13. In this instance, although the documents used to control and transmit the QA Manual were not included in the QA Manual exhibits, the control documents were part of the Quality Assurance system and the QA Manual approval and transmittal was performed in accordance with the system detailed in the implementing procedures. These transmittal forms have now been added to the Manual as exhibits. Affidavit of R. J. Vurpillat at 4.

Accordingly, while the addition of these exhibits clarified the system of Manual approval and transmittal, the earlier approach did not adversely impact the Quality Assurance system in effect at the time. Thus, the technical requirements of the Code were satisfied. Affidavit of Roger F. Reedy at 13.

- (4) Elements of process, nonconformity, and document control

The ASME Survey Team commented, as follows:

The program elements of process control, nonconformity control and document control required significant changes.

The ASME Code provides that typical record forms used to document or control work may be included as exhibits in the QA Manual. Affidavit of Roger F. Reedy at 14. However, these elements of control were part of the Brown & Root Quality Assurance system but were detailed in the QA implementation procedures rather than in the QA Manual. More clarifying detail has now been added to the QA Manual. Affidavit of R. J. Vurpillat at 4-5.

This situation does not adversely reflect on the implementation of any ASME QA functions by Brown & Root. There was no need for any corrective action on the part of Brown & Root other than to include more detail in the QA Manual itself. Accordingly, the technical requirements of the Code were satisfied. Affidavit of Roger F. Reedy at 14.

- (5) Design control element

The ASME Survey Team commented, as follows:

The design control element (control of field change design information and feed back of construction information to the Owner) was missing from the manual.

On this matter, the Code requires that the essential elements of control be addressed in the QA Manual. Affidavit of Roger F. Reedy at 15. Brown & Root has, in fact, has had implementing procedures on how field change information is controlled from the design stage forward. These controls have been added to the QA Manual. Affidavit of R. J. Vurpillat at 5. Accordingly, in that there was no required change in the features of control, the technical requirements of the Code were satisfied. Affidavit of Roger F. Reedy at 15.

(6) Elements of control - general

The ASME Survey Team commented, as follows:
All elements required changes to provide definitive information since few auditable controls were included.

As previously stated, the Code requires that the essential elements of control be addressed in the QA Manual. By this comment the Survey Team requested that the specific details of controlling work, which were in the Brown & Root implementing procedures, also be described in the QA Manual. Affidavit of Roger F. Reedy at 15-16. The QA Manual was revised by Brown & Root to accomplish this. Affidavit of R. J. Vurpillat at 5. This is a further elaboration of the first point above and does not signify improper implementation of any QA functions performed by Brown & Root at Comanche Peak. Affidavit of Roger F. Reedy at 16.

b. Implementation of Brown & Root ASME QA
Program at Comanche Peak

It is an ASME Code requirement that the specific requirements of the QA Manual be verified by the Survey Team as having been adequately implemented. Affidavit of Roger F. Reedy at 5. Each of the following ASME comments provide the views of the Survey Team on implementation of those specific requirements. As demonstrated below, there are no genuine issues of material fact to be heard regarding those ASME comments.

(1) Document control

The ASME commented, as follows:

The Manual requires that the File Custodians in each department maintain a log of design changes received from the Owner. The File Custodian is to mark the involved document to indicate that a design change had been received and then the document user checks the log to find the applicable design change(s).

The log being maintained by the QA Department File Custodian contained numerous mistakes and missing information. Three of three design packages, checked by the team, contained design changes not properly identified in the log.

With regard to the first point, the File Custodians have each reviewed their design change logs to verify that the documents which were the subject of this comment are now all correctly updated. Affidavit of R. J. Vurpillat at 7. This verification of documents assures that all ASME Code requirements have been met in this regard. Affidavit of Roger F. Reedy at 17.

As to the second comment, the Survey Team was describing a situation encountered with the Document Review File Custodian. The documents being reviewed were not working documents (i.e., not used for field work) but merely documents that were to be reviewed after construction and prior to final storage of records. For the three design packages that were reviewed by the Survey Team, the document review had not yet been accomplished although the records were in the File Custodian's hands. The problem was with the timeliness in performing the review, not that the records were not being properly reviewed. Measures have been taken to improve the timeliness of those reviews. Affidavit of R. J. Vurpillat at 6-7.

This situation does not involve any violation of the technical requirements in the ASME Code. Affidavit of Roger F. Reedy at 18.

(2) Instructions, procedures and drawings

The ASME Survey Team commented, as follows:

The Brown & Root Construction Procedure 6.9G, reviewed by the site QA Manager, was in direct conflict with the QA Manual and the CODE (NA-5241) in that it stated that the ANI would sign a blank process sheet and then Brown & Root would add the ANI hold points. The AIA representative stated that this procedure was not honored by them and that they had requested the procedure be revised. The procedure had not been revised.

The purpose of the Site QA Manager's review is to assure that the procedure complies with the Code and the QA Manual.

The Code requires that the Authorized Nuclear Inspector ("ANI") establish "hold points" on Code activities being performed. Affidavit of Roger F. Reedy at 18. As stated in the affidavit of R. J. Vurpillat, the ANI on site used the procedure described above in order to establish "generic" hold points as he felt were necessary. As long as these generic "hold points" were established by the ANI, the requirements of the Code were met. Affidavit of Roger F. Reedy at 19. The Survey Team felt that the ANI should not sign blank process sheets to establish hold points. Consequently, this Procedure has been revised and the paragraph which describes the establishment of ANI hold points has been deleted. The ANI continues to use his own method of establishing hold points. Affidavit of R. J. Vurpillat at 8. In any event, there was never a problem in implementation because the Inspector did establish the hold points as he felt necessary. The technical requirements of the Code were met both with regard to the Inspector and the establishment of hold points. Affidavit of Roger F. Reedy at 19.

- (3) Control of purchased materials, items and services

The ASME Survey Team commented, as follows:

- (1) Brown & Root procured material from a vendor that they had surveyed and qualified as a Material Supplier of bolting and plate materials. The material furnished had been formed into a saddle configuration by this vendor. The Brown & Root survey and qualification of this vendor did not address review of any operation relative to forming and the Brown & Root purchase order did not define the forming process or procedure.

Brown & Root has carried out a subsequent review of this procedure and verified that the procedure was properly used for the plate material which had been formed by the vendor. Further, the method of placing vendors on Approved Vendors List was amended by Brown & Root to assure that procedures of this nature would be reviewed prior to approval of the vendor. Affidavit of R. J. Vurpillat at 9. While Brown & Root should have reviewed the procedure used by the plate material supplier prior to placing them on their Approved Vendors list, there was no violation of ASME Code technical requirements because the procedure was, in fact, properly qualified and Brown & Root subsequently demonstrated that the forming procedure used did not adversely affect the material. Affidavit of Roger F. Reedy at 20.

The ASME Survey Team also commented, as follows:

(2) The same material addressed in [Item 3 (1)] was observed in the production shop with work in process. This material had not been receipt inspected in noncompliance with the QA Manual and the material was not identified as required by the Brown & Root purchase order. Brown & Root had divided the material and transferred the material identification incorrectly. Brown & Root does not verify the transfer of material identification, and during the review of the manual stated that this verification was unnecessary.

In making this comment, the ASME Survey Team apparently did not fully understand the Brown & Root system of identifying heat numbers on material. Although the original material in question had its identification marking on two lines, when the identification was transferred to the cut material, the numbers were placed on one line. This caused confusion and gave the appearance that all of the heat number information was not being transferred. Affidavit of R. J. Vurpillat at 10. Subsequent reverification of all cut material, as described in the affidavit of R. J. Vurpillat at 10, demonstrates that all required material identification was properly transferred and that the requirements of the ASME Code were met. Affidavit of Roger F. Reedy at 21.

(4) Control of construction processes

The ASME Survey Team commented, as follows:

(1) Process sheets were observed in production that had not been reviewed with the ANI for establishment of hold points in noncompliance with the B & R QA Manual and NA-5241 of the Code. The process sheets CC-068-002-S33R and AF-035-023-S33A are included in this finding although numerous such process sheets are in production. (See [(2)] above)

This matter arose because of differences of opinion between two ANI's regarding the review of process sheets to establish hold points. This problem arose because one ANI did not wish to review all process sheets and instead felt that his inspection of installed material would satisfy his requirements for inspections. As subsequent ANI felt that it was necessary to establish hold points on process sheets. Some hold points were bypassed because of the inconsistency between the two ANI's approaches. The ANI is reviewing all the earlier process sheets to assure that all Code requirements have been met. Affidavit of R. J. Vurpillat at 11-12. Because each ANI had inspected work as he felt necessary, the ASME Code requirements were satisfied. Affidavit of Roger F. Reedy at 22.

The ASME Survey Team commented, as follows:

(2) Welding Procedure Specification 11012 for welding with impact test requirements did not specify the travel speed but instead controlled the heat input by Volt/amp range and maximum bead width for a given electrode diameter. The procedure qualification record 010AB127 for this WPS recorded a bead width greater than allowed by the WPS.

The Survey Team was concerned that the procedure qualification record used did not address the higher heat input of the Welding Procedure Specification and therefore was not a qualification for the worst case conditions. Affidavit of Roger F. Reedy at 23. The problem was resolved by subsequent additional procedure qualifications which tested all the worst case heat input conditions which might exist during welding. Affidavit of R. J. Vurpillat at 12. The welding qualification performed by Brown & Root subsequent to the survey assures that Code requirements have been satisfied. Affidavit of Roger F. Reedy at 23.

(5) Nonconformity control

The ASME Survey Team commented, as follows:

Nonconformity Control Report (NCR) M-2592 reported that a spool piece had been welded into the system backwards. Brown & Root QA determined the disposition to be rework and not repair and thereby the disposition to cut the spool piece out and reweld it in the correct configuration was not reviewed by welding engineering, as would have been required by a repair designation. There appeared to be no consideration of the heat input effect on the material, etc. as would be expected with this type of nonconformance.

The matter commented upon by the ASME Survey Team arose because the system used and described in the welding control procedures was not adequately described in the QA Manual. Affidavit of Roger F. Reedy at 24. However, as described in the Affidavit of R. J. Vurpillat at 13-14, Brown & Root

determined that the Welding Engineer had, in fact, reviewed both those items to be repaired and those to be reworked, and that heat input effects on the material were considered. This demonstrates that applicable Code requirements were met. Affidavit of Roger F. Reedy at 24.

(6) Identification and control of material and items

The ASME Survey Team found, as follows:

Component Supports are procured as stamped items by the Owner. The Code Data Report does not list Code Case N-225. The Component Support is supplied to B & R with only the Code Data Report by the Owner. B & R then cuts the component support, removing the welds, and uses the material to fabricate other component supports. B & R does not have the Certificate of Compliance (C of C) for the material.

All documentation for material and component supports has been sent by the component support manufacturers to the site. An extensive review is being carried out to assure that all material documentation at the site is adequate and that material which does not meet the requirements of the Code will not be used. Affidavit of R. J. Vurpillat at 15-16. When the review is completed, any necessary remedial action should be taken, and the requirements of the Code regarding material documentation will have been met. Affidavit of Roger F. Reedy at 25.

(7) Authorized Nuclear Inspector involvement

The ASME Survey Team commented, as follows:

The ANI hold points on process sheets have been bypassed on numerous occasions. The ANI logbook documents these conditions and the volume would indicate a significant breakdown of the program and interface between B & R and the Authorized Inspection Agency personnel (See [2] and [4(1)] above).

Documentation for past "hold points" is in order and has been reconciled by Brown & Root with the Authorized Nuclear Inspector. Affidavit of R. J. Vurpillat at 16. While the Authorized Nuclear Inspector's "hold points" should not be bypassed, the Authorized Nuclear Inspector may still make the required inspections at a later point, place new hold points or require work to be reperformed in order to witness whatever inspection he feels is required. By accepting the work, the Inspector has acknowledged that he is satisfied that Code requirements have been met. As long as the Inspector is satisfied that Code requirements are met, there is no violation of the technical requirements of the Code. Affidavit of Roger F. Reedy at 26.

c. ASME Findings at the January 18-20, 1982
Resurvey

The ASME Survey Team performed a resurvey of the Brown & Root QA Program for ASME Code work on January 18-20, 1982. That resurvey resulted in a recommendation by the ASME Survey Team to the ASME Subcommittee on Nuclear Accreditation,

that the B&R Certificates of Authorization be renewed. This recommendation was contingent upon the completion of three actions and verification of such completion by the Authorized Nuclear Inspection Supervisor. Affidavit of R. J. Vurpillat at 17.

On February 8, 1982, the Authorized Inspection Agency ("AIA") for Brown & Root at Comanche Peak, Hartford Steam Boiler Inspection and Insurance Company, transmitted to the ASME verification that appropriate action for those three items had been completed. Affidavit of R.J. Vurpillat, Attachment 2. These matters, together with their resolution as stated in the AIA letter, evidence satisfaction of the technical requirements of the ASME Code and pose no concern that work performed prior to or since their resolution does not meet Code standards. Affidavit of Roger F. Reedy at 27.

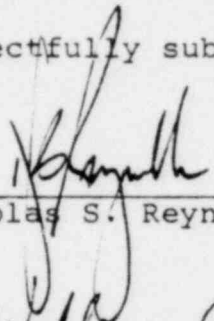
d. Conclusion

Brown & Root has satisfactorily demonstrated, pursuant to the requirements of the ASME Code, that ASME Code work performed by it at the Comanche Peak site, which was the subject of the ASME Survey and Resurvey, satisfies all pertinent ASME Code requirements. Accordingly, no serious safety issues were raised during the survey and recertification process, and the matters which were raised have been resolved satisfactorily. Affidavit of Roger F. Reedy at 28.

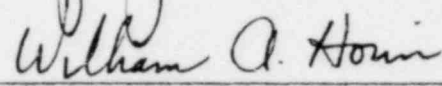
III. CONCLUSION

For the reasons set forth above, Applicants request that the Board grant Applicants' Motion for Summary Disposition of Contention 5.

Respectfully submitted,



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May 10, 1982