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February 16, 1984  
83090.004

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Subject: Request for Supplemental Information

Reference: (1) NRC letter to R.J. Gary, "Independent Assessment Program (IAP)  
Performed by Cygna," dated January 9, 1984

(2) Cygna letter No. 83090.003 to S. Burwell and H. Schmidt, "Request for  
Supplemental Information," dated December 29, 1983

Gentlemen:

Please find enclosed our responses to items 1a and 1b requested by Reference (1). The  
remaining supplemental information requested by the NRC was supplied by Reference (2).

If you require additional information, please do not hesitate to contact either Ted Wittig or  
me.

Very truly yours,

Nancy H. Williams  
Project Manager

NHW:pm

Enclosures: Attachment A, Supplemental Information

cc: See attachment

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Mr. S. Burwell  
Mr. H. Schmidt  
Request for Supplemental Information

February 16, 1984  
Attachment

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## QUESTION A

**Question:** Provide a more literal or exact description of the Cygna project conclusions presented on Pages 1.6 - 1.8.

**Response:** The Independent Assessment Program for CPSES achieved four important objectives. The Program was able to :

- assess the adequacy of Texas Utilities' design control program;
- assess the adequacy of the design of an important safety related system;
- to verify a selected as-built configuration; and
- to verify implementation of selected elements of the design control program.

With respect to the first objective, we have concluded that:

- Texas Utilities' design control activities, as defined in their design control program documentation, satisfy the project commitments and standard practice; and
- The design control activities of Gibbs & Hill satisfy the commitments of contract documents and the CPSES SAR.

The second objective has been met with the following conclusions:

- The review provided assurance that the design control process has been adequately implemented in the areas of criteria, procedures, interface control, and documentation.
- Selected elements of one safety related system has been adequately designed to perform its intended safety function in accordance with the project commitments, applicable code requirements and industry standards.

The third objective has been met with the following conclusions:

- An as-built walkdown of a completed system provided assurance that proper controls were in place to ensure construction was completed in accordance with the drawing, specifications and associated change notices.

The fourth objective has been met with the following conclusions:

- Texas Utilities and Gibbs & Hill have adequately implemented control of design analyses (G&H only), design changes and interfaces in accordance with the design control commitments as delineated in their respective design program documentation.

This scope of work afforded Cygna an opportunity to examine, in detail, the CPSES design process on safety-related systems located inside the safeguards building and fuel building. It provided an in-depth look into activities related to mechanical (piping, pipe supports, equipment qualification), structural (cable tray supports) and electrical engineering disciplines.

This independent assessment program not only followed the flow of information from the preliminary design stage to the as-built condition, but it also assessed the accuracy and completeness of various elements of the design process. The results of our design control and technical reviews, integrated with the previous reviews of CPSES, provides sufficient evidence for Cygna to conclude that the overall design activities on CPSES are adequate and have been properly implemented.

## QUESTION B

**Question:** Provide a rationale for how they arrived at those conclusions; e.g., significance of design documents and hardware reviewed by Cygna relative to the systems and components evaluated and relative to the impact of design on safety.

**Response:** Cygna is confident in the results and conclusions stated in the Independent Assessment Program (IAP) report for the Comanche Peak project. This confidence is based on the following facts:

- 1) The review was performed in accordance with an approved program plan, which included scope and methodology.
- 2) The review covered procedures and documents that guide the design process.
- 3) The review was exhaustive, in that it was multidisciplinary, included a walkdown and involved a detailed review of design calculations.

Our philosophy in performing this IAP was defined in the objectives and methodology sections of the approved Program Plan. That philosophy is based on a conviction that the design adequacy of a defined work scope can be assessed by a team of experienced individuals working in accordance with formal review procedures. Cygna's procedures are fully described in the Program Plan and IAP final report. They are structured to ensure that individual and generic items having a potential impact on plant safety are identified and tracked to resolution. In each case, resolution meant verifying that a process was in place or being implemented which satisfactorily assured plant safety.

It is also important to note that the IAP covered design control procedures and general technical documents. Cygna reviewed all of these general guidance documents as related to the defined scope of work.

Based on the review methodology, the results of the broad review, and the detailed review of selected design elements of the Comanche Peak design, Cygna reached the conclusions stated in the IAP report.