

MAR 03 1983

Docket Nos.: 50-445

APPLICANT: Texas Utilities Generating Company
 FACILITY: Comanche Peak Steam Electric Station, Unit 1
 SUBJECT: SUMMARY OF MEETING ON CONSTRUCTION AND PREOPERATIONAL TESTING SCHEDULE FOR UNIT 1

Summary

On Monday, February 28, 1983, a meeting was held at NRC Headquarters, 7920 Norfolk Avenue, Bethesda, Maryland. The purpose of the meeting was to review the status of the construction and preoperational testing program and to assess the applicant's projection for the Unit 1 fuel load date. The meeting attendance is given in Enclosure 1.

In a letter dated October 29, 1981, the applicant had projected a June 1983 fuel load date for Unit 1. In the course of the meeting the applicant advised that he is now projecting a September 1983 fuel load date for this unit. He further states that he believes this date is realistic, but acknowledges that it provides no contingency time for correction of deficiencies which may be revealed by the hot functional test or other future preoperational tests.

In a summary dated July 7, 1982 concerning a meeting and facility tour by the NRC Caseload Forecast Panel (CFP), the Project Manager stated that "the CFP believes the fuel loading date for Unit 1 could be in December 1983 provided no major delays develop during preoperational testing." As a result of this meeting and information provided by the Comanche Peak Resident Inspectors, the staff again concludes that the fuel load date for Unit 1 is no earlier than December 1983. The difference between the applicant's and the staff's projections for the fuel load date is due to the inclusion of a 2 to 3 month contingency by the staff for correction of unforeseen deficiencies and retesting of the corrected subsystems.

Engineering and Construction

The applicant stated that from an engineering and construction standpoint he believes a September 1983 fuel load date for Unit 1 is realistic. The significant engineering effort remaining consists of: 1) completion and certification of the pipe supports, 2) the review and approval of numerous field changes, and 3) a completion of engineering on new requirements imposed by NUREG-0737.

The largest engineering effort is the work directed at completing the pipe supports. At this time the applicant has vendor certified about 46 percent of all (large bore and small bore) pipe supports required for Unit 1 and common. The applicant has set target schedules for the completion of vendor certification

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of all supports for large bore piping by April 22, 1983; and completion of vendor certification of all supports for small bore piping by May 30, 1983. It should be recognized that modification to some of the vendor certified pipe supports will likely be required as a result of the hot functional testing now in progress. The installation of pipe supports continues to be a major construction activity at the site.

The applicant elected to use the on-site engineering staff to do a major share of the detailed design for auxiliary components and on changes to vendor provided components. These are documented in a Design Change Authorization (DCA) which is reviewed and approved by the originating design organization. The applicant states that he is reducing the number of DCA's outstanding with each month. However, since the site is generating about 400 DCA's per week, this remains a sizeable portion of the engineering and construction effort at Comanche Peak. The quantity of documenting papers for these changes has been so great that the Resident Inspector is concerned that their review and acceptance by engineering and QA may delay fuel load even though physical construction of Unit 1 is complete (see Enclosure 2). The applicant plans to bring additional Gibbs & Hill engineers to the site to assist in the processing of these DCAs.

The TMI Action Plan Requirements have added a significant additional engineering and construction effort for completion of the project. The major additions have been the Safety Parameter Display System (SPDS), radiation monitoring systems, and post-accident sampling system. Engineering is expected to be completed in early April 1983. The applicant stated that construction and installation of these systems is not expected to impact the September 1983 fuel load date.

The damage study relating to pipe breaks within the station has been completed and all station modifications are expected to be completed by July 1983. The applicant stated that the pipe break damage study is not expected to impact the September fuel load date.

The fuel storage and handling systems are scheduled to be completed in March 1983. The applicant is making an effort to complete all construction within the Unit 1 security area prior to the Unit 1 fuel load date. Thus, a significant effort is underway to complete the Unit 2 control area and cable spreading room.

And finally, construction effort will be required for completion of the remaining incomplete subsystems, the items remaining on the station punchlist, the systems which cannot be installed until late in construction (e.g., fire protection, security) and painting.

Preoperational Testing Program

At this time construction has turned over 264 subsystems out of 320 subsystems on Unit 1 to preoperational testing; i.e., 56 subsystems remain under the control of construction. There are 34 subsystems belonging to Unit 2 which are located within the Unit 1 security area, of which 2 have been turned over to preoperational testing. Mr. George noted that these systems are energized and operated

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during acceptance and prerequisite testing; i.e., prior to their release by construction. He believes this early check-out of the system operation has identified and resulted in the correction of most of the deficient components which otherwise might extend the preoperational test program.

The applicant stated there are 187 test procedures (both safety and non-safety systems) required to be completed prior to the fuel loading of Unit 1. All of these procedures have been issued for comment and over 160 have been approved. At this time approximately one third of the tests have been field completed. That is, the test has been completed, but the data package has not been issued for review or approved.

The applicant noted the following Unit 1 highlights:

- Cold hydro of primary and secondary systems completed July 1982
- ECCS acceptance testing completed December 1982
- Containment (SIT/ILRT) completed January 1983
- Hot functional testing started February 24, 1983

The hot functional tests were discussed in more detail. This series of test procedures is scheduled to span 56 days. The applicant acknowledged that he had already experienced delays in starting this test series, and that this schedule (as with all test procedures) does not include time for resolution of contingent deficiencies. The staff noted the numerous (approximately 20) preoperational tests which must be conducted in a predetermined sequence and believes that completion of the hot functional tests by the end of April is unlikely.

In summary, the preoperational testing program is on a critical path for the September 1983 fuel loading date. The applicant acknowledges that the schedule for this program does not provide time for the correction of any deficiencies uncovered in the testing, nor any time for retesting to verify the adequacy of the correction. It is the staff's experience that preoperational testing normally uncovers previously undetected deficiencies which must be corrected and this effort inevitably results in several months delay in the fuel load schedule. On the basis of experience, the staff believes it is more realistic to expect a minimum delay of two months past September due to these unforeseeable events.

Steam Generators

In view of its potential for causing a delay in the fuel load date, the staff inquired into the applicant's plans for modifying the steam generators to

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mitigate the vibration induced tube damage observed at a non-domestic reactor using the same model steam generator. The applicant presently plans to complete the modifications to all steam generators prior to fuel loading. The proposed modifications will be submitted to the NRC for review in early May 1983. Based on a schedule of six weeks review by the staff and a six weeks period to complete the modifications, the applicant expects that the steam generator modifications will not impact the September 1983 fuel load date.

Conclusions

In discussing the schedule at the meeting, the applicant stated that he believed that a September fuel load date for Unit 1 is realistic, but acknowledges that a mid-to-late September fuel load date is more realistic than the September 1st date given the staff in a phone conversation on February 3, 1983.

The applicant identified two critical path items both of which are expected to continue into September even if there are no unforeseeable deficiencies which require correction. These two items are: 1) the completion of the pipe supports, and 2) the completion of the preoperational testing program. The staff believes both of these have a high potential for uncovering deficiencies which must be corrected prior to fuel loading. In addition, the staff views the large numbers of design, construction and inspection documents which must be reviewed and accepted by engineering and/or QA groups as having a potential for delaying fuel load. In view of these three factors the staff is of the opinion that December 1983 is the earliest fuel load date that can be reasonably expected. The Project Manager notes that the staff's estimate of a fuel load date no earlier than December 1983 is consistent with the projection given him last week by the Comanche Peak Resident Inspectors (see Enclosure 2).

Original signed by:
Spottswood Burwell

S. B. Burwell, Project Manager
 Licensing Branch No. 1
 Division of Licensing

Enclosures:
 As stated

cc w/encls.: See next page

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ENCLOSURE 1

MEETING ATTENDANCE

MEETING ON CONSTRUCTION AND PREOPERATIONAL
TESTING SCHEDULE FOR COMANCHE PEAK UNIT 1

February 28, 1983

NRC Staff

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R. A. Hartfield
W. H. Love¹ace
B. J. Youngblood
T. M. Novak
S. Black
M. U. Rothschild

Texas Utilities Services, Inc.

H. C. Schmidt
J. B. George

February 23, 1983

MEMORANDUM FOR: S. B. BURWELL
Licensing Program Manager
Comanche Peak Steam Electric Station
Licensing Branch 1.
NRR.

FROM: D. L. Kelley, R. G. Taylor
Senior Resident Inspectors
Comanche Peak Steam Electric Station

SUBJECT: CPSES Unit 1 Fuel Load Date

Discussions with CPSES management indicate the licensee will propose that they will be ready to load fuel sometime during the month of September 1983 based upon their overview of the engineering, construction and startup test status.

The following represents the above staff persons view of the same matter.

- a). At the end of January, the licensee's construction completion was reported at 95 %. The increase in reported percent complete during the past five months has averaged .6% per month. Assuming the same increase is maintained, physical construction should complete in August-September time frame. Please note that the percent complete is based on the amount of several major commodities that have been installed and does not reflect rework problems which may increase .
- b). It appears at this time that paper work cleanup in engineering and QA area may delay fuel load even though physical construction is complete. Engineering change paper has been so massive that QA may have problem accounting for all of it in the hardware/records for acceptance purpose.
- c). Pre-operational tests are presently 33% complete. Using the past span days to complete the 33%, it would project out that 258 days of testing are still required to perform the balance of 67% of the tests providing that no unforeseen problems occur. A reasonable conjecture is that another 1 to 2 months would be necessary for contingencies. The span time in this area appears to range from end of September to end of December 1983.

In conclusion, the Senior Residents are of the opinion that the end of December 83 is a reasonable estimate for fuel load which should be tempered with the obvious unknowns. At the present time, the Residents have a \pm 2 months confidence in the this date.

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MEETING SUMMARY

Document Control (50-445)

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*CASELOAD FORECAST PANEL VISITS