

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

SECRETARY
& SERVICE
BRANCH

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

AFFIDAVIT OF JOHN T. MERRITT, JR. REGARDING
SCHEDULED FUEL LOAD DATE FOR COMANCHE PEAK UNIT ONE

I, John T. Merritt, Jr., being first duly sworn hereby depose and state, as follows: I am employed by Texas Utilities Generating Company ("TUGCO") as Assistant Project General Manager for the Comanche Peak Steam Electric Station ("CPSES"). In this position, I am responsible for the construction, startup and testing of CPSES prior to its turnover to the Operations Group leading to fuel load. This affidavit responds to the Licensing Board's request for information regarding Applicants' current schedule for fuel load of Unit 1, the status of activities required prior to fuel load and Applicants' confidence in completion of these activities as scheduled.

I. Fuel Load Schedule for Unit 1

Based on a review and analysis of the items to be completed prior to fuel load and the present rate of completion of those items, it is estimated that Unit 1 will be ready to begin fuel loading in late September 1984. The status

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of plant activities to be completed prior to fuel load and the bases for my conviction that these activities will be completed on schedule are set forth below in Sections II and III, respectively.

II. Status of Activities Required Prior to Fuel Load

The three program activities considered critical path items in achieving fuel load status for Unit 1 are (1) construction completion activities, (2) plant startup/testing activities and (3) initial operation's preparation activities. These three activities overlap in time and are integrated such that as construction necessary to allow testing is completed on one plant subsystem, that subsystem undergoes startup/testing to assure its acceptability. (All but 19 of the 332 subsystems in the plant have been turned over for startup testing). As startup testing proceeds, the remaining minor construction activities are completed. Subsequently, after systems have been tested, operational activities required for fuel load (e.g., calibration and surveillance on instrumentation) are performed.

Current construction schedules project that the remaining 19 subsystems will be turned over for startup testing by mid-June 1984. Startup testing and final construction work required for fuel load are scheduled to be completed by mid-August and September 1984, respectively. Finally, initial operations preparation activities will be completed by late September 1984. There is flexibility in the scheduling of construction and startup activities and in the allocation of resources on these activities.

These three program activities are discussed in greater detail below.

A. Construction and Quality Control Inspection Completion Program

A construction completion program was mobilized in November 1983 with the assigned task of completing those remaining construction and inspection items

that are prerequisite to final system tests and area turnovers to the Operations group. Performance through April 1984 indicates a completion date for this task of mid-June 1984 except for Reactor Building painting. Reactor Building painting is scheduled to be complete by August 1984. The Construction Completions program consist of establishing four "building management" groups. The four buildings are the Unit 1 Reactor, Safeguards, Auxiliary, and Electrical/Control Buildings.

Activities of each building management group are being coordinated to assure that work on common subsystems requiring startup testing is performed in parallel. As previously noted, of the 332 subsystems requiring startup testing, all but 19 are either undergoing startup testing or such testing has been completed. Construction on the remaining 19 subsystems will be completed such that startup testing can commence on these subsystems by mid-June 1984.

In addition to construction on subsystems requiring startup testing, each building management group is continuing construction of other items in each area or room within the specified building. With the exception of two items , (i.e., some painting in the reactor building and installation of Thermolag) all bulk construction items have been completed. This additional construction activity not associated with subsystem startup is scheduled to lead to total area turnover to the Startup group in mid-June (except for painting in the Reactor building scheduled for completion in August 1984). If necessary, however, some construction items (including painting) could be completed months after the June 1984 date without impacting the loading of fuel.

As of May 1984, the list of remaining work items (including all construction activities for Unit 1) contained approximately 6300 items. I estimate that less than 30% of the remaining items would have an effect on the ability to load fuel. The remaining items are primarily architectural or are not system related. I anticipate that our present work-off rate of approximately 2000

items per month can be maintained until all systems are turned over for startup. This list will be maintained even after fuel load and additional items will be added to or removed from the list as necessary. Construction resources will be available to support any construction work identified during the remainder of the startup testing or operational checkout activities.

A more detailed status of the four building groups is set forth below.

(NOTE: The baseline for remaining work and the progress reports in "percent" complete are based on work remaining as of December 1983).

1. Safeguards Building: Contained in the Safeguards Building are safety systems for protection of the plant in the event of an accident. Safety systems located in this building include the emergency power system, safety injection system, containment spray system, residual heat removal system and auxiliary feedwater system.

Of the six major elevations in this building, three have been turned over to the Startup group, i.e., elevation 873 (10 rooms), elevation 852 (9 rooms), and elevation 773 (13 rooms). In addition, 11 of the 15 rooms on elevation 831 have been turned over and the balance is 90% complete (this elevation will be completely turned over by mid-May 1984); elevation 790 has 22 rooms with an average completion status of 90% (this elevation will be completely turned over by late-May 1984); 4 of the 13 rooms on elevation 810 have been turned over and the balance is 69% complete (this elevation will be completely turned over by early-June 1984). An analysis by weighted work items for all of the rooms and elevations involved reflects this building to be at an 87% stage of completion, which is slightly ahead of the scheduled projection for completion.

2. Auxiliary Building: Contained in the Auxiliary Building are plant process systems that support the operation of Unit 1 and/or Unit 2 power production systems. Systems contained in this building include the waste processing system; heating, ventilating and environmental control processing systems; component cooling water system; and chemical and volume control systems.

Three of the five primary elevations in the Auxiliary Building have been turned over to the Startup group. The remaining rooms in the two elevations yet to be turned over (elevations 790 and 810) are 82% and 69% completed, respectively. Building completion is planned for early-June 1984.

3. Electrical/Control Building: Included in the Electrical/Control Building are plant control systems and normal electrical power distribution systems. Rooms in the building include the control room, cable spread room, computer rooms, office spaces and laboratories.

The Electrical/Control Building, the Turbine Building and the Intake Structures have been either turned over or are in the process of being turned over to Startup, with the exception of some stairways and hallways currently being used for access. The remaining work is scheduled to be completed in early-June 1984.

4. Reactor Building: Included in the Reactor Building are the reactor coolant system ("RCS") and those portions of auxiliary systems which support operation of the RCS. The RCS contains the Reactor, Reactor Pressure Vessel, Reactor Coolant Pumps, Steam Generators and Pressurizer. The Reactor Building itself is a large containment structure which provides a protective barrier between the RCS and the environment.

The schedule for turnover of the Reactor Building is addressed in two parts. First, all "non-paint" items (electrical, mechanical, instrumentation, etc.) required to support the ongoing startup program in the upper two elevations are complete and in the lower two elevations will be completed by mid-May 1984. Second, painting of two elevations is complete and painting of the remainder of the building is scheduled to be completed by August 1984.

B. Startup/Testing Program

The Startup/Testing Program consists primarily of the testing of 332 subsystems in the plant to assure acceptability and completion of items necessary to support fuel load. This testing includes hydrostatic testing, electrical checkouts, and operational equipment checkouts. As previously noted, all but 19 of these subsystems have either undergone or are available for testing. To date, all significant test procedures have been prepared and approved. Further, all major systems have previously been operated and the plant has undergone hot functional tests. Accordingly, no significant difficulty is expected in conducting the remaining tests.

Overall, startup testing is approximately 70% complete. The remaining tests consist mainly of protection interlock verifications, communications, and lighting, which do not require complex plant conditions or a significant amount of support from other organizations (i.e., operators, technicians, etc.). The current schedule calls for all tests required prior to fuel load to be completed by mid-August 1984. The program to confirm the adequacy of the diesel generators is scheduled to be completed in late-July 1984. (A detailed schedule of remaining startup tests and operations activities required to be completed prior to fuel load is attached).

C. Plant Operations Preparations

During the latter stages of startup/testing, the plant Operations staff initiates activities necessary to prepare the plant to load fuel. These activities include alignment of auxiliary systems needed to support critical systems, hand cleaning and preparation of the reactor coolant system piping and reactor vessel, establishing boration levels in the coolant and filling the necessary systems with borated water, assuring operability of fuel handling equipment, establishing initial containment integrity conditions, and implementation of surveillance testing requirements and the security program.

All procedures associated with these activities have been prepared and 95% of these procedures have been approved. Further, due to integration with the construction and startup/testing programs, several of these activities, (e.g., calibration and surveillance) will have been ongoing for several months prior to the formal beginning of this phase of activities in mid-July 1984. These activities will be completed before the scheduled fuel load date.

III. Reliability of Schedule

Based on consideration of all relevant factors affecting the reliability of the projected fuel load date for Unit 1, I believe that all prerequisite activities will be completed as scheduled and Unit 1 will be prepared to load fuel in late September 1984, as scheduled. This degree of confidence is based on the following factors:

- A. As noted above, the vast majority of work required to be completed has already been accomplished and no remaining work items required for fuel load entail major construction efforts. Analyzing the remaining work items provides a great deal of confidence that they can be accomplished in the scheduled time.
- B. Of the 332 subsystems in the plant, 313 have been turned over to Startup for testing.
- C. Test and operation procedures to be used for activities up to and including fuel load have already been prepared and reviewed. Further, many of these procedures have already been used.
- D. Because over 70% of the startup tests have been completed, including Hot Functional tests of the plant, no significant operational problems are now anticipated which have not already been identified and addressed satisfactorily.
- E. In December 1983, after a thorough review and analysis of all relevant factors including remaining work items, fuel loading was scheduled for mid-1984. The NRC Staff Caseload Forecast Panel's estimate in November 1983 was that fuel could be loaded in the third quarter of 1984. Based on our continuing weekly reviews and the current review and analysis supporting this affidavit, I conclude that these earlier forecasts were reasonable.

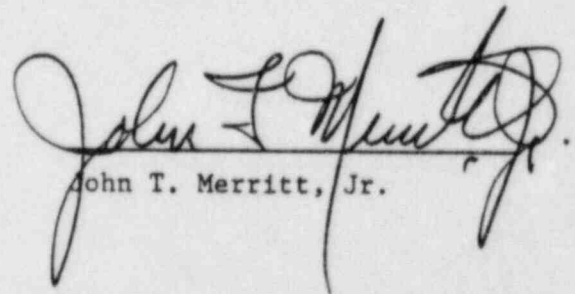
- F. I am intimately familiar with the status of activities in construction, startup and testing, and I was directly involved in developing the schedules. I am committed to meeting this schedule, and I have authority to allocate resources where needed to maintain the schedule.

IV. Other Issues

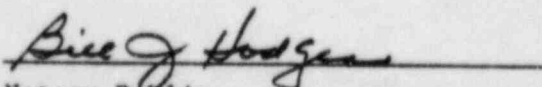
Several issues outside of our direct control could affect the fuel load date. Such issues include:

1. The hearings before this Board.
2. Site inspections by the NRC Staff as part of its licensing review, and
3. Current NRR open items, including staff approval of the TDI (Diesel Generators) Generic Owners' Group Program.

I remain optimistic that none of these issues will adversely impact our ability to load fuel as scheduled.


John T. Merritt, Jr.

Sworn to before me on this 3rd day of May 1984.


Notary Public
STATE OF TEXAS
COUNTY of SOMERVELL

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NUCLEAR REGULATORY COMMISSION

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "Applicants' Submission Of Affidavit Regarding Fuel Loading For Unit One, And Motions For (1) Revised Hearing Schedule, (2) Adoption Of Special Procedures, And (3) Clarification Of Issues," in the above-captioned matter were served upon the following persons by overnight delivery (*), or deposit in the United States mail, first class, postage prepaid, this 8th day of May 1984, or by hand delivery (**) on the 9th day of May 1984:

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Mr. John Collins Regional Administrator, Region IV U.S. Nuclear Regulatory Commission 611 Ryan Plaza Drive Suite 1000 Arlington, Texas 76011	Chairman, Atomic Safety and Licensing Board Panel U.S. Nuclear Regulatory Commission Washington, D.C. 20555

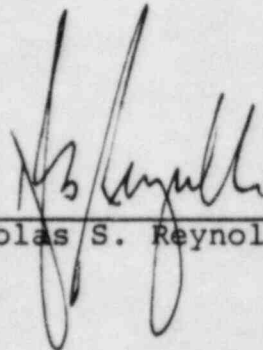
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