

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Title: DISCUSSION/POSSIBLE VOTE ON FULL POWER OPERATING
LICENSE FOR COMANCHE PEAK (UNIT 1)

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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DISCUSSION/POSSIBLE VOTE ON FULL POWER OPERATING
LICENCE FOR COMANCHE PEAK (UNIT 1)

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PUBLIC MEETING

Nuclear Regulatory Commission
One White Flint North
Rockville, Maryland

Monday, April 16, 1990

The Commission met in open session, pursuant
to notice, at 2:00 p.m., Kenneth M. Carr, Chairman,
presiding.

COMMISSIONERS PRESENT:

KENNETH M. CARR, Chairman of the Commission
THOMAS M. ROBERTS, Commissioner
KENNETH C. ROGERS, Commissioner
JAMES R. CURTISS, Commissioner
FORREST J. REMICK, Commissioner

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STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

SAMUEL J. CHILK, Secretary

WILLIAM C. PARLER, General Counsel

JAMES TAYLOR, Executive Director for Operations

DR. THOMAS MURLEY, Director, Office of Nuclear Reactor
Regulation

DENNIS M. CRUTCHFIELD, NRR

CHRISTOPHER I. GRIMES, NRR

ROBERT F. WARNICK, Resident Inspector, Region IV

DWIGHT D. CHAMBERLAIN, Region IV

ERLE NYE, Chairman and CEO, TU Electric

WILLIAM COUNSIL, Vice Chairman, TU Electric

WILLIAM CAHILL, Executive Vice President, TU Electric

JAMES KELLEY, Plant Manager

AUSTIN SCOTT, Vice President, Nuclear Operations

BILLIE PIRNER GARDE, Citizens Association for Sound
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P-R-O-C-E-E-D-I-N-G-S

2:00 p.m.

CHAIRMAN CARR: Good afternoon, ladies and gentlemen.

The purpose of today's meeting is for the Commission to be briefed on the readiness of Comanche Peak Steam Electric Station Unit 1 for a full power operating license.

Following the briefing, the Commission may vote on the question of whether to authorize the NRC staff to proceed with issuance of a full power license when ready.

The Commission will first hear from the applicant, Texas Utilities Electric Company. They will be followed by a representative of the Citizens Association for Sound Energy, or CASE. CASE holds an oversight role at Comanche Peak as a result of the settlement agreement ending the NRC Atomic Safety and Licensing Board hearings. The CASE representative, Ms. Billie P. Garde, has requested ten minutes of presentation time. We will then hear from the NRC staff. Following the staff presentation, the applicant will be afforded an opportunity to present any additional remarks.

I would ask the Secretary of the Commission,

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1 Mr. Chilk, to keep track of the time.

2 I understand that copies of the presentation
3 slides are available at the entrance to the meeting
4 room.

5 Do any of my fellow Commissioners have any
6 opening remarks?

7 I would like to welcome the representatives
8 from Texas Utilities and the representative from CASE
9 here today. Mr. Nye, you may proceed.

10 MR. NYE: Thank you, Mr. Chairman, members
11 of the Commission.

12 My name is Erle Nye. I'm Chairman and Chief
13 Executive of TU Electric Company, the owner of
14 Comanche Peak Steam Electric Station. With me today
15 are Mr. Bill Counsil, our Vice Chairman; Mr. Mike
16 Spence, President of our Generating Division; Bill
17 Cahill, Executive Vice President with responsibility
18 for nuclear engineering and operations; Austin Scott,
19 Vice President for Nuclear Operations; John Beck, Vice
20 President for Nuclear Engineering; and Mr. Jim Kelley
21 who is our plant manager.

22 After my opening remarks, Mr. Counsil will
23 discuss our participation in industry activities and
24 lessons learned prior to fuel load. Mr. Cahill will
25 then address Comanche Peak's transition from

1 construction to operations. Mr. Kelley will cover our
2 experience during fuel load and low power testing, and
3 Mr. Scott will discuss the power ascension program and
4 maintenance programs. He also will mention our
5 readiness for operations. I will then conclude our
6 remarks. We'd be pleased to answer any questions you
7 might have.

8 We appeared before you last October to
9 describe the status of Comanche Peak as Unit 1 was
10 nearing completion of construction. We're pleased to
11 appear before you again today as we approach full
12 power operations portion of our project.

13 TU Electric is the principal subsidiary of
14 Texas Utilities Company, an investor-owned holding
15 company. Its service territory is in the norther part
16 of the State of Texas and we provide electric service
17 to approximately 5.2 million people. TU Electric has
18 about 20,000 megawatts of generating capability and
19 has the largest kilowatt hour sales of any single
20 company in the country. We're pleased that our rates
21 are low, with Dallas having the sixth lowest rates of
22 the largest 25 cities in the nation.

23 Since our October presentation, construction
24 of Unit 1 has been satisfactorily completed, readiness
25 to commence operations has been demonstrated, and the

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1 low power license was issued. The plant has
2 successfully completed fuel loading. Criticality was
3 achieved on April 3rd and we completed low power
4 testing on April 6th. We believe that an operations
5 mind set has been firmly established in our company
6 and we will continue with the same cautious attention
7 to detail that has been characteristic of the Comanche
8 Peak fuel loading and low power testing activities.

9 The philosophy that safe, conservative
10 actions are to be the norm has been stressed to our
11 operations personnel. We're also aware that you can
12 never afford to become complacent, but must
13 continually be looking for areas that can be improved.
14 Toward that goal, as you will hear in more detail
15 later, we have augmented our TU Electric organization
16 with key management advisors and with loaned,
17 experienced senior reactor operators as shift
18 advisors. Using outside people along with our own
19 personnel, we've also conducted various self-
20 assessments to look at the equipment and programs with
21 a critical eye. We plan to continue gathering and
22 acting upon this valuable feedback through the power
23 ascension phase.

24 We recognize the benefits of having more
25 detailed technical expertise on shift and in this

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1 regard we have instituted a college level educational
2 program at Comanche Peak which will allow and
3 encourage operations personnel to seek a technically-
4 oriented degree. We have selected the University of
5 North Texas to conduct the on-site program beginning
6 this fall which will offer a Bachelor of Science
7 degree in Industrial Technology with a concentration
8 in Nuclear Technology.

9 The target population currently at Comanche
10 Peak consists of about 110 senior reactor operators,
11 reactor operators, auxiliary operators and other
12 employees. A side benefit of this program will be to
13 further the opportunities for operators to progress
14 into management ranks.

15 We believe that TU Electric is ready to
16 proceed to full power at this time. The design and
17 construction of the plant has been extensively
18 validated. The procedures are in place and tested.
19 Personnel are well trained and morale is high. High
20 standards of performance have been established. We
21 are committed to moving deliberately and cautiously,
22 as we have in previous phases and to that point I
23 would like to ask now Bill Counsil, our Vice Chairman,
24 to discuss this matter further.

25 Bill came to TU Electric in 1985 as the

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1 Executive Vice President for Nuclear and he was our
2 principal nuclear officer before being elected Vice
3 Chairman. Prior to that, he was Senior Vice President
4 with Northeast Utilities and worked in that company's
5 nuclear organization for 18 years. During that
6 period, Bill attained a BWR senior reactor operator
7 license and two PWR senior reactor operator
8 certifications.

9 Bill?

10 MR. COUNCIL: Thank you, Erle.

11 Mr. Chairman, members of the Commission, as
12 Erle has emphasized, TU Electric's goal is to achieve
13 excellence in the operation of Comanche Peak. My
14 remarks will focus on two key ingredients in TU
15 Electric's pursuit of excellence, our ability to
16 absorb and act upon the lessons that we learned prior
17 to fuel load, and our leadership role in industry
18 programs aimed at improving performance.

19 Based upon our experience during transition
20 to operations, our self-assessments and NRC
21 inspections, we took initiatives in several important
22 areas prior to fuel load. For example, we recognized
23 the need for improvement in the identification and
24 evaluation of problems, a need that was highlighted in
25 comments made by Doctor Murley during his January site

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1 visit.

2 As a result, we issued a policy statement
3 stressing the identification and resolution of
4 problems, we improved our root cause analysis
5 procedure and our procedure for documenting and
6 processing deficiencies. We provided additional
7 training in root cause analysis to a wide range of on-
8 site personnel. We increased the technical and
9 managerial overview of evaluations and we increased
10 line management personnel involvement in performance
11 based monitoring activities. We identified the
12 necessity to improve communications, both horizontally
13 and vertically throughout our organizations.

14 Our actions in this area included broadening
15 the participation in the plan-of-the-day meetings,
16 increasing a direct contact between senior management
17 and line personnel, holding twice weekly meetings of
18 department managers, implementing a participative
19 management development and team-building program, and
20 restructuring shift turnovers to improve
21 communications.

22 We also found room for improvement in the
23 effectiveness of the QA Department in early
24 identification of problems. As a result, our actions
25 included reorganizing the QA Department along

1 disciplined lines and providing training in
2 performance-based audits.

3 Because this is TU Electric's first nuclear
4 plant, we have sought many opportunities to learn from
5 the rest of the industry in addition to learning from
6 our own experience. We have participated at our most
7 senior management level in many industry groups, such
8 as INPO and NUMARC, which are dedicated to supporting
9 industry-wide excellence in nuclear operations.

10 For example, the Chairman of the Board of
11 Texas Utilities Company, our parent company, is a
12 member of the Board of Directors of INPO and Erle Nye
13 is on the NUMARC Board.

14 I presently chair the Nuclear Utility
15 Backfit and Regulatory Reform Group, the Utility Fire
16 Protection Group and the NUMARC Standardization
17 Committee.

18 Bill Cahill served on a Steering Committee
19 of EPRI's project to develop requirements for advanced
20 light water reactors and continues to be active in
21 that area.

22 Austin Scott serves on EPRI's Nuclear Power
23 Division Advisory Committee.

24 Our other officers and key managers have
25 held leadership positions on a wide variety of

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1 industry groups, including the Executive Advisory
2 Committee of the Westinghouse Owners Group, INPO's
3 Industry Review Group on Analysis and Engineering,
4 EPRI's Nuclear Construction Issues Group, NUMARC's
5 Issues Management Committee, and Chairmanship of
6 various ASME Committees and Subcommittees.

7 We have also sought to benefit from foreign
8 experience. TU Electric is a charter member of the
9 World Association of Nuclear Operators and I attended
10 the recent organizational meeting in Russia. I have
11 visited Japan twice, once as part of a group of
12 Westinghouse owners, and another time to speak at an
13 international symposium of the Nuclear Energy Agency
14 in Tokyo in April 1989. Our objective is to learn
15 about excellence and relevant operating experience,
16 both domestically and overseas in order to be able to
17 utilize such information to enhance our own
18 performance.

19 In assessing what we have learned from our
20 own experience and the experience of others, we have
21 also noted the NRC staff's identification at a recent
22 Commission meeting of five attributes shared by
23 operating nuclear power plants that have the best
24 records of sustained good safety performance: active
25 involvement of plant and corporate management in day

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1 to day activities; an active program for self-
2 identification of problems and self-initiated
3 improvement programs; good communications between and
4 within plant and corporate staffs; effective
5 maintenance programs and housekeeping programs; and
6 effective training programs, especially in operations
7 and maintenance.

8 We have focused additional attention on our
9 programs in each of these areas. We believe that we
10 have achieved a measure of strength in each area that
11 will be demonstrated with time and operating
12 performance. Our goal is to achieve a level of
13 performance comparable to the best plants in the
14 nation and we look forward to demonstrating that
15 performance in our power ascension program and during
16 operation.

17 Overall, I believe that our performance
18 during preoperational testing, fuel loading and start-
19 up testing has been satisfactory. I am confident that
20 we are now ready to proceed cautiously and
21 deliberately with power ascension testing and full
22 power operations.

23 Our next speaker will be Bill Cahill. Bill is
24 Executive Vice President, Nuclear Engineering and
25 Operations and our senior nuclear line management

1 executive. He has 36 years of experience in the
2 nuclear industry, including executive management
3 positions at Consolidated Edison and Gulf State
4 Utilities. Prior to assuming his present position at
5 TU Electric in 1988, Bill was the Senior Vice
6 President responsible for the engineering,
7 construction and operation of the River Bend Nuclear
8 Plant.

9 Bill?

10 MR. CAHILL: Thank you, Bill.

11 Mr. Chairman, members of the Commission, I'd
12 like to describe Comanche Peak's project organization
13 and our transition from construction to operation.

14 There are three major areas of
15 responsibility within our nuclear organization. H.D.
16 Bruner, our Senior Vice President, is responsible for
17 the Unit 2 project and the engineering construction
18 and material management for both Units 1 and 2.
19 Austin Scott, Vice President of Nuclear Operations, is
20 in charge of all areas of Comanche Peak operation,
21 maintenance, training and security. Reporting to him
22 is the Plant Manager, Jim Kelley, who directs plant
23 operation, maintenance, work control, instrumentation
24 and controls, radiation protection and the chemistry
25 activities.

1 Responsible for quality assurance licensing
2 and reactor engineering functions is John Beck, Vice
3 President, Nuclear Engineering. And also reporting to
4 me is the Manager of Safety.

5 Comanche Peak's management has substantial
6 nuclear experience. The 25 key nuclear officers and
7 managers have over 500 years of combined nuclear
8 experience prior to employment at Comanche Peak. This
9 includes 388 years of commercial, nuclear experience.

10 Our line management is based at the plant
11 site. Being located there, we can implement the
12 hands-on management approach and are readily available
13 to our managers and supervisors, address their issues
14 or concerns as well as to provide visible leadership.

15 Since October, we have completed
16 construction and preoperational testing for Unit 1 in
17 accordance with the final safety analysis report and
18 TU Electric's licensing commitments. Prior to fuel
19 load, we performed several self-assessments of our
20 readiness to operate. We completed a detailed and
21 comprehensive operational readiness program which
22 assessed the readiness of the operations organizations
23 and the readiness of the support groups such as
24 engineering, construction and QA. Consultants
25 experienced in plant operation and industry peers

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1 assisted us in this program.

2 TU Electric's Quality Assurance Department
3 established an operational quality assessment team to
4 assure that the programs to support Comanche Peak
5 operations were adequate and had been properly
6 implemented. The team consisted of about 40 people,
7 including operationally experienced Comanche Peak
8 personnel with expert assistance from other plants.
9 It reviewed a broad spectrum of areas required for
10 plant operations and for program adequacy and
11 implementation.

12 We created a team to evaluate actions taken
13 in response to the findings of the NRC Operational
14 Readiness Assessment Team and of our own operational
15 quality assessment team. This special team consisted
16 of nuclear professionals with significant experience
17 in the management, operation, maintenance and support
18 of commercial nuclear plants. They observe the
19 implementation of operating programs and procedures
20 and monitored the corrective actions taken in response
21 to our self-assessments and to the NRC's Operational
22 Readiness Team.

23 The NRC Operational Readiness Team
24 inspection was conducted last fall. They identified a
25 number of concerns. We addressed these concerns and

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1 when they returned in January, the NRC Operational
2 Readiness Team determined that we had adequately
3 responded to their concerns and that Unit 1 was ready
4 to operate, subject to resolution of a set of specific
5 open items. Those items were resolved and the fuel
6 load and low power license was issued on February 8th
7 of this year.

8 We're pleased to note that in the inspection
9 report issued last month, the NRC team identified
10 several program and management strengths. For
11 example, they found that we had taken aggressive
12 action to improve the quality of operational
13 procedures and to correct discrepancies; that our
14 system engineering program and as-built drawing
15 configuration control program were considered to be
16 strengths; that we had established a good working
17 atmosphere, beneficial to plant operations in spite of
18 the pressure involved in the completion of
19 construction. They also found that all levels of our
20 staff demonstrated a positive morale and constructive
21 attitude.

22 We're aware that management attention will
23 continue to be needed to maintain these strengths
24 throughout the whole operational period and we will
25 devote the necessary effort to assure that.

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1 Jim Kelley and Austin Scott will now provide
2 you details of our recent experience in the start-up
3 of Comanche Peak 1 and our plans for the future.

4 Jim Kelley, our Plant Manager, has 22 years
5 of nuclear experience. This consists of three and a
6 half years in the nuclear Navy and 19 years of
7 commercial nuclear experience. That includes six
8 years as the operations supervisor at Millstone Unit 2
9 where he was responsible for start-up testing and
10 initial operations. He continued with Millstone 2 for
11 an additional five years as the Unit 2 superintendent
12 with responsibility for operation, maintenance and on-
13 site engineering. While at Millstone, Jim obtained a
14 senior reactor operator license. His experience also
15 included service as the completion manager for
16 Millstone 3.

17 He's been at Comanche Peak since 1987 and
18 his experience has been invaluable in helping to
19 smooth our transition from construction to operation.

20 Jim?

21 MR. KELLEY: Thanks, Bill.

22 Good morning. I will first describe our
23 preparation for operations and then address our
24 experience during fuel loading and low power testing
25 and the current status of Comanche Peak.

1 Prior to receiving the low power operating
2 license, Comanche Peak conducted an operations
3 preparation period which we came to call Ops Prep.
4 During this time, we ensured that the transition from
5 a construction environment to an operating atmosphere
6 was successfully completed; that we were fully in
7 control of plant systems and areas; and that the
8 procedures which would be used following licensing had
9 been properly implemented.

10 We had committed to a minimum of two weeks
11 for this period but also intended that it would
12 continue until receipt of the low power license. From
13 our vantage point, this experience was extremely
14 valuable.

15 We officially started the Ops Prep period on
16 December 15th, 1989. At that time, all systems and
17 buildings required for fuel load were officially in
18 the custody of operations. Only final testing,
19 routine maintenance and post construction housekeeping
20 remained to be done.

21 The ensuing eight weeks Ops Prep period
22 included the following specific activities:

23 Training was provided in fuel handling
24 operations and during the training a complete check-
25 out of fuel handling equipment was accomplished. We

1 conducted frequent equipment operability drills for
2 each shift crew, including back shift exercises to
3 practice the required response not only to the shift
4 crew but also all supporting organizations. For these
5 drills we made all the required reports and performed
6 all the necessary actions to restore operability
7 within the required time limits. All surveillances
8 that were capable of being performed under the
9 existing plant conditions were completed at least once
10 and all required surveillances were maintained
11 current.

12 We also exercised our procedures for working
13 under conditions requiring radiological controls,
14 including access control, radiation work permits,
15 anti-contamination clothing, surveys and normal
16 radiological precautions inside the radiologically
17 controlled area.

18 Significant benefits were realized as a
19 direct result of the Ops Prep period. We found that
20 by performing all surveillances and not just those
21 required for fuel load, we were able to enhance our
22 procedures to attain more efficient performance. We
23 also found several areas of technical specification
24 requirements that required management interpretation
25 and clarification so that all crews would use a

1 uniform approach.

2 The practice of making reports, calling out
3 necessary resources and pursuing the solutions to
4 problems, some real and some as presented by a drill
5 scenario as though we were in a true operational mode,
6 enabled us to hone the interrelationships among
7 members of the entire Comanche Peak team into a more
8 cohesive unit.

9 Finally, we believe that training on the
10 fuel handling equipment and check-out of the equipment
11 contributed to good performance once the license was
12 in hand.

13 Fuel loading proceeded smoothly. The
14 progress was steady, cautious and professional. There
15 were two minor hardware problems during the fuel load
16 sequence which contributed a total of about 36 hours
17 of delay in the sequence. Fuel load was completed six
18 days after receipt of the license.

19 There was one licensee event report during
20 this period. A spike in one source range nuclear
21 instrumentation channel initiated a flux doubling
22 signal in the reactor protection system which changed
23 valve positions to preclude a potential boron
24 dilution.

25 After fuel load, we started our follow-on

1 testing and preparations for heat-up. Reactor vessel
2 assembly and cold control rod testing were
3 accomplished in a timely manner. During the control
4 rod testing, the reactor trip occurred due to a failed
5 inverter in our instrument power system. The inverter
6 was repaired, tested and returned to service.

7 The heat-up started on March 12th and all
8 testing required before criticality was accomplished
9 on April 1st. These efforts proceeded smoothly with
10 the exception of one incident which we declared an
11 unusual event. I would like to describe this incident
12 briefly.

13 An engineered safety feature actuation
14 signal occurred which resulted in initiation of train
15 A safety injection. The plant staff response to the
16 transient was in accordance with the operating
17 procedures and proper notification was made to the
18 appropriate off-site agencies. Injection flow was
19 terminated in accordance with the emergency operating
20 procedures and the plant was restored to a stable
21 condition.

22 During the plant recovery, upon restart of a
23 reactor coolant pump, a pressure transient caused
24 momentary operation of the pressurizer power operator
25 relief valve due to activation of low temperature over

1 pressure protection system. All components and
2 systems functioned as designed following the safety
3 injection and minor over pressurization events. At no
4 time was there any threat to the health and safety of
5 the public as a result of the event.

6 An evaluation team was formed to investigate
7 the event, determine the causes, evaluate equipment
8 and operator responses and to make recommendation for
9 any required corrective action. The team discovered
10 that the safety injection was caused when the
11 containment particulate iodine gas monitor was de-
12 energized for routine maintenance. This action was in
13 accordance with the procedures, caused a containment
14 ventilation isolation signal which was expected.
15 Normally however, this signal is blocked from reaching
16 the safety injection relay by a diode. This diode was
17 discovered shorted, which allowed the containment
18 ventilation isolation signal to also accurate the
19 safety injection system.

20 From this event we learned that our
21 procedures were adequate, even though they do not
22 specifically address the unusual condition of a single
23 trend of safety injection. We also learned that our
24 personnel were adequately trained in the use of the
25 procedures. One lesson learned was that the unit

1 supervisor became too heavily involved in specific
2 actions instead of maintaining a broader overview of
3 the execution of the procedures. We will continue to
4 work on correcting this in our simulator training and
5 the daily conduct of business.

6 Reactor criticality was achieved on April
7 3rd. The low power physics testing was performed and
8 completed by April 6th. All testing had acceptable
9 results. The remainder of this period we've been
10 performing main feed pump testing at three percent
11 power, preparing the main turbine generator for power
12 operation and completing test reviews. This morning
13 we are in mode 2 at three percent power, completing
14 final preparations for power operation.

15 During this period we initiated 36 plant
16 incident reports. These are our internal reports
17 which we feel warrant management attention. Included
18 in those reports are seven licensee events reports.
19 We are completing the required reviews, root cause
20 analysis, lessons learned identification and
21 corrective actions required by each event.

22 An overview of these events identify
23 recurring problems with our flux doubling circuitry.
24 Four of our licensee event reports are a result of
25 actuation or misoperation of these circuits. At very

1 low power, this circuit provides a signal to shift a
2 charging pump suction to refueling water storage tank
3 to preclude a boron dilution incident.

4 The individual incidents have been reviewed
5 and corrective action taken or is in progress.
6 Generic consideration under review for further action
7 included enhanced training for operators on this
8 circuit and on annunciator responses, modifications on
9 the circuitry and associated annunciators, and further
10 procedure enhancements.

11 Next I would like to discuss our current
12 staffing and training. We have six operating shift
13 crews with each shift complement exceeding the minimum
14 numbers required by technical specifications for
15 operations at full power. Each operating shift is
16 eight hours in duration. Some overtime is required to
17 provide the personnel needed to process clearances,
18 support involved testing or surveillance requirements
19 and conduct adequate shift turnover. One shift crew
20 is in requalification training each week and one crew
21 provides extra support for day shift or to cover
22 planned absences.

23 In addition to the normal shift complement,
24 we have had since the beginning of the Ops Prep period
25 a duty manager assigned to each shift crew. These

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1 duty managers assist the shift supervisor in obtaining
2 necessary support from outside the normal on-shift
3 complement, assist in determining operability concerns
4 and handle some of the non-operational administrative
5 details that compete for the shift supervisor's
6 attention.

7 We also have attained for the start-up
8 experienced SROs as shift advisors for the shift
9 supervisor. These advisors are on a rotating basis to
10 provide continuous coverage. In selecting these
11 advisors, we required that they have recent control
12 room experience as a senior reactor operator on a four
13 loop Westinghouse plant. The use of the shift
14 advisors has enhanced the experience level of the on-
15 shift operating crews.

16 The shift supervisors have used their advice
17 in interpreting tech specs, evaluating crew
18 performance during evolutions, determining incident
19 reportability and monitoring procedure compliance. On
20 one occasion, the shift supervisor identified that
21 switch yard air switch operation was the cause of
22 nuclear instrumentation noise. This allowed prompt
23 implementation of appropriate procedure controls to
24 preclude inadvertent nuclear instrument actuations.

25 An important part of the total readiness for

1 a full power licensing is the status of our training
2 programs. INPO recently reviewed six of our programs
3 for accreditation. The remainder will be reviewed in
4 August. Thus, all programs will be accredited well
5 before the end of the two year interval after
6 licensing normally prescribed by INPO for this
7 process.

8 In summary, I believe that Comanche Peak's
9 progress to date has been good. We are ready to
10 proceed to power operations, making maximum use of the
11 lessons we have learned so far and relying on the
12 techniques and the controls that have brought us to
13 this point. We are not working to a fixed schedule
14 but rather a plan which emphasizes doing it right the
15 first time.

16 Austin Scott will now describe for you our
17 plans for the continuation of the power ascension
18 program. Mr. Scott has been Vice President of Nuclear
19 Operations at Comanche Peak since November 1985
20 following a highly successful 30 year career in the
21 Navy, the majority of which was directly involved in
22 the nuclear power program. His last assignment before
23 coming to Comanche Peak was as Commander Submarine
24 Force U.S. Pacific Fleet.

25 MR. SCOTT: Jim Kelley has described our

1 progress for you since receipt of the low power
2 license. I will cover our self-assessment program and
3 follow with our plans and expectations for the
4 remainder of the power ascension test program. Then I
5 will outline our maintenance status and finish by
6 describing the measures taken to assure that Unit 2
7 activities can be conducted effectively in conjunction
8 with the safe and reliable operation of Unit 1.

9 Based upon good results experienced by other
10 utilities in performing a critical self-assessment of
11 their operating performance during fuel load, initial
12 criticality and start-up testing, we have also
13 developed a program to examine carefully what we have
14 done, how well or how poorly we have done it, and what
15 useful lessons we might learn and apply from this
16 introspective look.

17 We selected six functional areas to be
18 evaluated during the initial start-up test program.
19 Responsibility for each of the areas was assigned to
20 an appropriate manager. Each manager was responsible
21 for putting a group together to conduct an informal
22 assessment of its assigned area at the zero power and
23 the 75 percent power plateaus and to take part in the
24 more formal comprehensive assessment to be conducted
25 at the 50 percent power plateau.

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1 Performance objectives and evaluation
2 criteria have been developed and evaluation teams have
3 been formed for each area. Some team members are
4 assigned from areas outside of the particular
5 manager's resources in order to provide additional
6 objectivity and to gain from different perspectives in
7 the evaluation process.

8 Personal observation by team members and
9 their review of selected activities and documentation
10 create the basis for evaluation against the approved
11 criteria. Recommendations for corrective action are
12 prepared for weaknesses or problem areas and these are
13 presented to the team leader who is the functional
14 manager for consolidation and presentation by him to
15 the station operations review committee. The station
16 operations review committee is asked to summarize its
17 appraisal of the results, to make recommendations for
18 further corrective action if appropriate, and to
19 comment on the advisability of proceeding further in a
20 power ascension test program.

21 The plant manager and I will agree on any
22 needed corrective measures, we will assign
23 responsibilities and based on all information
24 available we will make a determination about the
25 plant's readiness to proceed with the next phase of

1 testing. We conducted an initial assessment using
2 this process prior to taking the plant critical. The
3 next or zero power assessment is in progress now. It
4 will include low power testing and it will assess our
5 readiness to proceed with power ascension testing once
6 we are licensed to do so.

7 At 50 percent power we will maintain the
8 plant between 45 and 50 percent for about a week. We
9 will use this time to further develop operator
10 proficiency, to conduct an in-depth formal review of
11 our performance up to that time, and to review the
12 test data. The results at this point will be compiled
13 into a formal report which will be available to the
14 resident NRC inspectors for their use as desired.
15 Corrective action and a reassessment, if necessary,
16 will be directed. This will ultimately result in the
17 decisions the plant and its operators are ready to
18 proceed.

19 To assure we are ready to approach full
20 power, we will, at 75 percent power, repeat the
21 informal review process we used at zero power with a
22 report to the station operations review committee for
23 comment and for their recommendation. Based on that,
24 the plant manager and I will clear the plant to
25 proceed with testing.

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1 The objective of the test program from five
2 to 50 percent power will be to transition the plant in
3 a controlled, deliberate manner through the lower
4 power region, to place balance of plant systems fully
5 in service prior to performing significant system
6 grooming, and to perform the formal critical self-
7 evaluation of station performance. We will move step
8 by step through the 20 to 30 percent range, bringing
9 on the balance of plant systems which can only be
10 tested thoroughly when reactor steam is available.
11 Once the control systems are set up and groomed in the
12 50 percent power region, we will return to about 30
13 percent power to conduct a ten percent load swing,
14 followed by the test involving a turbine trip with
15 coincident loss of off-site power. After the ensuing
16 start-up, we will shut the plant down from the remote
17 operating station to complete that demonstration
18 requirement.

19 After finishing the 50 percent assessment
20 period, we will proceed to 75 percent power. The 50
21 percent load rejection test at this level is a
22 rehearsal for the same test that we are required to
23 perform at 100 percent power. Once conditions are
24 satisfied at 75 percent, we will commence a careful
25 approach to 100 percent power. Significant testing is

1 called for at this level, ending with the 100 percent
2 load rejection. When this test is satisfactorily
3 complete, the initial start-up test program is over.

4 Let me turn now from power range testing to
5 the status of our maintenance program.

6 As of last Friday evening, we had
7 outstanding a total of 1247 work orders and work
8 requests. This total can be split between those items
9 which are properly considered open corrective
10 maintenance work as defined by INPO and those other
11 items which we track and work as we can but are not
12 necessary to plant operability. Using the INPO
13 characterization as a definition, we show a corrective
14 maintenance backlog of 609 items and 638 items
15 categorized as other maintenance. To further sort
16 these items, I have shown how they spread among the
17 various maintenance disciplines.

18 The plant manager and I believe that this
19 backlog is well manageable at this point in time. An
20 age spread of the corrective maintenance items
21 indicates the majority of these items are less than a
22 month old and less than 23 percent of the items are
23 greater than three months old. This is very low by
24 industry standards.

25 Our preventive maintenance program is also

1 maturing well, but the results are masked in the near-
2 term by the need to do considerable corrective
3 maintenance to meet the requirements of the test
4 program. Our preventive maintenance to corrective
5 maintenance ratio is gradually improving, but we are
6 still spending only about 35 percent of our time on
7 the preventive list. We intend to get this up to 60
8 percent by the start of the first refueling outage.

9 Now let me discuss some of the aspects of
10 the completion of Unit 2. Because Comanche Peak is a
11 two unit plant with some building areas and some
12 systems shared in common between the two units, we
13 have carefully analyzed the potential impact the
14 completion of Unit 2 could have on the proper
15 operation of Unit 1. We have taken a number of
16 positive steps to assure that Unit 2 activities can be
17 conducted safely and with minimum impact.

18 First, we made the decision several months
19 ago to complete the protected area security boundary
20 for both units as it would exist on completion of Unit
21 2. This has been done and all personnel granted
22 unescorted access into the protected area must meet
23 the requirements for reliability screening and fitness
24 for duty which are applicable to Unit 1. This will be
25 similar to requirements which will exist during a

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1 refueling outage on one unit with the second unit
2 operating.

3 Administrative controls have been
4 established within the protected area to separate Unit
5 1 in common from the Unit 2 side so that we can
6 minimize the traffic in those areas required to
7 support Unit 1 operations.

8 Second, prior to fuel load of Unit 1, we
9 completed as much work as we could in the common areas
10 so that the amount of construction activity in those
11 areas necessary to complete Unit 2 would be minimized.
12 Common systems and Unit 2 systems necessary to support
13 Unit 1 operations have been included in the scope of
14 Unit 1 control. Physical separation of
15 interconnecting piping systems has been accomplished
16 where necessary as shown here.

17 We have established a task team to develop a
18 completion approach for the Unit 1, Unit 2 ties. They
19 will develop a procedure which will outline
20 responsibilities and interfaces between construction,
21 start-up and operations for the completion, testing
22 and turnover of Unit 2 systems, complements and
23 structures. We fully appreciate the potential for
24 interference and we believe that we have provided
25 adequate controls so that the completion of Unit 2 can

1 proceed smoothly without adversely impacting Unit 1.
2 But if there's ever any competition for attention or
3 resources, we will certainly give top priority to the
4 safe conduct of Unit 1 operation.

5 In summary, fuel load and low power testing
6 have gone well. We have a conservative power range
7 test program in place. Maintenance is up to date and
8 we have plans which will accommodate Unit 2
9 construction. I believe that Comanche Peak Unit 1 is
10 ready to proceed with power range operations.

11 MR. NYE: Mr. Chairman, members of the
12 Commission, we recognize and accept the significant
13 responsibility that accompanies our entry into the
14 ranks of the operating nuclear industry. We want to
15 reconfirm to you our strong commitment to safety and
16 quality and to the pursuit of excellence in our
17 nuclear operations.

18 Our activities since the issuance of the low
19 power license have shown that we can satisfy these
20 commitments and I'm convinced that TU Electric can be
21 one of the best nuclear plant operators in the
22 country. Comanche Peak will provide a much needed,
23 reliable source of power to Texas in the coming
24 decades and we're proud to request a full power
25 license for Unit Number 1.

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1 That does conclude our formal remarks. We
2 would be pleased to answer any questions you might
3 have.

4 CHAIRMAN CARR: Thank you, Mr. Nye.

5 Commissioner Remick?

6 COMMISSIONER REMICK: I had a handful here
7 of questions.

8 First, Mr. Cahill, I did not hear you
9 mention where security reports to. Maybe you did and
10 I just missed it when you were --

11 MR. CAHILL: Security reports to -- that is
12 the in-plant security reports to Austin Scott.

13 COMMISSIONER REMICK: Okay. Now, are the
14 security your own employees or do you have a control?

15 MR. NYE: We have approximately 250 contract
16 security people and about 15 of our own people,
17 Austin, is that --

18 MR. SCOTT: About nine. Yes, sir.

19 MR. NYE: Nine. Nine is not too close to
20 15, but about nine.

21 COMMISSIONER REMICK: Do any of those
22 security people have any operational background of the
23 nine?

24 MR. SCOTT: Operation in the sense of
25 operating around a nuclear plant?

1 COMMISSIONER REMICK: Yes.

2 MR. SCOTT: I don't know those numbers. I
3 suspect very few.

4 COMMISSIONER REMICK: Do you anticipate any
5 lack of communications between security and operations
6 as a result?

7 MR. SCOTT: We've been through some trial
8 periods of that. It's coming much better than I
9 thought. Right now the relationship between operators
10 and security people is very good.

11 MR. CAHILL: That's, of course, one reason
12 that we have security under the Vice President of
13 Operations. They all report to the same organization.

14 COMMISSIONER REMICK: The 200 or 250,
15 whichever the number was, was for both units or do you
16 have -- do you have any security on Unit 2?

17 MR. SCOTT: That would apply to both units,
18 yes, sir.

19 COMMISSIONER REMICK: I have some other
20 questions, I guess mostly to address to Mr. Kelley,
21 although they might go to others. The fact that INPO
22 has been there in April for six of your programs and
23 four in August indicates that your training programs
24 must be implemented. Is that correct? What is the
25 current status of your tech staff training and tech

1 staff managers training program?

2 MR. SCOTT: Let me interject and answer that
3 one, if I could, Mr. Commissioner.

4 We are in the process of preparing that.
5 That is one of the four programs that will be
6 certified hopefully and in August. We are
7 about, I would say, 25 percent implemented with that
8 course now and we'll finish that up through the spring
9 and summer.

10 COMMISSIONER REMICK: So you expect to have
11 it finished before evaluation in August?

12 MR. SCOTT: Yes.

13 COMMISSIONER REMICK: All elements of it?

14 MR. SCOTT: Yes. The remaining programs
15 will be -- we'll expect an on-site visit in August.

16 COMMISSIONER REMICK: What type of personnel
17 are currently attending that 25 percent then that
18 you've implemented? I realize there are a number of
19 people. Could you give me some examples?

20 MR. SCOTT: The design engineers and the
21 system engineers from my organization. There are a
22 few operations engineers that we have been able to
23 free up. To be honest with you, during this past year
24 it's been a very busy year for power range testing and
25 completion and our attendance and our ability to

1 employ this training has been not what we hope it will
2 be once we are operating.

3 COMMISSIONER REMICK: When that's fully
4 implemented, as plant manager, Mr. Kelley, would you
5 attend that course, that program?

6 MR. KELLEY: I have attended certain
7 portions of it such as part of the training we have
8 implemented as 10 CFR 50.59 training, for instance. I
9 will attend those portions that are applicable to the
10 functions that I have to perform, mostly in the
11 technical areas. My capability is reviewed through
12 the station operation review committee. That's
13 primarily where I get my input and will get trained in
14 those areas where I have to have the technical
15 capability and background.

16 COMMISSIONER REMICK: Okay. In one of the
17 slides, I forget who indicated that the staff had
18 indicated strong configuration management control.
19 Yet I do remember back in one of the SALP reports, I
20 think the most recent one, there were some comments
21 about the adequacy of design reviews and procurement
22 control. I'm wondering what you've done in those
23 areas to correct any deficiencies so that you feel
24 that you do have a strong configuration management
25 program in effect for the future.

1 MR. CAHILL: Well, we've organized the
2 Engineering Department to focus from the project
3 completion, design review and design modification
4 efforts of the completion of Unit 1 to focus on
5 configuration control of Unit 1 now that that original
6 design work or original modification mostly for the
7 last several years is completed. The engineering
8 groups in our design organization, which are gradually
9 becoming essentially all company employees, has
10 focused on configuration control. Any modification
11 that is proposed to the licensed unit has to be
12 reviewed in accordance with our procedures by this
13 group.

14 As far as procurement control, we have added
15 to the procurement organization engineering personnel
16 who, in conjunction with our design engineers and QA,
17 give special attention to critical attributes and to
18 the consistency of the specification for procurements
19 to the original design basis configuration.

20 COMMISSIONER REMICK: Do you feel that you
21 have that under control then?

22 MR. CAHILL: Yes. We've made substantial
23 improvements in that area over the last year.

24 COMMISSIONER REMICK: Do you utilize the
25 concept of the system engineer for configuration

1 management control?

2 MR. CAHILL: We have a group designated
3 system engineers under Mr. Scott who are part of the
4 operating organization. They are familiar with the
5 systems in detail, not only in their design, but
6 whatever the current situation in that system is with
7 regard to the equipment and the material condition.
8 They follow the operation and the maintenance of that
9 equipment very closely. We have arranged to have
10 those people work very closely with our design
11 engineering people who were under Mr. Bruner, but the
12 actual daily working arrangement is that these people
13 are combined in the tasked efforts that the system
14 engineers and the design engineers are working
15 together and learning from each other.

16 I think we have a very strong systems
17 engineering approach combined with a rapidly
18 developing in-house design engineering capability.

19 MR. COUNCIL: Commissioner Remick, if I
20 could add to that.

21 COMMISSIONER REMICK: Yes, please.

22 MR. COUNCIL: As part of the design
23 validation program on Comanche Peak, and we talked
24 about design validation earlier with you all, what we
25 did, we've developed a design basis consolidation

1 program and out of that came design basis documents.
2 Now, what we had done is take all of the original
3 design information we had, including specifications,
4 we upgraded the specifications and we rolled all of
5 that information into a design basis document. So a
6 system engineer does not have to hunt for the design
7 information on this plant. It is in a document that he
8 can go to and we maintain our configuration from that
9 document. It's a little different than many plants in
10 the country.

11 MR. NYE: If I might add, some of that is as
12 a result of the delays that were inherent in the ASLB
13 process. As a result of that time that we had, we
14 placed great emphasis on the whole concept of design
15 control and configuration management, largely through
16 Bill's leadership. I think we're in good shape in
17 that regard.

18 COMMISSIONER REMICK: Just as a matter of
19 curiosity, do you use your STAs to any extent as a
20 system engineer? I think some people do that
21 occasionally. Okay.

22 Okay. A question on the STA then. What
23 type of experience do these people have? I realize
24 they'd be degreed people. I think the information I
25 saw, they are licensed. What are their general

1 qualifications and is the SRO license a company
2 requirement for STAs or is it just coincidence?

3 MR. KELLEY: The STAs that we do have are
4 primarily younger engineers who have either some Navy
5 experience or have just come in recently to the
6 utility, recently being four or five years ago. They
7 have participated in the Operations Department. In
8 the interim they have been heavily involved in the
9 procedure development for all the procedures we're
10 using. They have maintained the SRO. We have that as
11 a commitment to the Commission that we do have
12 SROs -- STAs. They have maintained their license
13 during that time period. They have been in-graded
14 into the fabric of the operating shifts. In fact,
15 four of the six STAs right now have been named to the
16 position of unit supervisor, which is the second in
17 command on the shift. So we have had a good deal of
18 success of having these individuals not just be stand
19 off in the corner type STAs, but they're actually
20 involved in the shift operation and four of them are
21 standing those unit supervisor watches.

22 Pretty much it's home grown talent with
23 some -- I think in a couple cases some Navy
24 background. They have actively participated in the
25 start-up program.

1 COMMISSIONER REMICK: To make sure I
2 understand, you indicated some of your STAs are also
3 serving as unit supervisors? So you're using them in
4 a dual -- as a second SRO?

5 MR. KELLEY: Basically the six can be used
6 in that dual function and they have been named in the
7 position as unit supervisors.

8 COMMISSIONER REMICK: What do you do with
9 those people to make sure that they perform a stand
10 off function in case of incident so they perform
11 STA and not unit supervisor?

12 MR. KELLEY: When they function as unit
13 supervisor, that stand off function is inherent in
14 their performance as the unit supervisor. In other
15 words, unit supervisor does not get actively involved
16 in the process. So, in his program of overseeing
17 the whole arena, he uses his degreed experience to
18 help them make the decisions.

19 COMMISSIONER REMICK: Okay. I see. So
20 that's inherent and --

21 I have a question on the duty manager. What
22 kind of qualifications? Is that administrative
23 function is it: technical administrative?

24 MR. KELLEY: The duty manager is my
25 representative basically on the back shifts. In

1 general, they have had previous experience at another
2 operating facility. A number of them held senior
3 licenses in other operating facilities. Right now two
4 of the six -- we use six for rotating shifts so that
5 they can match up with a shift supervisor. Two of
6 the six currently have SRO licenses on Comanche Peak.
7 They primarily function as an interface between the
8 shift assembly that's on rotating shift and the rest
9 of the organization. They interface with the shift
10 supervisor when additional resources are needed. Due
11 to their background, they are capable to help
12 interpret technical specifications and also the other
13 administrative requirements that are in the program.

14 They are members of the plant management
15 organization. For instance, one of them is the work
16 control manager. Another is one of the operations
17 managers.

18 COMMISSIONER REMICK: So, it sounds like
19 these are what in other places might be called shift
20 manager?

21 MR. SCOTT: No. We watch very carefully the
22 command and control relationship. There's no
23 compromise with the fact that the shift supervisor is
24 the licensed operator in charge of that plant. This
25 is just a senior staff assistant for the shift

1 supervisor and Mr. Kelley and I watch that
2 relationship very closely.

3 COMMISSIONER REMICK: Is that why you didn't
4 use the name "shift?"

5 MR. SCOTT: Right.

6 COMMISSIONER REMICK: Okay. How about the
7 shift advisor? How long do you expect that you'll use
8 shift advisors? These are contract people, is that
9 right?

10 MR. NYE: Yes, they are. At least through
11 what we regard as commercial operation and then we'll
12 take an analysis at that time.

13 COMMISSIONER REMICK: So at least through
14 commercial operation?

15 MR. NYE: Yes.

16 COMMISSIONER REMICK: Okay.

17 Mr. Chairman, I think that's all for the
18 moment.

19 CHAIRMAN CARR: Commissioner Roberts?

20 COMMISSIONER ROBERTS: No. I could listen
21 to Mr. Nye's dulcet voice all afternoon. It makes
22 homesick, but I have no questions.

23 CHAIRMAN CARR: Commissioner Rogers?

24 COMMISSIONER ROGERS: What outstanding TMI
25 action items do you have and what's your schedule for

1 completing them?

2 MR. NYE: Jim, you want to try that or do
3 you want Roger --

4 MR. KELLEY: Let Roger do it.

5 MR. NYE: If I may, Doctor Rogers, I'd like
6 to ask Roger Walker, our licensing manager, to answer
7 that. I hope Roger is here.

8 CHAIRMAN CARR: Would you come to the
9 microphone, please, and identify yourself?

10 MR. WALKER: Yes, sir.

11 MR. NYE: We're substantially in compliance
12 with TMI requirements. There are two or three minor
13 matters that we have worked out with the staff.

14 MR. WALKER: I think the NRC staff would
15 agree with what I'm about to say. We basically have
16 our TMI actions done. There were some minor items on
17 SPDS which they wanted to do sufficient testing after
18 we started up that we will submit the results of that
19 test afterwards. I think there's nothing else really
20 open.

21 CHAIRMAN CARR: Would you identify yourself,
22 please?

23 MR. WALKER: Sorry. Roger Walker, TU
24 Electric.

25 COMMISSIONER ROGERS: So, SPDS is the

1 only --

2 MR. WALKER: Yes, sir. We had a team look at it and they
3 wanted us to do a test of its results and submit it to
4 the Commission within 60 days of the licensing.

5 MR. NYE: There was an item that the
6 system -- monitoring radiological data in some part of
7 the plant. That's about the extent that I can --

8 MR. WALKER: Yes, that was an upgrade.

9 MR. NYE: That's right.

10 COMMISSIONER ROGERS: When were the latest
11 FEMA findings and what were they on your emergency
12 plan?

13 MR. SCOTT: let me back up just a
14 bit, Commissioner Rogers. We did our exercise in July
15 last year, late July. The FEMA report was published
16 on the 15th of December of last year.

17 COMMISSIONER ROGERS: And could you just
18 summarize the finding very briefly?

19 MR. SCOTT: There was one deficiency that
20 had to do with the placement of a radio transmitter.
21 We had not elevated it sufficiently that we could--
22 that the Texas Bureau of Radiation Control could talk
23 to their field units. We have since put two antennas,
24 one on our met tower and one up on Comanche Peak
25 itself, to make sure we had plenty of area coverage

1 and we've tested that. So, the deficiency has been
2 cleared. That was the one requiring 120 day report.

3 There were about seven -- I can't remember
4 the acronym, but they were the things requiring
5 corrective action. We have completed one of those and
6 the other six are the responsibility of the counties
7 and cities and we're working with them. We believe
8 we're about ready to close those whenever we can get a
9 reinspection of the --

10 MR. NYE: Doctor Rogers, I might say we were
11 pleased with the results of that report. We thought
12 on balance it was very positive. It did have these
13 eight items that Austin told you about.

14 COMMISSIONER ROGERS: Well, we all got a
15 little note from the Citizens for Fair Utility
16 Regulation today. At least I got it today. Maybe
17 someone else got theirs earlier. But there were some
18 questions raised about the information available to
19 people in the emergency planning zone, particularly
20 summer population, summer camp people and folks that
21 may not have received your information. I wonder if
22 you could give us some information on that.

23 MR. NYE: If I may give a little background
24 also. We just received that about noon today. But
25 perhaps some additional comments might be worthy.

1 Comanche Peak is located about 65 miles
2 southwest of the Dallas/Fort Worth area. The largest
3 city completely inside the ten mile radius, is Glen
4 Rose, the town of Glen Rose, which has a population of
5 about 2,000. The City of Granbury, which is on the
6 border of the ten mile limit, has a resident
7 population roughly 5,000. Those numbers may not be
8 exactly right, but they're magnitude of numbers.

9 It is a relatively remote area, not very
10 densely populated, but we think we've done a really
11 good job on our emergency planning for this
12 responsibility. We have met the NRC and the FEMA and
13 the state requirements. We do get very good support
14 from our local governmental entities, as well as the
15 state agencies. We have had our plan approved, as you
16 are aware, and I think from what we have looked at,
17 the FEMA and NRC results were very positive.

18 If I could comment on this survey that is
19 contained in this letter, the survey, by its own
20 admission, was not scientific. I think it's fair to
21 say if you look at the survey on its face, it is
22 somewhat biased as well. The letter indicates that
23 this information was gathered in February. We've had
24 six or seven weeks now that this material could have
25 been brought to the Commission or to the company and

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1 we have not yet seen it, at least it's not been
2 brought to our attention directly. It clear is not
3 timely filed. But beyond that, the data simply does
4 correlate with the information we have and we think we
5 know a good bit about it.

6 Let me speak to the matter of what we have
7 done and the summer population. There are a number of
8 summer camps in this area. It's along a stream that's
9 fairly popular. Our planning does anticipate a
10 seasonal population for all four seasons of the year.
11 We think that's been taken fully into account. We go
12 far beyond the mailing of this single brochure that
13 was referenced. There's -- I think by June of this
14 year we're scheduled to have four mailings just this
15 year. I think if you examine the full spectrum of all
16 the kinds of activities that we have conducted to try
17 to make sure that those -- not only the direct
18 residents, but those indirect residents, people who
19 may be visiting the lakes, we post signs and materials
20 at marinas, at parks. Every motel has some material
21 placed in the motel rooms. The summer camps, we've
22 worked out our plans with all of those summer camps as
23 well as other tourist facilities in the area.

24 I think, to be candid, and not to dignify
25 it, I don't suppose, but I think we know a good bit

1 about the emergency plan there. I think we've done it
2 very thoroughly. We get good support from the local
3 populace. I think we have conducted our business in
4 such a manner as to be a good neighbor. I think,
5 frankly, the matter is without merit and of course it
6 is not timely filed, nor is it pertinent to this
7 proceeding.

8 I will say, having said that, we're going to
9 take this as a serious question and I assure you that
10 we'll follow up completely on any sort of suggestions
11 that we may be able to develop or that we may here
12 from someone else. We can always make improvements,
13 but we do believe that we've done a very good job and
14 we're proud to stand on that record, Doctor Rogers.

15 COMMISSIONER ROGERS: Thank you.

16 That's all I have.

17 CHAIRMAN CARR: Commissioner Curtiss?

18 COMMISSIONER CURTISS: Just on that last
19 point. When you -- the four additional mailings that
20 you intend to conduct between now and June, will that
21 include the instruction booklet that was presumably
22 mailed out before?

23 MR. NYE: I'm not sure whether this is the
24 period of the year when we mail -- we do mail that
25 instruction booklet at least once a year in accordance

1 with our requirements. Beyond that, we mail a four
2 page -- what we call neighbor-to-neighbor publication
3 which talks about activities in the plant, brings to
4 the peoples' attention various aspects of the
5 emergency plan, what kind of conduct they might want
6 to take, what action they might want to take under
7 certain circumstances so that they don't just simply
8 get the one pamphlet.

9 In fairness, I know a number of the people
10 that were contacted were people in rest homes and
11 we're going to work on that to make sure that these
12 people in the rest homes do recall what the
13 information is that's available to them. But I simply
14 would challenge the correlation of the data in that
15 survey to what the facts are.

16 COMMISSIONER CURTISS: Okay. All right. I
17 just have a few questions I want to pursue.

18 On the -- Mr. Council, on the question of
19 the identification and resolution of concerns, could
20 you expand upon what you've done in the root cause
21 area and how you've enhanced the root cause program?

22 MR. COUNCIL: Yes, in several ways. First,
23 I'd like to state that we have started training
24 personnel long before I got to Comanche Peak. In the
25 management oversight of risk trees, the MORT

1 technology is recommended by INPO and that started in
2 approximately 1983.

3 After several people, including Doctor
4 Murley, have told us that we could improve, we
5 upgraded our procedures on root cause analysis. We've
6 had EG&G Idaho in to teach the MORT technology, to
7 teach our instructors. In addition to that, we have
8 run the full one week course on root cause analysis to
9 100 people in the last several months. We've run the
10 short course of some 20 hours to another 100 people
11 and in addition to that we have another 100 scheduled
12 for the full course of one week between now and the
13 end of June.

14 Our procedure has been critiqued by the CASE
15 consultant, Jack Doyle. Jack has also attended the
16 long course on MORT technology and has very favorable
17 comments which I think you could ask Ms. Garde about
18 when she has her chance.

19 In short, I do believe we've probably got
20 the state-of-the-art root cause analysis procedure in
21 this industry today and have many more people trained
22 than I've seen in my experience.

23 MR. SCOTT: I might piggyback onto that to
24 say that our intent is to instill this training at the
25 lowest level rather than to create a group that

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1 critiques our efforts. We hope to be able to get our
2 people thinking of root cause at the -- in the work
3 place at the working level.

4 COMMISSIONER CURTISS: Okay. On the
5 question of hot operator experience, maybe I missed
6 it, but when you -- in the power ascension program, do
7 you have an opportunity at some stage to focus on hot
8 operator proficiency and how things are proceeding,
9 describe what that is and when it will come?

10 MR. SCOTT: Well, we have tried to gain as
11 much as we could along the way with each of our
12 sections, our shifts, excuse me. We do, as I
13 mentioned, intend to use the period of time at the 50
14 percent power plateau while we're conducting our self-
15 assessment for as much training as we can get done
16 during that time period in order to -- because
17 assessment of operator proficiency at that stage is a
18 key part of the evaluation.

19 COMMISSIONER CURTISS: Okay. Open items.
20 The chart in the overviews, this is total maintenance
21 items or total open items?

22 MR. SCOTT: They would be characterized as
23 maintenance items.

24 COMMISSIONER CURTISS: How many additional
25 open items do you have in safety and security and the

1 ops area?

2 MR. KELLEY: The primary other form that we
3 use for what we would call open items would be the one
4 form and right now there's approximately 251 forms
5 that are open. It would be in addition to that. We
6 have a number of security event reports that are
7 issued. I don't know what the number of that is, but
8 I would assume it would be somewhere in the order of
9 20 to 30.

10 COMMISSIONER CURTISS: Okay.

11 MR. KELLEY: They're the two primary other
12 open items.

13 COMMISSIONER CURTISS: All right.

14 MR. SCOTT: Open items open from the
15 construction phase I would say number approximately
16 100.

17 COMMISSIONER CURTISS: All right.

18 On the question of integration of your QC
19 organization into the ops organization, can you expand
20 upon what you've done in the last year or two to
21 ensure that the QC organization gets integrated in a
22 full way from the top to the bottom in the ops
23 organization?

24 MR. NYE: Perhaps, if I may, Mr.
25 Commissioner, I'd like to ask John Beck, who is our

1 Vice President for Engineering.

2 MR. BECK: John Beck with TU Electric. If I
3 could address the question of QC by also including QA
4 for operations. We have established what we call a
5 functional relationship with all of our QA/QC efforts
6 at Comanche Peak, particularly as we approach the
7 operations phase. By that I mean we have taken great
8 care to assure that we have, discipline by discipline,
9 experienced individuals in the QC and in the QA
10 surveillance activity regardless whether it's a
11 mechanical maintenance or INC maintenance or even in
12 the operations surveillance area itself.

13 We have SRO licensed people in the
14 surveillance group, for example, who bring that
15 particular skill and talent. So, it's a focused,
16 trained, experienced group of people we have in the
17 QA/QC organization to work hand in hand with the
18 people in the field to assure the highest level of
19 responsibility and effectiveness.

20 COMMISSIONER CURTISS: Do you have
21 substantial ops experience on the QA/QC --

22 MR. BECK: Well, we have two, as I
23 mentioned, SRO licensed, previously licensed people in
24 the surveillance group and others who have certainly
25 had substantial experience in the nuclear operating

1 arena at other sites.

2 COMMISSIONER CURTISS: Okay. Thank you.

3 Two additional questions. We'll hear later
4 this afternoon about the scaling calculation dispute.
5 Does anybody at this point want to respond to that?

6 MR. COUNCIL: I'm sure Ms. Garde will have
7 some more to say in a moment, but the scaling calc
8 dispute began in approximately September of last year,
9 the beginning of September. We received a draft
10 report in September. We responded approximately a
11 week and a half later to that draft report with an
12 action plan. We were told that we would probably go
13 to dispute but we continued to work, as we said we
14 would, with the CASE organization on scaling
15 calculations.

16 We went to dispute in the beginning of
17 December on a draft report. We have been promised a
18 report, final written report, on the scaling calcs and
19 this all escalated within about the last week, as I
20 think you're probably well aware. We have reviewed
21 any items that have been given to us as potential
22 deficiencies in the plant. We had 25 people working
23 through this weekend, both Friday, Saturday and
24 Sunday, and we had 17 "issues" given to us through the
25 weekend. Of the 17 issues, we've resolved 16. One

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1 issue has been -- will result in a hardware
2 modification in that we will recalibrate a dead band
3 on a plant operating relief valve. Just so you
4 understand, that calculation of the dead band
5 adjustment is not safety related. It may result, may
6 result, in a chattering of a safety valve, as it has
7 at one or two other plants. All that dead band is is
8 to change the dead band from a one percent to a .25
9 percent.

10 COMMISSIONER CURTISS: Okay. Two final
11 questions on the stipulated settlement. You didn't
12 discuss that much in detail here. First, a very
13 specific question. Do you construe that settlement
14 agreement to contain any restrictions at all of the
15 ability of anyone to bring concerns to the attention
16 of the Commission in any formal or informal way?

17 MR. COUNCIL: Settlement agreement contains
18 no restrictions whatsoever. In fact, within the body
19 of the settlement, CASE is encouraged, and so were the
20 whistle blowers, encouraged to bring concerns to the
21 Nuclear Regulatory Commission or to us at their
22 discretion.

23 COMMISSIONER CURTISS: Okay. More of a
24 general question. At the low power briefing you spoke
25 very highly of the settlement agreement, what you

1 thought it had accomplished, both for you all and the
2 CASE representatives. Would it be your intention to
3 continue to pursue that arrangement with the same kind
4 of vigor that you have to date?

5 MR. NYE: Oh, absolutely. We're committed
6 to it and I think we've demonstrated our commitment to
7 it. I think, in fairness, we've gone above the letter
8 of the law on the requirements that we have.

9 COMMISSIONER CURTISS: All right. That's
10 all I have.

11 CHAIRMAN CARR: In your outstanding work
12 items, how many man weeks effort do you figure those
13 1200 items represents, 1200 plus?

14 MR. KELLEY: Based on the number we can work
15 off in the age unit, we've estimated, depending on the
16 department, somewhere between two weeks to a month to
17 backlog, with the possible exception mechanical. Due
18 to the increased scope there, it might be as much as
19 six weeks.

20 CHAIRMAN CARR: Okay. How many of those are
21 going to be required before you exceed five percent?

22 MR. KELLEY: We have no outstanding
23 maintenance items right now that would preclude us
24 from going above five percent.

25 CHAIRMAN CARR: Okay. I think most of my

1 others were covered by the others.

2 Any other questions?

3 COMMISSIONER REMICK: Just one I meant to
4 ask Mr. Scott. The photo, I assume that to depict the
5 separation between Unit 1 and Unit 2?

6 MR. SCOTT: That's correct. That's a
7 demineralized water system. We chose it not because
8 of its -- it was a key system, but to show you that we
9 had arranged physical separation. I took a number of
10 photographs to show you the flanges, the blank flanges
11 in the kept pipework but that one was the only one
12 that would not confuse you.

13 COMMISSIONER REMICK: Just an observation.
14 I don't think it's the best example of human factors
15 because it doesn't show you where the pipes are or
16 flow direction or if it's Unit 1 or Unit 2.

17 MR. SCOTT: The leveling program is being
18 pursued with vigor and --

19 MR. NYE: I might say, Mr. Commissioner, as
20 it turns out, Austin, you were right, we shouldn't
21 show that picture.

22 CHAIRMAN CARR: That's not a put up, was it?
23 All the way down to the labeling of the blank flanges,
24 right?

25 Ms. Garde, would you join us at the table,

1 please? We'd like to welcome you here today. You
2 have a statement?

3 MS. GARDE: I do. I brought copies of a
4 written statement. Do the Commissioners have it?

5 CHAIRMAN CARR: Yes, I believe we all have
6 it.

7 CHAIRMAN CARR: You can proceed whenever
8 you're ready.

9 Everybody's got one but you, Bill. Is that
10 right?

11 MR. COUNCIL: Yes, sir.

12 MS. GARDE: I'd like to thank you very much
13 for the opportunity that you've given CASE to address
14 the Commission today. I'm here representing CASE.
15 I'm not a member of CASE, but I'm here representing
16 CASE and its President, Mrs. Juanita Ellis, which some
17 of you have met.

18 As the Commissioners know, CASE as an
19 organization has been involved in monitoring the
20 safety of Comanche Peak since 1974. In a very brief
21 way, CASE's position on Comanche Peak today at the
22 operating license vote is very much the same as it was
23 in 1974 when it initially raised concerns about the
24 plant. CASE is concerned that Comanche Peak as an
25 operating nuclear plant has the potential for posing a

1 danger to public health and safety which requires the
2 most prudent management and safety-conscious operation
3 humanly possible.

4 Since 1974, both CASE and TU Electric have
5 learned a great deal about how to build a nuclear
6 plant or how not to. In all fairness, TU Electric has
7 made tremendous strides, particularly since 1982 and
8 1983 when there has been major management changes and
9 a great deal of work and rework at the plant.

10 However, in CASE's view, neither the plant
11 nor TU Electric management is problem free and we of
12 course recognize that perfection could never be
13 achieved.

14 Because of that, we come to the table today
15 requesting the imposition of a licensing condition
16 which has been brought to your attention through a
17 2.206 request that CASE filed in February. Although
18 the Commission declined review of that request and the
19 staff denied it on February 8th, we still think that
20 it is appropriate and summarizes our concerns in that
21 we believe that the public is best served if the
22 Commission would consider imposing a condition on
23 licensing which would require TU to be committed to
24 the root cause program that it has developed in order
25 to meet its regulatory requirements under 10 CFR 50

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1 Appendix B criterion 16.

2 Although I'm sure TU Electric disagrees with
3 that request, I think it speaks a great deal for the
4 stipulation and the settlement that we come to the
5 table today with only that request and that that
6 request summarizes our greatest concern, and that is
7 that TU Electric still has problem denial syndrome
8 that we're concerned will cause or exacerbate problems
9 in operation.

10 We don't think that the problem denial
11 syndrome is something that is historical only in
12 nature. We don't think it's something that flows from
13 the intent of any individual managers or TU Electric
14 management to cause some type of problem or
15 deliberately allow some kind of problem to occur. We
16 think instead that it comes from a long period of time
17 in building a plant that has not had a lot of need to
18 have an attention to an operational mind set and that
19 as problems occur that there still is a tendency among
20 operational personnel, among quality assurance
21 personnel, and among management to first deny the
22 problem and then get around to fixing it.

23 In our view, which is stated in more detail
24 in the 2.206 petition, we have a concern that the
25 plant on the eve of licensing remains indeterminate in

1 its physical condition. However, we recognize that it
2 has passed all of its regulatory hurdles and that it
3 is sitting on the threshold of the greatest test that
4 it has yet in front of it.

5 In essence, our fingers are crossed. We
6 think that TU has done what they needed to do to get
7 here and we hope and pray that in the future that it
8 is operated safely and we don't have the problems.
9 However, because of what our experience has been, not
10 just since the settlement, but from the past ten to 12
11 years, CASE does bring that request to the Commission
12 today.

13 I have a few other comments. I won't go
14 into my whole statement. But on the prospective on
15 the joint stipulation, Chairman Nye, I respectfully
16 disagree with you that you've gone above the letter of
17 the law in the stipulation. I think that you have
18 certainly met the spirit and the intent of the
19 stipulation, but there have been times, as you know,
20 that CASE has had a disagreement with TU Electric
21 management in how the stipulation has been
22 implemented.

23 We have reached certain arguments and
24 certain disagreements on access to the plant, access
25 to information and cooperation, almost all of which

1 have been resolved satisfactorily. But I don't want
2 the Commission to leave with the view that we have
3 some sort of Polyanna relationship that everything is
4 wonderful. Everything is not always wonderful and, as
5 I'm sure Mr. Council will tell you, we have a lot of
6 heated debate. I think that's healthy. I think that
7 it is what the stipulation intended. I think it's what
8 the settlement -- was the cost of the settlement and I
9 think it's doing its job.

10 CASE is concerned that as we go into full
11 power operation that TU Electric will lean more toward
12 the letter of the stipulation and not the spirit of
13 the settlement agreement. We hope that that's not
14 true. However, we are cautious on that regard.

15 Mrs. Ellis also asked me specifically to
16 thank the Commission as an agency for the extensive
17 commitment of resources that it has made to Comanche
18 Peak since 1984 when it first sent the technical
19 review team and then established the Office of Special
20 Projects. CASE recognizes that the resources
21 expended, the agency personnel assigned and the number
22 of hours, time, taxpayer dollars that has been spent
23 on this project have been a tremendous drain on this
24 agency and has resulted in a far safer plant and CASE
25 wants to thank you because many of those responses

1 were in response to CASE's request for additional
2 assistance from the NRC.

3 We also are concerned at this point about
4 the plant being transferred back to Region IV. Our
5 concerns are threefold. First, we're concerned
6 because of the historical weaknesses of Region IV in
7 dealing with Comanche Peak initially. Second, we're
8 concerned and we're going to be very observant in how
9 TU, the NRC and CASE now deal with the stipulation.
10 We're worried about the change in the balance, if you
11 will, in the implementation of the stipulation. We
12 have worked out a very healthy balance. It's been a
13 very good -- there's been three very active partners.
14 Office of Special Projects was instrumental in the
15 development of the stipulation after the settlement
16 and we're concerned about now Region IV coming in
17 because they really weren't a part of that and how
18 that will implement.

19 We're also very concerned and saddened by
20 the exit of people with the Office of Special Projects
21 that have a much more detailed and in-depth knowledge
22 of Comanche Peak in its recent history. We're
23 optimistic that things will work well, but we do want
24 the Commission to be aware of our concerns in that
25 area.

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1 We do have some open areas of technical
2 concerns and we cannot come here today and say that in
3 our view the plant is safe and there are no problems
4 which we're working on. You've heard a little bit
5 about the scaling calculation dispute.

6 Although I don't necessarily want to take
7 the time to disagree with Mr. Counsil's details, I
8 will say that the scaling calculation issues have been
9 known to TU in form either from an allegor or in some
10 other form since November of 1987. They have been
11 committed to a corrective action program, as Mr.
12 Counsil said, since last fall and the concerns over
13 the weekend, although there certainly was at least one
14 issue that resulted in some kind of hardware impact,
15 was much more a process problem.

16 Frankly, I think that it is again a part of
17 the concern that we have that TU Electric has not been
18 able to historically get their hands on corrective
19 action. In this case, scaling calculation commitments
20 were originally made prior to even the settlement
21 being entered into. Those commitments were originally
22 not met and over the weekend it was discovered that
23 they still were not met. The fault for that being
24 discovered over the weekend, I don't really think is a
25 subject for this hearing because we didn't hold

1 anything. You held the documents, we looked at them
2 and we told you as soon as we saw problems. So, we're
3 working on that. We're going to work on it today,
4 we're going to work on it tomorrow and we're going to
5 continue to work on it. But it is of concern to us
6 because the process didn't work. They committed to a
7 corrective action that should have identified those
8 problems and when we looked at the documents we should
9 not have found anything. The fact that we did is of
10 concern to us.

11 We also are disappointed that the NRC staff
12 has not yet issued the Thermo-lag enforcement package.
13 The package has been floating around the NRC for some
14 time and we would have hoped that on an issue of
15 harassment and intimidation that was substantiated
16 that the staff could have issued that report and TU
17 could have been into an implementation on corrective
18 action on that issue.

19 Nonetheless, we do think that TU has
20 recognized its errors in handling that particular
21 problem and hopefully has it under control. But we
22 think it's important that that enforcement package be
23 issued as soon as possible so that whatever corrective
24 action is going to be required by the staff, that can
25 get underway sooner rather than later.

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1 We have -- there's another aspect to the
2 Thermo-lag dispute regarding the materials, that is
3 actually whether or not the Thermo-lag itself was
4 acceptable. We're continuing to work on that issue
5 and awaiting information to finish that matter.

6 There are also, pending resolution, some 50
7 CASE concerns which TU and CASE are working on.
8 Although none of those concerns raise to the level
9 that I would come here today and say that they should
10 serve as a basis for denying licensing, they are
11 certainly things that we have raised that have not
12 been resolved completely to CASE's satisfaction and
13 are in process.

14 We have an additional -- two additional
15 items which are in process. One is safe team and
16 security program which we are developing some concerns
17 over and we'll work with TU Electric and try to
18 resolve those concerns and hopefully those things will
19 not end up in a dispute. And we also are reviewing
20 the reactor trip and flux doubling actuation problem
21 that occurred on March 5th and have some questions
22 submitted and are awaiting responses on that.

23 Besides those issues, CASE would like the
24 Commission to be aware that among its consultants
25 there are still strong views held on the use of the

1 visual weld acceptance criteria or the VWAC program,
2 that is inspecting welds through paint in order to
3 gain acceptability, and the acceptability of welds on
4 the steam generators. Those issues are of strong
5 concern to some of our consultants and we would be
6 remiss if we did not present them here.

7 Pages 6 through 9 of my written presentation
8 summarize things that CASE and its consultants have
9 done since the stipulation and settlement were entered
10 into. For those of you who are not more familiar with
11 CASE, I hope you will find this informative and
12 instructive in terms of what we're doing out there all
13 the time. I think it's a good summary of things that
14 we have been involved in.

15 Some of the things I would like to just
16 mention, Mrs. Ellis is a full voting member of the
17 Operations Review Committee and I am an alternate.
18 We've participated actively in that committee. One of
19 the things that I did on that committee was review the
20 Fitness for Duty Program, and TU Electric committed to
21 imposing additional requirements beyond the regulatory
22 requirements in their program.

23 As many of you know, I presented a
24 professional dissent or how to deal with professional
25 dissent training program to some 1,300 mid-level

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1 managers in last spring and early summer.

2 CASE continues to participate in audit
3 monitoring, tests, inspections on the site, NRC exit
4 meetings, continues to work with allegeders that come to
5 CASE for assistance through the Joint Stipulation,
6 continues to be engaged in document review, and in one
7 of our more recent activities, has been involved in
8 the Root Cause Program. And that program is developed
9 by Jack Doyle, and he has been actively working with
10 TU Electric in that regard.

11 With that, I'd like to conclude my comments--
12 --more detail is provided in writing -- and appreciate
13 the opportunity to talk to you today.

14 CHAIRMAN CARR: Thank you.

15 Questions for Ms. Garde? Commissioner Roberts?

16 COMMISSIONER ROBERTS: Well, no question. I
17 hope the staff will address the concerns Ms. Garde
18 raises about leaving Comanche Peak from Special
19 Projects to the Region.

20 CHAIRMAN CARR: Commissioner Rogers?

21 COMMISSIONER ROGERS: I wonder if you could
22 just clarify for me a little bit what you mean when
23 you say that in your opinion that plant condition with
24 regard to safety is indeterminate.

25 MS. GARDE: I'm a lawyer, so I'm using the

1 term "indeterminate" in a legal sense. CASE went into
2 the licensing hearings on a particular issue, saying
3 that, as a result of a breakdown in the quality
4 assurance program, the status of the plant was
5 indeterminate. We sought to prove that in the
6 licensing hearings. We believe that we would have
7 proved that in the licensing hearings.

8 However, when we reached the settlement and
9 entered into the joint stipulation, we also recognized
10 that TU Electric had committed to a program that was a
11 virtual 100 percent reinspection of many of the major
12 safety systems; and although there was a sampling
13 program and therefore you couldn't rebuild the plant,
14 you could only sample and reinspect it and rework as
15 appropriate, that it was more beneficial for CASE to
16 be involved in the reality, if you will, of seeing
17 what the condition of the plant was on a day to day
18 basis.

19 What we mean when we say "indeterminate" is
20 we still don't think anyone really knows what is in
21 the ground out there, that there is essentially
22 unanswered questions that cannot be answered at this
23 point because work that was done was covered in
24 concrete, is inaccessible, has been long ago past the
25 stage where you could actually perform a physical

1 inspection.

2 All that aside, we recognize that the plant
3 has probably had more of an inspection and look-see,
4 if you will, than any other plant in the country. And
5 our position is that we're cautious. We don't know,
6 and we don't think anyone will ever know, and we hope
7 that it does operate safely.

8 Does that answer your question?

9 COMMISSIONER ROGERS: Yes. Thank you very
10 much.

11 CHAIRMAN CARR: Commissioner Curtiss?

12 COMMISSIONER CURTISS: Just two or three
13 quick questions.

14 On the root cause issue and your suggestion
15 that it be imposed as a license condition, let me make
16 sure I understand what it is that you're proposing. I
17 take it you're familiar, because of your relationship,
18 with what the licensee has proposed to do on root
19 cause?

20 MS. GARDE: Yes, sir.

21 COMMISSIONER CURTISS: Is it a concern that
22 derives from a lack of confidence in what they've
23 committed to do or a legal concern that they be
24 obligated in the future to address those concerns? Is
25 root cause today, as they propose to address it, in

1 adequate shape?

2 MS. GARDE: We're very pleased with the root
3 cause program that they've developed and that they are
4 working on. We have an area of disagreement in
5 regards to the front-end analysis in terms of a root
6 cause program, which I think TU Electric is well aware
7 of. But in terms of analysis of problems that have
8 occurred, we're very satisfied with the condition of
9 the program, the training, and all that aspects of it.
10 And as Mr. Counsil indicated, we were a part of that.

11 Our concern is that it is not a regulatory
12 requirement to have a root cause analysis program. It
13 is a regulatory requirement to identify the basis of
14 problems under Criterion 16, and to conduct some kind
15 of analysis. We think, frankly, they haven't been
16 able to do that. This program would require them to
17 do that. They're committed to that program.

18 We would like to see it a licensing
19 condition, so that the mind set toward analysis of
20 problems is one that recognizes by everyone in the
21 field that has to use that program that this is
22 something we have to do as part of a regulatory
23 requirement. It's not a nicety. It's not an extra.
24 It's not an option. We have to commit ourselves to
25 following this structured program until such a time

1 that it becomes part of the mind set of the plant.

2 We think that it's been a problem. It was a
3 problem up to the issuance of the low-power letter.
4 It was recognized as pretty--universally recognized as
5 a problem that TU has had, and we'd like to see this
6 as one way to get it under control.

7 COMMISSIONER CURTISS: Okay. Two questions
8 on the settlement agreement. With the transfer of the
9 responsibility from Special Projects to Region IV, is
10 it clear mechanically how concerns would be raised
11 with the NRC? I know you've raised the concerns with
12 Chris Grimes to date. Is it clear with that transfer,
13 if you have disputes, who you'd go to in Region IV?

14 MS. GARDE: I think that we're working that
15 out. I mean, at this point we've had one meeting with
16 Region IV personnel that will be assigned to the
17 plant. That meeting went very well. I'm very hopeful
18 that things will go on much as they have in the past.
19 In terms of who do we call, right now we're still
20 going to call Chris.

21 COMMISSIONER CURTISS: Okay. Not off the
22 hook yet.

23 MS. GARDE: I'm not taking his number out of
24 automatic redial yet.

25 COMMISSIONER CURTISS: Let me ask you the

1 same question that I asked the licensee. Is there
2 anything in the settlement agreement that restricts
3 or constrains in any way your opportunity to bring
4 issues to our attention at whatever level and through
5 whatever means, formal or informal?

6 MS. GARDE: Well, I would -- I mean, the
7 settlement agreement does require CASE to work with TU
8 Electric to resolve safety concerns. It also has a
9 phrase in it that says we can go to the NRC at any
10 level at any time that we want. And we have tried to
11 work out internal guidelines so that Mr. Council isn't
12 surprised and hears something from the NRC that he
13 should have heard from us first, and that CASE retains
14 the independence to go directly to the NRC staff if we
15 need to do that. I think that that working
16 relationship has worked.

17 It wouldn't serve any of the three parties
18 if we were attempting to subvert the settlement by
19 going around TU Electric. We reached that settlement
20 with the full acknowledgement that we were going to
21 give TU a chance to resolve the problems that arose,
22 because we had seen that they had done that, that they
23 had made an attempt through their reinspection program
24 to get their arms around the problems that we brought
25 them. For the most part, they have done that.

1 And if there is an issue that arises that we
2 think is an immediate health and safety concern or we
3 don't think TU is handling it properly or for some
4 reason we don't think it's appropriate to bring
5 directly to TU -- for example, an OI issue -- we have
6 the right to do that.

7 COMMISSIONER CURTISS: At any time and in
8 any manner, you can bring an issue, regardless of
9 where you are in the process with TU, if you feel that
10 you need to bring an issue to anybody at the
11 Commission? You can do that in any manner that you
12 want?

13 MS. GARDE: We can do that and we would do that.

14 COMMISSIONER CURTISS: Okay.

15 One last question, I guess. At the last low-
16 power briefing, you raised two concerns: one on the
17 number of open items, and the second on the extent to
18 which the commitment at this level of management had
19 filtered down into mid-level management. Could you
20 address what's happened on those two points and what
21 your views are at this stage?

22 MS. GARDE: I think we're very satisfied
23 with the handling of the open items. We get briefings
24 through our role with the Operations Review Committee,
25 and I think we're fairly satisfied with the status of

1 open items.

2 On mid-level management, I think we still
3 have concerns. And I think that those concerns
4 magnified, actually, as a result of the Thermo-lag
5 harassment and intimidation incident, and they haven't
6 gone away. If they rose to the level that I thought
7 it was going to affect the safe operation of the
8 plant, I would be telling you that. I think that
9 we've been very frank with TU about what our concerns
10 are, and we'll continue to do that.

11 COMMISSIONER CURTISS: Okay. That's all I
12 have.

13 CHAIRMAN CARR: Thank you very much.

14 We'll now listen to the staff.

15 Mr. Taylor, before you begin, I would like
16 to say that we appreciate the considerable amount of
17 staff inspection review effort that has gone into this
18 project.

19 I understand that one of your staff members,
20 Mr. Bob Warnick, is making his last appearance before
21 the Commission today, due to his planned retirement
22 next month.

23 Bob, your years of dedicated exemplary
24 service to the Commission are certainly appreciated.
25 Good luck in your future endeavors.

1 Mr. Taylor, please proceed.

2 MR. TAYLOR: Thank you, and good afternoon.

3 I appreciate your recognizing Bob Warnick.
4 He has been a senior executive on site for the past
5 three years and given much of his personal time and
6 professional dedication to Comanche Peak. We will
7 miss him.

8 Also at the table are others who have spent
9 some time on Comanche Peak: to my immediate right,
10 Chris Grimes; and then to my far right, Dwight
11 Chamberlain, who is the Section Chief in Region IV who
12 will be taking responsibility; to my left, Doctor
13 Murley, from the Nuclear Reactor Office of NRR; and
14 Denny Crutchfield, Head of the Office of Special
15 Projects.

16 I would note that the Commission was
17 provided a paper on the transition from the Office of
18 Special Projects to increased Regional responsibility
19 with close Headquarters oversight to give
20 responsibility to Region IV. We do have, in addition
21 to Mr. Chamberlain, a strong management line to give
22 attention to Comanche Peak. And I can tell you that
23 if the need arises we will add additional management
24 attention if it is necessary to provide proper
25 oversight of Comanche Peak.

1 I'll now ask Doctor Murley to begin the
2 briefing.

3 DOCTOR MURLEY: Thank you.

4 I'll speak to a few of the issues that were
5 discussed in the previous briefing.

6 First, the Joint Stipulation Agreement is
7 unique for the NRC staff. It's the only one of its
8 kind that we've been working under. It involves a
9 delicate relationship, I should say, between CASE, the
10 licensee, and NRC. I think we have maintained a
11 professional relationship with CASE and with the
12 licensee. So in my perspective, this relationship has
13 worked satisfactorily for the last two years or so.

14 We take the issues that are raised by CASE
15 seriously and we deal with them on their merits. We
16 don't always agree on the resolution, of course. For
17 example, there have been some cases that were
18 mentioned today. We don't believe that a license
19 condition is the best way to improve root cause
20 analysis. We also don't see that the enforcement
21 action must be completed before licensing is done.
22 Still, the issues that they bring up to Texas
23 Utilities and to the NRC we take seriously and we deal
24 with directly.

25 Looking to the future, we expect to continue

1 the professional relations that we have with both CASE
2 and the licensee.

3 With regard to the question of the Special
4 Projects Office, my staff and I have high confidence
5 that Region IV can handle the Comanche Peak inspection
6 and regional oversight function. Bob Martin has
7 organized to give special emphasis to Comanche Peak.
8 The Senior Manager in the Region looking over Comanche
9 Peak will be Pat Gwynn, who's in the audience today.
10 Dwight Chamberlain is the Section Chief who will be
11 giving it his full attention. And Bill Johnson is the
12 Senior Resident Inspector at the site. All three
13 gentlemen are highly capable people and highly
14 experienced.

15 NRR, of course, will continue to work
16 closely with the Region. We'll be working directly
17 with them. Chris Grimes will continue to be the
18 Project Director who provides continuity. I am still
19 the licensing authority, licensing official, and so
20 the same procedures for resolving disputes will be in
21 place as they always have been. First effort will go
22 to Chris Grimes, and then ultimately it will come up
23 to me, if that's necessary.

24 So with those remarks, I'll turn it over to
25 Chris.

1 MR. GRIMES: Good afternoon, Mr. Chairman,
2 Commissioners.

3 I'm Chris Grimes. I'm Director of the
4 Comanche Peak Project Division.

5 Before I begin, I would like to introduce
6 the project management staff who's been working on
7 Comanche Peak for the last three years. They are Jim
8 Wilson, Melinda Malloy, and Mel Fields, who are in the
9 audience today.

10 The material I'm going to cover has been
11 prepared in accordance with general presentations for
12 Commission briefings on full power licensing. As
13 such, the staff's slides include information about the
14 plant, the plant site, and the utility that have
15 either already been covered by TU Electric or were
16 discussed when we presented the status of Comanche
17 Peak on October the 19th, 1989. Consequently, I will
18 only briefly touch on those matters that have already
19 been discussed.

20 (Slide) On slide 3, we note that Texas
21 Utilities, TU Electric, is the operator and majority
22 owner of Comanche Peak. And in August of 1993,
23 following completion of their purchase of a six
24 percent interest from Texas Municipal Power Authority,
25 they will be the sole owner and operator of Comanche

1 Peak.

2 (Slide) On slide 4, most of the licensing
3 highlights were covered during the staff's
4 presentation in October, 1989, including a discussion
5 about the Joint Stipulation. CASE continues to play
6 an active role at Comanche Peak and raises questions
7 about plant safety to TU Electric and the NRC staff.
8 Ms. Garde mentioned her phone calls to me. There were
9 five this weekend.

10 Inspection activities and in particular the
11 findings from the Operational Readiness Assessment
12 Team inspections will be covered later during Bob
13 Warnick's part of the presentation.

14 Other notable events included the issuance
15 of the low power license and initial criticality
16 during start-up testing.

17 (Slide) On slide 5, the principal features
18 of the plant design were covered during TU Electric's
19 presentation.

20 Of particular note are two unique features
21 that we've carried in our briefing books for several
22 years. One is the absence of a boron injection tank.
23 When Comanche Peak was designed, it was a feature in
24 Westinghouse plants. In later designs that feature
25 was eliminated, but the tank was left abandoned in

1 place in Unit 1.

2 TU Electric's Maintenance Training Facility,
3 on the other hand, is a recent addition, and has a
4 great potential because it provides the capability to
5 mock-up full-scale equipment to enhance both the
6 effectiveness of their training programs and to
7 minimize exposures during maintenance activities.

8 (Slide) On slide 6, TU Electric has already
9 described the site. There is nothing that we need to
10 add regarding site characteristics.

11 (Slide) On slide 7, major construction
12 issues were covered during the October '89 briefing,
13 as were TU Electric's evaluation and corrective action
14 programs. All of the corrective action programs have
15 been completed.

16 (Slide) On slide 8, all of the TMI items
17 for Unit 1 have been completed. Two of the actions
18 that evolved from the resolution of the TMI Action
19 Plan items are scheduled for completion after issuance
20 of the full power license.

21 (Slide) On slide 9, we note that TU
22 Electric has completed all of the requirements for
23 unresolved safety issues for Unit 1. Station blackout
24 provisions will be fully implemented in accordance
25 with the schedule required by the rule.

1 (Slide) On slide 10, emergency preparedness
2 for Comanche Peak was completed with an issuance of a
3 FEMA finding in a letter dated January 12th, which we
4 forwarded to Texas Utilities in February, 1990.

5 (Slide) On slide 11, TU Electric satisfies
6 the applicable policies for staffing. As TU Electric
7 noted, six shift operating staff has been supplemented
8 with advisors to compensate for operating experience.

9 (Slide) On slide 12, as part of its
10 inspection activities, the staff has observed the
11 implementation of TU Electric's Fitness for Duty
12 Program, which was developed to satisfy the
13 requirements of 10 CFR, Part 26.

14 (Slide) On slide 13, the license contains
15 typical license conditions. Comanche Peak includes a
16 license condition requiring the licensee to control
17 activities for mineral exploration within the
18 exclusion zone. Separate parties can own the
19 subsurface mineral rights.

20 (Slide) On slide 14, as of April 5th, there
21 were eight incomplete allegations and two open
22 investigations. The staff has reviewed these issues
23 and has concluded that their resolution is not
24 necessary for plant safety prior to the issuance of a
25 full power license.

1 On April the 9th, we received allegations
2 which were submitted directly to the Chairman from the
3 Manager of the Division Planning for Texas Power and
4 Light concerning potential imprudent and unethical
5 management practices by TU Electric executives. We
6 have reviewed this material in accordance with the
7 procedures in Manual Chapter 0517 for late filed
8 allegations.

9 We have concluded that, even if true, these
10 allegations do not involve new plant safety concerns,
11 nor do they raise a legitimate doubt as to the ability
12 of TU Electric to safely operate Comanche Peak in
13 accordance with the Commission's regulations.

14 (Slide) Slide 15. Before Mr. Warnick
15 begins his discussion on our inspection activities, I
16 would like to note that since the Commission briefing
17 in October the NRC staff issued an enforcement action
18 with a \$30,000.00 civil penalty associated with two
19 severity level 4 violations. That action was taken
20 based on ineffective corrective actions and repetitive
21 procedural errors associated with the backflow through
22 the auxiliary feed water system during hot functional
23 testing in the spring of 1989. TU Electric paid the
24 civil penalty, and the NRC staff will continue to
25 monitor the effectiveness of their corrective actions.

1 In addition, the staff held an enforcement
2 conference with TU Electric on February the 7th, 1990,
3 regarding the incident of potential intimidation of
4 quality control inspectors in Warehouse Receiving.
5 That enforcement action has not yet been completed,
6 but should be issued shortly. The staff has concluded
7 that the corrective actions the utility has taken thus
8 far have adequately resolved the issue for the purpose
9 of a licensing decision.

10 Unless there are any questions about my part
11 of the presentation, I would like to ask Bob Warnick
12 to describe our inspection activities at Comanche
13 Peak.

14 CHAIRMAN CARR: Let's proceed, and we'll get
15 the questions later.

16 MR. WARNICK: Okay. Chairman Carr and
17 Commissioners, I've been the Assistant Director for
18 Inspection Programs since June of 1987 and I've been
19 located at the site all that time.

20 Three of our resident inspectors are here
21 with us today. I'd like them to stand as I introduce
22 them: Joel Wiebe, Senior Project Inspector; Robert
23 Latta; and Steve Bitter.

24 We completed a systematic assessment of
25 licensee performance on September 19th, 1989. The

1 assessment rated each area of performance as category
2 2, and no trends were identified.

3 The principal weakness identified by the
4 SALP Board concerned TU Electric's resolution of
5 problems and root cause evaluation process. TU
6 Electric has recently made changes in their deficiency
7 identification and evaluation process, including a new
8 root cause evaluation procedure which incorporates
9 suggestions made by CASE and includes additional
10 training of personnel. Based on our limited review
11 during start-up testing, it appears that these changes
12 have improved the licensee's process.

13 The staff has also reviewed all of the INPO
14 reports and the INPO findings. We believe the INPO
15 findings are consistent with NRC findings.

16 The low-power operating license was issued
17 on February 8th. Fuel loading began on February 9th
18 and was completed on February 14th. Our resident
19 inspectors provided around the clock on-site coverage
20 of the fuel loading. They observed that fuel loading
21 went very smoothly and the licensee staff performed
22 well. Between the end of fuel loading and the initial
23 approach to critical, the licensee performed zero
24 power tests, maintenance, surveillances, and other
25 activities in preparation for initial criticality.

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1 The most significant event the plant has
2 experienced since receiving a low-power operating
3 license was a diode failure on March 12, which caused
4 a single train safety injection. At the time of the
5 event, the reactor was in a shut-down condition at 250
6 degrees and 380 psig. The licensee declared an
7 unusual event in accordance with their emergency
8 procedures, which requires this declaration if there
9 is an emergency core cooling system actuation coupled
10 with flow to the reactor.

11 An augmented inspection team was formed to
12 review the event and to assess TU Electric's response
13 evaluation and corrective actions. The team was led
14 by Dwight Chamberlain. The AIT was comprised of
15 inspectors and specialists from NRR and the Regions.
16 The AIT concluded that operator actions were timely
17 and appropriate, and that the licensee's evaluation of
18 the event, including determination of cause and
19 planned corrective actions, were satisfactory.

20 On April 2, TU Electric started pulling rods
21 at 6:00 p.m., and after rod positions were set, began
22 to dilute the boron concentration in the reactor
23 coolant system. The reactor was critical at 4:52 p.m.
24 on April 3.

25 Our resident inspectors provided around the

1 clock coverage from April 2 through April 8th, during
2 the initial approach to critical and during low-power
3 testing. In general, we found the operators to be
4 very disciplined and conservative in their actions.
5 Shift turnovers were effective. No personnel errors
6 were observed, and there were no reportable events
7 during this time.

8 In addition to the single train safety
9 injection, the licensee has experienced six other
10 LERs. Our slide was wrong. Four of those events
11 involved the source range flux doubling actuation.
12 And two of the four occurred on March 5 and involved,
13 in our opinion, operator error on one and lack of
14 operator attentiveness on another one.

15 And based on our review of the events, we
16 became concerned with the operators' level of
17 attention to detail and awareness of plant status.
18 And because of our concern, the on-site NRC staff
19 provided augmented shift coverage from March 6th
20 through March 11. During that period, shift turnover
21 practices and operator awareness of plant and
22 annunciator status were excellent. Therefore, we
23 terminated the special shift coverage.

24 Then, last Thursday, while the reactor was
25 critical, the licensee experienced the fourth flux

1 doubling actuation, which was not -- and this one was
2 not recognized by the operators for approximately 15
3 minutes. As a result, we provided special on-site NRC
4 inspection coverage on Friday and during the weekend.
5 In addition, we have discussed our concerns with TU
6 management, and we have scheduled a meeting tomorrow
7 with operations management to discuss their
8 performance during the past month and our concerns
9 arising from the four flux doubling actuation events.

10 An NRR Operational Readiness Assessment Team
11 was on-site for two weeks in October of last year, and
12 concluded the plant was not ready to load fuel
13 primarily because of the large amount of work
14 remaining to be done. The team was on-site again in
15 late January for two weeks. The team identified five
16 open items requiring follow-up action and resolution
17 before fuel loading and operation above five percent
18 power.

19 Subject to the resolution of the five
20 specific items, the team concluded that in the areas
21 reviewed the TU Electric staff had demonstrated the
22 ability to control activities and safely operate
23 Comanche Peak Unit 1 in accordance with NRC
24 requirements. Since then, the utility has resolved
25 the five open items and the NRC has inspected their

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1 corrective actions and found them acceptable.

2 Last week, a special team conducted an
3 independent assessment of TU Electric's readiness for
4 full power licensing. The team was comprised of five
5 experienced NRC resident inspectors representing three
6 NRC regions and NRR. The team was, again, led by
7 Dwight Chamberlain. The team inspected licensed
8 activities at Comanche Peak Unit 1 during low-power
9 operation of the plant, including the conduct of
10 reactor operations and operator response to alarms and
11 plant events, maintenance and surveillance activities,
12 verification of system line-ups and safety system
13 operability, management oversight of plant activities,
14 administrative support of plant operations, staffing
15 and experience augmentation including the shift
16 advisor and duty manager programs, and licensee
17 problem identification and operability determinations.

18 Overall, the team concluded that, for the
19 activities inspected, the licensee was operating
20 Comanche Peak in compliance with NRC regulations and
21 license requirements and that the licensee's level of
22 operational capability was observed to be equivalent
23 to or better than other recently-licensed facilities
24 with which they were familiar. There were no concerns
25 identified that would affect the staff's

1 recommendation for full power licensing of Comanche
2 Peak.

3 Currently, there are six resident inspectors
4 assigned full-time to the Comanche Peak site. NRC
5 inspectors will continue to implement and augmented
6 inspection and evaluation program to monitor the
7 licensee's performance during the period of power
8 escalation to full power. This will include around
9 the clock inspection coverage to monitor the
10 licensee's performance during important tests and
11 during parts of power escalation, witnessing selected
12 start-up tests and reviewing the start-up testing
13 results, conducting an independent team inspection and
14 evaluation of the licensee's performance prior to the
15 licensee exceeding 50 percent power, and reviewing the
16 licensee's self-assessment to be performed at the 50
17 percent power plateau.

18 In conclusion, based on all of the
19 inspections we have performed and the independent
20 assessments that have been conducted, we are of the
21 opinion that TU Electric is ready to safely operate
22 Unit 1 above five percent power.

23 DOCTOR MURLEY: The staff then concludes
24 that Comanche Peak Unit 1 meets the regulations, that
25 there's reasonable assurance the plant can and will be

1 operated without endangering public health and safety,
2 and the staff recommends Commission approval to issue
3 the full power license.

4 That concludes our presentation.

5 CHAIRMAN CARR: Questions, Doctor Remick?

6 COMMISSIONER REMICK: Chris, could you
7 elaborate on the SPDS mod? I think it was called
8 "continuous radioactivity control info." Would you
9 elaborate what that is?

10 MR. GRIMES: What that involves is modifying
11 the SPDS display so that the continuous radioactivity
12 monitor shows up on different screens. It's a format
13 of display.

14 COMMISSIONER REMICK: Radioactivity monitor
15 is what I'm being lost on. What are we talking about
16 here?

17 MR. GRIMES: Effluent monitors.

18 COMMISSIONER REMICK: Effluent monitors,
19 okay. All right.

20 I assume you heard my question about design
21 review and procurement control and the question of
22 whether the applicant has a good configuration
23 management program. What's the staff view on that,
24 based on recent modifications?

25 MR. GRIMES: I'd like to ask Bob to talk a

1 little bit about the procurement aspect.

2 With regard to configuration control, we
3 think they have a very good program. Their efforts to
4 pull together the design basis into traceable records
5 and then to computerize that so that the records are
6 retrievable is near state of the art.

7 But the aspect of it associated with
8 procurement is one that was brought up during
9 inspection activities, and I'll ask Bob to address
10 that.

11 COMMISSIONER REMICK: All right.

12 MR. WARNICK: We identified a concern with
13 procurement practices, historical procurement
14 practices, and the utility took actions and have
15 corrected their procurement procedures or revised
16 them. We have no problems at all with their current
17 procurement procedures. It was some past practices we
18 had a problem with.

19 COMMISSIONER REMICK: I just want to add my
20 personal kudos to both the Special Projects staff
21 and the Region IV staff. I think the technical
22 competence and the professional conduct displayed in
23 recent years is something we can be very proud of, and
24 I personally don't have any questions about Region IV
25 being able to continue to do a good job.

1 CHAIRMAN CARR: Commissioner Roberts?

2 COMMISSIONER ROBERTS: My questions have
3 been answered.

4 CHAIRMAN CARR: Commissioner Rogers?

5 COMMISSIONER ROGERS: Yes. I wonder -- you
6 mention these flux doubling events. Were there four
7 of them? Did you say there were four of those?

8 MR. WARNICK: There were actually three
9 actuations, and one involved operators blocking the
10 trip device when they shouldn't have.

11 COMMISSIONER ROGERS: Well, what was the
12 root cause? How did the root cause process take over
13 on these? I mean, how did it go to work on these?
14 It's supposed to be in place. What happened?

15 MR. WARNICK: Well, that's part of what
16 we're going to hear in our meeting tomorrow,
17 Commissioner. I don't have all the answers. But we
18 did identify that, because there's four of them, it
19 represents a problem. We want to make sure that they
20 have addressed -- and each one is different, so that
21 they don't have a commonality between them except
22 that-- well, there's a few things that are common,
23 such as the color of the annunciator window that is
24 yellow and the one right above it is yellow. The one
25 above it is for when they have a flux doubling. But

1 then the one below is the actuation, where you get the
2 valve switching position. And it's a human factors
3 thing that they're addressing. I've talked to Jim
4 Kelley about this, and he's thinking of putting that
5 window as a red one so that it does flag their
6 attention, because on two of these four events the
7 operators missed identifying it in a timely manner.
8 And that was part of my concern, that it took quite a
9 while for them to identify it.

10 COMMISSIONER ROGERS: Well, I wonder if we
11 could hear from the licensee on just how their root
12 cause program addressed those four flux doubling
13 events, LERs, the LERs. Each one requires a root
14 cause determination in their LER report, does it not?
15 And I would like to just hear how their program of
16 root cause analysis addressed those LERs.

17 MR. NYE: Doctor Rogers, if I may suggest--

18 CHAIRMAN CARR: Would you go to the mike,
19 please?

20 MR. NYE: I'm not sure I need to come here
21 for this purpose. I was simply going to suggest that
22 Jim Kelley address this matter.

23 I might say that the first three of these
24 all had different initiating sources, and they had the
25 commonality of the flux doubling device. And there

1 was a root cause analysis done of each of those three.
2 We've recognized that they appear to be different, but
3 perhaps there is something else to this, and Jim has
4 that under progress now.

5 MR. KELLEY: Yes, sir. The first event
6 was -- the root cause of that was, we felt, a
7 procedure deficiency. The first flux doubling was
8 caused when we pulled a drawer, one of the nuclear
9 instrumentation drawers from its cabinet in order to
10 do calibration. The procedure at the time required us
11 to block the signal after we did that activity. The
12 actual effort of pulling the drawer from the cabinet
13 caused the spike, which caused the spurious actuation.
14 So we looked at that as a root cause of being a
15 procedural deficiency. We corrected the procedure and
16 looked at other procedures of similar nature to make
17 sure that we blocked our signals before we did
18 anything to the cabinet to preclude that kind of
19 spurious actuation.

20 The second incident was the result of the
21 reactor trip, which was caused by the inverter
22 failure. During the process of re-energizing the
23 equipment from the loss of that power, we got again
24 another spike which caused the actuation of the
25 equipment. That was of minimal concern to us at the

1 time. The bigger concern, as Bob mentioned during his
2 presentation, was that the operators did not pick it
3 up for a period of time.

4 At that time, we implemented what we hoped
5 was improved actuation. We saw the root cause of that
6 was inattention at times to annunciators. We
7 incorporated more stringent requirements on turnover
8 process for the operators, so they could identify
9 which of the annunciators were in and why they were
10 in. We have observed improved performance from the
11 managers who observe in the control room, and also
12 from the Nuclear Regulatory Commission in the control
13 room, that the operators are much more attentive to
14 the annunciator response. That was the second
15 incident.

16 The third incident, as Bob mentioned, was
17 having the signal blocked when it shouldn't have been.
18 One of the corrective actions, as a result of the
19 earlier incidents, particularly the first one, was
20 that whenever we did any kind of operation which could
21 cause a spurious actuation we put that channel into
22 the blocked mode. During one of those evolutions, an
23 operator flat made a mistake, and when the evolution
24 was done he forgot to remove the blocked signal.

25 So we implemented the corrective action for

1 the lack of removing the block from that signal,
2 basically to be an operator failure, and we increased
3 the awareness of the individuals and we made some
4 modifications to our LCOR process, which is our
5 Limiting Condition for Operation Tracking System, to
6 handle that situation.

7 The final event was done this Thursday,
8 which was the one that was probably the most difficult
9 to figure out what happened. We were doing the start-
10 up. We were in a period of time when we were going
11 from the source range instruments to the intermediate
12 range instruments. We feel what happened was that
13 during that process we were going very slow in order
14 to get some overlap data for the performance and test
15 personnel. We feel what we did was we far
16 enough to reset the block on that. In other words,
17 when you go up to a certain power level the signal is
18 blocked. We then, because we were going so slow, had
19 a slight power reduction, which enabled the circuit.
20 We then didn't reblock it and we continued up in power
21 and got the flux doubling during that time.

22 The thing that's of most concern to us that
23 occurred, there was as Bob mentioned about a 15 minute
24 delay in us observing that actuation. The operators
25 had been extremely attentive to the annunciators in

1 the time frame from the first incident, and that is
2 really the one item that we have identified at this
3 time as being of reoccurring concern to us from the
4 four incidents.

5 In summary, the initiating events were four
6 different types. Obviously, though, just by the
7 number of incidents, we have concern about the
8 circuitry. And we are doing an in-depth review of the
9 four incidents to learn exactly what we can do, either
10 by modification, operator training, or procedure
11 enhancement to preclude further problems with this
12 system.

13 CHAIRMAN CARR: Let me jump in there a
14 minute. I understand all that. I guess, my problem
15 is I don't understand the safety significance of this
16 problem. Sounds like an operator nuisance problem
17 that you're addressing, instead of a safety
18 significant problem.

19 MR. KELLEY: This system is put in. It's
20 not in all reactors. The one I was at before didn't
21 have it. It's a boron dilution mitigating factor.
22 Quite frankly, my solution overall is to go back and
23 review the analysis to see if we really need this
24 circuit, because it's distracting us from more
25 important things. And one of the possible fixes will

1 be to actually delete the requirement for that
2 circuit.

3 CHAIRMAN CARR: So it's not of safety
4 significance, a problem in your opinion?

5 MR. KELLEY: It's a -- I guess, of safety
6 significance. The only safety significance I see
7 that's come out of the four incidents was the lack of
8 awareness of the operators to some of the things that
9 were going in this plant. That's the biggest concern
10 I have.

11 CHAIRMAN CARR: Okay.

12 COMMISSIONER CURTISS: Let me jump in there.

13 If the license were authorized today, would
14 it be the intention of the staff to issue the license
15 before tomorrow's meeting, or is it that significant?

16 DOCTOR MURLEY: I guess I'd like to talk
17 with my staff about that. I don't see it, quite
18 frankly, as the sort of issue that would rise to the
19 level of significance that would delay licensing.

20 MR. WARNICK: I wouldn't view it that way
21 either.

22 COMMISSIONER CURTISS: Go ahead, Ken.

23 COMMISSIONER ROGERS: I'm finished.

24 CHAIRMAN CARR: Commissioner Curtiss?

25 COMMISSIONER CURTISS: Let me begin with the

1 April 9th allegations. This is the first time I've
2 heard of those. Can you tell me what the allegations
3 were and who filed them and what your view is in more
4 detail?

5 MR. GRIMES: Yes. The first notice that we
6 had about these allegations were media accounts in the
7 local papers on Saturday. I spoke with Public
8 Affairs. A package arrived in the secretary's office,
9 I believe, on Monday morning. It was a collection of
10 letters from a one Mr. James Taylor -- no relation, I
11 assume -- who is a local manager for the Plano
12 District of Texas Power and Light. And he expressed
13 concern about the imprudent and inappropriate
14 management practices at Texas Utilities, and he had
15 assembled about an inch and a half of newspaper
16 articles, internal memoranda, and personal
17 observations that he'd packaged up and sent to local
18 officials, the Public Utilities Commission, and
19 Chairman Carr.

20 There was a considerable amount of material
21 in there, but we waded through it and we ferreted out
22 what were already known plant safety issues that have
23 been discussed extensively, at least amongst the
24 staff, issues about wiring insulation, construction
25 deficiencies, the history of Comanche Peak. And he

1 also pointed out a number of things that he felt were
2 poor management practices, for which we don't have any
3 regulatory responsibilities. But we looked at them
4 from the standpoint of the utility's integrity and
5 competence to safely operate a nuclear power plant,
6 and we didn't see anything in there that led us to
7 conclude we should reconsider our earlier judgments.

8 COMMISSIONER CURTISS: He hasn't raised any
9 new issues that you are aware of?

10 MR. GRIMES: None that I'm aware of, no.

11 COMMISSIONER CURTISS: From what you've
12 described, it doesn't sound like there's anything
13 significant that ought to affect their license. But
14 in any event, why don't you send an extra copy of the
15 package up to take a look at?

16 MR. GRIMES: All right.

17 COMMISSIONER CURTISS: The Root Cause
18 Program that we talked about earlier, Doctor Murley,
19 if I could ask you -- I know you've been down to the
20 plant and had the opportunity to take a look at their
21 program there and I've read your communication back to
22 the licensee, I think, of February the 2nd -- CASE
23 raised a concern about imposing the root cause
24 conditions as a license condition in the license
25 itself. Could you briefly summarize the steps that

1 have been taken, what you think is critically
2 important for the licensee to do in the area of root
3 cause from here on out, and just briefly comment on
4 the license condition question?

5 DOCTOR MURLEY: Yes. When I was there in
6 January, I reviewed with the staff, my staff here and
7 Bob and the people, whether there were some common
8 threads that one could discern from the activities and
9 problems that they've had in the last several months.

10 And one thing that just came out to me was
11 their approach -- and I was -- I mentioned this to
12 them quite clearly and quite forcefully at my exit
13 meeting with them in January. It was their approach
14 to problems, their openness to problems, their
15 receptivity to people bringing problems to them, to
16 the management, their broadening of problems, their
17 looking for root causes, and finally their application
18 of the solution to the unique cause, to look for other
19 problems throughout the plant.

20 And they have -- I haven't reviewed it in
21 detail, but from hearing Mr. Council and listening to
22 Jim Kelley today apply the lessons that they have
23 learned, I think they have drawn the appropriate
24 conclusions. And that is, they have to be more
25 receptive to problems. They have to look and search

1 for the basis for them. And then once they find a
2 problem in one area, they have to apply it more
3 broadly.

4 And I think what you've just heard Mr.
5 Kelley say, for example, I think is exactly the right
6 attitude with regard to these flux doubling issues.
7 He said the concern there is not so much the
8 particular failure mode, but the fact that in some
9 cases the operators were not attentive to what was
10 going on in the control room and they weren't aware of
11 all the things they should have been. Likewise, his
12 discussion earlier today about the unusual event that
13 they had, as I was listening to him describe it, I was
14 impressed with the approach to evaluating the event
15 and its -- and the lessons they drew from it.

16 So insofar as we've got these few examples
17 of how they are approaching root cause evaluation, I
18 have to draw the conclusion that they're doing it
19 right and they're on the right path.

20 Now you can't take just a couple of months
21 of results and say that that's going to be forever, so
22 we're going to keep a close eye on them. I do not
23 believe, however, that it's the sort of problem that
24 rises to the level that it would cause us to say that
25 it shouldn't be licensed. This is a thing that one

1 has to continually work at and improve, and I think
2 we're going to do that. That's how I view the issue.

3 COMMISSIONER CURTISS: All right. Just a
4 couple of other quick questions.

5 I was pleased to see that you reviewed all
6 the INPO reports that we have. Is there any safety
7 significant concern identified in the reports that
8 we're not already aware of that we're not following or
9 tracking?

10 MR. WARNICK: There may be something, but
11 it's similar to the level of things we have
12 identified. And it's like -- the way I viewed it is
13 like the licensee's self-assessment program or self-
14 identification of problems. We didn't identify
15 anything that was big and, you know, that really
16 surprised us. It was more the kinds of things that
17 have been consistent with our findings.

18 COMMISSIONER CURTISS: What is the status of
19 the enforcement package? Can you say a word or two on
20 that?

21 MR. GRIMES: We've just completed putting a
22 package together recently. As I pointed out, the
23 enforcement conference was on February the 7th, and we
24 just met with the Office of Enforcement this morning
25 to go over the package. It's larger than the recent

1 allegation. It's almost two inches thick. So it's
2 going to take them time to digest it, and we're hoping
3 that it will be done in the next couple weeks.

4 COMMISSIONER CURTISS: That's all I have.

5 CHAIRMAN CARR: Have you reviewed the
6 outstanding work orders in the maintenance backlog?
7 And do you concur with the licensee that there's none
8 there that requires working before they exceed five
9 percent power?

10 MR. WARNICK: We reviewed the backlog of
11 work prior to the low-power license, and we felt
12 comfortable at that point in time. I don't know that
13 we've specifically gone in and looked at the work
14 requests, but we feel very comfortable with the
15 amount, with the way they've been approaching it, with
16 the current backlog that they have. And we have been
17 monitoring the current backlog.

18 CHAIRMAN CARR: Okay. The implication that
19 it took them 15 minutes to recognize that alarm, was
20 the implication there that we had somebody in the
21 control room who recognized it sooner than that or is
22 that a review of the records?

23 MR. WARNICK: No. That was a reaction to
24 their event and their actual performance. We didn't
25 have a person in the control room at that point in

1 time that was ahead of them.

2 CHAIRMAN CARR: So it was a case of looking
3 at the alarm and seeing what time it came in after
4 they did notice it?

5 MR. WARNICK: It was actually -- I think
6 they told us that it took them that long.

7 CHAIRMAN CARR: That's what I meant.

8 MR. WARNICK: Yes.

9 CHAIRMAN CARR: It wasn't a case of we stood
10 there and watched them to see how long it would take
11 them to recognize it?

12 MR. WARNICK: That's correct.

13 MR. TAYLOR: We don't normally do that.

14 CHAIRMAN CARR: I thought I ought to clear
15 that up.

16 MR. TAYLOR: That's not standard practice by
17 our team.

18 CHAIRMAN CARR: Any other questions?

19 All right. Does Texas Utilities wish to
20 provide any additional comments?

21 MR. NYE: Perhaps, Mr. Chairman, if I may be
22 permitted a comment or two?

23 CHAIRMAN CARR: Certainly.

24 MR. NYE: If I may comment briefly on the
25 question of a proposed licensing condition regarding

1 root cause analysis, I think we simply would say that
2 we believe that our current undertakings with respect
3 to root cause analysis are, if I may say so, state of
4 the art. We do think they're very advanced. We're
5 proud of those programs. We're proud of the training
6 that's been conducted under those programs thus far.
7 We're committed to further work in that area.

8 This whole matter of sensitivity to issues
9 and recognition of issues and self-analysis, it seems
10 to us, is broader than simply root cause analysis.
11 Following Doctor Murley's comments and others, we have
12 embarked on not only a program of root cause analysis
13 training but a broader program of training using some,
14 we believe, outstanding training people dealing with
15 communications, team building, advanced management
16 techniques, and a number of factors which would help
17 improve the attitude towards sensitivity to issues and
18 recognition of the importance of self-analysis.

19 Accordingly, all of these are good
20 practices. We're committed to them. We think they're
21 important. But the idea of a license condition
22 directed at root cause analysis, first of all, is not
23 necessary, certainly is not legally required, and we
24 think it misses the mark to the larger issue, and we
25 would recommend very much against that proposal.

1 I simply would say for clarification of the
2 record as respects the scaling calcs, we believe we
3 met the commitments initially. We believe we now have
4 a definitional or interpretation problem with CASE.
5 This most recent issue or subissues that were brought
6 to our attention, we think we got on them with great
7 vigor. We think we searched every record and spent a
8 good bit of time over a holiday weekend with a number
9 of people. And the sum and substance of all that is
10 none of those issues raised any safety significance
11 for the plant, and we did want to correct the record
12 in that regard.

13 Other than that, we would have no comments,
14 Mr. Chairman.

15 CHAIRMAN CARR: Thank you.

16 Well, I would like to thank Texas Utilities
17 Electric Company and the NRC staff, as well as the
18 representative from the Citizens Association for Sound
19 Energy, for providing your views on the readiness of
20 Comanche Peak Unit 1 to operate at full power.

21 At this time, unless any of my fellow
22 Commissioners has an objection or requires additional
23 information, I propose we put the question to a vote.

24 COMMISSIONER CURTISS: Mr. Chairman, I just
25 have two or three comments. I guess I'm prepared to

1 go forward and vote at this point on the license.

2 I would like to see a copy of the
3 allegations that were submitted on April 9th.

4 Based upon the staff's assessment of the
5 safety significance of the four issues that have
6 arisen, I'd like to hear back from you after
7 tomorrow's meeting if there's anything significant
8 that you identify.

9 And I guess, based upon what we've heard
10 today, I don't think license condition in my view is
11 necessary for the Root Cause Program. But I would
12 encourage the staff to pursue that with vigor and to
13 follow-up to ensure that the necessary commitments are
14 carried out.

15 That's all I have.

16 CHAIRMAN CARR: I'm sure the staff, if they
17 turn up something between now and the time the full
18 power license is authorized, wouldn't hesitate to tell
19 us.

20 MR. TAYLOR: We would not hesitate, sir. We
21 would not hesitate to stop, if necessary.

22 CHAIRMAN CARR: All right, then, all those
23 in favor of authorizing the staff, after making the
24 appropriate findings, to grant Texas Utilities
25 Electric Company a full power operating license to

1 Comanche Peak Steam Electric Station Unit 1, please
2 signify your approval by saying aye.

3 Aye.

4 COMMISSIONER ROBERTS: Aye.

5 COMMISSIONER ROGERS: Aye.

6 COMMISSIONER CURTISS: Aye.

7 COMMISSIONER REMICK: Aye.

8 CHAIRMAN CARR: The vote is five to zero in
9 favor.

10 Do any of my fellow Commissioners have any
11 additional comments?

12 If not, we stand adjourned.

13 (Whereupon, at 4:20 p.m., the above-entitled
14 matter was concluded.)
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CERTIFICATE OF TRANSCRIBER

This is to certify that the attached events of a meeting
of the United States Nuclear Regulatory Commission entitled:

TITLE OF MEETING: DISCUSSION/POSSIBLE VOTE ON FULL POWER OPERATING
LICENSE FOR COMANCHE PEAK (UNIT 1)

PLACE OF MEETING: ROCKVILLE, MARYLAND

DATE OF MEETING: APRIL 16, 1990

were transcribed by me. I further certify that said transcription
is accurate and complete, to the best of my ability, and that the
transcript is a true and accurate record of the foregoing events.

Carol Lynch

Reporter's name: Peter Lynch

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WASHINGTON, D.C. 20005

4/16/90

SCHEDULING NOTES

Title: Discussion/Possible Vote on Full Power Operating
License for Comanche Peak (Unit 1)

Scheduled: 2:00 p.m., Monday, April 16, 1990 (OPEN)

Duration: Approx 1-1/2 hrs

Participants: TU Electric 45 mins

- Erle Nye
Chairman and Chief Executive Officer
- William Counsil, Vice Chairman
- William Cahill, Executive Vice President
- James Kelly, Plant Manager
- Austin Scott
Vice President, Nuclear Operations

Citizens Association for Sound Energy (CASE) 10 mins

- Billie Pirner Garde

NRC 15 mins

- James M. Taylor
- Thomas E. Murley
- Dennis M. Crutchfield
- Christopher I. Grimes
- Robert F. Warnick
- Dwight D. Chamberlain

COMANCHE PEAK UNIT 1
FULL-POWER OPERATING LICENSE

APRIL 16, 1990

Contact: C. I. Grimes
Phone: 49-23299

INTRODUCTION

o OCT 19, 1989 COMMISSION BRIEFING

- CONSTRUCTION & LICENSING HISTORY**
- CORRECTIVE ACTION PROGRAM**
- SPECIAL PROJECT ACTIVITIES**
- INSPECTION ACTIVITIES**

o STAFF ACTIVITIES DURING STARTUP

COMANCHE PEAK STEAM ELECTRIC STATION

O OWNERS

- TU ELECTRIC**
- TEXAS MUNICIPAL POWER AGENCY
(DECREASING OVER 5 YEARS)**

O OPERATING COMPANY

- TU ELECTRIC**

LICENSING HIGHLIGHTS

DEC 19, 1974	CP ISSUED (CPPR-126)
FEB 27, 1978	OL APPLICATION
DEC 2, 1981	BEGIN ASLB HEARINGS
JUL 13, 1988	ASLB DISMISSES
	OL & CPA PROCEEDINGS
FEB 8, 1990	LOW-POWER OL ISSUED
APR 3, 1990	INITIAL CRITICALITY

PLANT DESIGN

- 0 3411 MWT, 4-LOOP WESTINGHOUSE PWR**
- 0 STEEL-LINED, REINFORCED CONCRETE
CONTAINMENT**
- 0 UNIQUE FEATURES**
 - BORON INJECTION TANK DELETED**
 - MAINTENANCE TRAINING FACILITY**

SITE

- o 7669-ACRES IN SOMERVELL COUNTY, TX
40 MILES SW OF FORT WORTH, TX**
- o ON SQUAW CREEK RESERVOIR**

MAJOR CONSTRUCTION PROBLEMS AND RESOLUTION

- O DESIGN AND CONSTRUCTION QUALITY**
- O PIPING & SUPPORT ISSUES**
 - INDEPENDENT ASSESSMENT PROGRAM**
 - COMANCHE PEAK RESPONSE TEAM**
 - CORRECTIVE ACTION PROGRAM**

TMI ITEMS

0 TMI ITEMS COMPLETE

0 2 SCHEDULED ACTIONS

- ENVIRONMENT MEASUREMENTS FOR THE
REMOTE SHUTDOWN PANEL ENVIRONMENT
AT FULL POWER**
- MODIFY SPDS DISPLAY FOR
CONTINUOUS RADIOACTIVITY CONTROL
INFORMATION**

UNRESOLVED SAFETY ISSUES

- 0 UNIT 1 REQUIREMENTS IMPLEMENTED**
- 0 STATION BLACKOUT (A-44) ACTIONS
SCHEDULED CONSISTENT WITH 10 CFR
50.63**

EMERGENCY PREPAREDNESS

- O JULY 25-26, 1989
FULL-PARTICIPATION EXERCISE**
- O JAN 12, 1990
FEMA FINDING - NO MAJOR ITEMS**
- O STAFF FINDS EP ACCEPTABLE**

STAFFING

**0 STAFFING PROVISIONS SATISFY THE
APPLICABLE COMMISSION POLICIES.**

0 SIX SHIFTS

FITNESS FOR DUTY

0 PROGRAM IMPLEMENTED JUNE 30, 1989

0 TESTING:

- FOR EMPLOYMENT**
- FOR UNESCORTED ACCESS**
- FOR CAUSE**
- RANDOM**

COMANCHE PEAK UNIT 1 OPERATING LICENSE

- 0 UNIQUE LICENSE CONDITIONS**
 - SITE MINERAL EXPLORATION**

- 0 LICENSE EXEMPTIONS**
 - CONTAINMENT AIRLOCK TESTING**
 - CRITICALITY MONITORING**
 - DECOMMISSIONING FUNDING REPORT**

- 0 NO SER OPEN ITEMS**

ALLEGATIONS

- 0 OVER 1000 ALLEGATIONS RECEIVED
- 0 ALL BUT 8 HAVE BEEN CLOSED
- 0 2 OI INVESTIGATIONS PENDING
- 0 OPEN ISSUES DO NOT AFFECT SAFE OPERATIONS

new allegations
has been
renewed - - } *was renewed*

SALP (9/1/88 - 8/31/89)

<u>CATEGORIES</u>	<u>RATING</u>
CONSTRUCTION & CORRECTIVE ACTION	2
SAFETY ASSESS. & QUAL. VERIFICATION	2
ENGINEERING & TECHNICAL SUPPORT	2
PLANT OPERATION	2
MAINTENANCE & SURVEILLANCE	2
EMERGENCY PREPAREDNESS	2
SECURITY	2
RADIOLOGICAL CONTROLS	2

OPERATIONAL HISTORY

FEB 8, 1990 LOW-POWER LICENSE

FEB 14, 1990 FUEL LOAD COMPLETED

MAR 12, 1990 SAFETY INJECTION/AIT

APR 3, 1990 CRITICALITY

0 4 LERS ISSUED SINCE FEBRUARY 1990

OPERATIONAL READINESS ASSESSMENTS

OCTOBER 17-27, 1989

**STAFF CONCLUDED THE PLANT WAS NOT
READY FOR FUEL LOAD.**

JANUARY 22-FEBRUARY 2, 1990

**STAFF CONCLUDED THE PLANT COULD BE
OPERATED SAFELY**

APRIL 10-12, 1990

STAFF ASSESSMENT FOR FULL-POWER

NRC STAFF CONCLUSION

COMANCHE PEAK MEETS THE REGULATIONS.

THERE IS REASONABLE ASSURANCE THE PLANT CAN AND WILL BE OPERATED WITHOUT ENDANGERING THE PUBLIC HEALTH AND SAFETY.

THE STAFF RECOMMENDS COMMISSION APPROVAL TO ISSUE THE FULL-POWER LICENSE.



Statement of
CASE
(Citizens Association for Sound Energy)

1426 S. Polk
Dallas, Texas 75224
214/946-9446

Presented by
Billie Pirner Garde, Esq.
Attorney for CASE

I. CASE (Citizens Association for Sound Energy) is a non-profit tax-exempt public interest organization formed in 1974.

- A. Purpose: To inform the public about the economics, health, and safety concerning use of energy through a variety of methods.
- B. Historical Activities: One of CASE's primary goals and activities through the years has been to bring out the truth about the manner in which the Comanche Peak nuclear power plant has been designed and constructed.

CASE has also participated in TV forums, radio talk shows, and other community public hearings, including as an intervenor in hearings before the Dallas City Council and the Texas Public Utilities Commission since 1975.

- C. Specific Licensing Hearing Intervenor Status: Further, CASE was one of three original intervenors in the operating license proceedings begun in 1979 before the Atomic Safety & Licensing Board (ASLB).

After the other two intervenors (ACORN and CFUR) withdrew from the proceedings (in 1981 and 1982, respectively), CASE continued in the operating license proceedings (both dockets) as the only remaining intervenor for over six more years (until July 13, 1988) as well as an intervenor in the construction permit amendment proceedings (Docket No. 50-445-CPA).

II. The 1988 CASE/TU Electric Settlement of the Operating License Hearings and the Construction Permit Amendment Hearings

A. CASE/TU Electric Settlement Agreement

Following a Settlement Agreement reached between CASE and TU Electric and a Joint Stipulation between CASE, TU Electric, and the NRC Staff, the ASLB held a prehearing conference on July 13, 1988, and issued a Memorandum and Order dismissing the Comanche Peak proceedings.

(See Transcript pages 25,187 through 25,295. Both the CASE/TU Settlement Agreement and the Joint Stipulation are in the public record, attached to the ASLB's July 13, 1988, Memorandum and Order (Dismissing Proceedings).)

- B. The Joint Stipulation: A different method to accomplish CASE's purpose.

The CASE/TU Settlement Agreement and the Joint Stipulation gave CASE extensive rights and opportunities to monitor completion of Comanche Peak in an unprecedented manner.

The Agreement/Stipulation placed CASE in a formalized oversight role through several mechanisms, including CASE's five-year-plus appointment as a full member of TU Electric's Operations Review Committee (ORC), which is assigned the responsibility of review of safety-related matters at Comanche Peak. Significantly, CASE is being provided with sufficient resources to retain technical consultants to work with CASE in helping to assure Comanche Peak's safety, and has received reimbursement of the substantial costs of its ten years of active participation in the several Comanche Peak licensing proceedings. CASE's role includes regular attendance at NRC exit meetings and monitoring TU Electric quality assurance audits.

The agreement also contains provisions for resolving technical safety issues raised by CASE or plant workers, not resolved directly between CASE and TU Electric. This provision includes binding dispute resolution at a high level within the NRC's Office of Special Projects. CASE also reserved all of its rights to petition the NRC, if necessary, and to fully advocate CASE's position.

III. CASE's New Process

A. Operations Review Committee (ORC)

1. The ORC is required by the Comanche Peak technical specifications and functions as an independent body assigned the responsibility for review of various safety related matters including nuclear power plant operations, nuclear engineering, radiological safety and quality assurance practices among others.

Among its duties, the ORC is responsible for independent review of proposed modifications to the Comanche Peak facilities or procedures, changes to the Technical Specifications and license amendments, any violations or deviations which are required to be reported to NRC and other safety related matters deemed appropriate by the ORC members.

The ORC meets periodically to review and discuss various issues bearing on the safe operation of Comanche Peak and reports its findings and recommendations directly to the TU Electric Executive Vice President, Nuclear Engineering and Operations.

2. CASE's involvement in the ORC: a full voting membership position, without salary reimbursement from TU Electric, which provides CASE with the opportunity to continue to play an active part in assuring itself that Comanche Peak is as safe a nuclear facility as possible.

- a. CASE Membership: (Mrs.) Juanita Ellis, member
Billie Garde, alternate
Consultants as needed

b. Meetings:

As was noted in a recent NRC Inspection Report (50-445/89-72, 50-446/89-72, item 6, pages 12 and 13):

". . . The committee was proactive, functioning in a manner which exceeded Technical Specification requirements. For example, plant tours were often scheduled for the day prior to the ORC meeting. During these tours, committee members visited plant areas of interest, interviewed plant staff, and received briefings on topics of interest by plant staff members.

"During the ORC meeting, the depth of review of topics discussed was appropriate. Member participation was excellent with many questions asked. Members appeared to take their responsibility seriously and they appeared to have nuclear safety as a top priority.

"Frequency of ORC meetings exceeded Technical Specification requirements with six meetings conducted between September 20, 1988, and September 19, 1989. Subcommittees had been established for special projects. Subcommittee charters were established and activity reports were made to the ORC. . . "

c. Special Reports

Example: Fitness for Duty Presentation

3. Other Special Sub-Committees and Reports

B. CASE's Monitoring Project

1. Audits

In addition to audits connected with ORC activities, Section 2.3 of the Stipulation provides that CASE may monitor audits (CASE has monitored about 60 audits to date).

Monitoring definition.

2. Classes by CASE on professional dissent (Joint Stipulation, A.5).

3. CASE Concerns

As CASE identifies various concerns, they are processed in accordance with the Joint Stipulation to Texas Utilities and/or the NRC, as appropriate.

4. Disputes

Should any of CASE's concerns not be adequately resolved, they rise to the level of a dispute, which is processed in accordance with Section B of the Stipulation.

- a. One Dispute, final resolution of which is pending, has been through the Dispute process.
- b. CASE and TU Electric are in the Preliminary stages of a potential Dispute at this time.

C. Management Interaction.

The real strength of the Stipulation process is the open communication between top level management in TU and CASE. This occurs regularly through the Stipulation Manager and through regularly scheduled CASE/TU monthly management meetings at which open issues, items, concerns, problems, and implementation are discussed and resolved.

IV. Current CASE Concerns:

Fuel Load Readiness

PRESENTATION TO NRC COMMISSIONERS

by Billie Pirner Garde, Esq.

**on behalf of
CASE (Citizens Association for Sound Energy)
1426 S. Polk Dallas, Texas 75224
(Mrs.) Juanita Ellis, President
214/946-9446**

at Commission Briefing on

Monday, April 16, 1990

on granting of Full-Power Operating License

for Comanche Peak Steam Electric Station (CPSES)

Unit 1, Docket No. 50-445

PRESENTATION TO NRC COMMISSIONERS

by Billie Pirner Garde, Esq.
on behalf of CASE (Citizens Association for Sound Energy)

at Commission Briefing on
Monday, April 16, 1990

on granting of Full-Power Operating License
for Comanche Peak Steam Electric Station (CPSES)
Unit 1, Docket No. 50-445

CASE (Citizens Association for Sound Energy) appreciates this opportunity to address the Commission on its consideration for granting of a full-power operating license for Unit 1 of Comanche Peak Steam Electric Station, Docket No. 50-445.

As the Commissioners know, CASE has been actively involved in monitoring the safety of the Comanche Peak nuclear power plant since 1974, in front of the Texas Public Utility Commission, the NRC Atomic Safety & Licensing Boards, the NRC Staff, and in other public informational forums (such as public speaking), and most recently as a monitor and a member of TU Electric's Operations Review Committee (ORC).

For all that has happened during all these years, CASE's position today on the Comanche Peak plant is not very much changed from what it was in 1974, in that we are concerned that Comanche Peak as an operating nuclear power plant has the potential for posing a danger to public health and safety which requires the most prudent management and safety-conscious operation humanly possible.

Since 1974, both CASE and TU Electric have learned a great deal about how to build a nuclear power plant. In all fairness to TU Electric, since the 1982-1983 time frame, we believe they have made tremendous strides in correcting major design and hardware deficiencies at the plant, and even more significant progress in developing a management that was able to acknowledge that those problems existed and needed to be corrected.

However, in CASE's view, neither the plant nor TU Electric management is problem-free -- and we of course recognize that perfection could never be achieved. CASE's concerns over the past eight months or so still lead us to strongly urge and request the imposition of a licensing condition on TU Electric in order to more fully assure a disciplined accountable approach to resolving operational incidents. Our request for a licensing condition was articulated in a request submitted by CASE on February 6, 1990, to the Commission pursuant to 10 CFR 2.206 and paragraph 8.7 of the Joint Stipulation. Although the NRC Staff denied that request on February 8, 1990, and the Commission has declined review, it is still our belief that TU Electric and the public will be better served if a formal root cause

analysis program, including both front-end analysis and evaluation of incidents, is a condition of TU Electric's license.

Because of the unique history of Comanche Peak and the utility's past inability to put into place an effective working process to properly implement 10 CFR Part 50, Appendix B, Criterion XVI, CASE believes it is essential for formalization of, and written commitment to, a root cause analysis program as a condition of licensing. CASE believes that such a requirement is critical to Comanche Peak because of over a decade of management infected by a "problem denial syndrome," the high cost of accountability, and the impossibility of the NRC Staff's providing constant vigilance -- in particular since Comanche Peak is now being shifted back to oversight by NRC Region IV.

Although the Commission has not asked for CASE's position on whether or not Comanche Peak should receive a full-power operating license, we believe it is appropriate to advise the Commission from CASE's unique perspective of our views at this point in time. As stated in our 2.206 petition, CASE's position is unfortunately one of extreme concern on the eve of full-power licensing. Our position is based on our belief that the state of the physical plant, although much better than before, is indeterminate. We believed that was the state of the plant as we entered licensing hearings and as we settled them; we believe it today.

CASE sincerely wishes that we could tell you and the public that Comanche Peak is safe. Unfortunately, we cannot give you that assurance. CASE's position remains one of considerable apprehension. As CASE approaches Comanche Peak's full power licensing and operation, we do not know whether or not the plant is safe, although we acknowledge that it has passed all of its regulatory hurdles and is at the starting line -- not the finishing line -- of the real test of operations. In essence, we have our fingers crossed.

It is important for the Commission and the public to know that CASE's basic role has not changed, and will not change, in that we will continue to monitor, within our limited capabilities, issues of concern to CASE and its consultants. Many of those concerns were articulated in our 2.206 petition.

Perspective on Joint Stipulation

On June 28, 1988, CASE and TU Electric signed a Settlement Agreement which included as one of its provisions the dismissal of the licensing hearings, and on June 30, 1988, CASE, TU Electric, and the NRC Staff signed a Joint Stipulation, which allowed CASE to continue our work, but in a different forum than the licensing hearings process. For the past twenty-one months since the Atomic Safety & Licensing Board approved the

Stipulation and dismissed the licensing hearings on July 13, 1988. CASE has been actively pursuing its rights under the Settlement and the Joint Stipulation. We have continued to aggressively assert all of our rights in a variety of ways and matters.

Although CASE did not always get exactly the response we would have liked to from TU Electric, in some instances we actually got more; and in many instances, were able to reach agreement with TU's proposed resolution. For the most part, in regards to the issues which we have identified as being of concern to CASE, we have been able to make evaluations and assist TU and the NRC Staff in arriving at reasonable resolutions.

It has not always been easy. At times there have been near-breakdowns in the process, yet it has been a continuing learning process on the part of TU, CASE, and at times the NRC Staff to implement the Joint Stipulation. For the most part it has worked, primarily, we believe, because we have all kept talking until we get things worked out. We do not expect our position to always be accepted; but we do expect the issues to be fairly handled and resolved.

If there is one complaint CASE has about the process, it would have to be that at times TU appears more reluctant or slower than CASE would like in giving CASE the timely access (to the plant and to documents, and at times to technical personnel) we need to independently assure ourselves that the plant is as safe as possible. (Unfortunately, an example of this occurred very recently which forced CASE and some TU Electric personnel to work on Easter Sunday weekend, continuing today, to try to resolve CASE's concerns.)

On the other hand, much of the time CASE is able to obtain the documents and information we need, and CASE has monitored such activities as: evaluating the disassembly of the internals of the check valves as it was done; and three CASE monitors onsite observing the hot functional testing. In some instances, TU has gone beyond the letter of the Stipulation; in the spirit of the Settlement Agreement and the Stipulation, TU has, for example, allowed CASE Consultant Jack Doyle not just to monitor, but to participate fully in, the training program for root cause analysis by EG&G. This is the kind of forthrightness and cooperation on TU's part which helps inspire confidence. Conversely, when it is not forthcoming, it decreases our confidence.

Observations on Regulatory Oversight

It seems appropriate at this point for CASE, and for me personally, to acknowledge and thank the Commission for its assignment of the Technical Review Team (TRT) in 1984 and continuing through the creation of the Office of Special Projects (OSP) in 1987, in response to the concerns raised by CASE and numerous workers to the Commission about the condition of Comanche

Peak. We recognize that the commitment of agency resources, personnel, and dollars was substantial. We believe that the effort was absolutely essential and very worthwhile, and we thank you.

As the Commission knows, prior to 1984, there were significant problems with NRC Region IV's oversight of Comanche Peak. CASE does have some concern regarding the change-over from the NRC's Office of Special Projects (OSP) back to Region IV. Although OSP has not always agreed with CASE's position, OSP has, overall, done a very good job and we appreciate their efforts. Our concerns are based on the historical perspective of Region IV's handling of Comanche Peak's regulation, the departure of OSP inspectors who are knowledgeable about Comanche Peak's recent history, and the possibly negative impact this change will have on the implementation of the CASE/TU/NRC Staff Joint Stipulation. CASE approaches the transition with an open mind, and we remain cautiously optimistic but eternally vigilant.

Open Areas of Concern

CASE's open areas of concern result from our involvement in the Joint Stipulation and activities on the site. Although we have not kept exact records of how many issues are resolved, an estimated 90% of the numerous concerns which have been raised by CASE were discussed with TU Electric, and resolved satisfactorily by TU with some form of explanation, documentation, or corrective action, and thus those issues never rose to the level of an open CASE concern or dispute.

The Joint Stipulation is an active and continuing agreement. Even today, CASE monitors and consultants and TU Electric personnel are trying to resolve what appear to be potentially significant concerns identified just over the past four days in regards to the Scaling Calculation Dispute. It is not the only open issue between us. For example, CASE learned recently from an allegor of a problem of potentially inadequate anchoring of bolts for pipe supports due to the application of significantly inadequate amounts of grout; CASE is awaiting documentation that demonstrates that the problem has been adequately addressed and resolved.

Other open issues of concern are detailed in the February 6, 1990, CASE 2.206 petition. Although some of the issues in the 2.206 petition have been resolved, others remain open. For example, to date, significant harassment and intimidation incident regarding Thermo-lag inspectors, which is the subject of pending NRC Staff enforcement action, is apparently sitting on an NRC desk awaiting signatures. In CASE's view, this enforcement package should have been issued long ago so that TU Electric would have received a clear indication of the seriousness with which the NRC views this matter and undertaken corrective action before today's important meeting. CASE also has open concerns about Thermo-lag materials and testing, which is pending our receipt of documents requested from TU some time ago. Those issues were

raised originally in CASE's November 1989 Dispute and reiterated in CASE's March 31, 1990, letter to NRC's Christopher Grimes and are pending resolution.

Likewise, the Scaling Calculation Dispute, the subject of which originally arose in November 1987 and is still not resolved. As late as Easter Sunday, issues that should already have been corrected remain unresolved. CASE consultants continue to identify basic programmatic issues with the scaling calculation and documentation review effort presently in effect at Comanche Peak, and with the failure with TU Electric to implement its committed-to corrective action plan to resolve known deficient conditions in that process. TU Electric has had programmatic problems which have impacted the actual field operability conditions, the extent of which is currently indeterminate in CASE's view (as of Easter Sunday, April 15, 1990). TU Electric's continued failure to establish a comprehensive scaling calculation and documentation review program has resulted in incorrect top-level engineering governing design basis documents which have impacted the field calibration status of various instrumentation and control system devices that could have resulted in the improper operation of the plant.

Also pending resolution is the formal outcome of some 50 or so other CASE concerns, of varying degrees of importance, submitted to TU Electric. CASE has also raised (among others) the following issues and concerns, some of which have risen to the formal dispute level, applicable to Unit 1: Reactor Coolant System (RCS) Cold Hydrostatic Test (dispute, closed); Scaling Calculation Program (dispute, open); Thermo-lag (dispute, open; also have open concern which may have the potential of rising to the level of a dispute, depending on documentation which CASE has requested from TU); and other areas of concern, such as Borg-Warner Check Valves; Station Service Water System (SSWS); and the implementation of an effective Root Cause Analysis program.

One item of growing concern to CASE is the TU Electric SAFETeam and Corporate Security programs' apparent inability to adequately process worker concerns on plant safety as well as harassment and intimidation. Both TU Electric and the NRC Staff have been made aware of many of our specific concerns as they develop. And at some point in the future, when our analysis of this matter is sufficiently completed, CASE anticipates that it will provide TU Electric with a report on our combined concerns on this subject, and will keep the NRC Staff advised.

CASE is also presently reviewing TU Electric's response to its Licensing Event Report (LER) 90-002-00 (TXX-90127 dated April 4, 1990), regarding the reactor trip and flux doubling actuation due to inverter failure on March 5, 1990. The possible cause of this event has been identified as failure of the ferro-resonant transformer and loose connections in the gating circuit. CASE is awaiting response to requests for information submitted to TU Electric on April 9, 1990, by CASE Consultant Shannon Phillips.

In addition, although we are aware of the NRC Staff's position of acceptance on certain issues, CASE still has concerns about several matters, such as: the integrity of the welds, due to the use of the Visual Weld Acceptance Criteria (VWAC) program (i.e., inspecting welds through paint); the acceptability of welds on the steam generators, secondary side; and several aspects of the 1982 cold hydrostatic test.

CASE expects to continue to identify issues of concern throughout audits and other activities connected with the Joint Stipulation and intends to pursue those issues to resolution. TU Electric and CASE are committed to working out process problems which are delaying prompt resolution.

Accomplishments

It should be noted that the most CASE has ever been able to do (either in or out of the hearings process) is to evaluate samples of the plant's systems, components, documents, and processes. In many cases, before the hearings and after the hearings, the issues of concern to CASE were brought to our attention by concerned workers. The CASE/TU Settlement Agreement and the CASE/TU/NRC Staff Joint Stipulation were designed with that reality in mind, so that CASE could exchange the licensing process for the monitoring process and still continue the same work but in a different forum.

- o An important part of CASE's monitoring program is its membership on the Operations Review Committee (ORC), where CASE President Juanita Ellis is a full voting member and Billie Garde is the alternate. CASE (including its consultants) has participated fully and actively in activities of the Operations Review Committee, and will continue to do so.
- o In her role as an alternate on the Operations Review Committee, Billie Garde, Attorney for CASE, reviewed TU Electric's fitness for duty program and procedures, and recommended programmatic changes which were ultimately adopted which enhanced TU Electric's program beyond regulatory requirements to ensure that the work of potential substance abusers was evaluated for safety impact.
- o Pursuant to the CASE/TU agreement, Billie Garde, Attorney for CASE, conducted training in the proper handling by utility management of professional dissent ("whistleblowing") in order to ensure that Comanche Peak's work force feels free to raise safety quality concerns without fear of reprisal. She conducted approximately 25 two-hour sessions to approximately 1300 mid-level and upper utility management personnel. The program was well-received and is now being committed to a formal one-hour training tape which will be used with mid-level management.

- o As part of CASE's day-to-day monitoring of Comanche Peak, since July 1988, the CASE personnel have monitored approximately 79 QA onsite audits (over 50%) and have reviewed and evaluated at least 142 audit reports. CASE in some instances has been instrumental in effecting stop work orders (Teflon tape; MIG vs. stick), CAR's, NCR's, DR's, ONE Forms, and work orders, as well as identifying deficiencies during the monitoring of audits.
- o CASE personnel physically monitored the Hot Functional Test, VT-2 Test, the loading of fuel, installation of the reactor head, replication process used by APTECH on the check valve swing arms, magnetic particle test of the containment liner welds, root cause analysis training, 10 CFR 50.59 training overview provided to the ORC members, and general employee, radwaste, and radiation protection training.
- o CASE personnel physically inspected Unit 1's four steam generators, hundreds of emergency lights, fire extinguishers, scaffolds, and numerous component inspections performed by the TU auditors.
- o CASE personnel have attended 99% of all NRC public meetings held onsite and numerous NRC public meetings held in Arlington, Texas, and Rockville, Maryland. CASE personnel have also attended and/or participated in various briefings and discussions with TU and/or NRC Staff.
- o CASE has interviewed and processed several allegor concerns, some of which have led to the identification and correction of problems at Comanche Peak, some of which are still under review by TU and/or the NRC Staff, some of which have been confirmed by the NRC Staff in Inspection Reports, some of which have resulted in Notices of Violation and/or Enforcement Action, and some of which have been raised to the level of a CASE dispute under the Joint Stipulation.
- o CASE personnel assisted in the presentation and resolution of harassment and intimidation concerns presented to both TU and the NRC, documented in NRC Inspection Report 50-445/90-05, 50-446/90-05, pending enforcement action. CASE believes that the results of this issue have brought to the attention of TU Electric's new management the importance of eradicating harassment and intimidation from the site.
- o In addition, the CASE personnel have reviewed and evaluated thousands of NCR's, DR's, CAR's, NRC Inspection Reports, SDAR's, TU correspondence, ORC packages, prerequisite and preoperational test packages, and thousands of pages of documents related to CASE questions and/or concerns.
- o CASE has submitted over 300 written requests to TU Electric for documents or service, plus numerous verbal requests.

- o CASE has issued major reports and evaluations regarding: Cold Hydrostatic Testing; Scaling Calculation issues; Root Cause Evaluation using the Station Service Water System (SSWS) as an example; analysis of SALP Report.
- o CASE personnel also have spent numerous hours reviewing various regulations, codes, standards, and reports (e.g., ASME, ANSI, AWS, EPRI). CASE also reviews numerous documents onsite and receives numerous documents from TU and the NRC on an automatic ongoing basis. Since the July 1988 CASE/TU Settlement, CASE personnel have reviewed, evaluated, and/or analyzed literally millions of pages of documents.

In addition to the other monitoring done by CASE personnel and consultants, CASE Consultant Jack Doyle has monitored and assisted in the resolution of problems from an engineering perspective in the following areas (which are in no particular sequence or order of importance):

- o Recommended, strongly supported, and assisted (and continue to assist) in bringing to fruition a respectable root cause analysis program. Suggested a front-end analysis that exceeds the requirements of 50.59, including the introduction of a key-word data base.

One of the more significant programs in which CASE has made a contribution is in TU's ongoing development of a root cause analysis program which will be effective and functioning. CASE Consultant Jack Doyle prepared a root cause evaluation using the Station Service Water System (SSWS) as an example. As yet, TU's full program is not in complete operation. CASE appreciates TU's going to a key word data base; we think it will do a vast amount of good in a number of areas, including 10 CFR 50.59 and 10 CFR 50.70 areas, as well as assisting TU in identifying and resolving unanswered safety questions. The front-end issues are not completely resolved, although we are generally pleased with the progress of the development of the program that we have seen so far. We are reserving our opinion on implementation; we have little to go on regarding implementation yet, but in the one example (as part of an audit) of which we do have knowledge, there is some concern.

CASE has as open issues the front-end analysis process, screening, and implementation of 10 CFR 50.59 and root cause analyses, and again strongly urges that a commitment to an effective and aggressive root cause analysis program be included by the NRC as a licensing condition.

Mr. Doyle monitored and participated in the intensive week-long training program for root cause analysis by EG&G (and found the program to be excellent).

- o Evaluated SWEC's analysis of the shield wall associated with the upper lateral and lower lateral restraints (which had been begun but had not been completed during the licensing hearing process).
- o Reviewed and had input into CPPP-7 Revision, on piping and pipe supports, including parametrics.
- o Reviewed the issues on the Criner/Meers faults.
- o Monitored the NRC/TU investigation into the Striping Cycling and Thermal Stratification (SCATS), which is an international open item.
- o Reviewed Sections of the FSAR and (to the extent possible) evaluated the technical specifications.
- o Monitored the NRC/TU meetings on power ascension for elimination of the 25% plateau.
- o Reviewed the CPSES pump and valve in-service program.
- o Evaluation of the 1982 hydrostatic test for ASME III.
- o Monitored and evaluated the VT-2 test.
- o Reviewed the Offsite Dose Calculation Manual (ODCM).
- o Evaluated SWEC Report on Kapton (SWEC evaluation of the impact of Kapton at Comanche Peak).
- o Evaluated the reports on the evaluation of Bahnson where they did 34,000 reviews of the weld material inspections.
- o Evaluated the gouges in the transition areas of the Reactor Coolant Pumps (RCP's) that were smoothed out or machined out.
- o Evaluated EPE change of control from SWEC.
- o Evaluated APW back-flow problems. The result of the back-flow problem failed a strut which led to the evaluation of all strut brackets for angularity clearance.
- o Evaluated quite extensively TU's erosion/corrosion monitoring program. Mr. Doyle is pleased with the corrosion monitoring program that TU has established, particularly in reference to the SWS system, and will continue to monitor implementation.
- o Evaluated Advanced Design Change (ADC) program.
- o Evaluated longitudinal welding problems with some vendors piping.

- o Evaluated SWEC analysis regarding cold springing of pipe where they opened a valve or cut a pipe to replace a valve and it jumped an inch; SWEC did an analysis to determine what the stress levels were.
- o Evaluated the impact of 11 calculational errors by SWEC.
- o CASE (including its consultants) has participated fully in activities of the Operations Review Committee (ORC) and Mr. Doyle and Ms. Garde participated as representatives of CASE in development of a large portion of the ORC's evaluation of readiness for fuel load (Mode 6 only); Mr. Doyle has made a presentation to the ORC regarding the need for a root cause analysis program; and at least one CASE representative usually participates in plant tours which normally occur prior to ORC scheduled meetings.
- o Evaluated Aircom and independent laboratory analysis done for TU of the counterfeit bolt problem. From the evaluation, in conjunction with the fact that the A325 bolts are all pretorqued (which should preclude failure mechanism being present), as far as the information Mr. Doyle has at this time, from his engineering perspective it is a non-problem at Comanche Peak. CASE still has concerns about other aspects of this matter and will continue to monitor the progress of its resolution.

In conclusion, CASE and I personally appreciate the opportunity to address you today and look forward to continued cooperation with the NRC Staff to achieve our mutual goals of protecting the public health and safety.