May 5, 1999

Mr. C. Lance Terry
TU Electric
Senior Vice President &
Principal Nuclear Officer
Attn: Regulatory Affairs Department
P. O. Box 1002
Glen Rose, Texas 76043

SUBJECT: COMANCHE PEAK, UNITS 1 AND 2 - CREDIT FOR SOLUBLE BORON IN THE SPENT FUEL POOLS AND SPENT FUEL STORAGE CAPACITY INCREASE (TAC NOS. MA4841 AND MA4842)

Dear Mr. Terry:

The Commission has filed the enclosed "Notice of Consideration of Issuance of Amendments to Facility Operating Licenses and Proposed No Significant Hazards Consideration Determination and Opportunity for A Hearing" with the Office of the Federal Register for publication. The notice relates to your amendment request dated February 11, 1999, regarding proposed revisions to the Comanche Peak Steam Electric Station, Units 1 and 2. These proposed changes would credit soluble boron in the spent fuel pool water, in the maintenance of a subcritical condition, and also allow an increase in spent fuel storage from 1291 to 2026 fuel assemblies.

Sincerely, ORIGINAL SIGNED BY
David H. Jaffe, Senior Project Manager, Section 1
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-445 and 50-446

Enclosure: Notice of Consideration

cc w/encl: See next page

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UNITED STATES NUCLEAR REGULATORY COMMISSION

TEXAS UTILITIES ELECTRIC COMPANY, ET AL.

COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-445 AND 50-446

NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES, PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. NPF-87 and NPF-89 issued to Texas Utilities Electric Company, et al. (the licensee), for operation of the Comanche Peak Steam Electric Station (CPSES), Units 1 and 2, respectively. The CPSES facility is located at the licensee's site in Somervell County, Texas.

The proposed amendments would revise the Technical Specifications for fuel storage to increase the spent fuel storage capacity, to add fuel pool boron concentration, and to revise the storage configurations in the spent fuel pool.

Before issuance of the proposed license amendments, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendments would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any

accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Do the proposed changes involve a significant increase in the probability or consequence of an accident previously evaluated?

   This proposed license amendment includes changes which are (1) editorial and (2) provide the criteria for acceptable fuel storage in high density racks. The editorial changes are purely administrative changes and have no impact on the probability or consequences of an accident. The revised criteria for acceptable fuel storage in the high density racks are discussed below.

   The high density racks differ from the low density racks in that the center to center storage cell spacing is decreased from a nominal 16 inches to a nominal 9 inches and the high density racks are free standing whereas the low density racks are bolted to the pool. Administrative controls are used to maintain the specified storage patterns and to assure storage of a fuel assembly in a proper location based on initial U-235 enrichment, burnup, and decay time. The increased storage capacity results in added weight in the pools and additional heat loads.

   There is no significant increase in the probability of an accident concerning the potential insertion of a fuel assembly in an incorrect location in the high density racks. TU [Texas Utilities] Electric has used administrative controls to move fuel assemblies from location to location since the initial receipt of fuel on site. Fuel assembly placement will continue to be controlled pursuant to approved fuel handling procedures and will be in accordance with the Technical Specification spent fuel rack storage configuration limitations.

   There is no increase in the probability of the loss of normal cooling to the fuel storage pool water due to the presence of soluble boron in the pool water for subcriticality control because a concentration of soluble boron similar to that proposed has always been maintained in the fuel storage pool water. The amount of soluble boron required to offset the reactivity increase associated with water temperature outside the normal range was established for the proposed storage configurations.

   The consequences of all of these changes have been assessed and the current acceptance criteria in the licensing basis of CPSES will continue to be met. The nuclear criticality, thermal-hydraulic, mechanical, material and structural designs will accommodate these changes. Potentially affected analyses, including a dropped spent fuel assembly, a loss of spent fuel pool cooling, a seismic event, and a fuel assembly placed in a location other than a prescribed location, continue to satisfy the CPSES licensing basis acceptance criteria. The analysis

methods used by TU Electric are consistent with methods used by TU Electric in the past or methods used elsewhere in the industry and accepted by the NRC.

Based on the acceptability of the methodology used and compliance with the current CPSES licensing basis, TU Electric concludes that the full use of the high density racks and the increase in storage capacity do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

The editorial changes to the Technical Specifications have no impact on plant hardware or operations and therefore cannot create a new or different kind of an accident.

The potential for criticality in the fuel storage pool is not a new or different type of accident. The potential criticality accidents have been reanalyzed in the criticality analysis (Enclosure 1 [to the application]) to demonstrate that the pool remains subcritical.

Soluble boron has been maintained in the fuel storage pool water since its initial operation. The possibility of a fuel storage pool dilution is not affected by the proposed change to the Technical specifications. Therefore, the implementation of Technical Specification controls for the soluble boron will not create the possibility of a new or different kind of accidental pool dilution.

With credit for soluble boron now a major factor in controlling subcriticality, an evaluation of fuel storage pool dilution events was completed. The results of the evaluation concluded that an event which would result in a reduction of the criticality margin below the 5% margin recommended by the NRC is not credible. In addition, the no soluble boron 95/95 criticality analysis assures that a boron concentration of 0 ppm will not result in criticality.

The proposed changes which ensure the maintenance of the fuel storage pool boron concentration and storage configuration, do not represent new concepts. The actual boron concentration in the fuel storage pool is currently maintained at 2400 ppm for SFP [spent fuel pool]1 and SFP2 for refueling purposes. The criticality analysis (Enclosure 2 [to the application]) determined that a boron concentration of 750 ppm (non-accident) and 1800 ppm (accident) results in a k_{eff} [less than or equal to] 0.95.

There is no significant change in plant configuration, equipment design, or usage of plant equipment. The safety analysis for boron dilution has been performed; however, the criticality analyses assure that the pool will remain subcritical with no credit for soluble boron. Therefore, the proposed changes will not create the possibility of a new or different kind of accident.

3. Do the proposed changes involve a significant reduction in a margin of safety?

The proposed editorial changes to the Technical Specifications have no impact on any acceptance criteria, plant operations or the actual failure of any systems, components or structure; therefore these administrative changes have no impact on the margin of safety.

The NRC guidance [Reference 4 [in the application]] has established that an evaluation of margin of safety should address the following areas:

1) Nuclear criticality considerations
2) Thermal-Hydraulic considerations
3) Mechanical, material and structural consideration

Proposed Technical Specifications 3.7.16, 3.7.17, and 4.3.1.1 and the associated fuel storage pool boron concentration and storage requirements will provide adequate margin to assure that the fuel storage array will always remain subcritical by the 5% margin recommended by the NRC. Those limits are based on the criticality analysis (Enclosure 2 [to the application]) performed in accordance with the storage rack criticality analysis methodology described in Reference 8 [in the application].

While the criticality analysis utilized credit for soluble boron, the storage configurations have been defined using k_{eff} calculations to ensure that the spent fuel rack k_{eff} will be less than 1.0 with no soluble boron.

Soluble boron credit is used to offset off-normal conditions (such as a misplaced assembly) and to provide subcritical margin such that the fuel storage pool k_{eff} is maintained less than or equal to 0.95.

The loss of substantial amount of soluble boron from the spent fuel pools which could lead to exceeding a k_{eff} of 0.95 has been evaluated and shown not to be credible. These evaluations show that the dilution of the spent fuel [pool's] boron concentration from 1800 ppm to 750 ppm is not credible and that the spent fuel rack k_{eff} will remain less than 1.0 when flooded with unborated water.

The thermal-hydraulic evaluation demonstrates that the temperature margin of safety will be maintained. Evaluation of the spent fuel pool cooling system for the increased heat loads shows that the spent fuel cooling system will maintain the abnormal maximum temperature of the spent fuel pool water within the limits of the existing licensing basis (i.e., below 212°F). Additionally, it shows that the normal maximum temperature will be within the existing design basis temperatures for the high density racks, liner, structure, and cooling system and will not have any significant impact on the spent fuel pool demineralizers. Thus, the existing licensing basis remains valid, and there is no significant reduction in the margin of safety for the thermal-hydraulic design or spent fuel cooling.

> The main safety function of the spent fuel pool and the high density racks is to maintain the spent fuel assemblies in a safe configuration through normal and abnormal operating conditions. The design basis floor responses of the Fuel Building were confirmed to be adequate and conservative and the floor loading will not exceed the capacity of the Fuel Building. The structural considerations of the high density racks maintain margin of safety against tilting and deflection or movement, such that the high density racks do not impact each other or the pool walls, damage spent fuel assemblies, or cause criticality concerns. Thus, the margin of safety with respect to mechanical, material or structural considerations is not significantly reduced by the full use of the high density racks.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendments until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendments before the expiration of the 30-day notice period, provided that its final determination is that the amendments involve no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the FEDERAL REGISTER a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and should cite the publication date and page

number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room 6D59, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the NRC's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC.

The filing of requests for hearing and petitions for leave to intervene is discussed below.

By June 11, 1999 , the licensee may file a request for a hearing with respect to issuance of the amendments to the subject facility operating licenses and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the University of Texas at Arlington Library, Government Publications/Maps, 702 College, P. O. Box 19497, Arlington, Texas. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature

of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendments and make them immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendments.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to George L. Edgar, Esq., Morgan, Lewis and Bockius, 1800 M Street, NW., Washington, DC 20036, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the

petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

The Commission hereby provides notice that this is a proceeding on an application for license amendments falling within the scope of section 134 of the Nuclear Waste Policy Act of 1982 (NWPA), 42 U.S.C. 10154. Under section 134 of the NWPA, the Commission, at the request of any party to the proceeding, must use hybrid hearing procedures with respect to "any matter which the Commission determines to be in controversy among the parties."

The hybrid procedures in section 134 provide for oral argument on matters in controversy, preceded by discovery under the Commission's rules, and the designation, following argument, of only those factual issues that involve a genuine and substantial dispute, together with any remaining questions of law, to be resolved in an adjudicatory hearing. Actual adjudicatory hearings are to be held on only those issues found to meet the criteria of section 134 and set for hearing after oral argument.

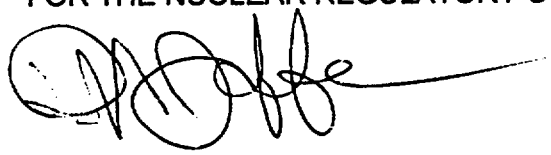
The Commission's rules implementing section 134 of the NWPA are found in 10 CFR Part 2, Subpart K, "Hybrid Hearing Procedures for Expansion of Spent Fuel Storage Capacity at Civilian Nuclear Power Reactors" (published at 50 FR 41662 dated October 15, 1985). Under those rules, any party to the proceeding may invoke the hybrid hearing procedures by filing with the presiding officer a written request for oral argument under 10 CFR 2.1109. To be timely, the request must be filed within ten (10) days of an order granting a request for hearing or petition to intervene. The presiding officer must grant a timely request for oral argument. The presiding officer may grant an untimely request for oral argument only upon a showing of good cause by the requesting party for the failure to file on time and after providing the other parties an opportunity to respond to the untimely request. If the presiding officer grants a request for oral argument, any hearing held on the application must be conducted in accordance with the hybrid

hearing procedures. In essence, those procedures limit the time available for discovery and require that an oral argument be held to determine whether any contentions must be resolved in an adjudicatory hearing. If no party to the proceeding timely requests oral argument, and if all untimely requests for oral argument are denied, then the usual procedures in 10 CFR Part 2, Subpart G apply.

For further details with respect to this action, see the application for amendments dated February 11, 1999, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the University of Texas at Arlington Library, Government Publications/Maps, 702 College, P.O. Box 19497, Arlington, Texas.

Dated at Rockville, Maryland, this 5th of May 1999.

FOR THE NUCLEAR REGULATORY COMMISSION



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