

September 9, 1993

Docket Nos. 50-445
and 50-446

Mr. William J. Cahill, Jr.
Group Vice President, Nuclear
TU Electric
400 North Olive Street, L.B. 81
Dallas, Texas 75201

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Dear Mr. Cahill:

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2 - AMENDMENT
NOS. 18 AND 4 TO FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89
(TAC NOS. M84913)

The Commission has issued the enclosed Amendment Nos. 18 and 4 to Facility Operating License Nos. NPF-87 and NPF-89 for the Comanche Peak Steam Electric Station, Units 1 and 2. The amendments consist of changes to the Technical Specifications in response to your application dated September 3, 1992. By letter dated March 17, 1993, TU Electric supplemented the application to include Unit 2.

The amendments revise the Technical Specifications to replace the analysis of record for CPSES Unit 1 for small break loss-of-coolant accidents (SBLOCA). The proposed change replaces the 1975 SBLOCA evaluation model using the WFLASH computer code with the 1985 SBLOCA evaluation model using the NOTRUMP computer code.

A copy of our related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original Signed by Lawrence Kokajko for
Thomas A. Bergman, Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 18 to NPF-87
2. Amendment No. 4 to NPF-89
3. Safety Evaluation

cc w/enclosures:
See next page

OFFICE	PDIV-2/LA	PDIV-2/PM	PDIV-2/Intern	OGC <i>MA</i>	PDIV-2/D
NAME	<i>EPeyton</i>	<i>TBergman</i>	<i>SWittenberg</i>	<i>Al Young</i>	<i>SBlack</i>
DATE	8/18/93	8/19/93	8/19/93	8/23/93	8/22/93

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Mr. William J. Cahill, Jr.

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September 9, 1993

cc w/enclosures:

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P. O. Box 1029
Granbury, Texas 76048

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Mrs. Juanita Ellis, President
Citizens Association for Sound Energy
1426 South Polk
Dallas, Texas 75224

Owen L. Thero, President
Quality Technology Company
Lakeview Mobile Home Park, Lot 35
4793 East Loop 820 South
Fort Worth, Texas 76119

Mr. Roger D. Walker, Manager
Regulatory Affairs for Nuclear
Engineering Organization
Texas Utilities Electric Company
400 North Olive Street, L.B. 81
Dallas, Texas 75201

Texas Utilities Electric Company
c/o Bethesda Licensing
3 Metro Center, Suite 610
Bethesda, Maryland 20814

William A. Burchette, Esq.
Counsel for Tex-La Electric
Cooperative of Texas
Jorden, Schulte, & Burchette
1025 Thomas Jefferson Street, N.W.
Washington, D.C. 20007

GDS Associates, Inc.
Suite 720
1850 Parkway Place
Marietta, Georgia 30067-8237

Jack R. Newman, Esq.
Newman & Holtzinger
1615 L Street, N.W.
Suite 1000
Washington, D. C. 20036

Chief, Texas Bureau of Radiation Control
Texas Department of Health
1100 West 49th Street
Austin, Texas 78756

Honorable Dale McPherson
County Judge
P. O. Box 851
Glen Rose, Texas 76043



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TEXAS UTILITIES ELECTRIC COMPANY, ET AL.*
COMANCHE PEAK STEAM ELECTRIC STATION, UNIT 1
DOCKET NO. 50-445
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 18
License No. NPF-87

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Texas Utilities Electric Company (TU Electric) acting for itself and as agent for Texas Municipal Power Agency (licensees) dated September 3, 1992, as supplemented by letter dated March 17, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

* The current owners of the Comanche Peak Steam Electric Station are: Texas Utilities Electric Company and Texas Municipal Power Agency. Transfer of ownership from Texas Municipal Power Agency to Texas Utilities Electric Company was previously authorized by Amendment No. 9 to Construction Permit CPPR-126 on August 25, 1988 to take place in 10 installments as set forth in the Agreement attached to the application for Amendment dated March 4, 1988. At the completion thereof, Texas Municipal Power Agency will no longer retain any ownership interest.

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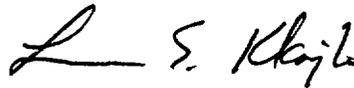
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-89 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 18, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. TU Electric shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and to be implemented within thirty days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



S Suzanne C. Black, Director
Project Directorate IV-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 9, 1993



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TEXAS UTILITIES ELECTRIC COMPANY, ET AL.*
COMANCHE PEAK STEAM ELECTRIC STATION, UNIT 2
DOCKET NO. 50-446
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 4
License No. NPF-89

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Texas Utilities Electric Company (TU Electric) acting for itself and as agent for Texas Municipal Power Agency (licensees) dated September 3, 1992, as supplemented by letter dated March 17, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

*The current owners of the Comanche Peak Steam Electric Station are: Texas Utilities Electric Company and Texas Municipal Power Agency. Transfer of ownership from Texas Municipal Power Agency to Texas Utilities Electric Company was previously authorized by Amendment No. 8 to Construction Permit CPPR-127 on August 25, 1988 to take place in 10 installments as set forth in the Agreement attached to the application for Amendment dated March 4, 1988. At the completion thereof, Texas Municipal Power Agency will no longer retain any ownership interest.

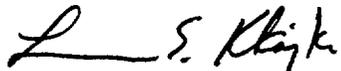
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-87 is hereby amended to read as follows:

2. Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 4, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and to be implemented within thirty days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

for 
Suzanne C. Black, Director
Project Directorate IV-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 9, 1993

ATTACHMENT TO LICENSE AMENDMENT NOS. 18 AND 4
FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89
DOCKET NOS. 50-445 AND 50-446

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE

6-21

INSERT

6-21

ADMINISTRATIVE CONTROLS

CORE OPERATING LIMITS REPORT (Continued)

- 5). WCAP-10216-P-A, "RELAXATION OF CONSTANT AXIAL OFFSET CONTROL F_0 SURVEILLANCE TECHNICAL SPECIFICATION," June 1983 (W Proprietary). (Methodology for Specification 3.2.2 - Heat Flux Hot Channel Factor (W(z) surveillance requirements for F_0 Methodology).)
- 6). WCAP-10079-P-A, "NOTRUMP, A NODAL TRANSIENT SMALL BREAK AND GENERAL NETWORK CODE," August 1985, (W Proprietary). (Methodology for Specification 3.2.2 - Heat Flux Hot Channel Factor.)
- 7). WCAP-10054-P-A, "WESTINGHOUSE SMALL BREAK ECCS EVALUATION MODEL USING THE NOTRUMP CODE", August 1985, W Proprietary). (Methodology for Specification 3.2.2 - Heat Flux Hot Channel Factor.)
- 8). WCAP-11145-P-A, "WESTINGHOUSE SMALL BREAK LOCA ECCS EVALUATION MODEL GENERIC STUDY WITH THE NOTRUMP CODE", October 1986, W Proprietary). (Methodology for Specification 3.2.2 - Heat Flux Hot Channel Factor.)

Reference 9) is for Unit 1 only:

- 9). WCAP-9220-P-A, "WESTINGHOUSE ECCS EVALUATION MODEL, February 1978 Version," February 1978 (W Proprietary). (Methodology for Specification 3.2.2. - Heat Flux Hot Channel Factor.)

Reference 10) is for Unit 2 only:

- 10). WCAP-9220-P-A, Rev. 1, "WESTINGHOUSE ECCS EVALUATION MODEL- 1981 VERSION", February 1982 (W Proprietary). (Methodology for Specification 3.2.2 - Heat Flux Hot Channel Factor.)

6.9.1.6c The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as SHUTDOWN MARGIN, and transient and accident analysis limits) of the safety analysis are met.

6.9.1.6d The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

ADMINISTRATIVE CONTROLS

SPECIAL REPORTS

6.9.2 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, special reports shall be submitted to the Regional Administrator of the Regional Office of the NRC within the time period specified for each report.

6.10 RECORD RETENTION

6.10.1 In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

6.10.2 The following records shall be retained for at least 5 years:

- a. Records and logs of unit operation covering time interval at each power level;
- b. Records and logs of principal maintenance activities, inspections, repair, and replacement of principal items of equipment related to nuclear safety;
- c. All REPORTABLE EVENTS;
- d. Records of surveillance activities, inspections, and calibrations required by the Technical Specifications, Technical Requirements Manual, and Fire Protection Report, except as explicitly covered in Specification 6.10.3;
- e. Records of changes made to the procedures required by Specification 6.8.1;
- f. Records of radioactive shipments;
- g. Records of sealed source and fission detector leak tests and results; and
- h. Records of annual physical inventory of all sealed source material of record.

6.10.3 The following records shall be retained for the duration of the unit Operating License:

- a. Records and drawing changes reflecting unit design modifications made to systems and equipment described in the Final Safety Analysis Report;
- b. Records of new and irradiated fuel inventory, fuel transfers, and assembly burnup histories;
- c. Records of radiation exposure for all individuals entering radiation control areas;
- d. Records of gaseous and liquid radioactive material released to the environs;

ADMINISTRATIVE CONTROLS

SPECIAL REPORTS

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- c. All REPORTABLE EVENTS;
- d. Records of surveillance activities, inspections, and calibrations required by the Technical Specifications, Technical Requirements Manual, and Fire Protection Report, except as explicitly covered in Specification 6.10.3;
- e. Records of changes made to the procedures required by Specification 6.8.1;
- f. Records of radioactive shipments;
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- d. Records of gaseous and liquid radioactive material released to the environs;



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 18 AND 4 TO
FACILITY OPERATING LICENSE NOS. NPF-87 AND NPF-89
TEXAS UTILITIES ELECTRIC COMPANY, ET AL.
COMANCHE PEAK STEAM ELECTRIC STATION, UNITS 1 AND 2
DOCKET NOS. 50-445 AND 50-446

1.0 INTRODUCTION

By application dated September 3, 1992, Texas Utilities Electric Company (the licensee) requested a change to the Technical Specifications (Appendix A to Facility Operating License No. NPF-87) for the Comanche Peak Steam Electric Station (CPSES) Unit 1. By letter dated March 17, 1993, the licensee expanded the application to include CPSES Unit 2. The licensee proposed to change the referenced evaluation model (EM) for the small break loss of coolant accident (SBLOCA) from the older EM based on the WFLASH code to a newer EM based on the NOTRUMP code. The Administrative Controls section of the Technical Specifications will be revised to delete the reference to WCAP-8200, "WFLASH, A FORTRAN-IV PROGRAM FOR SIMULATION OF TRANSIENTS IN A MULTI-LOOP PWR," Revision 2, June 1974. The deleted reference is replaced by WCAP-10079-P-A, "NOTRUMP, A NODAL TRANSIENT SMALL BREAK AND GENERAL NETWORK CODE," August 1985, WCAP-10054-P-A, "WESTINGHOUSE SMALL BREAK ECCS EVALUATION MODEL USING THE NOTRUMP CODE," August 1985, and WCAP-11145-P-A, "WESTINGHOUSE SMALL BREAK LOCA ECCS EVALUATION MODEL GENERIC STUDY WITH THE NOTRUMP CODE," October 1986.

The request came as a result of the licensee discovering that the WFLASH code calculated peak clad temperature (PCT) as stated in 10 CFR 50.46 would exceed the PCT limit of 2200°F because of the conservative nature of the code and because of penalties due to plant modifications and analysis changes. The NOTRUMP-based EM calculates a more realistic and much lower PCT than the WFLASH-based EM predicts for CPSES.

2.0 EVALUATION

CPSES Unit 2 currently uses NOTRUMP for SBLOCA calculations. The FSAR for Unit 2 was amended before licensing to reference the use of NOTRUMP for the SBLOCA analysis. The Administrative Controls Section of the Technical Specifications for Unit 2 require the use of NOTRUMP for SBLOCA. The NOTRUMP code was reviewed and approved for evaluating SBLOCA for Westinghouse NSSS designs by the NRC in 1985. The plant design parameters of CPSES Unit 1 are similar if not identical to those of Unit 2 such that using the NOTRUMP code is reasonable and appropriate. Therefore, in light of the fact that NOTRUMP has been approved for Unit 2, the staff concludes that it can be used to

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demonstrate compliance with requirements for CPSES Unit 1 for SBLOCA and be put in the Administrative Controls Section of Technical Specifications.

An analysis was performed on Unit 1 of CPSES with NOTRUMP to recalculate the PCT for the SBLOCA. A three-inch break in the cold leg was chosen as the SBLOCA scenario to analyze because it is the most limiting SBLOCA for CPSES Unit 2. The limiting break for Unit 2 was determined by calculating a spectrum of different breaks. Given the similarity in designs, the limiting break size is not expected to be different for Unit 2. There are two differences that are significant. Unit 1 uses a model D4 steam generator and Unit 2 uses a model D5 steam generator. The two plants also use different fuel designs. Unit 2 utilizes a 17 X 17 optimized fuel assembly which has a slightly smaller clad outer diameter, 0.360 inch, and lower gap gas pressure, 275 psig. Unit 1 utilizes a 17 X 17 standard fuel assembly with a clad outer diameter of 0.374 inches and 450 psig gap gas pressure. These differences were incorporated into the NOTRUMP model and the PCT was calculated for Unit 1. The three-inch break in the cold leg yielded a PCT of 1418°F and a local zirconium-water oxidation reaction of 0.55 percent. Both results are well below the 10 CFR 50.46 requirements. The result of the same calculation for Unit 2 yielded a PCT of 1434°F. The core-wide oxidation would not exceed requirements set by 10 CFR 50.46 and the long term coolability of the fuel would also be maintained. The results indicate CPSES Unit 1 continues to meet all applicable requirements.

The evaluation model based on the NOTRUMP code for SBLOCA analysis is appropriate for CPSES Unit 1. The analysis conclusions based on the NOTRUMP evaluation model are also appropriate. The analysis shows that CPSES Unit 1 continues to fulfill the requirements set by 10 CFR 50.46. The staff finds these results reasonable and appropriate.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Texas State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 19488). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the consideration discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: C. Jackson

Date: September 9, 1993