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Log # TXX-00076
File # 10010
915

April 13, 2000

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
RELOAD ANALYSIS PROGRAM
ERX-2000-002-NP AND ERX-2000-002-P , REVISED LARGE
BREAK LOSS OF COOLANT ACCIDENT ANALYSIS
METHODOLOGY

- REF: 1. Letter from R. A. Copeland (SPC) to Director of Nuclear Reactor Regulation, "Annual Reporting of Changes and Errors in ECCS Evaluation Models, RAC:94:019," dated February 14, 1994.
2. Letter logged TXX-96517, dated November 29, 1996, from C. L. Terry to the Nuclear Regulatory Commission.
3. Letter logged TXX-97013, dated January 13, 1997, from C. L. Terry to the Nuclear Regulatory Commission.
4. NRC letter to C. L. Terry dated February 3, 1997, "10 CFR 50.46 Large Break Loss of Coolant Evaluation Model for Comanche Peak Steam Electric Station, Units 1 and 2".

Gentlemen:

In October 1996, the Staff notified TXU Electric and Siemens Power Corporation (SPC) and its licensees of an unphysical phenomenon in the FCTF correlation. SPC had an alternative model available but this could not be implemented because it would yield Peak Cladding Temperature (PCT) reduction of more than 50° F. Such a

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PCT reduction would be a violation of 10 CFR 50, Appendix K Article I,C,5,c which is the limitation of Dougall-Rohsenow correlation. An interim measure was introduced at the time by use of a linear interpolation in the FCTF correlation to resolve the unphysical trend. At that time SPC committed to upgrade the methodology with a realistic FCTF correlation and several other improvements and corrections. These improvements and corrections were identified by SPC and through various audits of SPC by utilities and the NRC. The implementation of these improvements and corrections required replacement of the Dougall-Rohsenow correlation. The resulting methodology SEM/PWR-98 was approved by the NRC staff in June 1999.

Two concerns with SPC's methodology were addressed by TXU Electric and SPC. These were both in the FCTF correlation within the TOODEE2 code. One concern involved the correlation itself; the other involved an error in the calculation of one of the parameters of the correlation (the so called "Z-equivalent error"). As with SPC, TXU Electric's methodology was also interim. On December 12, 1996, TXU Electric proposed to the NRC to continue to use the methodology as permitted by Reference 4, until the NRC approved the upgraded SPC large break LOCA analysis methodology. TXU Electric committed to reanalyze the large break LOCA for Units 1 and 2 within one year following the NRC approval of the upgraded SPC large break LOCA methodology.

A schedule to fulfill this commitment that would be consistent with TXU Electric's reload analysis program were again discussed with the NRC staff in October 1999. During this discussion TXU Electric reaffirmed to the staff that the revised large break LOCA analysis methodology would be submitted to the staff for review in April of 2000. When approved, this submittal will become the analysis of record for the currently operating Unit 1, Cycle 8 and will be applied to the upcoming Unit 2, Cycle 6.

Consistent with that schedule, enclosed for your review and approval is ERX-2000-002-NP (non-proprietary) and ERX-2000-002-P (proprietary), "Revised Large Break Loss of Coolant Accident Analysis Methodology." The methodology addressed in the enclosed reports is consistent with the methodology presented in the SPC topical report.

Approval of the enclosed report will complete the TXU Electric Reload Analysis Program necessary to perform safety analysis. TXU Electric intends to rely on this revised Large Break Loss of Coolant Accident Analysis Methodology for the startup of Unit 2, Cycle 6, and therefore requests that the NRC review and approve the enclosed report by September 2000.

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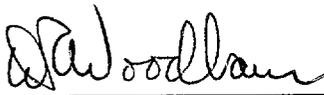
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Siemens Power Corporation (SPC) considers information contained in the report ERX-2000-002-P, "Revised Large Break Loss of Coolant Accident Analysis Methodology," to be proprietary. In accordance with the requirements of 10CFR2.709(B) for withholding of proprietary information from public disclosure, an Affidavit is enclosed. Correspondence with respect to the proprietary aspects of the supporting SPC Affidavit should be addressed to Siemens Power Corporation, Attention Jerald S. Holm, 2101 Horn Rapids Road, P.O. Box 130, Richland WA, 99352-0130.

Please note that the references provided above are to ease staff's review of this subject. Should you have any questions or comments regarding the attached report or the TXU Electric Reload Analysis Program, please contact Whee G. Choe at (214) 812-4371 or Obaid Bhatti at (254) 897-5839 to coordinate this effort.

Sincerely,

C. L. Terry

By: 
D. R. Woodlan
Docket Licensing Manager

OAB/oab

Enclosures

cc: E. W. Merschoff, Region IV (Proprietary and non-proprietary)
J. I. Tapia, Region IV (non-proprietary)
D. H. Jaffe, NRR (proprietary and non-proprietary)
Resident Inspectors, CPSES (proprietary and non-proprietary)

Enclosures to TXX-00076

SPC AFFIDAVIT

**ERX-2000-002-NP AND ERX-2000-002-P , REVISED LARGE
BREAK LOSS OF COOLANT ACCIDENT ANALYSIS
METHODOLOGY**

6. The following criteria are customarily applied by SPC to determine whether information should be classified as proprietary:

- (a) The information reveals details of SPC's research and development plans and programs or their results.
- (b) Use of the information by a competitor would permit the competitor to significantly reduce its expenditures, in time or resources, to design, produce, or market a similar product or service.
- (c) The information includes test data or analytical techniques concerning a process, methodology, or component, the application of which results in a competitive advantage for SPC.
- (d) The information reveals certain distinguishing aspects of a process, methodology, or component, the exclusive use of which provides a competitive advantage for SPC in product optimization or marketability.
- (e) The information is vital to a competitive advantage held by SPC, would be helpful to competitors to SPC, and would likely cause substantial harm to the competitive position of SPC.

7. In accordance with SPC's policies governing the protection and control of information, proprietary information contained in this Document has been made available, on a limited basis, to others outside SPC only as required and under suitable agreement providing for nondisclosure and limited use of the information.

8. SPC policy requires that proprietary information be kept in a secured file or area and distributed on a need-to-know basis.

9. The foregoing statements are true and correct to the best of my knowledge, information, and belief.

Jerald S. Holm

SUBSCRIBED before me this 24th
day of March, 2000.



Amy R. Nixon

Amy R. Nixon
NOTARY PUBLIC, STATE OF WASHINGTON
MY COMMISSION EXPIRES: 12/06/03