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Ref. # 10CFR50.90
10CFR50.36

C. Lance Terry
Group Vice President

February 28, 1996

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

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES) - UNITS 1 AND 2
DOCKET NOS. 50-445 AND 50-446
ADDITIONAL INFORMATION FOR LICENSE AMENDMENT REQUEST 95-007
REMOVAL OF REQUIREMENT TO MAINTAIN ONE PERSONNEL AIRLOCK
DOOR CLOSED DURING REFUELING

- REF: 1) TU Electric letter logged TXX-95289 from C. L. Terry to the
NRC dated November 21, 1995.
- 2) TU Electric letter logged TXX-96061 from C. L. Terry to the
NRC dated February 22, 1996.

Gentlemen:

During a phone conversation between Mr. T. Polich, Mr. J. Minns, and Mr. R. Emch of NRR and Mr. D. Woodlan, Mr. C. Wilkerson, Mr. M. Killgore, Mr. S. Maier and Ms. L. Wojcik of TU Electric on February 27, 1996, NRR requested that TU Electric reassess the assumptions and methodology used for determining the thyroid dose at the Exclusion Area Boundary (EAB) due to a fuel handling accident.

At the Licensing of CPSES Units 1 and 2, the thyroid dose at the EAB due to a fuel handling accident was calculated to be 87.6 rem, well below the 10CFR100 requirements of 300 rem. In July of 1993, the NRC approved an amendment (17/3) to the CPSES Units 1 and 2 Operating Licenses for a fuel enrichment increase which raised the EAB thyroid dose by 20% (105.1 rem).

TU Electric has assessed the assumptions used in calculating the thyroid dose due to a fuel handling accident and determined that 1) a core peaking factor of 1.65 is higher than the anticipated highest peaking factor for high burnup fuel, and 2) the X/Q value used to determine the thyroid dose, 2.6×10^{-4} , is the maximum X/Q at 1544 m and is above the FSAR reported value of 1.6×10^{-4} which is the maximum X/Q at the EAB (see FSAR Table 2.3-36).

The previously calculated 20% increase in fuel handling accident dose consequences due to high burnup effects was based on an increased I-131 gap release fraction at high burnup (60,000 megawatt-days per metric ton of uranium). TU Electric has determined that high burnup fuel has a lower power peaking factor that more than offsets the increased iodine release fraction. Thus, taking into consideration the combined effects of the

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decrease in power peaking factor for high burnup fuel and the increased I-131 gap release fraction the original licensed value of 87.6 rem remains bounding.

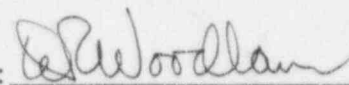
The CPSES value for thyroid dose (87.6 rem) is conservatively calculated using a X/Q value of 2.6×10^{-4} . The value for X/Q at the actual EAB, 1.6×10^{-4} is documented in FSAR Table 2.3-36. Using this X/Q value, the reported 87.6 rem that CPSES Units 1 and 2 were licensed for can be reduced by an additional 38%. This results in an thyroid dose at the EAB due to a fuel handling accident of less than 75 rem (53.9).

Should you have any questions, please contact Mr. Jimmy Seawright at (214) 812-4375 or Mr. Don Woodlan at (214) 812-8225.

Sincerely,

C. L. Terry

By:



D. R. Woodlan
Docket Licensing Manager

JDS/grp
Attachment

c - Mr. L. J. Callan, Region IV
Mr. T. J. Polich, NRR
Mr. W. D. Johnson, Region IV
Resident Inspectors, CPSES

Mr. Arthur C. Tate
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