

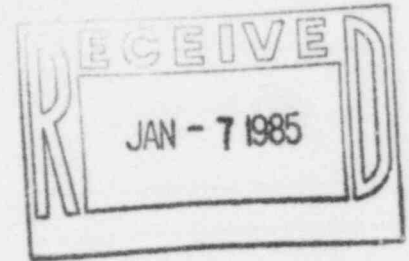


KANSAS GAS AND ELECTRIC COMPANY

GLENN L. KOESTER
VICE PRESIDENT - NUCLEAR

January 4, 1985

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



KMLNRC 85-005
Re: Docket No. STN 50-482
Subj: Cycle 1 Radial Peaking Factor Limit Report

Dear Mr. Martin:

The attached Cycle 1 Radial Peaking Factor Limit Report is submitted in accordance with Section 6.9.1.9 of the Wolf Creek Generating Station Technical Specifications.

Yours very truly,

Glenn L. Koester

GLK:bb
Attach
xc:HRDenton

Office of Nuclear Reactor Regulation
Attn: Core Performance Branch
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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Radial Peaking Factor Limit Report

This Radial Peaking Factor Limit Report is provided in accordance with Paragraph 6.9.1.9 of the Wolf Creek Unit 1 Nuclear Plant Technical Specifications.

The F_{xy} limits for RATED THERMAL POWER within specific core planes for Cycle 1 shall be:

1. F_{xy}^{RTP} less than or equal to 1.71 for all core planes containing bank "D" control rods, and
2. F_{xy}^{RTP} less than or equal to 1.55 for all unrodded core planes.

These $F_{xy}(z)$ limits were used to confirm that the heat flux hot channel factor $F_Q(z)$ will be limited to the Technical Specification values of:

$$F_Q(z) \leq \left[\frac{2.32}{P} \right] [K(z)] \text{ for } P > 0.5 \text{ and,}$$

$$F_Q(z) \leq [4.64] [K(z)] \text{ for } P \leq 0.5$$

assuming the most limiting axial power distributions expected to result from the insertion and removal of Control Banks B, C and D during operation, including the accompanying variations in the axial xenon and power distributions as described in the "Power Distribution Control and Load Following Procedures", WCAP-8403, September, 1974. Therefore, these F_{xy} limits provide assurance that the initial conditions assumed in the LOCA analysis are met, along with the ECCS acceptance criteria of 10CFR50.46.

See Figure 1 for a plot of $[F_Q^T \cdot P_{Rel}]$ vs. Axial Core Height.

FIGURE 1
MAXIMUM $F_Q^T \cdot P_{REL}$ VERSUS AXIAL HEIGHT
DURING NORMAL CORE OPERATION

