Portland General Electric Company

April 12, 1990

Trojan Nuclear Plant
Docket 50-344
License NPF-1

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

Dear Sirs:

Trojan Cycle 13 Radial Peaking Factor Limit Report

Pursuant to Technical Specification 6.9.1.7, "Radial Peaking Factor Limit Report", attached is a copy of the Trojan Cycle 13 Radial Peaking Factor Limit Report. The F_{xy} limits for rated thermal power (RTP) are changed from Cycle 12; the previous F_{xy} RTP values were 1.92 and 1.76 for core planes with control Bank "D" rods and unrodded planes, respectively.

Sincerely,

T. D. Walt
Acting Vice President, Nuclear

Attachment

c: Mr. John B. Martin
Regional Administrator, Region V
U.S. Nuclear Regulatory Commission

Mr. David Stewart-Smith
State of Oregon
Department of Energy

Mr. R. C. Barr
NRC Resident Inspector
Trojan Nuclear Plant

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TROJAN CYCLE 13
RADIAL PEAKING FACTOR LIMIT REPORT

This Radial Peaking Factor Limit Report is provided in accordance with Paragraph 6.9.1.7, "Radial Peaking Factor Limit Report", of the Trojan Nuclear Plant Technical Specifications.

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

1. F_{xy}^{RTP} less than or equal to 1.94 for all core planes containing bank "D" control rods, and

2. F_{xy}^{RTP} less than or equal to 1.78 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:

$$F_Q(z) \leq \left[\frac{2.50}{P}\right] [K(z)] \text{ for } P > 0.5 \text{ and}*,$$

$$F_Q(z) \leq [5.00] [K(z)] \text{ for } P \leq 0.5*$$

assuming the most limiting axial power distributions expected to result from the insertion and removal of Control Banks C and D during operation, including accompanying variations in the axial xenon and power distributions as described in the "Power Distribu'ion Control and Load Following Procedures", WCAP-8403, September 1974. Therefore, these F_{xy} limits provide assurance that the initial conditions assumed in the Loss of Coolant Accident analysis are met, along wih the Emergency Core Cooling System acceptance criteria of 10 CFR 50.46, "Acceptance Criteria for Emergency Core Cooling Systems for Light Water Nuclear Power Reactors".

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*K(z) - Figure 3.2-2 in Technical Specifications

FIGURE 1

MAXIMUM FQ VERSUS CORE HEIGHT FOR TROJAN CYCLE 13