Duquesne Light

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October 26, 1984

United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Attn: Dr. Thomas E. Murley, Regional Administrator
Region 1
631 Park Avenue
King of Prussia, PA 19406

Reference: Beaver Valley Power Station, Unit No. 1
Docket No. 50-334, License No. DPR-66
Radial Peaking Factor Limit Report - Cycle 5

Gentlemen:

Enclosed are Attachment A - Radial Peaking Factor Limit Report (RPFLR) and Attachment B - K(z) curve for Cycle 5, provided in accordance with Technical Specification 6.9.1.14. A copy of this letter and attachments have been forwarded to the Chief of the Core Performance Branch, U. S. Nuclear Regulatory Commission as required by the above Technical Specification.

Very truly yours,

for J. J. Carey
Vice President, Nuclear

cc: Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Attn: Mr. William V. Johnston, Chief
Core Performance Branch
Division of Core and Containment Systems
Washington, DC 20555

Mr. W. M. Troskoski, Resident Inspector
U. S. Nuclear Regulatory Commission
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U. S. Nuclear Regulatory Commission
c/o Document Management Branch
Washington, DC 20555

Mr. Peter Tam, Project Manager
U. S. Nuclear Regulatory Commission
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* Addressee Only

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This Radial Peaking Factor Limit Report is provided in accordance with paragraph 6.9.1.14 of the Beaver Valley Unit 1 Technical Specifications.

The Fxy limits for RATED THERMAL POWER within specific core planes for Cycle 5 shall be:

1. $Fxy^{RTP} \leq 1.71$ for all core planes containing D-BANK

2. For unrodded core planes

   $Fxy \leq 1.68$ up to 6.0 ft. elevation
   $Fxy \leq 1.73$ from 6.0 ft. elevation to 9.0 ft. elevation
   $Fxy \leq 1.69$ above 9.0 ft. elevation

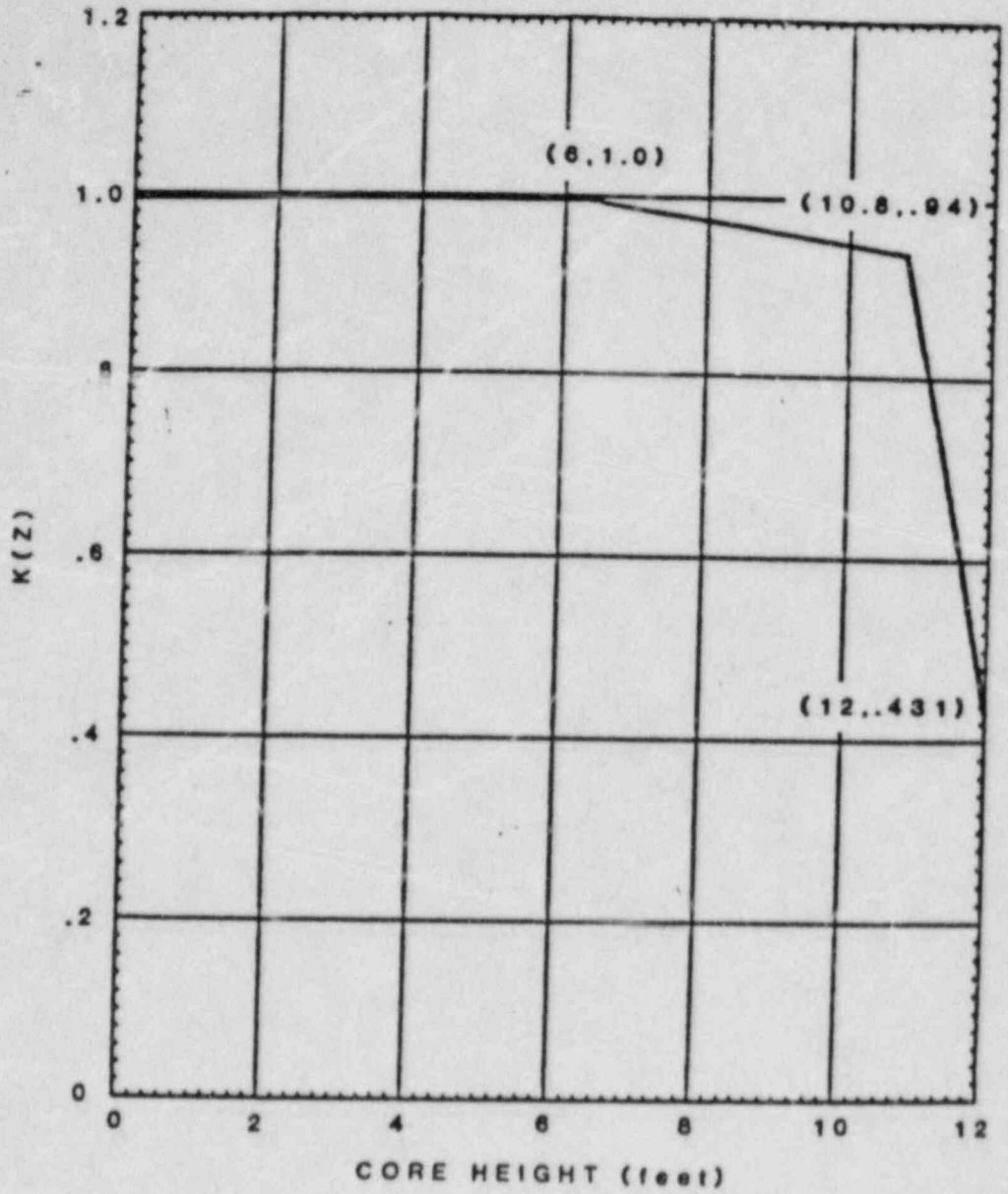
These Fxy(z) limits were used to confirm that the heat flux hot channel factor $F_Q(z)$ will be limited to the Technical Specification values of:

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

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

assuming the most limiting axial power distributions expected to result from the insertion and removal of control banks 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-8385, September, 1974. Therefore, these Fxy limits provide assurance that the initial conditions assumed in the LOCA analyses are met, along with the ECCS acceptance criteria of 10CFR50.46.

K(z) Curve



F_Q^T NORMALIZED OPERATING ENVELOPE, K(Z)