

# REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8409140230 DOC. DATE: 84/09/07 NOTARIZED: NO DOCKET # 05000261  
 FACIL: 50-261 H. B. Robinson Plant, Unit 2, Carolina Power and Light  
 AUTH. NAME: AUTHOR AFFILIATION  
 CUTTER, A.B. Carolina Power & Light Co.  
 RECIP. NAME: RECIPIENT AFFILIATION  
 VARGA, S.A. Operating Reactors Branch 1

SUBJECT: Forwards Suppl 2 to XN-NF-84-72, "Large Break LOCA-ECCS Analysis W/Increased Enthalpy Rise Factor: K(Z) Curve" & revised Tech Spec Page 3.10-22, reflecting substituted K(Z) curve, per 840723 request re Cycle 10.

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Carolina Power & Light Company

SEP 07 1984

SERIAL: NLS-84-400

Director of Nuclear Reactor Regulation  
Attention: Mr. Steven A. Varga, Chief  
Operating Reactors Branch No. 1  
Division of Licensing  
United States Nuclear Regulatory Commission  
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261/LICENSE NO. DPR-23  
SUPPLEMENTAL REQUEST FOR LICENSE AMENDMENT - CYCLE 10  
REVISED K(Z) CURVE

Dear Mr. Varga:

SUMMARY AND BACKGROUND

By letter dated July 23, 1984, Carolina Power & Light Company (CP&L) provided the NRC with the plans for operation of the H. B. Robinson Steam Electric Plant Unit No. 2 (HBR2) during Cycle 10 and requested revisions to the Technical Specifications (TS) for HBR2. Confirmatory analyses performed following that submittal indicated that a change to the previously submitted K(Z) Curve was required. This letter provides a substitute K(Z) Curve for that submitted previously.

DISCUSSION

While verifying the previously submitted K(Z) Curve, CP&L/Exxon determined that with an  $F_{AH}$  of 1.65 at a burnup of approximately 9MWD/KgU, HBR2 would be required to turn on the Axial Power Distribution Monitoring System (APDMS) for the remainder of Cycle 10. Since the operation of this system is inconvenient, time consuming and has other operational impacts, a new burnup dependent curve was developed for the elevation above the six-foot level. The new curve will limit the operational impacts by reducing the need to implement APDMS while retaining adequate margins of safety.

While confirming the analyses which produced the original K(Z) Curve, it was determined that in the event of a LOCA it would be possible to exceed a peak clad temperature (PCT) of 2200°F. Reanalyses have produced a more conservative curve which meets the criterion for PCT remaining below 2200°F during LOCA events. Because the new curve is more conservative than the original, CP&L believes prenoticing is not required.

8409140230 840907  
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P PDR

Mr. Steven A. Varga

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Please find attached a revised page 3.10-22 which replaces the previous page 3.10-22 submitted with our July 23, 1983 TS request. Should you have any questions regarding this matter please call Mr. Sherwood R. Zimmerman at (919) 836-6242.

Yours very truly,



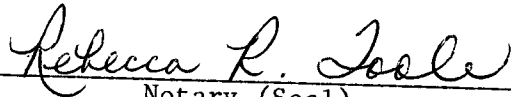
A. B. Cutter - Vice President  
Nuclear Engineering & Licensing

DCS/ccc (5660NH)

Attachment

cc: Mr. J. P. O'Reilly (NRC-RII)  
Mr. G. Requa (NRC)  
NRC Resident Inspector (RNP)  
Attorney General (SC)  
Mr. Heyward G. Shealy (SC)

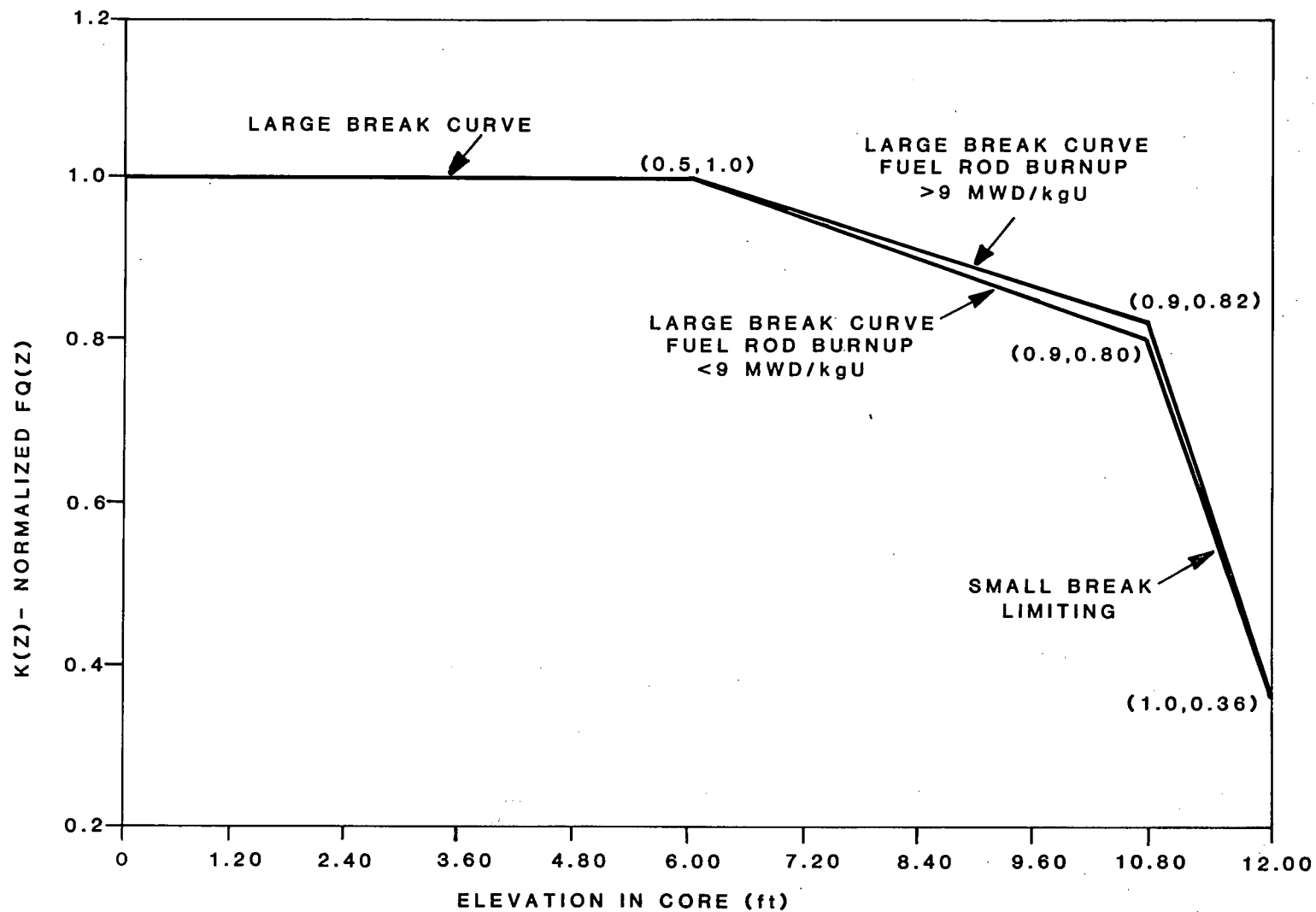
A. B. Cutter, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, contractors, and agents of Carolina Power & Light Company.



Notary (Seal)

My commission expires:

My Commission Expires 6-8-86



NORMALIZED AXIAL DEPENDENCE FACTOR FOR  $F_Q^T = 2.32$   
 VERSUS ELEVATION FOR  $F_{\Delta H} = 1.65$

Figure 3.10-3