

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

August 3, 1983

Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

In the Matter of
Tennessee Valley Authority

) Docket No. 50-328
)

By my July 1, 1983 letter to you, we provided the application for amendment of the Sequoyah Nuclear Plant unit 2 operating license, DPR-79, for cycle 2 operations. Included in the July 1, 1983 letter as Appendix B was the peaking factor limit report. Enclosed is a revised peaking factor limit report for unit 2 which satisfies the requirements of paragraph 6.9.1.14 of the Sequoyah unit 2 technical specifications. The revised report is a result of a slight difference in enrichment of the new fuel assemblies being utilized in unit 2, cycle 2 operations. The change in enrichment results from the Wet Annular Burnable Absorber rods being utilized in unit 2, cycle 2 operations.

If you have any questions concerning this matter, please get in touch with J. E. Wills at FTS 858-2683.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills
L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 3rd day of Aug, 1983

Bryant M. Lavery
Notary Public
My Commission Expires 4/8/86

Enclosure

cc: U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

cc: Continued on page 2

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U.S. Nuclear Regulatory Commission

August 3, 1983

Michael H. Mobley, Director (Enclosure)
Division of Radiological Health
T.E.R.R.A. Building
150 9th Avenue North
Nashville, Tennessee 37203

WESTINGHOUSE PROPRIETARY CLASS 2

This Peaking Factor Limit Report is provided in accordance with Paragraph 6.9.1.14 of the Sequoyah Unit 2 Technical Specifications.

The Cycle 2 $W(z)$ functions for RAOC operation in the cycle burnup ranges of 0 to 2000 MWD/MTU, 2000 to 4000 MWD/MTU, 4000 to 8000 MWD/MTU, 8000 MWD/MTU to EOL are shown in Figures 1 through 4 respectively. $W(z)$ was calculated using the method described in Reference 1.

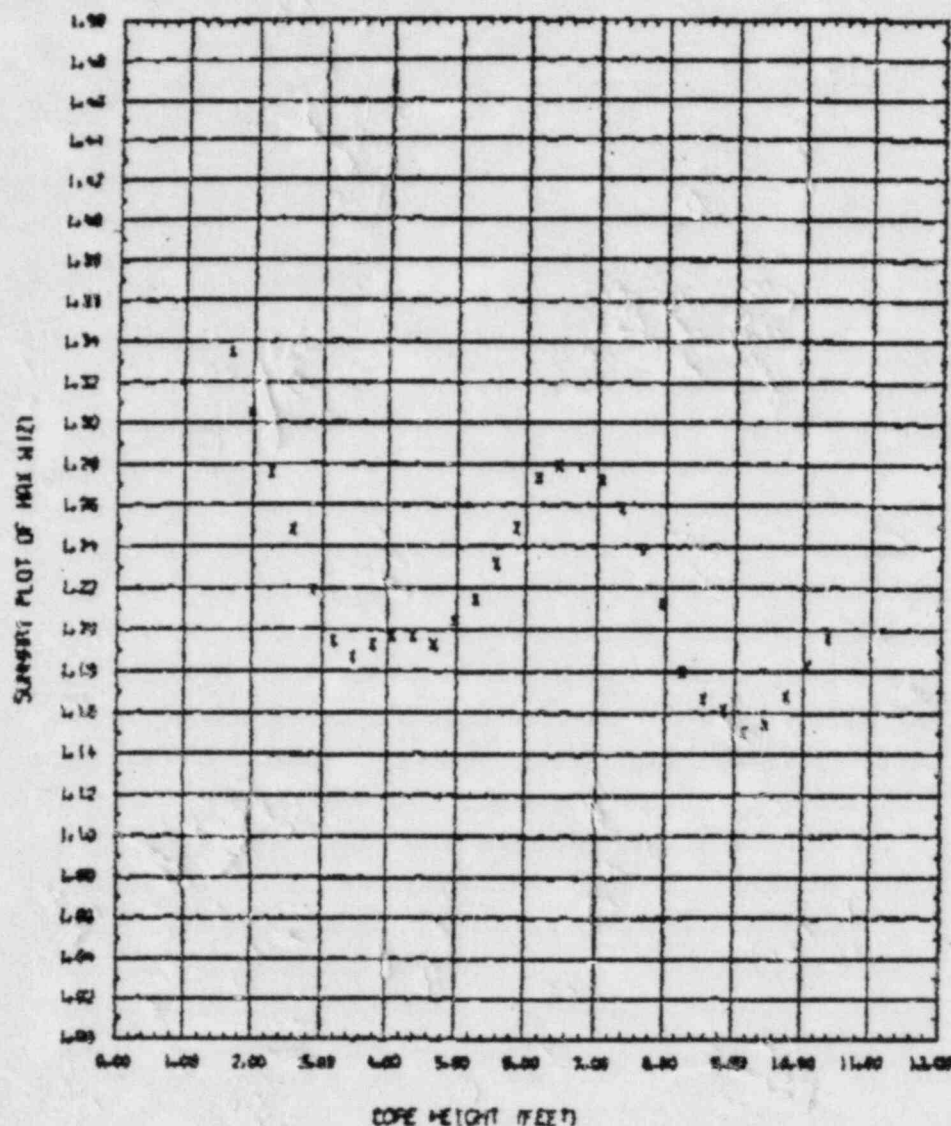
The appropriate $W(z)$ function is used to confirm that the heat flux hot channel factor, $F_Q(z)$, will be limited to the Technical Specifications values of:

$$F_Q(z) < \frac{2.237}{P} [K(z)] \text{ for } P > 0.5 \text{ and}$$

$$F_Q(z) < 4.474 [K(z)] \text{ for } P \leq 0.5$$

The appropriate $W(z)$ function, when applied to a power distribution measured under equilibrium conditions, demonstrates that the initial conditions assumed in the LOCA are met, along with the ECCS acceptance criteria of 10CFR50.46.

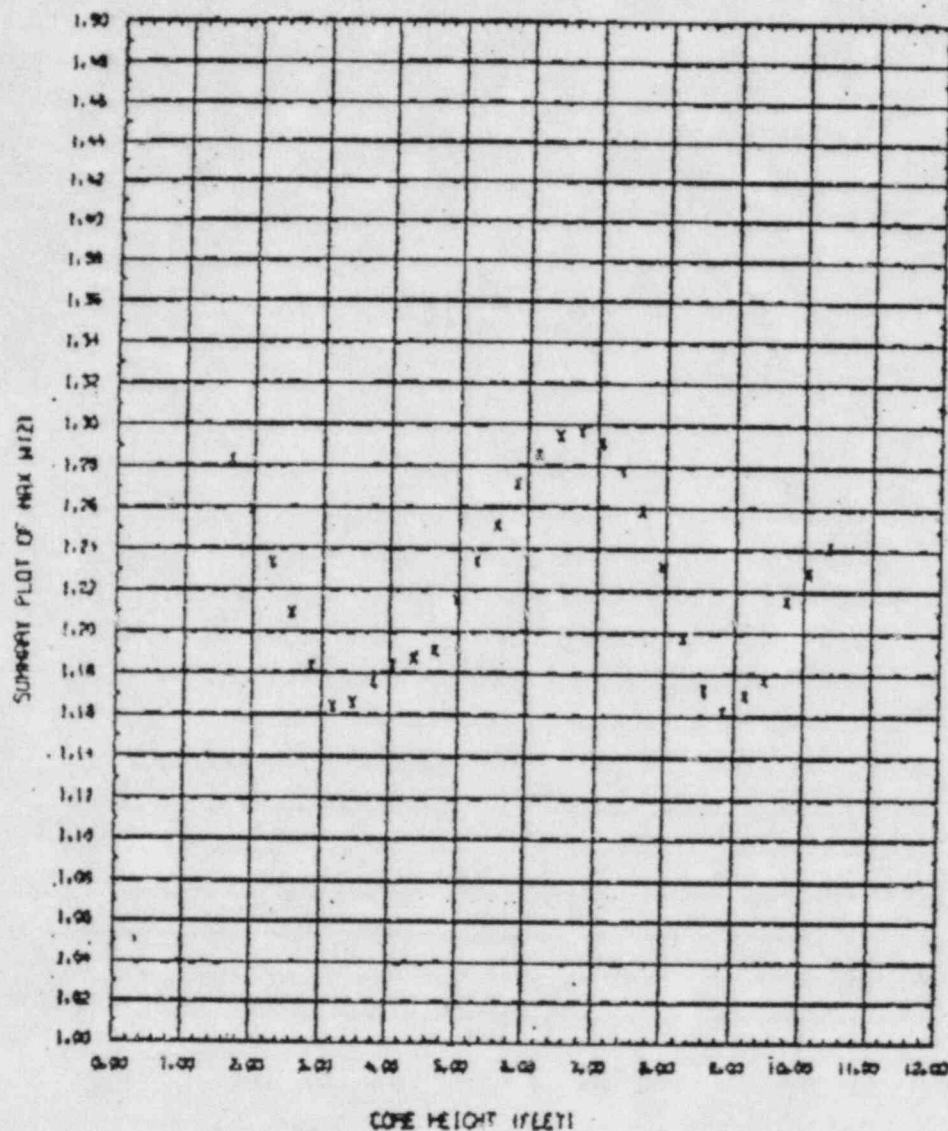
- (1) WCAP-10216-P-A, Relaxation of Constant Axial Control- F_Q Surveillance Technical Specification.



HEIGHT (FEET)	MAX W(z)
.15	0.000 *
.45	0.000 *
.75	0.000 *
1.05	0.000 *
1.35	0.000 *
1.65	1.335
1.95	1.305
2.25	1.276
2.55	1.248
2.85	1.219
3.15	1.194
3.45	1.186
3.75	1.192
4.05	1.196
4.35	1.196
4.65	1.192
4.95	1.204
5.25	1.214
5.55	1.231
5.85	1.248
6.15	1.273
6.45	1.279
6.75	1.279
7.05	1.272
7.35	1.258
7.65	1.239
7.95	1.212
8.25	1.179
8.55	1.166
8.85	1.161
9.15	1.151
9.45	1.154
9.75	1.167
10.05	1.182
10.35	1.193
10.65	0.000 *
10.95	0.000 *
11.25	0.000 *
11.55	0.000 *
11.85	0.000 *

*Top and bottom 15% excluded as per
Technical Specification 4.2.2.2.g

FIGURE 1
SEQUOYAH UNIT 2, CYCLE 2 RAOC W(z)
FOR CYCLE BURNUPS BETWEEN 0 AND 2000 MWD/MTU

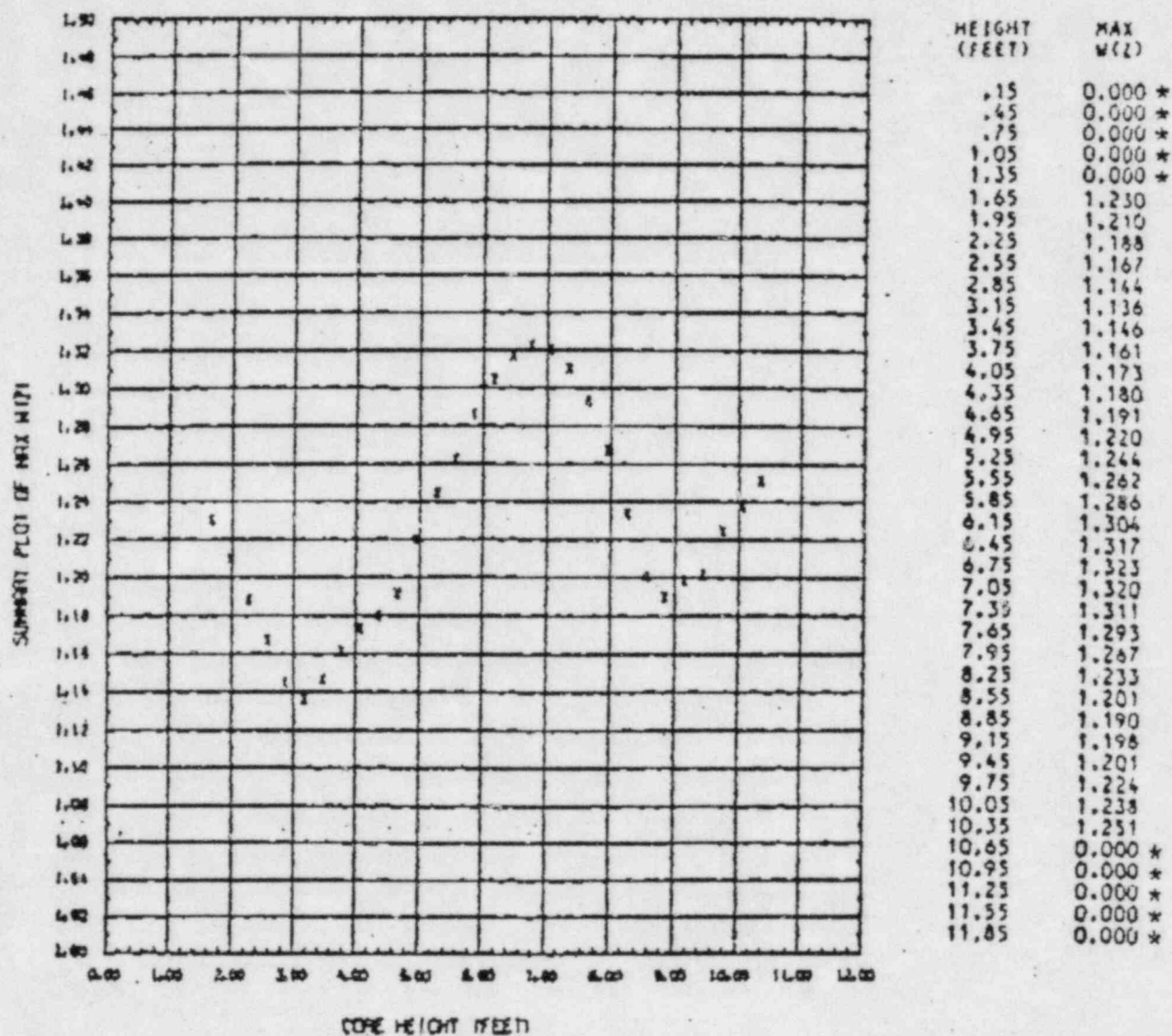


HEIGHT (FEET)	MAX W(z)
.15	0.000 *
.45	0.000 *
.75	0.000 *
1.05	0.000 *
1.35	0.000 *
1.65	1.283
1.95	1.259
2.25	1.233
2.55	1.209
2.85	1.183
3.15	1.163
3.45	1.165
3.75	1.176
4.05	1.183
4.35	1.187
4.65	1.191
4.95	1.215
5.25	1.234
5.55	1.251
5.85	1.271
6.15	1.286
6.45	1.295
6.75	1.296
7.05	1.291
7.35	1.278
7.65	1.258
7.95	1.231
8.25	1.197
8.55	1.172
8.85	1.162
9.15	1.170
9.45	1.177
9.75	1.215
10.05	1.229
10.35	1.241
10.65	0.000 *
10.95	0.000 *
11.25	0.000 *
11.55	0.000 *
11.85	0.000 *

*Top and bottom 15% excluded as per
Technical Specification 4.2.2.2.g

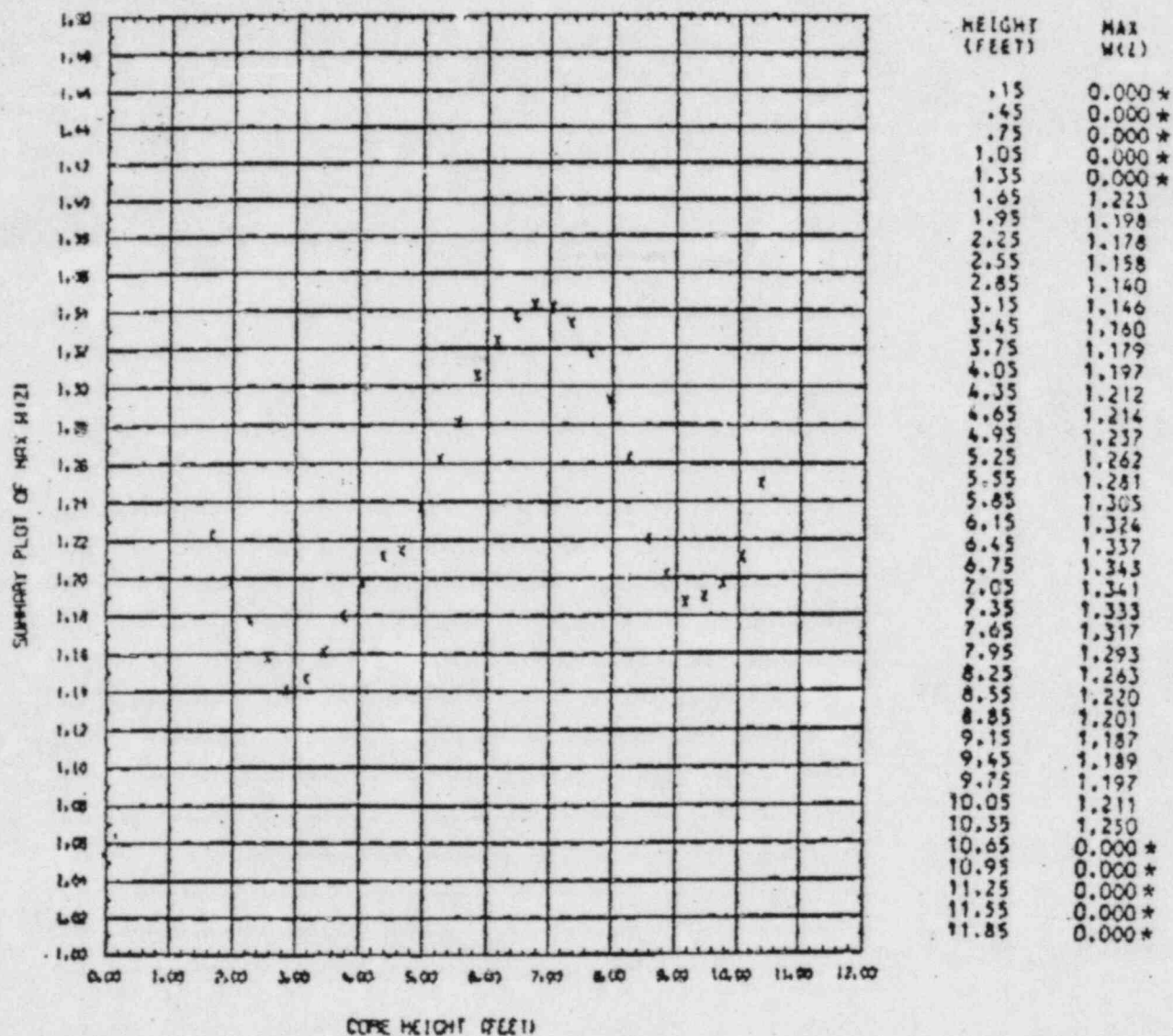
FIGURE 2

SEQUOYAH UNIT 2, CYCLE 2 RAOC W(z)
FOR CYCLE BURNUPS BETWEEN 2000 AND 4000 MWD/MTU



*Top and bottom 15% excluded as per
Technical Specification 4.2.2.2.g

FIGURE 3
SEQUOYAH UNIT 2, CYCLE 2 RAOC W(2)
FOR CYCLE BURNUPS BETWEEN 4000 AND 8000 MWD/MTU



*Top and bottom 15% excluded as per
Technical Specification 4.2.2.2.g

FIGURE 4
SEQUOYAH UNIT 2, CYCLE 2 RAOC W(z)
FOR CYCLE BURNUPS BETWEEN 8000 MWD/MTU AND EOL