

1901 Chouteau Avenue
Post Office Box 149
St. Louis, Missouri 63166
314-554-2650



January 31, 1991

Donald F. Schnell
Senior Vice President
Nuclear

J. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

ULNRC-2360

Gentlemen:

DOCKET NUMBER 50-483, TAC-M79511
CALLAWAY PLANT - CYCLE 5
CORE OPERATING LIMITS REPORT
Reference: ULNRC-2323 dated November 14, 1990

As a result of incore flux measurements taken on January 18, 1991, it was determined that Callaway had exceeded its F_Q limit by approximately 0.5%. In accordance with Technical Specification Action Statement 3.2.2.a, power was reduced to compensate for the exceeded limit. Discussions were held with Westinghouse Electric Corporation to assess this issue and determine if any analytical margin existed in the F_Q limit calculation. Westinghouse indicated that the $W(Z)$ portion of the F_Q calculation was based on the most conservative radial xenon penalty for the cycle, which occurs at end of life (EOL). Margin was available at beginning of life (BOL) and middle of life (MOL).

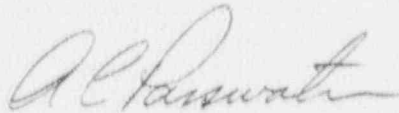
Per the requirements of Technical Specification 6.9.1.9, notification is hereby provided that the attached Westinghouse letter 91SCP-G-0004, dated January 18 1991, containing a description of the revised $W(Z)$ functions has been incorporated into the Core Operating Limits Report for Callaway Cycle 5. The Core Operating Limits Report

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was previously transmitted by the referenced letter. The analytical methods used to determine the revised function are those referenced in Technical Specification 6.9.1.9. Updated figures containing the revised $W(Z)$ functions will be submitted in the near future.

Very truly yours,


for Donald F. Schnell

RJI/DS/sla

Attachment

cc: T. A. Baxter, Esq.
Shaw, Pittman, Potts & Trowbridge
2300 N. Street, N.W.
Washington, D.C. 20037

Dr. J. O. Cermak
CFA, Inc.
4 Professional Drive (Suite 110)
Gaithersburg, MD 20879

R. C. Knop
Chief, Reactor Project Branch 1
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Bruce Bartlett
Callaway Resident Office
U.S. Nuclear Regulatory Commission
RR#1
Steedman, Missouri 65077

M. D. Lynch (2)
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
1 White Flint, North, Mail Stop 13E21
11555 Rockville Pike
Rockville, MD 20852

Manager, Electric Department
Missouri Public Service Commission
P.O. Box 360
Jefferson City, MO 65102

bcc: D. Shafer/A160.761
/QA Record (CA-758)

Nuclear Date
E210.01
DFS/Chrono
D. F. Schnell
J. E. Birk
J. V. Laux
M. A. Stiller
G. L. Randolph
R. J. Irwin
H. Wuertenbaecher
W. R. Campbell
A. C. Passwater
R. P. Wendling
D. E. Shafer
W. E. Kahl
O. Maynard (WCNOC)
N. P. Goel (Bechtel)
T. P. Sharkey
NSRB (Sandra Auston)

K.P. Heck
N401.04



Westinghouse
Electric Corporation

Commercial Nuclear
Fuel Division

Box 3012
Pittsburgh Pennsylvania 15230 3912

January 18, 1991

91SCP-C-0004

Mr. Randall J. Irwin (490)
Supervising Engineer, Nuclear Fuel
Union Electric Company
P.O. Box 149
St. Louis, Missouri 63166

Dear Mr. Irwin:

UNION ELECTRIC COMPANY
CALLAWAY PLANT
REVISED W(2) FUNCTIONS FOR CALLAWAY CYCLE 5

Enclosed for your use is a description of a revision to the W(z) function
in the Core Operating Limits Report for Callaway Cycle 5.

Sincerely,

Jeffrey L. Slater
Project Engineer
Mktg. & Customer Projects

JLS:mld

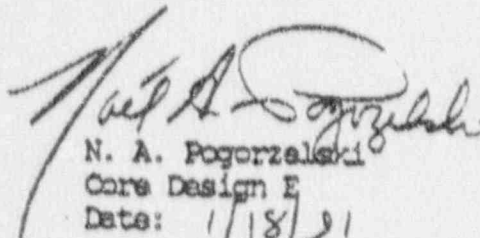
Enclosure

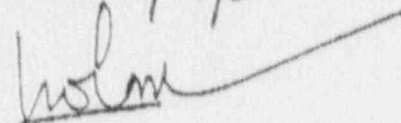
REVIEWED *Keith P. Hark* 1/18/91
AND APPROVED *Randall Irwin* 1/18/91
PER FDP-ZZ-0101

REVISED W(z) FUNCTIONS FOR CALLAWAY CYCLE 5

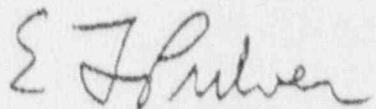
The W(z) functions for Callaway Cycle 5 have been revised due to FQ violations when they are applied to the measured FQ as a function of height. The W(z) functions were evaluated and margin has been determined at BOL and MDL. By using a radial xenon penalty appropriate to the time in life, the BOL W(z) may be reduced by 1% and MDL by 1/2%.

Revised W(z) functions will follow. Please note that the revised functions will be slightly different (in the third decimal place) than the values derived with the above reductions.


 N. A. Pogorzelski
 Core Design E
 Date: 1/18/91


 H. Q. Lam
 Core Design E
 Date: 1/18/91


 S. Ray, Manager
 Core Design E
 Date:


 Reviewed: E. F. Pulver
 Core Design E
 Date: 1/18/91