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ALEXICH,M.P. Indiana & Michigan Electric Co.
RECIP.NAME RECIPIENT AFFILIATION
DENTON,H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Advises of rev to Westinghouse LOCA/ECCS evaluation model. Rev effects flooding rate info generated by WREFLOOD code as input to BART code.Rev discussed in encl Westinghouse 850403 & util 850322 ltrs.

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April 19, 1985
AEP:NRC:0745W

Donald C. Cook Nuclear Plant Unit No. 1
Docket No. 50-315
License No. DPR-58
INPUT METHODOLOGY REVISION TO WESTINGHOUSE LOCA/ECCS EVALUATION MODEL

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Denton:

This letter is submitted to inform you of an input methodology revision, which is described in the two attachments: letter 85AE*-G-009, dated April 3, 1985, and letter NS-NRC-85-3025, dated March 22, 1985. The input methodology revision, which we have discussed with your staff, affects the flooding rate information generated by the WREFLOOD code which is input to the BART code.

This revision is expected to result in an increase in peak clad temperature. However, Westinghouse has informed us that their evaluation of BART results for D. C. Cook Nuclear Plant Unit 1 indicates that the 2200°F limit of 10CFR50.46 will not be exceeded as a result of this revision.

A revised LOCA/ECCS analysis will be performed for D. C. Cook Unit 1 in the near future. D. C. Cook Unit 1 is currently shut down for an In Service Inspection outage and not expected to return to service until July, 1985 at the earliest. This revised analysis will be reviewed and sent to you for review by your staff prior to startup of the next cycle. No amendment to Technical Specifications is expected to result from the revised analysis.

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This information in this letter will be reviewed by the Plant Nuclear Safety Review Committee (PNSRC) and the Nuclear Safety and Design Review Committee (NSDRC) at a future meeting.

This document has been prepared following Corporate procedures which incorporate a reasonable set of controls to insure its accuracy and completeness prior to signature by the undersigned.

Very truly yours,

M. P. Alexich
Vice President

JLB:wj
Attachments

cc: John E. Dolan
W. G. Smith, Jr. - Bridgman
George Bruchmann
R. C. Callen
R. Charnoff
NRC Resident Inspector - Bridgman

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85AE*-G-009
April 3, 1985
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FILE IVD 3100
EXP 999999

Indiana and Michigan Electric Company
c/o Joseph L. Bell
Engineer, Nuclear Materials and Fuel Management
American Electric Power Service Corporation
One Riverside Plaza, 20th Floor
Columbus, OH 43215

Dear Mr. Bell: ~~APR 1 5 1985~~ JB 4-15-85

AMERICAN ELECTRIC POWER CORPORATION
D.C. COOK UNIT 1
BART-WREFLOOD INPUT REVISION

This letter is to inform you of an input methodology revision in the interface between two computer codes used in the Westinghouse Emergency Core Cooling System (ECCS) evaluation model used to demonstrate compliance with Appendix K to 10CFR50.46. The code interface methodology revision may have an impact on the ECCS analysis for the D. C. Cook Unit 1 Plant. Specifically, the input methodology revision concerns the input interface between the BART code and the WREFLOOD code in the large break loss-of-coolant-accident (LOCA) analyses. The WREFLOOD code calculates the thermal-hydraulic response for the reactor coolant system during the refill and reflood period following the large break LOCA blowdown. The WREFLOOD code calculates the core reflooding rate which is used as an transfer coefficients used to determine the hot rod peak cladding temperature. The revision in the input methodology may result in an increase in calculated peak cladding temperature for analyses which have used the BART computer code. This problem has been discussed with Dr. Brian Sheron and Mr. Norman Lauben of the Nuclear Regulatory Commission (NRC) staff and a letter, Reference 1, has been sent describing the problem. Additional details regarding this problem may be found in the reference which is provided as an attachment.

Westinghouse has reviewed the D.C. Cook Unit 1 LOCA analysis which has been performed with the Westinghouse ECCS evaluation model incorporating the BART code and WREFLOOD code interface. We believe the effect of the input methodology revision will not result in the analysis exceeding the 2220 F regulatory limit on peak cladding temperature for D. C. Cook Unit 1. A reanalysis of D. C. Cook Unit 1 is in progress, and you will be notified of the results at the earliest date possible.

If you have any questions concerning these modifications and the status of your reanalysis, please contact Mr. Brian McIntyre of the Nuclear Safety Department at (412) 374-5506

Very truly yours,

B. M. Bowman

B. M. Bowman
Project Manager, NFD Projects

BMB:mld

ATTACHMENT

cc: M. P. Alexich
J. M. Cleveland
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