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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: Suppls 840823 ltr re Tech Spec change by sumitting addl info re application of BART code at facility,per NRC 841031 request.Westinghouse 841109 ltr re BART data base range encl.

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INDIANA & MICHIGAN ELECTRIC COMPANY

P.O. BOX 16631
COLUMBUS, OHIO 43216

November 21, 1984
AEP:NRC:0745Q

Donald C. Cook Nuclear Plant Unit No. 1
Docket No. 50-315
License No. DPR-58
ADDITIONAL INFORMATION SUPPORTING TECHNICAL SPECIFICATION CHANGE

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

Dear Mr. Denton:

This letter and its attachment provide a supplement to letter AEP:NRC:0745M, dated August 23, 1984. As requested during an October 31, 1984 telephone conference call with members of your staff, we are transmiting the requested information describing the application of the BART code to the Donald C. Cook Nuclear Plant, Unit 1. The attached letter W-AEP/0175, dated November 9, 1984, discusses the comparison between the BART data base range and D.C. Cook, Unit 1 specific data in more detail.

In compliance with the requirements of 10 CFR 50.91(b)(1), a copy of this letter and its attachments have been transmitted to Mr. R.C. Callen of the Michigan Public Service Commission.

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

11-21-84

A001
1/1

JLB/bjs

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

Westinghouse Electric Corporation

Water Reactor Divisions

Nuclear Fuel Division

Box 3912
Pittsburgh Pennsylvania 15230

84AE*-G-058
November 9, 1984
Keywords: AEP COOK-1 BART
LOCA-ANALYSIS
LICENSING
Reference: 1) W-AEP/0157 dated August 9, 1984

W-AEP/0175

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: ~~NOV 1 5 1984~~ JXB 11-15-84

AMERICAN ELECTRIC POWER SERVICE CORPORATION
D.C. COOK UNIT 1
NRC QUESTIONS ON BART ANALYSIS

Attached is the Westinghouse response to the NRC reviewer's questions as provided in your October 31st telephone call regarding the referenced LOCA analysis.

If you require further information on the BART Analysis please call us.

Very truly yours,

R. T. Meyer
Project Engineer, NFD Projects

RTM:mld

ATTACHMENT

cc: M. P. Alexich
J. M. Cleveland
G. John
V. D. Vanderburg
W. L. Zimmermann

November 9, 1984

NRC REVIEW OF AEP BART ANALYSIS

NRC Questions:

A.1 Confirm that the grid model was not used

A.2 Confirm that node size was 6 inches or less

A.3 Provide Cook 1 analysis range of parameters comparison to BART data base range of parameters given on Page 10 of the BART SER

Response A(1)

The grid model was not used. At the time that the AEP BART analysis was being performed, the BART Grid Model SER had not been issued. Rather than taking the risk of using an unapproved model, the grid model was not used.

Response A(2)

The node size in the model was six (6) inches or shorter. Specifically, node size from 0.0 to 5.5 feet and from 8.00 to 12.00 feet was 6 inches; node size from 5.5 feet to 8.00 feet was 3 inches. Thus, all nodes are six inches or shorter with a finer node size of 3 inches being used in the vicinity of the rod where the peak temperatures typically occur.

Response A(3)

A comparison of the range of the D.C Cook UNit 1 analysis parameters and the BART data base range of parameters is shown in Table I. The values clearly illustrate that all of the analysis parameters fall within the range of the BART data base.

TABLE I

COMPARISON OF PARAMETERS FOR D. C. COOK
ANALYSIS WITH BART DATA BASE

Parameter	BART Data Base Range	AEP Analysis Range
Pressure (psia)	20 - 60	20.5
Initial Temperature (^{o}F)	1100 - 1600	1465 - 1563
Initial Power (kw/ft)	0.45 - 1.2	0.60 - 0.63
Inlet Subcooling (^{o}F)	20 - 140	57 - 127
Reflood Rate (in/sec)	0.6 - 1.5	0.67 - 1.15