REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8504030214 DOC.DATE: 85/03/29 NOTARIZED: NO DOCKET #
FACIL:50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315
50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana & 05000316
AUTH.NAME AUTHOR AFFILIATION
ALEXICH,M.P. Indiana & Michigan Electric Co.
RECIP.NAME RECIPIENT AFFILIATION
DENTON,H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Responds to 841114 request for addl info re Generic Ltr 83-28,Items 4.2.1 & 4.2.2.Response re Item 4.3 submitted on 841221.Plant procedures to be revised to incorporate Rev 0 to 831014 "Maint Program for DB-50 Reactor Trip Switchgear."

DISTRIBUTION CODE: A055D COPIES RECEIVED:LTR 1 ENCL 0 SIZE: 3
TITLE: OR/Licensing Submittal: Salem ATWS Events GL-83-28

NOTES: 05000315
OL:10/25/74
05000316
OL:12/23/72

	RECIPIENT ID CODE/NAME		COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME		COPIES LTTR	COPIES ENCL
	NRR ORB1 BC	01	3	3				
INTERNAL:	ACRS		6	6	ADM/LFMB		1	0
	ELD/HDS3		1	0	IE/DI		1	1
	IE/DQAVT		1	1	NRR/DE/EQB		1	1
	NRR/DE/MEB		1	1	NRR/DHFS/HFEB		1	1
	NRR/DHFS/LQB		1	1	NRR/DHFS/PSRB		1	1
	NRR/DL DIR		1	1	NRR/DL/ORAB		1	1
	NRR/DL/SSPB		1	1	NRR/DL/TAPMG		1	1
	NRR/DSI/ASB		1	1	NRR/DSI/ICSB		2	2
	NRR/DSI/PSB		1	1	NRR/DSI/RSB		1	1
	REG FILE	04	1	1	RGN3		1	1
EXTERNAL:	LPDR	03	2	2	NRC PDR	02	1	1
	NSIC	05	1					

TOTAL NUMBER OF COPIES REQUIRED: LTTR 33 ENCL 30

INDIANA & MICHIGAN ELECTRIC COMPANY

P.O. BOX 16631
COLUMBUS, OHIO 43216

March 29, 1985

AEP:NRC:0838G

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315, 50-316
License Nos. DPR-58, DPR-74
GENERIC LETTER 83-28
RESPONSE INFORMATION REQUEST ON ITEMS 4.2.1 and 4.2.2

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

Dear Mr. Denton:

This letter responds to your staff's November 14, 1984 request for additional information concerning Generic Letter 83-28, Items 4.2.1 and 4.2.2. A response concerning Item 4.3 was submitted in letter AEP:NRC:0838E on December 21, 1984.

Item 4.2.1

The Westinghouse Owners Group (WOG) recommended maintenance program titled "Maintenance Program for DB-50 Reactor Trip Switchgear, Rev. 0: 10/14/83," (WOG Maintenance Program DB-50) by E. Reed, N. E. Stoyanoff, and E. Vogeding, has been approved for use at the D. C. Cook Plant with some modifications as explained below. This modified maintenance program has been transmitted to the plant for incorporation into the plant maintenance procedures. The plant procedures will be revised accordingly, and the revised procedures will be used during the 1985 Unit 1 refueling outage.

- The WOG Maintenance Program DB-50 has been revised to require all of the maintenance steps to be performed at each refueling outage or after 200 close-trip cycles of the circuit breaker since the last maintenance activity. In addition, actual voltage acceptance values for the 250-volt shunt trip attachment and the 48-volt undervoltage trip attachment have been provided instead of the percentages used in the WOG Maintenance Program DB-50.

- The WOG Maintenance Program DB-50 recommended maintenance interval has been revised from a six months cycle to refueling outages for activities 1 through 17. These circuit breakers have been maintained at refueling outages using the original Westinghouse instruction books and applicable technical bulletins as updated. These circuit breakers have never failed to trip when required either for surveillance testing or when actuated by the reactor protection system. The circuit breakers are subjected to light

A055
1/0

[illegible]

electrical service and are located in a clean and dry environment. An evaluation of the light duty, past history of adequate maintenance and non-hostile surroundings, together with a past history of no failures to trip, warrants the limitation of the maintenance interval to the refueling outage.

The potential for human error always exists during the removal, teardown, inspection, reassembly, and reinstallation of any component or device. An error such as the failure to properly torque certain bolts during the reassembly process could escape detection during post-maintenance operability tests, but cause a failure later during an actual demand. In addition, we believe the wear and tear on the breaker components will be increased by increasing the maintenance frequency. This wear and tear, because of too frequent maintenance, could exceed the wear incurred through normal usage and surveillance testing. In light of these two factors, we believe that increasing the maintenance frequency will decrease the strived for reliability and reduce, rather than enhance, the safety function of the breakers.

Instead of increasing the maintenance frequency, we propose to trend the response time of the Shunt Trip features when they are tested periodically, in the monthly and startup surveillance test procedures. The trending analysis will be performed at each surveillance interval in accordance with criteria provided by the cognizant Electrical Engineer. Unacceptable performance will be reviewed and corrective action taken using the procedure outlined in 4.2.2 below.

- The 15 items listed in the NRC letter will be included in the plant maintenance procedure but will also be revised from a six months cycle to refueling outages. Items 1, 2, 3, and 5 listed for the refueling outage maintenance interval will be included in the plant maintenance procedure. The connections which will permit measuring the response time for the undervoltage trip (Item 4) will be installed as part of the shunt trip attachment modification. The plant specific design for this was submitted to the NRC in letter AEP:NRC:0838E dated December 21, 1984, and was approved. The plant procedures will be revised to include the measurement of the undervoltage trip time.

Item 4.2.2

Recording and trending the undervoltage trip device minimum trip voltage (dropout voltage) is required and is described in the WOG Maintenance Program DB-50. Trending this parameter will allow compliance with the maintenance program and will use the recommended acceptance and corrective action. This trending activity will be implemented at the same time the revised procedure is implemented. Trending will begin with the first refueling outage that the shunt trip attachment modification is installed. Additional prescribed trending is indicated below.

- The trip force will be measured in accordance with the referenced procedure and will be recorded and trended; the breaker response time for undervoltage trip will be measured, recorded and trended; and the breaker insulation resistance will be measured, recorded and trended.

- The trending analysis will be performed by members of the plant staff using criteria in the WOG Maintenance Program DB-50. The acceptance criteria will be provided by the Cognizant Electrical Engineer if it is not provided for in the WOG Maintenance Program DB-50. The trending program analysis will be conducted at each refueling outage coincident with the breaker maintenance. The Cognizant Electrical Engineer will evaluate unacceptable variations in parameters, outside the acceptance criteria. After this evaluation, the Cognizant Electrical Engineer will initiate a review of the maintenance procedure, replacement of the degraded parts, and evaluation of maintenance frequency or other steps as required to restore the circuit breakers to a condition of continued reliability.

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

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

[illegible]