

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

MISSION NBR: 8909220178 DOC. DATE: 89/09/15 NOTARIZED: NO DOCKET #
 CIL: 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 Power Co. (formerly Indiana & Michigan Ele
 RECIP. NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Responds to NRC 890801 ltr re violations noted in Insp Repts
 50-315/89-21 & 50-316/89-21.

DISTRIBUTION CODE: IE01D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 7
 TITLE: General (50 Dkt)-Insp Rept/Notice of Violation Response

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTR ENCL
	PD3-1 PD	1 1	GIITTER, J.	1 1
INTERNAL:	AEOD	1 1	AEOD/DEIIB	1 1
	AEOD/TPAD	1 1	DEDRO	1 1
	NRR SHANKMAN, S	1 1	NRR/DEST DIR	1 1
	NRR/DLPQ/PEB	1 1	NRR/DOEA DIR 11	1 1
	NRR/DREP/EPB 10	1 1	NRR/DREP/RPB 10	2 2
	NRR/PMAS/ILRB12	1 1	NUDOCS-ABSTRACT	1 1
	OE LIEBERMAN, J	1 1	OGC/HDS1	1 1
	REG FILE 02	1 1	RES MORISSEAU, D	1 1
	RGN3 FILE 01	1 1		
EXTERNAL:	LPDR	1 1	NRC PDR	1 1
	NSIC	1 1		

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,
 ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION
 LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTR 23 ENCL 23



AEP:NRC:1090F

Donald C. Cook Nuclear Plant Unit 2
Docket No. 50-316
License No. DPR-74
INSPECTION REPORTS 50-315/89021 (DRP) AND
50-316/89021 (DRP); RESPONSE TO VIOLATION

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Attn: A. B. Davis

September 15, 1989

Dear Mr. Davis:

This letter is in response to W. L. Axelson's letter dated August 1, 1989, which forwarded the report on the routine safety inspection conducted by members of your staff. This inspection was conducted from June 7 through July 18, 1989 on activities at the Donald C. Cook Nuclear Plant Units 1 and 2. The Notice of Violation attached to Mr. Axelson's letter identified one severity level IV violation associated with Unit 2 overtemperature and overpower delta-T reactor trip setpoints. In a phone conversation on August 31, 1989, Mr. Axelson approved an extension of our violation response time to September 15, 1989. Our violation response is provided in the attachment to this letter.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "M. P. Alexich".

M. P. Alexich
Vice President

MPA/eh

Attachment

IEO1
11

Mr. A. B. Davis

-2-

AEP:NRC:1090F

cc: D. H. Williams, Jr.
W. G. Smith, Jr. - Bridgman
R. C. Callen
G. Charnoff
NFEM Section Chief
A. B. Davis - Region III
NRC Resident Inspector - Bridgman

Mr. A. B. Davis

-3-

AEP:NRC:1090F

bc: S. J. Brewer/B. P. Lauzau
T. O. Argenta/R. F. Kroeger
P. A. Barrett - w/o attachment
J. G. Feinstein - w/o attachment
M. L. Horvath - Bridgman - w/o attachment
J. F. Kurgan - w/o attachment
J. J. Markowsky
J. B. Shinnock - w/o attachment
S. H. Steinhart/S. P. Hodge
J. Gitter, NRC - Washington, D. C.
AEP:NRC:1090F
DC-N-6015.1



ATTACHMENT TO AEP:NRC:1090F

RESPONSE TO VIOLATION



NRC Violation

"Unit 2 Technical Specification 2.2.1 requires reactor trip system instrumentation setpoints shall be set consistent with Trip Setpoint values shown in Table 2.2-1. For Over-temperature Delta-T and Overpower Delta-T the maximum channel trip points shall not exceed computed trip points by more than 3.3 percent and 2.6 percent Delta-T span respectively.

Technical Specification 3.3.1.1 requires the Overtemperature and Overpower Delta-T channels OPERABLE in MODEs 1 and 2, but provides that with the number of OPERABLE channels one less than the total number of channels, STARTUP and/or POWER OPERATION may proceed if the inoperable channel is placed in the tripped condition within one hour.

Contrary to the above, Unit 2 was in POWER OPERATION subsequent to March 31, 1989, with Channel 2 Overtemperature and Overpower Delta-T trip points outside their respective accuracy ranges (both were over 4 percent high) and therefore inoperable, but the inoperable channels were not placed in the trip condition, pending data evaluation, until May 24, 1989.

This is a Severity Level IV violation (Supplement I)."

Response to Violation

At the time of the cited violation, Unit 2 had returned to full power operation following the steam generator repair project (SGRP) outage. An extended set of calorimetric data was taken at approximately 99% power on March 31, 1989 to verify reactor coolant system flow (as required by Technical Specifications) and to verify reactor control system inputs. These data were taken in conjunction with our ongoing program for improvement of control room indication accuracy and control system response. Although it was expected that some flow redistribution would occur as a result of the Unit 2 steam generator repair, we failed to recognize that this redistribution would significantly affect loop delta-Ts used for calibration of the overpower and overtemperature reactor trip channels. The delta-T values used previously for calibration of the trip channels were based on data obtained during initial startup testing with periodic minor adjustments based on channel check information. No specific procedural requirement was in place to compare the delta-T obtained from measured calorimetric data to the Technical Specification (T/S) in order to confirm T/S compliance for the overtemperature and overpower delta-T trip

setpoints each time a unit was brought to power operation. Consequently, it was not until May 24, 1989, while plant Instrumentation and Control (I&C) Section personnel were reviewing a job order on the Unit 2 loop 2 delta-T control room indicators, that concern was raised over whether the instrument loop as calibrated placed the loop 2 overpower delta-T and overtemperature delta-T setpoints outside the T/S LCO.

(1) Corrective Actions Taken and Results Achieved

The Unit 2 loop 2 overpower and overtemperature delta-T trip setpoints were found to be outside the T/S on May 24, 1989. Upon discovery of this condition, the affected channel was immediately placed in the tripped condition. The control loop was subsequently recalibrated and declared operable on May 25, 1989.

(2) Corrective Action Taken to Avoid Further Violation

The reactor trips associated with Power Range Nuclear Instrumentation, Intermediate Range Instrumentation, Flux Rate, Reactor Coolant Flow, Overpower Delta-T, and Overtemperature Delta-T are all fuel cycle dependent in that the configuration of the core can affect both Neutron Leakage and Reactor Coolant Flow. In addition, delta-T can be affected by other contributors to changes in reactor flow (for example, steam generator tube plugging). There are procedures in place to assure that, except for Overpower Delta-T and Overtemperature Delta-T, these parameters are measured and are in compliance with Technical Specifications. The Technical Specifications also contain appropriate notes to allow verification and calibration of these circuits during power ascension. Prior to occurrence of the event discussed above Overpower Delta-T and Overtemperature Delta-T were not treated in the same manner.

In order to prevent a recurrence of this problem, the reactor coolant system (RCS) flow verification test procedure will be revised to require that when performing flow verification testing the test data showing the measured reactor coolant system delta-T and percent reactor power be forwarded to plant I&C for evaluation. Criteria will be established within the RCS flow verification procedure to require performance of an expedited evaluation to confirm T/S compliance if the measured delta-T (scaled to 100% power) on any loop decreases from the value on which the current calibration was performed by more than a conservatively



selected tolerance. In addition, a T/S amendment that allows for entry into modes 2 and 1 until verification testing of overpower and overtemperature delta-T trips can be accomplished is currently in management review in preparation for submittal to the NRC. The verification test will be performed as part of the power escalation program.

(3) Date When Full Compliance Will Be Achieved

Full compliance was achieved on May 24, 1989 when the Unit 2 loop 2 overpower and overtemperature delta-T channels were placed in the tripped condition. The channels were subsequently recalibrated and declared operable on May 25, 1989.

The procedural revisions discussed in Item (2) above are expected to be completed prior to the end of the Unit 2 refueling outage scheduled to commence in June, 1990.

