

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

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ACCESSION NBR: 8801070280 DOC. DATE: 87/12/31 NOTARIZED: NO DOCKET #
 FACIL: 50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315
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 BEILMAN, T.P. Indiana Michigan Power Co.
 SMITH, W.G. Indiana Michigan Power Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-022-00: on 871007, potential violation of ESF
 instrumentation limiting conditions of operation tolerances.

W/8 ltr.

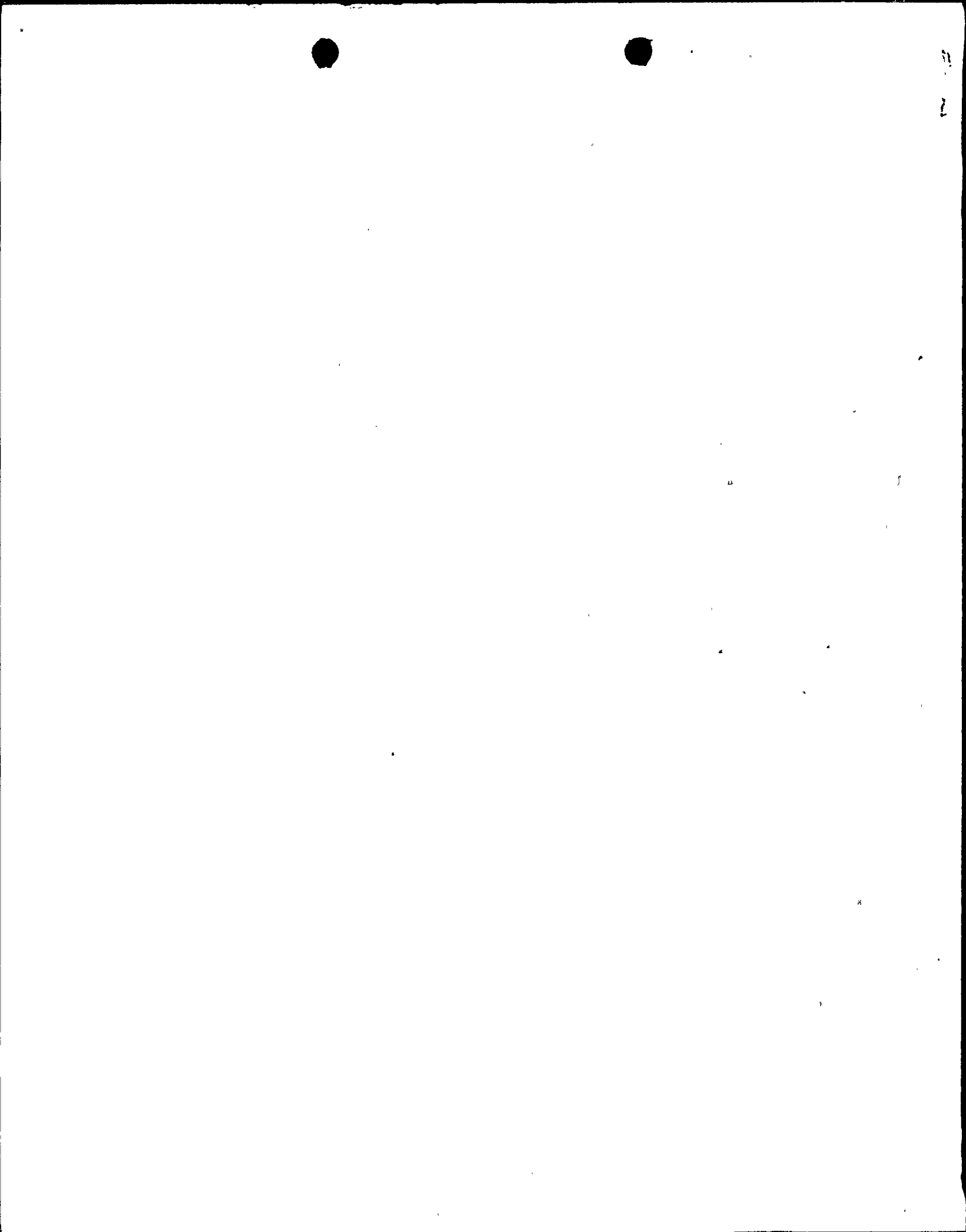
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 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

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	NRR/DRIS/SIB	1 1	NRR/PMAS/ILRB	1 1
	REG FILE 02	1 1	RES DEPY GI	1 1
	RES-TELFORD, J	1 1	RES/DE/EIB	1 1
	RGN3 FILE 01	1 1		
EXTERNAL:	EG&G GROH, M	5 5	FORD BLDG HOY, A	1 1
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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) D. C. COOK NUCLEAR PLANT - UNIT 1	DOCKET NUMBER (2) 0 5 0 0 0 3 1 5 1	PAGE (3) 1 OF 3
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TITLE (4) POTENTIAL VIOLATION OF ESF INSTRUMENTATION LIMITING
CONDITIONS FOR OPERATION TOLERANCES DUE TO CALIBRATION SHIFT

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
1	0	7	8	7	0	2	3	1	D.C. COOK PLANT-UNIT 2		0 5 0 0 0 3 1 6
1	0	7	8	7	0	1	2	3			0 5 0 0 0

OPERATING MODE (9) 6	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) 0 0 0	20.402(b)	20.406(c)	50.73(a)(2)(iv)	73.71(b)						
	20.406(a)(1)(i)	50.36(e)(1)	50.73(a)(2)(v)	73.71(c)						
	20.406(a)(1)(ii)	50.36(e)(2)	50.73(a)(2)(vii)	<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 365A)						
	20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)							
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)							
	20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)							

LICENSEE CONTACT FOR THIS LER (12)									
NAME T. P. BEILMAN INSTRUMENTATION AND CONTROL SUPERINTENDENT							TELEPHONE NUMBER		
							AREA CODE 6 1 6		
							4 6 5 - 5 9 0 1		

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input type="checkbox"/> NO						
					1	2	9
					8	1	8

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

As a result of routine calibrations performed during the 1987 Unit One Refueling Outage, 16 transmitters were found to have experienced a relatively small in magnitude but significant calibration shift. A similar calibration shift was exhibited by 20 Unit Two transmitters which were calibrated during the same time period while Unit Two was in a maintenance outage.

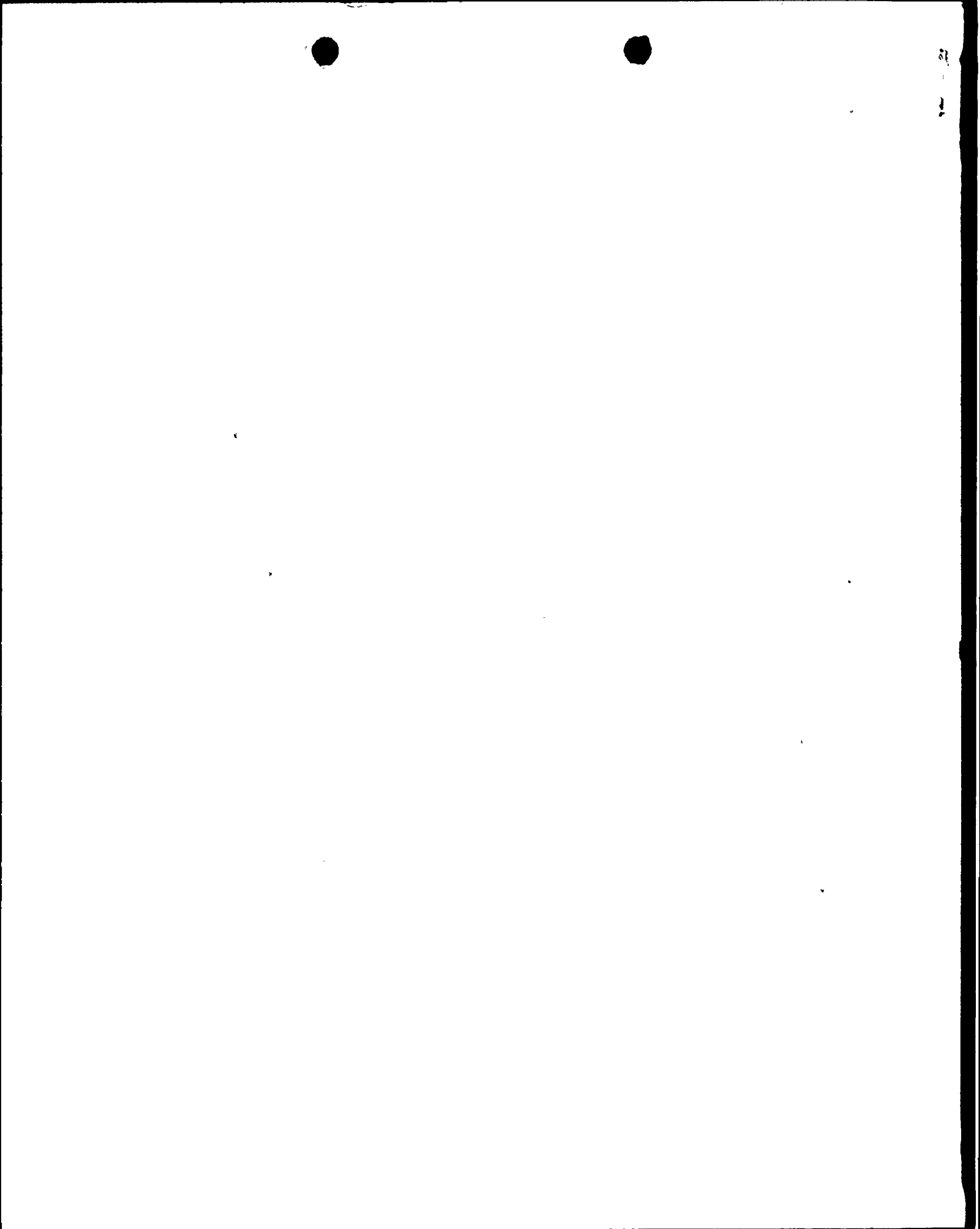
Due to the number of transmitters involved, an investigation was initiated to determine if a generic problem existed with transmitters manufactured by Foxboro Corporation. Current and historical data have been reviewed by corporate Instrumentation and Control (I&C) engineers who have determined (on November 30, 1987) that the transmitters were exhibiting normal characteristics and a generic problem did not exist.

The transmitters in question were repaired and recalibrated as necessary upon discovery.

The data is currently being evaluated by corporate Nuclear Safety and Licensing for possible adverse safety implications (e.g. non-conservative set points). Since the Limiting Condition for Operations (LCO) tolerance requirements may have been exceeded, this interim report is being submitted. A complete follow up report will be submitted upon completion of the evaluation (tentatively scheduled for January 29, 1988).

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PDR ADOCK 05000315
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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) D. C. COOK NUCLEAR PLANT - UNIT 1	DOCKET NUMBER (2) 0 5 0 0 0 3 1 5	LER NUMBER (8)			PAGE (3)		
		YEAR 8 7	SEQUENTIAL NUMBER - 0 2 2	REVISION NUMBER - 0 0			

TEXT (If more space is required, use additional NRC Form 306A's) (17)

Conditions Prior to Occurrence

Unit One was in Mode 6 (Refueling).
Unit Two was in Mode 5 (Cold Shutdown).

Description of Event

While Unit One was in a refueling outage, routine calibrations were performed on various Technical Specification transmitters (EIIS/XFMR). Initial evaluation of the "as found" data indicated that 16 transmitters were not within the required specification. During the same time period, Unit Two was shut down for a maintenance outage. Calibrations were performed on Unit Two transmitters, 20 of which exhibited calibration shifts similar to those found on Unit One. While the units were operating, there were no indications of significant transmitter drift based on the results of Technical Specification required Channel Checks. Therefore, it is believed that the calibration shifts may have resulted from normal system disruptions during unit shutdown and evolutions conducted while shut down, prior to performing calibrations.

An investigation was initiated to determine if a generic problem existed with transmitters manufactured by Foxboro Corporation. As-found data from the most recent calibrations was reviewed. Also reviewed were the maintenance histories of the transmitters, as well as historical calibration records. The information was evaluated by corporate I&C engineers who concluded (on November 30, 1987) that the transmitters had experienced calibration shift. The I&C engineers determined that there were 24 instances of calibration shift on Unit One with four of those possibly due to a calibration error, and two transmitters that were replaced. Also, there were 25 instances of calibration shift on Unit Two with one transmitter being replaced. It was concluded that this characteristic is a normal occurrence when relatively small in magnitude.

Based on this conclusion, it was determined that due to the lack of any identifiable trend, a generic problem did not exist.

However, several of the transmitters which experienced the calibration shift were redundant channels (EIIS/CHA) for safeguards actuation, and may have exceeded the tolerance of the Limiting Condition for Operation (LCO) requirement. These channels and their effect on safeguards actuation/logic are being evaluated by corporate Nuclear Safety and Licensing for adverse safety implications. A complete follow up report will be submitted upon the completion of the evaluation (tentatively scheduled for January 29, 1988).

There were no inoperative structures, components or systems that contributed to this event.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) D. C. COOK NUCLEAR PLANT - UNIT 1	DOCKET NUMBER (2) 0 5 0 0 0 3 1 5	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 7	- 0 2 2	- 0 0	0 3	OF	0 3

TEXT (If more space is required, use additional NRC Form 306A's) (17)

Cause of the Event

The cause of the event was normal calibration shift experienced by the transmitters.

Analysis of the Event

This interim report is being submitted since several of the transmitters were redundant channels for safeguards actuation and may have exceeded the tolerance for the LCO requirement. This event is being evaluated for adverse safety implications. A complete analysis of the event will be included in the follow up report (tentatively scheduled for January 29, 1988).

Corrective Action

Those transmitters found out of calibration were repaired, if necessary, and recalibrated. The need for further corrective action is being evaluated and if found necessary, will be described in the follow up report.

Failed Component Identification

The transmitter calibration errors were due to a relatively small in magnitude normal calibration shift and not due to component failure, with the exception of three transmitters that required replacement or component repair.

Previous Similar Events

None.

Indiana Michigan
Power Company
Cook Nuclear Plant
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616 465 5901



December 31, 1987

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Operating License DPR-58
Docket No. 50-315

Document Control Manager:

In accordance with the criteria established by 10 CFR 50.73
entitled Licensee Event Reporting System, the following
report is being submitted:

87-022-00

Sincerely,

A handwritten signature in cursive script, appearing to read 'W. G. Smith, Jr.'.

W. G. Smith, Jr.
Plant Manager

WGS:afh

Attachment

cc: J. E. Dolan
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