

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

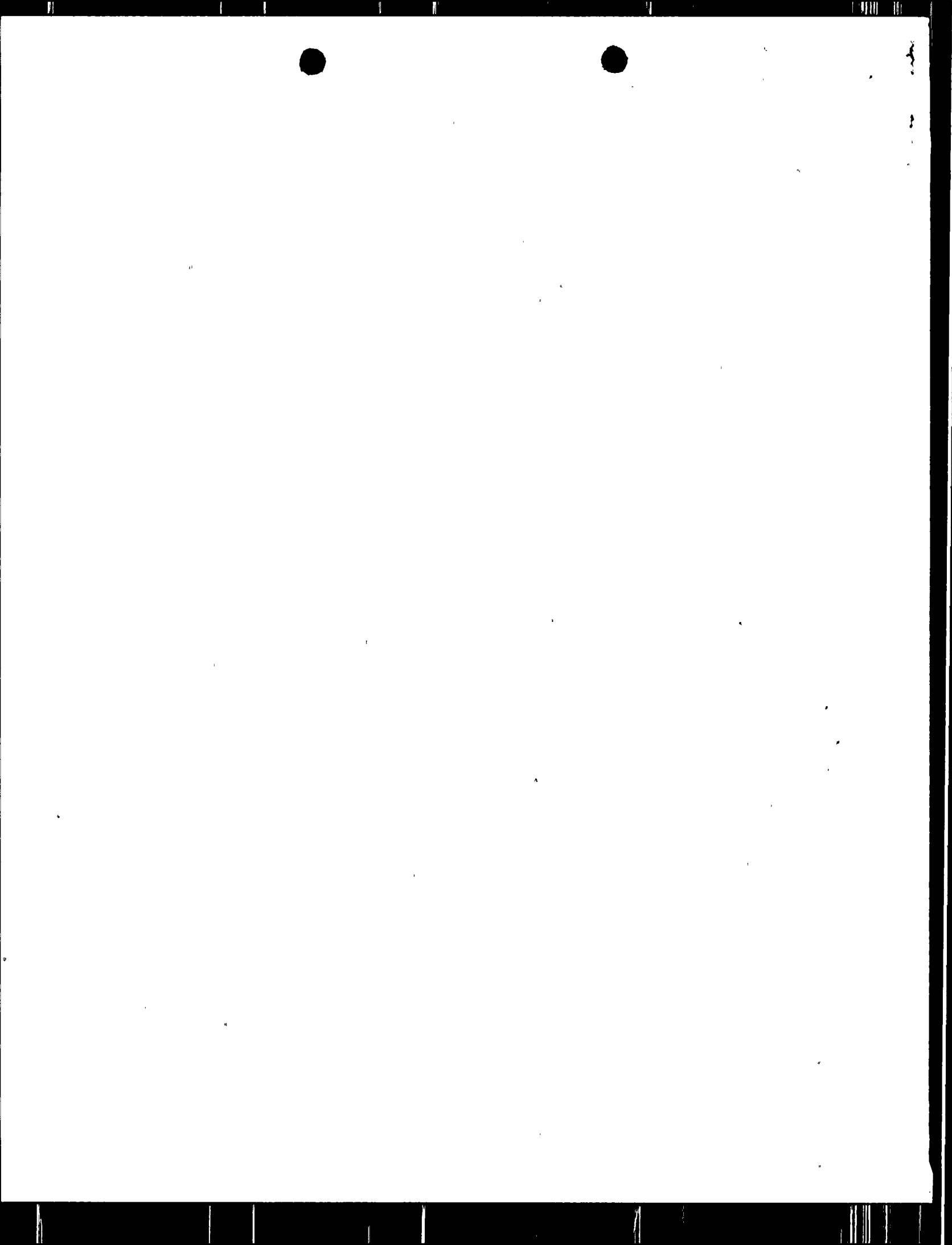
ACCESSION NBR: 8709170305 DOC. DATE: 87/09/11 NOTARIZED: NO DOCKET #  
 FACIL: 50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315  
 AUTH. NAME AUTHOR AFFILIATION  
 POSTLEWAIT, T. K. Indiana & Michigan Electric Co.  
 SMITH, W. G. Indiana & Michigan Electric Co.  
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-014-00: on 870812, failure to comply w/Tech Spec requirements for testing of turbine & motor driven auxiliary feed pumps & emergency diesel generators. Caused by procedural deficiencies. Components tested. W/870911 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5  
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD3-3 LA	1 1	PD3-3 PD	1 1
	WIGGINGTON, D	1 1		
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	AEOD/DOA	1 1	AEOD/DSP/NAS	1 1
	AEOD/DSP/ROAB	2 2	AEOD/DSP/TPAB	1 1
	DEDRO	1 1	NRR/DEST/ADS	1 0
	NRR/DEST/CEB	1 1	NRR/DEST/ELB	1 1
	NRR/DEST/ICSB	1 1	NRR/DEST/MEB	1 1
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	NRR/DEST/RSB	1 1	NRR/DEST/SGB	1 1
	NRR/DLPQ/HFB	1 1	NRR/DLPQ/QAB	1 1
	NRR/DOEA/EAB	1 1	NRR/DREP/RAB	1 1
	NRR/DREP/RPB	2 2	NRR/PMAS/ILRB	1 1
	<u>REG FILE</u> 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	H ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
	NSIC HARRIS, J	1 1	NSIC MAYS, G	1 1



## 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										PAGE (3) 1 OF 0 4					
TITLE (4) Failure to Comply with Technical Specification Requirements Due to Procedural Deficiencies																									
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 D. C. Cook - Unit 2						DOCKET NUMBER(S) 0 5 0 0 0 3 1 6										
0	8	1	2	8	7	8	7	0	1	4	0	0	0	9	1	1	8	7	0	5	0	0	0	1	1
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)				20.405(c)				50.73(a)(2)(iv)				73.71(b)											
		20.405(a)(1)(i)				50.38(e)(1)				50.73(a)(2)(v)				73.71(c)											
		20.405(a)(1)(ii)				50.38(e)(2)				50.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)											
		20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)															
		20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)															
		20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)															
LICENSEE CONTACT FOR THIS LER (12)																									
NAME T. K. Postlewait- Technical Engineering 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 NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC															
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)				MONTH	DAY	YEAR									
YES (If yes, complete EXPECTED SUBMISSION DATE) X NO																									

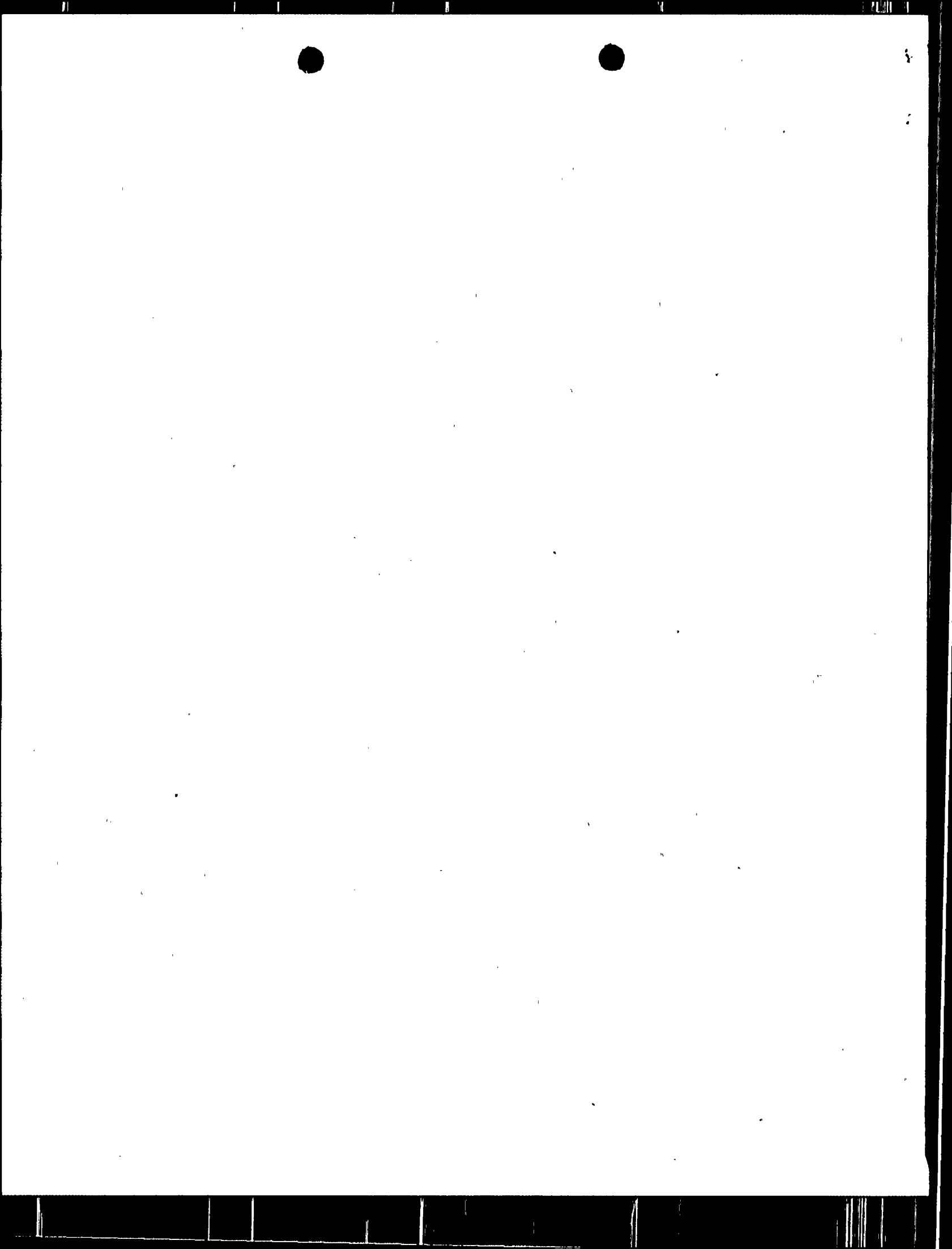
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

During a plant initiated Safety System Functional Inspection (SSFI) of the Auxiliary Feedwater System (AFW), (August 1987) several discrepancies were noted concerning the time response testing of certain AFW system components. The procedures did not literally comply with the Technical Specification (T/S) Requirements for the testing of the Turbine and Motor Driven Auxiliary Feed Pumps and the Emergency Diesel Generators.

Subsequent testing and reviews of past data for Unit 2 proved that all components functioned as designed and within the overall time response required by T/S. Unit 1 testing will be completed prior to entering Mode 3 (Hot Standby) after the current refueling outage.

To prevent recurrence, the applicable surveillance procedures will be revised prior to the next scheduled surveillance. A reevaluation will be performed of the extensive procedural review conducted in 1986 to identify such discrepancies. Any non-complying conditions will be reported as required by 10 CFR 50.73. A review of the data indicates that a significant safety problem as defined in 10 CFR 50.59 did not exist. A supplemental LER will be submitted if the Unit 1 data indicates that a safety problem occurred; however, the results are expected to be comparable.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Conditions Prior to Occurrence

Unit 1 in Mode 6 (Refueling)

Unit 2 in Mode 1 (Power Operation at approximately 50 percent Reactor Thermal Power)

Description of Event

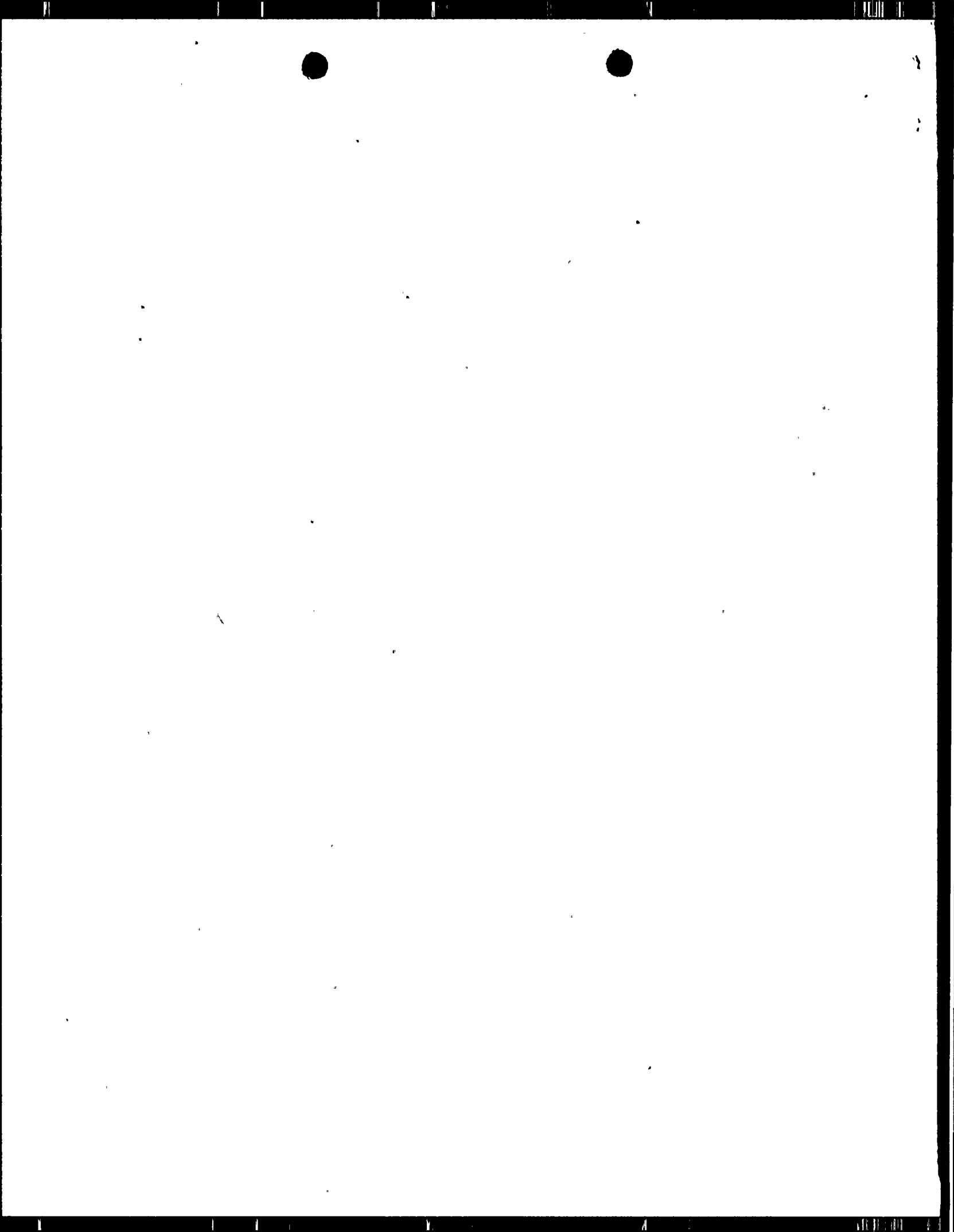
During the review of a plant initiated Safety System Functional Inspection (SSFI) of the Auxiliary Feedwater System (AFW) (EIIS/BA), the following discrepancies were noted concerning Technical Specification (T/S) required time response testing.

1. On August 12, 1987, at 1715 hours, it was determined that the procedure for the automatic actuation test of the AFW Pumps (EIIS/BA-P) did not literally comply with T/S 4.3.2.1.3 and Table 3.3-5, Item 12a. Contrary to the T/S, the time response procedure did not include the time response of the time delay relays (EIIS/Z) in the Reactor Coolant Pump (RCP) bus undervoltage circuit (EIIS/AB-BU) for the Turbine Driven Auxiliary Feedwater Pump (TDAFP) (EIIS/BA-P) auto start total channel response time.

The Unit 2 TDAFP was declared inoperable. The applicable surveillance test procedure was revised to include the time delay. The TDAFP time delay relay circuits were successfully tested and the TDAFP was declared operable on August 13, 1987, at 1605 hours. Unit 1 was in a non-applicable mode.

2. On August 14, 1987, at 1355 hours, it was determined that the procedure for the automatic actuation test of the AFW Pumps did not literally comply with T/S 4.3.2.1.3 and Table 3.3-5, Item 11a. Contrary to the T/S, the time response procedure did not include the time response from the West Main Feed Pump (MFP) stop valve closure relays (EIIS/SJ-CZ) for the Motor Driven Auxiliary Feed Pumps (MDAFP) (EIIS/BA-P) auto start on a loss of main feedwater. The procedure which previously tested the East MFP channel only required that stop valve closure for the West channel be simulated and then timed the actuation of the East channel by verifying closure of the East and West MDAFP pump breakers (EIIS/BKR) via the loss of MFP signal. This procedure should have also been performed by simulating the East stop valve closure and timing the West channel.

The Unit 2 MDAFP's were declared inoperable. The applicable surveillance test procedure was revised to include the testing of the West Channel. The MDAFP's were successfully tested and declared operable at 1818 hours. Unit 1 was in a non-applicable mode.



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Description of Event (cont'd)

3. On August 14, 1987, at 1200 hours, it was determined that the procedure for the automatic actuation test of the Emergency Diesel Generator (DG) (EIIS/LC) did not literally comply with T/S 4.3.2.1.3 and Table 3.3-5, Item 10a. Contrary to the T/S, the time response procedure timed but did not include in the overall time response calculation the appropriate response time data for the loss of 4160V to the auto start of the DG via three loss of voltage relays (per bus) and a two second time delay relay to the actuation of the MDAFP's.

The Unit 2 data was reviewed and the overall time response was recalculated. The data indicated that the overall time response was within the T/S requirements. Unit 1 was in a non-applicable mode.

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

Cause of Event(s)

The cause of these events were procedural deficiencies in that the applicable surveillance procedures did not ensure literal compliance with T/S requirements. They were apparently caused by oversight during procedure preparation and subsequent reviews. These oversights remained undetected until the detailed plant initiated SSFI was conducted on the AFW system.

Analysis of Event (s)

These events are being reported per 10 CFR 50.73(a)(2)(i) as the procedures did not literally comply with the T/S.

1. The Unit 2 time response testing of the time delay relays in the RCP bus undervoltage circuit indicated a maximum as-found time of 8.07 seconds (as-left maximum time 3.07 seconds). This time, added to the previous total time response data for RCP bus undervoltage results in an overall time response of  $\leq 45.0$  seconds, considerably less than the maximum 60.0 seconds allowed by the Technical Specifications. Unit 1 testing is scheduled for Mode 4 (Hot Shutdown) and the results are expected to be comparable.
2. The Unit 2 time response testing for the actuation of the East and West MDAFP from the West MFP indicated a maximum as-found (as-left) time of 0.112 seconds. This time added to the current start time result for loss of MFP to MDAFP start results in an overall time response of  $\leq 40.0$  seconds, considerably less than the 60.0 seconds allowed by the T/S. Unit 1 testing is scheduled for Mode 4 and the results are expected to be comparable.





## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Analysis of Event(s) (cont'd)

3. The review of Unit 2 time response data for the three relays and two second time delay relay before the diesel generator auto start signal for the time response of the actuation of the MDAFP's on Loss of 4160 Volt Emergency bus indicates that overall time response results were < 42.0 seconds, considerably less than the 60.0 seconds allowed by T/S. A review of Unit 1 data indicates that overall time response results were < 41.0 seconds, considerably less than the 60.0 seconds allowed by T/S.

Although past tests were limited in that they did not literally comply with the time response requirements of the above Technical Specifications, the procedures did verify that the required circuitry was intact.

From the above analysis, it is concluded that:

1. Although the components were not tested in literal compliance with the T/S, the components were operable and would have functioned properly and
2. The procedural deficiencies did not result in a condition that posed a significant safety problem as defined in 10 CFR 50.59.

A Supplemental LER will be submitted if the Unit 1 data indicates that a significant safety problem occurred; however, the results are expected to be comparable.

Corrective Actions

The immediate corrective action for Unit 2 was to test the components in a method to demonstrate compliance with the T/S requirements. The tests proved all components to be functional and operable. Unit 1 testing will be completed prior to entering Mode 3 (Hot Standby) after the current refueling outage.

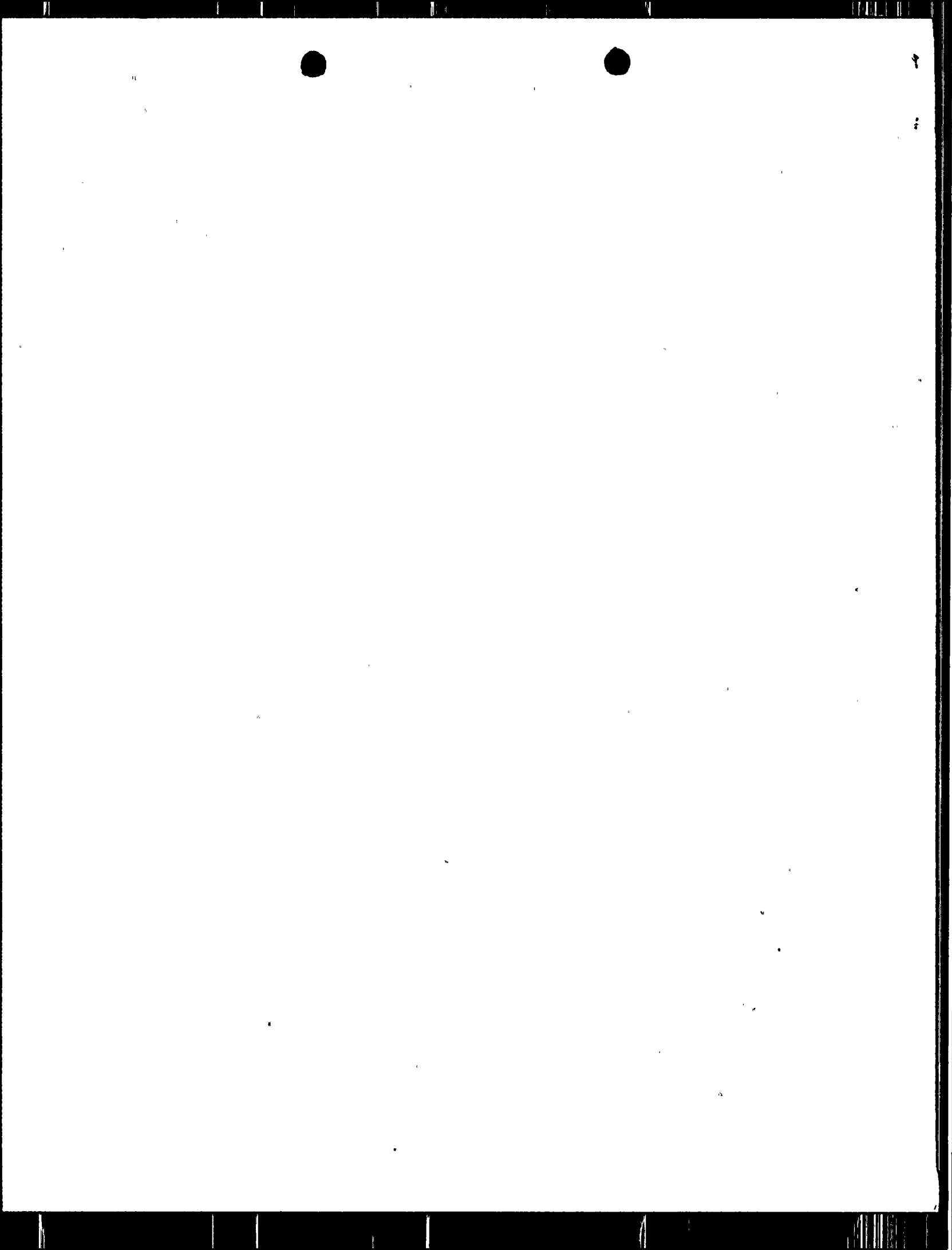
To prevent recurrence the applicable surveillance procedures will be revised prior to the next scheduled surveillance. A reevaluation will be performed of the extensive procedural review conducted in 1986 to identify such discrepancies. Any non-complying conditions will be reported as required by 10 CFR 50.73.

Failed Component Identification

There were no component failures related to this event.

Previous Similar Events

50 315/86-006-0  
50 315/86-007-0 and  
50 315/86-013-0



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Power Company  
Cook Nuclear Plant  
P.O. Box 458  
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616 465 5901



September 11, 1987

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

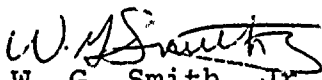
Operating License DPR-58  
Docket No. 50-315

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:

87-014-00

Sincerely,

  
W. G. Smith, Jr.  
Plant Manager

/afh

Attachment

cc: John E. Dolan  
A. B. Davis, Region III  
M. P. Alexich  
R. F. Kroeger  
H. B. Brugger  
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NRC Resident Inspector  
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D. Hahn  
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