

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9001050275 DOC.DATE: 89/12/28 NOTARIZED: NO DOCKET #
 FACIL:50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315
 AUTH.NAME AUTHOR AFFILIATION
 SAMPSON,J.R. Indiana Michigan Power Co.
 BLIND,A.A. Indiana Michigan Power Co.
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-015-00:on 891128,pyralarm fire detection zone
 inoperable w/o required roving fire watch.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 6
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD3-1 LA	1 1	PD3-1 PD	1 1
	GIITTER,J.	1 1		
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	ACRS WYLIE	1 1	AEOD/DOA	1 1
	AEOD/DSP/TPAB	1 1	AEOD/ROAB/DSP	2 2
	DEDRO	1 1	NRR/DET/ECMB 9H	1 1
	NRR/DET/EMEB9H3	1 1	NRR/DET/ESGB 8D	1 1
	NRR/DLPQ/LHFB11	1 1	NRR/DLPQ/LPEB10	1 1
	NRR/DOEA/OEAB11	1 1	NRR/DREP/PRPB11	2 2
	NRR/DST/SELB 8D	1 1	NRR/DST/SICB 7E	1 1
	NRR/DST/SPLB8D1	1 1	NRR/DST/SRXB 8E	1 1
	NUDOCS-ABSTRACT	1 1	REG FILE 02	1 1
	RES/DSIR/EIB	1 1	RGN3 FILE 01	1 1
EXTERNAL:	EG&G WILLIAMS,S	4 4	L ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
	NSIC MAYS,G	1 1	NSIC MURPHY,G.A	1 1
	NUDOCS FULL TXT	1 1		

NOTE TO ALL "RIDS" RECIPIENTS:

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

FULL TEXT CONVERSION REQUIRED
 TOTAL NUMBER OF COPIES REQUIRED: LTTR 38 ENCL 38

Indiana Michigan
Power Company
Cook Nuclear Plant
P.O. Box 458
Bridgman, MI 49106
616-465 5901



December 28, 1989

United States Nuclear Regulatory Commission
Document Control Desk
Rockville, Maryland 20852

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:

89-015-00

Sincerely,

A handwritten signature in dark ink, appearing to read 'A.A. Blind', is written over the typed name.

A.A. Blind
Plant Manager

AAB:clw

Attachment

cc: D.H. Williams, Jr.
A.B. Davis, Region III
M.P. Alexich
P.A. Barrett
J.E. Borggren
R.F. Kroeger
NRC Resident Inspector
J.G. Gitter, NRC
R.C. Callen
G. Charnoff, Esq.
Dottie Sherman, ANI Library
D. Hahn
INPO
PNSRC
S.J. Brewer/B.P. Lauzau

TE22
111

9001050275 891228
PDR ADOCK 05000315
S FIC

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 5								
TITLE (4) Pyralarm Fire Detection Zone Inoperable Without Required Roving Fire Watch Due to Personnel Error																							
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	1	2	8	8	9	0	1	5	0	0	1	2	2	8	8	9	0	5	0	0	0		
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																					
1		20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)									
POWER LEVEL (10)		20.405(a)(1)(i)				50.38(c)(1)				50.73(a)(2)(v)				73.71(c)									
1		20.405(a)(1)(ii)				50.38(c)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)									
		20.405(a)(1)(iii)				X 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)(vii)(B)													
		20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(x)													
LICENSEE CONTACT FOR THIS LER (12)																							
NAME J. R. Sampson, Operations 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)

On 11-28-89 at 1140, the pyralarm fire detection Zone 3 for the 609' elevation of the Auxiliary Building was made inoperable when welding in the laundry room caused a standing alarm. Due to an operator error, a fire watch patrol was not assigned within one hour to tour the zone each hour while the zone was inoperable.

At 1400 on 11-28-89, the Zone 3 pyralarm fire detection became operable. When the Unit Supervisor notified the Fire Watch Dispatch to release the 609' elevation of the Auxiliary Building from the roving fire watch tour, the Unit Supervisor was informed that no fire watch had been assigned.

This event was discussed with the involved Control Room operators. The operators are fully aware of their responsibilities to correctly read components labels and to maintain good communications in the Control Room.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
D.C. Cook Nuclear Plant - Unit 1	05000315	89	015	00	02	OF	05

TEXT (If more space is required, use additional NRC Form 368A's) (17)

Condition Prior to Occurrence

Unit 1 in Mode 1 operating at 100% power.

Unit 2 in Mode 1 operating at 100% power.

Description of Event

On 11-28-89 between 1140 and 1400, the Unit 1 (U-1) pyralarm fire detection (EIIS/ID-DEC) Zone 3 (609' Elevation Auxiliary Building) was inoperable as a result of a standing alarm due to welding activities in the 609' Auxiliary Building Laundry Room. Contrary to U-1 Technical Specifications (TS) 3.3.3.7 (Fire Detection Instrumentation) and Plant Manager Standing Order (PMSO) .095 (10 CFR 50 Appendix R Alternate Safe Shutdown Requirements) a fire watch patrol was not established within one hour to inspect the inoperable zone at least once per hour.

The following is a summary of the events that led up to this error.

On 11-28-89 during the 08-16 shift, a Senior Reactor Operator (SRO) assigned to the control panels received a call that welding would be taking place in the Seal Injection Filter (EIIS/CB-FLT) room on the 587' elevation of the auxiliary building (pyralarm fire detection Zone 2). In addition, the SRO had been informed that hydrolazing was going to take place in the Unit 2 (U-2) West Residual Heat Removal (RHR) pump (EIIC/BP-P) room and that he could expect the pyralarm fire detection Zone 1 (587' Elevation Auxiliary Building) to alarm.

At 1140, the pyralarm abnormal alarm and two fire detection zone lights came in. The SRO assigned to the control panels acknowledged the alarm and checked the zone lights that had lit. The SRO felt confident that he saw Zone 1 (573' elev.) and Zone 2 (587' elev.) lights lit. Following the acknowledgement of the alarm, the SRO attempted to clear the alarm. The alarm cleared and came back in. The SRO acknowledged the alarm and noted that two zone lights were lit. The SRO assumed that the zone lights that were lit were for Zone 1 and Zone 2. Actually, Zone 1 (573' elev.) and Zone 3 (609' elev.) were lit. Zone 2 (587' elev.) was clear.

The SRO who responded to the alarm, notified the Fire Watch (FW) Dispatch that the Zone 1 and Zone 2 were inoperable and requested a fire watch patrol to tour the 587' elevation and 573' elevation of the Auxiliary Building. A FW was assigned to tour the 587' elevation and 573' elevation each half hour. Since, the SRO did not recognize that the Zone 3 light for the 609' elevation of the Auxiliary Building was standing, a FW was not requested to tour the 609' elevation of the Auxiliary Building.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
D.C. Cook Nuclear Plant - Unit 1	105000315	89	015	00	03	OF	05

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

A second Reactor Operator (RO) assigned to the Control Room had been informed early in the shift that welding would be taking place in the 609' elevation laundry room and that a FW was posted. In addition, the RO was informed that hydrolazing would be taking place in the 573' elevation West RHR pump room. When the pyralarm abnormal alarm and zone lights came in, the RO requested an operator to investigate the 609' elevation to ensure the alarm was due to welding in the laundry room. The RO completed PMI-4031 (Event Initiated Surveillance) Attachment 1 (Event Initiated Surveillance Item Tracking Sheet) and 1-OHP 4030.STP.021 (Event Initiated Surveillance) Data Sheet No. 19 (Standing Fire Detection Alarm) for Zone 1 and Zone 3. In addition the RO completed OHI-2211 (Maintenance of Operations Department Logs) Attachment-No. 3 (Open Items Form) for Zone 1 and Zone 3 to log the zones inoperable.

When the pyralarm detection alarm and lights came in, the U-1 Unit Supervisor (US) noted that the Zone 1 and Zone 3 lights were standing and that the PMI-4031 and OHI-2211 paperwork was being completed by the RO. The US also noted that the SRO assigned to the control panels had requested a roving FW. The US assumed that the SRO had requested a roving FW for the 609' elevation and 573' elevation of the Auxiliary Building. The US made a Control Room Log Book entry at 1140 that Zone 1 and Zone 3 were inoperable and that a roving FW had been established.

At 1400 the Zone 3 pyralarm light cleared. The US called the FW dispatch to remove the 609' elevation from the roving FW tour. The FW dispatch informed the US that a FW was touring the 573' elevation and 587' elevation of the Auxiliary Building per the Control Room call at 1140, but no FW had been requested to tour the 609' elevation Auxiliary Building area.

Cause of Event

The cause of this event is personnel error. The SRO who responded to the pyralarm and zone detection lights failed to correctly identify the zone lights that were actually lit.

Contributing to this event:

1. Due to his knowledge of hydrolazing in the RHR pump room and welding in the Seal Injection Filter room, the SRO who acknowledged the pyralarm had a preconceived idea as to which pyralarm detection zones he expected to see alarm.
2. A communication breakdown between the operators assigned to the Control Room contributed to this event. The operators failed to effectively communicate changes in plant status.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

YEAR SEQUENTIAL NUMBER REVISION NUMBER

D.C. Cook Nuclear Plant - Unit 1 0 5 0 0 0 3 1 5 8 9 - 0 1 5 - 0 0 0 4 OF 0 5

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

Analysis of Event

The failure to assign a FW patrol within one hour to tour the inoperable fire detection area was a violation of Technical Specification 3.3.3.7 and is reportable under 10 CFR 50.73(a)(2)(i)(B).

The 609' elevation of the Auxiliary Building pyralarm detection system was inoperable for about 2 hours and 20 minutes without a roving FW assigned to tour the area.

This analysis concludes that in the unlikely event of a fire, personnel would have been promptly aware of its presence, and would have been able to control and extinguish the fire without significant spreading of the fire or equipment damage. This conclusion is based on the following:

1. Although a FW was not assigned specifically to tour the 609' elevation of the Auxiliary Building, a trained FW passed through a major part of the 609' elevation area each half hour. The roving FW was assigned to tour the U-1 and U-2 Steam Generator Stop Valve Enclosure areas during the time the Zone 3 pyralarm detection was inoperable and passed through the 609' area on the way to those zones. Had a fire occurred on the 609' elevation of the Auxiliary Building, the fire would have been noted by the roving FW and corrective action would have been taken.
2. In addition to the roving FW passing through the 609' elevation each half hour, plant personnel enter the Auxiliary Building on the 609' elevation. Had a fire occurred on the 609' elevation of the Auxiliary Building, plant personnel passing through the 609' elevation would have noted the fire and reported it to the Control Room.
3. The 609' elevation of the Auxiliary Building is provided with a Preaction Dry Pilot Sprinkler System. This system has a compressed air pilot line with sealed sprinkler heads rated at 175°F. Had a fire occurred, the seal would have broken and Control Room Annunciator 102 Drop 128 (Aux Building El 609 or El 633 Fire) or Annunciator 202 Drop 129 (Aux Building El 609 Spr. Abnormal) would have alerted Control Room operators to investigate the cause of the alarm and to take corrective action.

Based on the above, this event is not considered to have created a significant safety concern, nor did it create a significant hazard to the health and safety of the general public.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

YEAR SEQUENTIAL REVISION
NUMBER NUMBER NUMBER

D.C. Cook Nuclear Plant - Unit 1 0 5 0 0 0 3 1 5 8 9 - 0 1 5 - 0 0 0 5 OF 0 5

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

Corrective Action

1. Since Zone 3 was operable when the US noted no FW patrol was assigned to the 609' elevation of the Auxiliary Building, no corrective action was required at the time this event was discovered.
2. This event was discussed with the SRO who failed to correctly identify the pyralarm detection zone lights that were standing. The SRO is fully aware of his responsibility to correctly identify a pyralarm by the zone light label.
3. This event was reviewed with each of the involved operators. Each operator is fully aware of his responsibilities to maintain good Control Room communications.

Fail Component Identification

None

Previous Similar Events

A review of Licensee Event Reports did not reveal a previous similar event where an operator failed to correctly identify a standing pyralarm and therefore did not request a roving FW.