

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8808310196 DOC. DATE: 88/08/25 NOTARIZED: NO DOCKET #
 FACIL: 50-305 Kewaunee Nuclear Power Plant, Wisconsin Public Service 05000305
 AUTH. NAME AUTHOR AFFILIATION
 BERNHOFT, S.L. Wisconsin Public Service Corp.
 STEINHARDT, C.R. Wisconsin Public Service Corp.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-009-00: on 880726, failure to perform procedure step during surveillance testing.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 6 ^{W/8} ltr.
 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
	GIITTER, J	1 1		
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	ACRS WYLIE	1 1	AEOD/DOA	1 1
	AEOD/DSP/NAS	1 1	AEOD/DSP/ROAB	2 2
	AEOD/DSP/TPAB	1 1	ARM/DCTS/DAB	1 1
	DEDRO	1 1	NRR/DEST/ADS 7E	1 0
	NRR/DEST/CEB 8H	1 1	NRR/DEST/ESB 8D	1 1
	NRR/DEST/ICSB 7	1 1	NRR/DEST/MEB 9H	1 1
	NRR/DEST/MTB 9H	1 1	NRR/DEST/PSB 8D	1 1
	NRR/DEST/RSB 8E	1 1	NRR/DEST/SGB 8D	1 1
	NRR/DLPQ/HFB 10	1 1	NRR/DLPQ/QAB 10	1 1
	NRR/DOEA/EAB 11	1 1	NRR/DREP/RAB 10	1 1
	NRR/DREP/RPB 10	2 2	NRR/DRIS/SIB 9A	1 1
	NUDOCS-ABSTRACT	1 1	REG FILE 02	1 1
	RES TELFORD, J	1 1	RES/DSIR DEPY	1 1
	RES/DSIR/EIB	1 1	RGN3 FILE 01	1 1
EXTERNAL:	EG&G WILLIAMS, S	4 4	FORD BLDG HOY, A	1 1
	H ST LOBBY WARD	1 1	LPDR	1 1
	NRC PDR	1 1	NSIC HARRIS, J	1 1
	NSIC MAYS, G	1 1		

TOTAL NUMBER OF COPIES REQUIRED: LTTR 46 ENCL 45

F I I S / A D D S / A D D S

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **Kewaunee Nuclear Power Plant** DOCKET NUMBER (2) **05000305** PAGE (3) **1 OF 5**

TITLE (4) **Failure to Perform Procedure Step During Surveillance Testing Results in Inadvertent Steam Generator Blowdown Isolation**

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)
07	26	88	88	009	00	08	25	88	NA		05000

OPERATING MODE (9) **N**

POWER LEVEL (10) **100**

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.408(e)	<input checked="" type="checkbox"/> 80.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.402(a)(1)(i)	<input type="checkbox"/> 80.20(a)(1)	<input type="checkbox"/> 80.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
<input type="checkbox"/> 20.402(a)(1)(ii)	<input type="checkbox"/> 80.30(a)(2)	<input type="checkbox"/> 80.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 308A)
<input type="checkbox"/> 80.408(a)(1)(iii)	<input type="checkbox"/> 80.73(a)(2)(i)	<input type="checkbox"/> 80.73(a)(2)(vii)(A)	
<input type="checkbox"/> 20.402(a)(1)(iv)	<input type="checkbox"/> 20.73(a)(2)(ii)	<input type="checkbox"/> 80.73(a)(2)(vii)(B)	
<input type="checkbox"/> 20.402(a)(1)(v)	<input type="checkbox"/> 80.73(a)(2)(iii)	<input type="checkbox"/> 80.73(a)(2)(viii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME **Sherry L. Bernhoft - Technical Support Engineer**

TELEPHONE NUMBER **414 388-2560**

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)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15) **N/A**

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

On July 26, 1988, with the plant at full power, an automatic isolation of steam generator blowdown and sampling occurred at 1247 hours. The isolation occurred due to a spike of radiation monitor R-15, the condenser air ejector monitor. The spike resulted from an electrical pulse generated by activities being performed on another radiation monitoring channel R-17, the component cooling water system monitor.

Two Instrument and Control (I&C) technicians were in the process of returning R-17 to service after performing an annual calibration procedure when a step to deenergize the R-17 instrument drawer was not performed. When the R-17 detector was reconnected to the energized drawer, the instantaneous change to the terminal impedance caused an electrical pulse that was also seen by the R-15 instrument drawer.

The reason the procedure step was not performed was improper procedure performance. The reason the electrical pulse affected R-15 could not be determined. Corrective actions included discussions with the personnel involved, meetings with the I&C, Mechanical and Electrical Maintenance staffs to discuss procedural compliance and a plant manager's meeting with his supervisory staff on plant procedures.

Future corrective actions will include a letter from the plant manager to the plant staff detailing his concerns and need for procedural adherence, and additional training on the requirements for procedures and the consequences incurred when procedures are not followed.

8808310196 880825
PDR ADOCK 05000305
S PDC

TE22

LICENSE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Kewaunee Nuclear Power Plant	DOCKET NUMBER (2) 0 5 0 0 0 3 0 5	LER NUMBER (5)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 8	- 0 0 9	- 0 0	0 2	OF 0 5

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

Description of Event

On July 26, 1988, with the plant at full power, an automatic isolation of steam generator blowdown and blowdown sampling (WI) occurred at 1247 hours. The automatic isolation occurred due to a spike of radiation monitor R-15 (IL), the condenser air ejector radiation monitor. The spike resulted from an electrical pulse generated by activities being performed on another radiation monitoring channel, R-17 (IL), the component cooling water system radiation monitor.

Two Instrument and Control (I&C) technicians were in the process of completing plant Surveillance Procedure SP 45-50.17 "Radiation Monitoring System Calibration Channel R-17" when the spike occurred. This procedure, which is performed annually, develops the detector (DET) plateau curve to establish the operating voltage, and then verifies the channel response against known radioactive sources in a test fixture.

The two technicians were working in the control room at the vertical panel for the radiation monitoring system instrument drawers. During the performance of the procedure steps associated with this event, the first class technician was stationed behind the vertical panel where there is access to the cable terminations and the test fixture used for performing the source checks. The second class technician was working in front of the panel where he could monitor the instrument response and perform needed adjustments in the drawer. Throughout the procedure performance, the second class technician had been reciting the procedure steps to the first class technician and signing them off as they were completed.

The technicians completed the source checks and were in the process of returning channel R-17 to service. The instrument drawer was energized, and a test cable connected from the drawer to the detector which was in the test fixture. Procedure step 6.16 "Inservice Cable Connection" states "a. Remove the two power fuses (F101, F102)." Upon reaching this step, the second class technician asked if he should pull the fuses (FU) which were located on the front of the instrument drawer immediately in front of him. The first class technician did not understand that the action was a required procedure step, but, instead interpreted this as a question concerning his preference to deenergize the drawer before starting to work on the cable terminations. He replied no, that pulling the fuses was not necessary. The fuse removal step was therefore not performed.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Kewaunee Nuclear Power Plant	DOCKET NUMBER (2) 0 5 0 0 0 3 0 5	LER NUMBER (5)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 8	- 0 0 9	- 0 0	0 3	OF	0 5

TEXT (If more space is required, use additional NRC Form 388A w/ (17))

The first class technician continued to work through the subsequent procedure steps. He disconnected the test cable from the drawer and reconnected the detector cable in its place. He then disconnected the test cable from the detector, and removed the detector from the test fixture. He returned the detector to the component cooling water system liquid sampler in the Auxiliary Building and reconnected it to the detector cable. When the R-17 detector was reconnected, a spike occurred on R-15 that caused steam generator blowdown and sample isolation. (This was later verified by reviewing the sequence of events recorder printout.)

Cause of Event

One cause of this event was improper procedure performance. During the discussion on pulling the fuses both I&C technicians should have been more inquisitive of each other and either performed the step as stated, or followed administrative controls to have the procedure revised to require not deenergizing the drawer.

The requirement to pull fuses when returning the instrument to service was first added to the procedure in 1986. Removing the fuses provides for personnel safety while working with electrical equipment. The first class technician did not recall the requirement to remove the fuses in prior years. This combined with the inquisitive tone with which the step was presented, led him to the conclusion that pulling the fuses was unnecessary.

A contributing cause to this event was an electrical spike of indeterminant origin. The failure to pull the fuses in this case should not have affected the R-15 instrument drawer. The two radiation monitoring channels are powered from the same instrument bus and the drawers are physically located next to each other in the control room panel. It is speculated that the unterminated detector coaxial cable became charged when it was connected to the energized instrument drawer. When the detector end was connected, the instantaneous change in its terminal impedance caused an electrical pulse that was also seen by the R-15 instrument drawer.

Immediately following the event, I&C was able to recreate the spike on R-15 by disconnecting the R-17 detector and reconnecting it to the energized drawer. When the power fuses were removed, the R-17 detector was reconnected to a deenergized instrument drawer with no resultant spike. Later testing done with a power line monitor installed on the primary power supply to R-15 was not able to identify the source of the electrical pulse.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Kewaunee Nuclear Power Plant	DOCKET NUMBER (2) 0 5 0 0 0 3 0 5	LER NUMBER (5)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 8	- 0 0 9	- 0 0	0 4	OF	0 5

TEXT (If more space is required, use additional NRC Form 308A 'A) (17)

Analysis of Event

This event is being reported in accordance with 10CFR50.73(a)(2)(iv) as an event or condition which resulted in the automatic actuation of an engineered safety feature. The steam generator blowdown and steam generator blowdown sample isolation valves are designed to close automatically on condenser air ejector high radiation to prevent the release of radioactive effluents to the environment. In the event of an automatic auxiliary feedwater pump (BA) start these isolation valves close to maintain steam generator secondary side integrity and prevent loss of auxiliary feedwater. Since the isolation valves went to the safe, closed position, there is no safety significance from this event.

Chemistry samples were taken before blowdown was reestablished. No activity increase was detected in the secondary side of the steam generators.

Corrective Actions

Actions which have been taken are:

1. A meeting was held with the two I&C technicians and selected management staff to review the cause of the incident, the importance of procedure compliance, and the responsibilities of the first class technician in performance of surveillance procedures.
2. Meetings were held with the Assistant Manager Plant Maintenance and the entire I&C, Mechanical and Electrical Maintenance staffs to discuss procedural compliance and each individual's attendant responsibilities.
3. The plant manager guided an open discussion with his supervisory staff on plant procedures. Topics included the amount of detail in each department's procedures, documentation which should be included, and how implementation philosophies have changed over time.
4. The I&C department performed testing to determine why the spike on R-17 affected R-15. A power line monitor was installed on the primary power supply to R-15 and the event re-enacted. In four attempts one case produced a spike on R-15, however the source of the electrical pulse could not be identified.

LICENSE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Kewaunee Nuclear Power Plant	DOCKET NUMBER (2) 0 5 0 0 0 3 0 5	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 8	- 0 0 9	- 0 0	0 5	OF 0 5

TEXT (If more space is required, use additional NRC Form 388A's) (17)

Planned actions are:

1. To emphasize the importance of proper implementation of, and adherence to procedures, the plant manager will send a letter to each member of the plant staff detailing his concerns. The theme of this letter will stress his concern for quality over quantity of work being performed, the need to adhere to procedures, and if the procedure does not work to have it properly revised.
2. Relative to this event and the event described in LER 88-008, additional training on procedures will be provided to the plant staff. The intent of the training will be to ensure all levels of the plant staff fully understand the requirements for procedures, as detailed in ANSI N18.7, and the consequences incurred when procedures are not properly followed. The format of this training is still under discussion.

Additional Information

Similar Events: LER 88-008



WISCONSIN PUBLIC SERVICE CORPORATION

600 North Adams • P.O. Box 19002 • Green Bay, WI 54307-9002

August 25, 1988

10 CFR 50.73

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

Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Reportable Occurrence 88-009-00

The attached Licensee Event Report for reportable occurrence 88-009-00 is being submitted in accordance with the requirements of 10 CFR 50.73, "Licensee Event Report System."

Sincerely,

Mark L. Marchion
C. R. Steinhardt
Manager - Nuclear Power

PIS/jms

Attach.

cc - INPO Records Center
Mr. Robert Nelson
US NRC, Region III

*IK22
11*