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ACCESSION NBR: 8807260403 DOC. DATE: 88/07/18 NOTARIZED: NO DOCKET #
 FACIL: 50-305 Kewaunee Nuclear Power Plant, Wisconsin Public Service 05000305
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 NALEPKA, D.S. Wisconsin Public Service Corp.
 STEINHARDT, C.R. Wisconsin Public Service Corp.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-008-00: on 880616, failure to install electrical jumpers results in ESF actuations. W/8 ltr.

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

NOTES:

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Kewaunee Nuclear Power Plant	DOCKET NUMBER (2) 05000305	PAGE (3) 1 OF 04
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TITLE (4) Failure to Install Electrical Jumpers During Radiation Monitor Calibration Results in Inadvertant ESF Actuation

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		
06	16	88	88	008	00	07	18	88	NA		
									DOCKET NUMBER(S) 050000		

OPERATING MODE (8) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)											
POWER LEVEL (10) 100	20.402(b)			20.406(c)			50.73(a)(2)(iv)			73.71(b)		
	20.406(a)(1)(i)			50.38(c)(1)			50.73(a)(2)(v)			73.71(c)		
	20.406(a)(1)(ii)			50.38(c)(2)			50.73(a)(2)(vii)			OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
	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 David S. Nalepka - Plant Licensing Supervisor	TELEPHONE NUMBER
	AREA CODE: 414 388-2560

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC. TURER	REPORTABLE TO NPPDS	CAUSE	SYSTEM	COMPONENT	MANUFAC. TURER	REPORTABLE TO NPPDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE:)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (18)

At 0807 on June 16, 1988, steam generator blowdown and steam generator blowdown sampling were automatically isolated during performance of a surveillance procedure to calibrate the condenser air ejector radiation monitor (R-15). The calibration procedure which was initiated the previous day (June 15, 1988) required installing jumpers which defeat the R-15 high radiation blowdown isolation actuation signal. The uncompleted procedure was exited at the end of the day shift and the radiation monitor was returned to service. Upon reentering the calibration procedure on the morning of June 16th, the detector was declared out of service and the power fuses were removed. Upon removal of the power fuses an actuation signal was generated which closed the blowdown and blowdown sample isolation valves. This action occurred due to the failure to reinstall the isolation signal bypass jumpers prior to removing the power fuses.

The root cause of this event was the responsible personnel's failure to recognize that since the actions taken were different than those detailed in the approved procedure in progress, a temporary change to the procedure was appropriate.

Immediately following the event the jumpers were installed, the blowdown and blowdown sample valves were reopened and the calibration procedure was successfully completed.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Kewaunee Nuclear Power Plant	DOCKET NUMBER (2) 0 5 0 0 0 3 0 5 8 8	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 8	0 0 8	0 0	0 2	OF 0 4

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Description of Event

At 0913 on June 15, 1988 the condenser air ejector radiation monitor (R-15) [RI] was taken out of service in order to implement a design change. The existing radiation detector was to be removed and a new detector [DET] with improved moisture resistance was installed. Following installation of the new detector, procedure SP45-050.15 entitled "Radiation Monitoring System Calibration Channel R-15" was to be performed to calibrate the newly installed equipment.

At 0938 the containment noble gas activity monitor (R-12) was removed from service to support the R-15 calibration and as required by Technical Specifications the containment building ventilation radioiodine and particulate sampler (R-21) was aligned to provide continuous containment monitoring. R-12 is removed from service because the cable from the detector to the control room monitor is utilized during the R-15 calibration. The R-12 cable provides a signal path from the R-15 detector to the R-15 monitor in the control room when the R-15 detector is relocated to the auxiliary building during the gas test chamber calibration portion of the procedure.

The first step of the calibration procedure requires the installation of three (3) electrical jumpers which defeat the R-15 high radiation steam generator blowdown isolation signal. This action is necessary to prevent the blowdown isolation and blowdown sample isolation valves [ISV] from closing during the calibration procedure. Following installation of the jumpers the performance of this calibration procedure continued until the end of the day shift. At the end of the day shift the procedure had been completed through step 6.15. During discussions between the I&C man and the control room shift supervisor, it was suggested that if possible the radiation monitors be returned to service. The shift supervisor's request was primarily motivated by his desire to return to the preferred method of monitoring containment which is through R-12. The I&C man understood this request to mean R-12 and R-15 be returned to service. The I&C man confirmed that the procedure although not totally completed, was at a point where R-15 could be returned to service. Therefore, the I&C man proceeded with reinstalling the power fuses and removed the previously installed jumpers. He also reconnected the cable for R-12 to the R-12 detector and meter. R-15 was declared in-service at 1531 on June 15, 1988 and R-12 was returned to service at 1637.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Kewaunee Nuclear Power Plant	DOCKET NUMBER (2) 0500030588	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		88	008	00	03	OF 04

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

At the beginning of the day shift on June 16, 1988 the I&C man contacted the shift supervisor and requested that R-15 be removed from service to enable completion of the remaining steps in the calibration procedure. At 0801 R-21 was aligned to containment and R-12 was declared out of service. At 0804 R-15 was removed from service and the I&C man proceeded to complete the calibration procedure. The I&C man removed two power fuses [FU] on the front of the channel drawer in preparation for removing the detector and transporting it to the gas calibration test chamber in the plant auxiliary building [NF]. Upon removing the power fuses at 0807 R-15 failed safe as designed causing the blowdown isolation valves (BT-2A, BT-3A, BT-2B, and BT-3B) and the blowdown sample isolation valves (BT-31A, BT-31B, BT-32A, and BT-32B) to close. The I&C man immediately recognized that he had failed to reinstall the jumpers to bypass the blowdown isolation actuation. The removal of the power fuses with the isolation actuation not bypassed resulted in the closure of the blowdown isolation and blowdown sample valves as designed. At 0820 the jumpers were installed to bypass the isolation actuation signal and steam generator blowdown and blowdown sampling was reestablished. R-15 was taken out of service and the detector was removed and transported to the gas calibration test chamber where the calibration procedure was completed successfully. R-15 was returned to the turbine building [NM] and reinstalled in its housing. The bypass jumpers were removed and R-15 was returned to service at 1515 on June 16, 1988. At 1553 the cable for R-12 was reconnected to the detector and the meter and R-12 was returned to service.

Cause of Event

The root cause of this event was the responsible personnel's failure to recognize that since the actions taken were different from those detailed in the approved procedure; a temporary change to the procedure was appropriate. A Plant Administrative Control Directive (ACD 1.12) entitled "Surveillance Procedures," which implements Technical Specification 6.8.2, requires that a temporary change to the procedure be initiated whenever plant conditions or procedural errors require a change to complete the procedure. The temporary change shall be reviewed and initialed by two members of plant management staff, at least one of which holds a Senior Reactor Operators license. These controls ensure actions to be completed which are different from those detailed in approved written procedures are adequately reviewed and evaluated prior to implementation.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Kewaunee Nuclear Power Plant	DOCKET NUMBER (2) 0500030588	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		88	008	00	04	OF 04

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

The I&C man's failure to reinstall the jumper to bypass the steam generator blowdown and steam generator blowdown sample isolation actuation signal prior to removing the power fuses led to the event occurrence. The fact that the radiation detector was returned to service prior to completion of the calibration procedure contributed to the event. Returning R-15 to service prior to the completion of the procedure required the I&C man to perform actions different from those detailed in the procedure in progress (i.e., reconnect cables, reinstall power fuses, and remove jumpers). The shift supervisor wanted to return the radiation monitors to service if possible. The I&C man returned both R-12 and R-15 to service. Had R-12 been returned to service and R-15 been maintained in the inoperable status with jumpers installed, this event would not have occurred.

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 closure of the steam generator blowdown isolation valves and the steam generator blowdown sample isolation valves occurred as designed; therefore, there were no safety concerns.

Corrective Action

Immediate corrective actions included reinstalling the jumpers on R-15, reopening the steam generator blowdown and blowdown sampling valves, and satisfactorily completing the calibration procedure. The implications of this event have been discussed with the personnel involved. In addition this licensee event report and a copy of ACD 1.12 will be routed to appropriate personnel to reemphasize the importance of obtaining the necessary reviews and approvals prior to performing actions different from those detailed in approved written procedures. In addition a design change has been initiated which will be implemented to enable radiation monitors to be calibrated without requiring removal of additional radiation monitors from service.

Additional Information

Equipment Failures: None

Similar Events: None



U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20540

July 18, 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 88-008-00

The attached Licensee Event Report for reportable occurrence 88-008-00 is being submitted in accordance with the requirements of 10 CFR 50.73, "Licensee Event Report System."

Sincerely,

A handwritten signature in cursive script, appearing to read "C. R. Steinhardt".

C. R. Steinhardt
Manager - Nuclear Power

TJW/jms

Attach.

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

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11