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AUTH.NAME AUTHOR AFFILIATION
SCHOMMER,K.J. Wisconsin Public Service Corp.
SCHROCK,C.A. Wisconsin Public Service Corp.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 92-013-00:on 920514,determined that Item 3 of Tech Spec Table 3.5-1 violated.Caused by degradation of transmitters zero suppression springs.Zero suppression springs replaced & transmitters recalibrated.W/920615 ltr.

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TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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June 15, 1992

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 92-013-00

In accordance with the requirements of 10 CFR 50.73, "Licensee Event Report System," the attached Licensee Event Report for reportable occurrence 92-013-00 is being submitted.

Sincerely,

C. A. Schrock
Manager-Nuclear Engineering

VJC\jac

Attach.

cc - INPO Records Center
Mr. Patrick Castleman, US NRC
US NRC, Region III

IE22

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO 3150-0104
EXPIRES 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Kewaunee Nuclear Power Plant	0 5 0 0 0 3 0 1 5	1 OF 0 7

TITLE (4) Low Pressure Safety Injection Technical Specification Exceeded Due to Abnormal Instrument Drift Potentially Caused By Zero Suppression Spring Degradation

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)
0 5	1 4	9 2	9 2	- 0 1 3	- 0 0	0 6	1 5	9 2	N/A	0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	N	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)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(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)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Keith J. Schommer - Plant Nuclear Engineer	AREA CODE 4 1 4 3 8 8 - 2 5 6 0

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
B	A B	P D T	F 1 8 0	Y							

SUPPLEMENTAL REPORT EXPECTED (14)

		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO	N/A			

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

On May 14, 1992, with the plant at 100% power, a detailed evaluation of an out of tolerance condition for the pressurizer pressure transmitters determined that item 3 of Technical Specification Table 3.5-1 may have been violated. Item 3 requires that the safety injection setting limit for low pressurizer pressure should be greater than or equal to 1815 psig. The evaluation of an out of tolerance condition for a pressurizer pressure transmitter (found March 8, 1992, with the plant in cold shutdown), included the effects of the associated bistable calibration data taken on February 25th and 26th, 1992. This evaluation determined that a safety injection actuation signal may not have occurred until 1814.2 psig.

This event occurred as a result of abnormal instrument drift. The suspected cause of the abnormal drift is degradation of the transmitters' zero suppression springs. Kewaunee had already planned on replacing the zero suppression springs during the 1992 refueling outage.

Zero suppression springs were replaced in the Foxboro pressurizer pressure transmitters as well as in all other safety-related Foxboro transmitters during the 1992 refueling outage which ended April 17, 1992.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Kewaunee Nuclear Power Plant	0 5 0 0 0 3 0 5	9 2	— 0 1 3	— 0 0	0 2 OF 0 7

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

Description of Event

This report describes an event which resulted in an apparent violation of Kewaunee's Technical Specifications (TS). Item 3 of TS Table 3.5-1 requires the safety injection (SI) set point for pressurizer [PZR] low pressure be greater than or equal to 1815 psig. On May 14, 1992, with the plant at 100% power, it was determined that the TS SI initiation requirement for pressurizer low pressure may have been out of specification.

This event was discovered during an incident report evaluation. The incident report, initiated May 13, 1992, with the plant at 100% power, indicated one of three pressurizer pressure transmitters, PT 429, was out of tolerance in the non-conservative direction for the low pressure SI initiation signal. (Kewaunee's design requires two of three transmitters to initiate an SI signal on pressurizer low pressure.) The incident report noted the status of the two other redundant transmitters as follows: PT 430 was within calibration tolerances and PT 431 was out of tolerance (in the conservative direction.)

PT 429 was found out of tolerance on March 8, 1992, during the performance of surveillance procedure (SP) 36-020A, "Pressurizer Pressure Transmitter Calibration." The unit was in cold shutdown. In accordance with plant procedures, a surveillance procedure exception report (SPER) was initiated to document the out of tolerance condition.

The out of tolerance condition of PT 429 did not present a safety concern or reportability issue since the other two transmitters were within technical specification requirements, the unit was

in cold shutdown, and preplanned activities were being implemented to replace the transmitters' zero suppression springs and perform recalibrations. In addition, two days prior to the calibration of the pressurizer pressure transmitters, with the plant at 100% power, instrument and control personnel obtained measurements of safety related transmitter loop currents. These measurements would aid in the evaluation of out of tolerance conditions that may be found during the annual transmitter calibrations scheduled for the outage. These loop current measurements taken on March 6, 1992, indicated the pressure transmitters were within specification at normal operating temperature and pressure.

During the incident report evaluation, Kewaunee staff reviewed all SP 36-020A data in conjunction with the calibration data for the associated bistables from SP 36-020B, "Pressurizer Pressure Instrument Calibration" [PDT]. SP 36-020B data was obtained on February 25th and 26th, 1992. This additional review determined that pressure transmitter PT 431's loop was also out of tolerance in the non-conservative direction due to its associated bistable drifting 0.06 mA below its nominal setting.

The combined review of SP 36-020A and SP 36-020B data determined the required two out of three pressurizer low pressure signals would have occurred at 1824.6 psig for PT 430 and at 1814.2 psig for PT 431. Therefore, SI may not have initiated until 1814.2 psig. Although transmitter loop current measurements obtained on March 6, 1992, at normal operating pressure

indicated the channels were within acceptable tolerance, this is being conservatively reported in accordance with 10CFR50.73(a)(2)(i)(B), as a potential violation of item 3 of TS Table 3.5-1. A summary of applicable events concerning the pressurizer pressure transmitters that occurred prior to May 14, 1992 are listed below.

On February 27, 1992, with the plant at 100% power, Kewaunee evaluated operating experience assessment review (OEA) 91-165 concerning failure of zero suppression springs in pressurizer pressure transmitters. As a result of the evaluation Kewaunee staff decided to replace all safety related Foxboro zero suppression springs during the upcoming 1992 refueling outage.

On March 6, 1992, with the plant at 100% power, just prior to the refueling shutdown, instrument and control personnel took measurements of safety related transmitter loop currents to aid in the evaluation of any out of tolerance conditions found during the annual transmitter calibrations. The obtained measurements indicated the pressure transmitters were in specification at normal operating temperature and pressure.

On March 8, with the plant in cold shutdown, SP 36-020A was performed. In the performance of this SP the following sequence was used for each pressure transmitter:

1) The "as found" calibration data was recorded.

2) The zero suppression spring was replaced.

3) The transmitter was recalibrated with the new zero suppression spring.

4) The transmitter was returned to service.

SP 36-020A was completed the same day.

A surveillance procedure exception report (SPER) was generated for each transmitter to document the out of specification "as found" condition as well as the recalibration of each transmitter.

On May 13, 1992, with the plant at 100% power, additional management reviews of data acquired during the March 8, 1992 performance of SP 36-020A resulted in the generation of an incident report.

Cause of The Event

This event occurred as a result of abnormal instrument drift. The suspected cause of the abnormal drift is zero suppression spring degradation. The zero suppression springs provide tension to offset the 1700 psig assumed zero point for the transmitter. As the initial tension decreases due to age induced degradation, the transmitters indicate a higher than actual reading.

Kewaunee was aware of the potential for age induced degradation of zero suppression springs through our evaluation of OEA 91-165. As a result of our assessment Kewaunee staff decided to replace the zero suppression springs on safety related Foxboro transmitters during the 1992 refueling outage.

Analysis of Event

This event is reportable in accordance with 10CFR50.73(a)(2)(i)(B) as a potential violation of item 3 of TS Table 3.5-1. The initiation of a safety injection actuation signal may have occurred at a pressurizer pressure of 1814.2 psig. The 0.8 psig delay in an SI initiation has a minimal safety significance since it did not challenge updated safety analysis report assumptions.

On March 6, 1992 with the plant at 100% power, prior to the refueling outage, measurements of safety related transmitter loop currents were taken to aid in the evaluation of any out of tolerance conditions found during the annual transmitter calibrations. The 100% power measurement results indicated that the pressurizer pressure transmitters were in tolerance at normal operating pressure of 2235 psig.

When the calibration procedure was performed on March 8, 1992, with the plant in cold shutdown, the transmitters were found out of tolerance at a simulated normal operating pressure of 2235 psig. This change seems to support that the zero suppression springs may have relaxed when the unit was depressurized and thus caused the transmitter to read out of tolerance.

Corrective Actions

The following corrective actions have been taken:

1. On March 8, 1992, upon identification of the transmitters' out of tolerance condition, the transmitters' zero suppression springs were immediately replaced and the transmitters recalibrated.

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

2. The zero suppression springs for all safety related Foxboro transmitters were replaced during the 1992 refueling outage.

Additional Information

Equipment Failures: The zero suppression springs for Foxboro transmitters model N-E11GM-H1E1-E-L.

Similar Events: None.

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NRC-92-064

EASYLINK 62891993

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May 26, 1992

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 92-012-00

In accordance with the requirements of 10 CFR 50.73, "Licensee Event Report System," the attached Licensee Event Report for reportable occurrence 92-012-00 is being submitted.

Sincerely,

C. A. Schrock

C. A. Schrock
Manager-Nuclear Engineering

JDD\jac

Attach.

cc - INPO Records Center
Mr. Patrick Castleman, US NRC
US NRC, Region III

010112

~~Q200.4700~~ 1 pp.

MAY 27 1992

1/1 DCD IE22

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO 3150-0104
EXPIRES 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Kewaunee Nuclear Power Plant	0 5 0 0 0 3 0 5	1 OF 0 4

TITLE (4)
High Radiation Area Found Unsecured Due to Personnel Error or Mechanical Failure

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)
0 4	2 3	9 2	9 2	0 1 2	0 0		0 5	2 6	9 2	N/A	0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 7 2	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(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)(3)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
J. D. Dressen - Associate Engineer	AREA CODE 4 1 4 3 8 8 - 2 5 6 0

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO	N/A			

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

At 1340 hours on April 23, 1992, with the plant at 72 percent power, a padlock for a high radiation area gate was found unsecured. An auxiliary operator (AO) was performing his routine plant rounds when he tugged on the padlock and it disengaged. The AO secured the door and notified the Health Physics department and the shift supervisor. A radiation survey was taken of the area and there was one isolated area where a dose rate of 2 R/hr was measured. All other surveys taken of the area were less than 100 mr/hr.

The cause of this event was determined to be either a defective padlock or personnel error to properly secure the padlock. The padlock was checked by the AO on routine rounds at 1100 on April 23 and it was secure. Later in the day at 1540, during his routine plant rounds he tugged on the lock, which appeared to be secure, and it disengaged. After speaking with Health Physics personnel and personnel who had access to the keys for the gate, it could not be determined if anyone had entered the room between 1100 and 1340. Immediately following the event the padlock was secured and the failure could not be repeated.

An evaluation is being performed to evaluate different locking options that would minimize the possibility for personnel errors or mechanical failures that could result in a similar event.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Kewaunee Nuclear Power Plant	0 5 0 0 0 3 0 5	9 2	— 0 1 2	— 0 0	0 2 OF 0 4

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

Description of Event

This report describes a violation of Kewaunee Technical Specification (TS) 6.13.1.b which states that each High Radiation Area (HRA) in which the intensity of radiation is greater than 1000 mr/hr shall have locked doors to prevent unauthorized entry into these areas.

On April 23, 1992, with the plant at 72 percent power, gate [GATE] 18 was found unsecured. Gate 18 provides access to the radwaste drumming area which is a HRA. Gate 18 is currently posted as a "Radiation Hazard Area, (1000 mr/hr or >)."

At approximately 0900 AM on April 23, 1992 personnel finished working in the radwaste drumming area. When the personnel exited the area, gate 18 was verified closed by 2 people. At approximately 1100 AM the Auxiliary Operator (AO) was on his routine plant rounds and as part of his rounds he checked the padlocks on the HRA enclosures. When he tugged on the padlock for gate 18 it remained secure. When the AO performed his routine plant rounds at approximately 1540 PM, the lock which appeared to be secure, was tugged on and disengaged.

After speaking with Health Physics personnel and personnel who had access to the keys for gate 18, it could not be determined who, if anyone entered the room between 1100 AM and 1540 PM.

Cause of The Event

The cause of this event is either a defective padlock or personnel error to properly secure the padlock. Immediately following the event, the padlock was secured and tugged on and the failure could not be repeated.

Analysis of Event

This event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Kewaunee Technical Specifications. Technical Specification 6.13.1.b requires HRAs with an intensity greater than 1 R/hr shall be locked to prevent unauthorized entry into these areas.

There were no apparent entries, authorized or unauthorized, into the radwaste drumming area between 1100 AM and 1540 PM. A radiation survey was taken of the radwaste drumming area and there was only one significant dose rate measured in the area. A dose rate of 2 R/hr was measured located at an inlet to a radwaste container which is not easily accessible. All other surveys taken of the area showed radiation levels to be less than 100 mr/hr. Although it was possible to receive a dose rate of 2 R/hr, this was in a remote area of the room. It can be reasonably concluded that if an unauthorized entry was made into the radwaste drumming area, it was unlikely that a significant dose would have been received. The Health Physics department did not note any significant dose rates logged on the April 23 log sheets and there were no significant doses from the personnel thermoluminescent Dosimeter monthly readings.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Kewaunee Nuclear Power Plant	0 5 0 0 0 3 0 5	9 2	— 0 1 2	— 0 0	0 4 OF 0 4

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

Corrective Actions

An evaluation is being performed to evaluate different locking options that would minimize the possibility for personnel errors or mechanical failures that could result in a similar event.

Additional Information

Equipment Failures: None.

Similar Events:

LER 85-014