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)
Catawba Nuclear Station, Unit 1	0 5 0 0 0 4 1 3	1 OF 0 4

TITLE (4)

Containment Pressure Channel Unknowingly Inoperable Due To A 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)
									N/A	0 5 0 0 0
1 2	0 6	8 6	8 6	0 5 9	0 1	0 2	1 6	8 7		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)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
1 0 0		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
	AREA CODE
Roger W. Ouellette, Associate Engineer - Licensing	7 0 4 3 7 3 - 7 5 3 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				

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

On November 19, 1986, with the unit in Mode 2, Startup, it was noticed that one of the four containment pressure gauges was not moving with changes in other containment pressure indications. At 0630 hours, a work request was initiated to investigate and repair the cause for the gauge not indicating properly. At 1000 hours, the Shift Technical Advisor logged the pressure gauge inoperable in the Technical Specification (Tech Spec) Action Item log under the Accident Monitoring Instrumentation Tech Spec. Subsequent investigation on December 6, 1986, with the unit at 100% power, revealed that the isolation valve for the pressure transmitter in the loop was closed. The valve had been verified open on October 28, 1986, so it was apparently closed between then and November 19, 1986. This valve being closed resulted in a violation of Tech Specs with a containment pressure channel being unknowingly inoperable and not placed in the tripped condition.

This incident is assigned Cause Code A, Personnel Error. The valve was inappropriately closed, resulting in the Tech Spec violation. The individual responsible for closing the valve could not be identified.

A contributing cause to this incident is assigned Cause Code A, Personnel Error. The STA did not adequately investigate the problem to determine if the entire instrument loop was inoperable, as opposed to just the gauge. Had he determined that the loop was inoperable, he would have logged it under the Engineered Safety Features Actuation System Tech Spec, and the Tech Spec violation would not have occurred.

This incident is reportable pursuant to 10 CFR 50.73, Section (a)(2)(i)(B).

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BACKGROUND

The Containment Spray (NS) System (EIIS:BE) is an Engineered Safety Feature which keeps the Containment Building pressure within the design limits by removing thermal energy after an accident. Containment pressure is monitored by four separate channels, each containing a pressure transmitter (EIIS:PT) and a pressure gauge in the Control Room. The Solid State Protection System (SSPS) (EIIS:JC) generates a safety injection signal with 2 out of 3 pressure channels at the high alarm setpoint of 1.2 psig. The SSPS automatically initiates containment spray with 2 out of 4 of the pressure channels at the High-High alarm setpoint of 3.0 psig.

Technical Specification (Tech Spec) 3.3.2, Table 3.3-3, requires that with the number of operable channels one less than the total number of channels, operation may proceed until performance of the next required Analog Channel Operational Test provided the inoperable channel is placed in the tripped condition within one hour.

DESCRIPTION OF INCIDENT

On November 19, 1986, the unit was in Mode 2, Startup, following the End-of-Cycle 1 refueling outage. At 0630 hours, an Assistant Nuclear Control Operator noticed that containment pressure gauge 1NSP5050 was not moving with changes in containment pressure as compared to the other containment pressure gauges. He initiated a Work Request to investigate and repair the cause for the gauge not indicating properly. At 1000 hours the Shift Technical Advisor logged the gauge inoperable in the Tech Spec Action Item Log under Accident Monitoring Instrumentation Tech Spec 3.3.3.6. On December 6, at approximately 1120 hours, investigation per the work request revealed that the isolation valve (EIIS:ISV) to pressure transmitter 1NSPT5050 was closed, which was the cause of the gauge not moving. At 1125 hours, the pressure transmitter was logged inoperable and its associated channel placed in the tripped condition per Engineered Safety Features Actuation System Instrumentation Tech Spec 3.3.2. Technicians reopened the isolation valve and completed the work request at 1330 hours. The pressure transmitter and gauge were declared operable at 1345 hours.

CONCLUSION

This incident is assigned Cause Code A, Personnel Error. The isolation valve to pressure transmitter 1NSPT5050 was inappropriately closed, resulting in the Tech Spec violation. A review of the work request history for 1NSPT5050 and all transmitters in its proximity revealed no activities which could have resulted in this valve being closed. There are no periodic test procedures which would require this valve be closed. Therefore, the individual responsible for closing this valve could not be identified. The transmitter is located in an easily accessible, well lighted area and is clearly tagged.

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

The isolation valve for INSPT5050 was independently verified open on October 28, 1986, per Containment Spray System Instrument Valve Start-Up Checklist Procedure IP/1/A/3820/17H. The valve was apparently inappropriately closed between then and November 19, 1986, when the Operator noticed the gauge not responding properly. This valve being closed resulted in a violation of Tech Spec 3.3.2 with a containment pressure channel being unknowingly inoperable and not placed in the tripped condition.

When it was first discovered on November 19, 1986, that there was a problem with this instrument loop, the problem was logged under Accident Monitoring Instrumentation Tech Spec 3.3.3.6. This was because the Shift Technical Advisor that reviewed this problem for Tech Spec implications made the judgement that only the gauge was inoperable, not the entire instrument loop. The gauge is labeled on the Main Control Board as being qualified for Post Accident Monitoring (PAM) use, even though it is not one of the two gauges installed specifically for PAM use. Because the gauge is PAM qualified, the Shift Technical Advisor conservatively logged it under Tech Spec 3.3.3.6 to assure that it would be tracked and repaired in a timely manner.

A contributing cause to this incident is assigned Cause Code A, Personnel Error. The Shift Technical Advisor did not adequately investigate the problem to determine if the entire instrument loop was inoperable, as opposed to just the gauge. Had he determined that the loop was inoperable, he would have logged it under the Engineered Safety Features Actuation System Tech Spec, and the Tech Spec violation would not have occurred.

There have been no previous occurrences of instruments being valved out for unknown reasons. There have been several previous occurrences involving licensed Control Room personnel failing to recognize Tech Spec related operability concerns (see LERs 413/84-25, 413/85-05, 413/85-11, 413/85-18, 413/85-28, 413/85-40, 413/85-50, 413/85-57, 413/86-12, 413/86-18, 414/86-09 and 414/86-25). However, none of these incidents involved PAM or Containment Spray System instrumentation. The frequency of occurrence of incidents involving failure to recognize Tech Spec related operability concerns is decreasing.

CORRECTIVE ACTION

(1) The Pressure transmitter was declared inoperable and placed in the tripped condition per Tech Spec 3.3.2.

(2) Technicians reopened the pressure transmitter isolation valve and the transmitter was declared operable.

(3) This incident was reviewed with all Shift Supervisors and Shift Technical Advisors to ensure that instances such as this will be adequately investigated to determine the operability status of the entire instrument loop, as opposed to individual components.

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

SAFETY ANALYSIS

Throughout this incident, the minimum number of containment pressure channels required to be operable per Tech Specs 3.3.2 and 3.3.3.6 were operable. This assured that had there been an event resulting in an increase in containment pressure, the available containment pressure instrumentation would have initiated the appropriate automatic actions.

The health and safety of the public were not affected by this incident.

DUKE POWER COMPANY
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HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

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February 16, 1987

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

Subject: Catawba Nuclear Station, Unit 1
Docket No. 50-413

Gentlemen:

Pursuant to 10 CFR 50.73 Section (a) (1) and (d), attached is Revision 1 to Licensee Event Report 413/86-59 concerning a containment pressure channel unknowlingly inoperable due to a personnel error. This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

RWO/16/sbn

Attachment

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NRC Resident Inspector
Catawba Nuclear Station

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