



Entergy

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2CAN050406

May 17, 2004

U. S. Nuclear Regulatory Commission  
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Washington, DC 20555

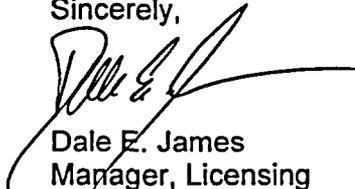
Subject: Licensee Event Report 50-368/2004-001-00  
Arkansas Nuclear One - Unit 2  
Docket No. 50-368  
License No. NPF-6

Dear Sir or Madam:

In accordance with 10CFR50.73(a)(2)(i)(B), enclosed is the subject report concerning operation prohibited by technical specifications due to an inoperable channel of wide-range containment water level instrumentation.

New commitments contained in this submittal are summarized in Attachment 1.

Sincerely,



Dale E. James  
Manager, Licensing

DEJ/dh

enclosure  
attachment

IE22

cc: Dr. Bruce S. Mallett  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
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**Attachment 1**

**2CAN050406**

**Commitment Summary**

This table identifies actions discussed in this letter for which Entergy Operations, Inc. (Entergy) commits to perform. Any other actions discussed in this submittal are described for the NRC's information and are not commitments.

COMMITMENT	TYPE		SCHEDULED COMPLETION DATE
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
A protective cover will be installed over the wide-range containment water level power switch to minimize the likelihood of inadvertent movement.	X		August 31, 2004

**LICENSEE EVENT REPORT (LER)**

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503.

<b>FACILITY NAME (1)</b> Arkansas Nuclear One - Unit 2	<b>DOCKET NUMBER (2)</b> 05000368	<b>PAGE (3)</b> 1 OF 4
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**TITLE (4) Operation Prohibited by Technical Specifications due to an Inoperable Channel of Wide-Range Containment Water Level Instrumentation**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
03	16	2004	2004	001	00	05	17	2004	FACILITY NAME	DOCKET NUMBER

<b>OPERATING MODE (9)</b> 1	<b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (Check one or more) (11)</b>									
<b>POWER LEVEL (10)</b> 100	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)						
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)						
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)						
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)						
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)						
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)						
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)						
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER						
<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> X	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract or NRC Form 366A						

<b>LICENSEE CONTACT FOR THIS LER (12)</b>	
<b>NAME</b> Dee Hawkins, Nuclear Safety and Licensing Specialist	<b>TELEPHONE NUMBER (Include Area Code)</b> 479-858-5589

<b>COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)</b>										
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

<b>SUPPLEMENTAL REPORT EXPECTED (14)</b>				<b>EXPECTED SUBMISSION DATE (15)</b>		<b>MO</b>	<b>DAY</b>	<b>YEAR</b>
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> X	<input type="checkbox"/> NO						

**ABSTRACT (16)**

On March 16, 2004, with Arkansas Nuclear One, Unit 2 (ANO-2) operating in Mode 1 at 100 percent power, a waste control operator found the power switch for Wide-Range Containment Water Level Transmitter 2LT-5645-1 [IP] in the off position. This condition rendered one of the two technical specification (TS) required channels of wide-range containment water level indication inoperable. The level transmitter power switch was immediately returned to the correct position, restoring operability of the level indication instrumentation. A review of plant data indicated that the power switch had been turned off on October 9, 2003, during the latter part of the previous refueling outage and remained undetected until March 16, 2004. An investigation of this condition did not reveal any activity that would explain why the power switch for level transmitter 2LT-5645-1 was turned off. Since there was no physical barrier to protect against accidental repositioning of the power switch, it is likely that the switch was accidentally bumped into the off position by personnel exiting the containment building. A protective cover will be installed over the level transmitter power switch to minimize the likelihood of inadvertent movement. In addition, a requirement has been added to operator logs to verify the position of the power switch when performing associated indication channel checks.

LICENSEE EVENT REPORT (LER)

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NARRATIVE (17)

A. Plant Status

At the time this condition was discovered, Arkansas Nuclear One, Unit 2 (ANO-2) was operating in Mode 1 at 100 percent power.

B. Event Description

On March 16, 2004, while performing shiftly rounds, a waste control operator (WCO) found the power switch for Wide-Range Containment Water Level Transmitter 2LT-5645-1 [IP] in the off position and the power indicating light extinguished. The switch being in the off position rendered the associated control room level indication and chart recorder inoperable. Control room personnel directed the WCO to place the switch in the correct position, thus restoring power to the level transmitter.

A review of plant data indicated that the power switch had been turned off on October 9, 2003, during the latter part of the previous refueling outage while the plant was in Mode 5. The condition was not detected during subsequent mode changes associated with plant heatup and power operation, and remained undetected until March 16, 2004. ANO-2 technical specifications (TS) require two channels of wide-range containment water level indication to be operable in Modes 1, 2 and 3 to provide for post accident monitoring. The loss of one channel of wide-range containment water level indication resulted in operation prohibited by TS.

Prior to heatup from the refueling outage, operability of the wide-range containment level instrumentation was verified by comparing control board indication of the two channels. The wide-range containment water level indication is a measurement of the water level above the containment floor elevation. Water level in this range is not expected unless post-accident conditions are present. Normal control board indication is at the bottom of the scale or zero inches. Control board indication is not lost when level transmitter power is turned off, but fails low to zero inches; therefore, visual observation of the control board indication was inadequate to detect this condition. The monthly channel check of containment level instrumentation was performed multiple times with satisfactory results during the period of time that the level instrumentation was inoperable.

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NARRATIVE (17)

C. Root Cause

An investigation of this condition did not reveal any activity that would explain why the power switch for Level Transmitter 2LT-5645-1 was turned off. Subsequent to the last calibration, performed on March 21, 2003, no surveillances or maintenance activities were identified that would have required manipulation of the toggle switch. During the refueling outage, many personnel passed by the power switch due to its location in the exit path from the containment building. It is likely that on October 9, 2003, the power switch was accidentally bumped into the off position by personnel exiting the containment building. There was no physical barrier to protect against accidental repositioning of the power switch.

At the time this event occurred, there was no requirement to verify the position of the level transmitter power switch. The method of performing the monthly channel check for wide-range containment water level indication was inadequate to identify this condition.

D. Corrective Actions

The power switch for Wide-Range Containment Water Level Transmitter 2LT-5645-1 was returned to the correct position, restoring operability of the level indication instrumentation and TS compliance.

A verification of the power switch position for level transmitter 2LT-5645-1 has been added to the ANO-2 operator channel check log. This requirement extends to other switches for wide-range containment water level transmitters that have a similar vulnerability to inadvertent repositioning. A similar requirement to verify power switch positions has been added to ANO-1 operator logs.

In addition to the existing channel checks for control room level instrumentation, the methodology for performing monthly post-accident channel checks has been revised to include verification of the power switch position and local indication.

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NARRATIVE (17)

A protective cover will be installed over the containment wide-range water level transmitter power switch to minimize the likelihood of inadvertent movement of the switch.

E. Safety Significance

The containment wide-range water level transmitters provide indication of containment conditions post-accident. The unavailability of one indication due to its power switch being off does not adversely impact the actions dependent on these indications. The loss of level indication has no impact on reactor coolant system [AB] leakage detection and is limited to determining the amount of water in the containment building.

In post-accident conditions, the wide-range containment water level indication is used along with other indications to determine if a loss-of-coolant accident occurred inside or outside of containment. The wide-range level instrumentation does not provide input to any annunciators or alarms.

For these reasons, the safety significance of this condition was determined to be minimal.

F. Basis for Reportability

This report of operation prohibited by TS is submitted in accordance with 10CFR50.73(a)(2)(i)(B).

G. Additional Information

There have been no previous similar events reported by ANO as Licensee Event Reports.

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].