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June 19, 1989
JAFP-89-0458

United States Nuclear Regulatory Commission
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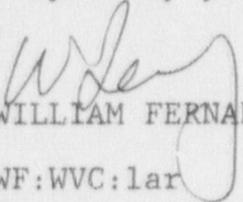
REFERENCE: DOCKET NO. 50-333
LICENSEE EVENT REPORT: 89-009-00

Dear Sir:

Enclosed please find referenced Licensee Event Report in accordance with 10 CFR 50.73.

If there are any questions concerning this report, please contact Mr. W. Verne Childs at (315) 349-6071.

Very truly yours,


WILLIAM FERNANDEZ

WF:WVC:lar

Enclosure

cc: USNRC, Region I (1)
INPO Records Center, Atlanta, GA (1)
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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) JAMES A. FITZPATRICK NUCLEAR POWER PLANT	DOCKET NUMBER (2) 0 5 0 0 0 3 3 3 1	PAGE (3) 1 OF 0 5
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TITLE (4) **Containment Drywell to Suppression Chamber Differential Pressure and Suppression Chamber Level Out of Limits Due to 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 (8)
0 5	1 8	8 9	8 9	0 0 9	0 0	0 6	1 9	8 9				0 5 0 0 0
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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) 1 0 0	20.402(b)			20.406(e)			80.73(a)(2)(iv)			73.71(b)		
	20.406(a)(1)(i)			80.36(a)(1)			80.73(a)(2)(v)			73.71(e)		
	20.406(a)(1)(ii)			80.36(a)(2)			80.73(a)(2)(vi)			OTHER (Specify in Abstract below and in Text, NRC Form 306A)		
	20.406(a)(1)(iii)			<input checked="" type="checkbox"/>			80.73(a)(2)(ii)					
	20.406(a)(1)(iv)						80.73(a)(2)(ii)					
20.406(a)(1)(v)						80.73(a)(2)(iii)			80.73(a)(2)(ix)			

LICENSEE CONTACT FOR THIS LER (12)									
NAME W. VERNE CHILDS, SENIOR LICENSING ENGINEER							TELEPHONE NUMBER		
							AREA CODE 3 1 5 3 4 9 -- 6 0 7 1		

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)
EIS Codes are in []

On May 18, 1989 at 0804 hours during normal operation at 100% rated power Primary Containment [NH] drywell to pressure suppression chamber (torus) differential pressure and torus water level decreased to less than the limits of Technical Specifications 3.7.A.7.a and 3.7.A.1.b respectively as a result of a personnel error.

Reactor Building [NG] ventilation radiation monitoring [IL] logic system functional testing and logic system simulated automatic actuation testing was being performed as required by Radiological Effluent Technical Specification Table 3.10.2.

During the testing an operator opened valves that the procedure stated were to be checked closed. A subsequent step opened other valves in preparation for auto closure and thus provided a path for the drywell atmosphere to flow to the torus resulting in loss of differential pressure and a decrease in torus level. Torus chamber level was restored in 24 minutes and differential pressure in 1.3 hours.

Corrective actions include: 1) Stopping the test, 2) counselling personnel involved, 3) restoring differential pressure and level to within Technical Specification limits, and 4) instituting a training program on self-verification techniques to utilize when performing assigned tasks.

LER-84-003, 84-008, 86-019, 87-016, and 88-002 are similar events in which personnel errors directly caused entry into Limiting Conditions for Operation.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 305A's) (17)

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Description of Event

On May 18, 1989 at 0804 hours during normal operation at 100% rated power Primary Containment [NH] drywell to pressure suppression chamber (torus) differential pressure and torus water level decreased to less than the limits of Technical Specifications 3.7.A.7.a and 3.7.A.1.b respectively as a result of a personnel error.

Reactor Building [NG] ventilation exhaust radiation monitoring [IL] logic system functional testing and logic system simulated automatic actuation testing was being performed as required by Radiological Effluent Technical Specification (RETS) Table 3.10.2. This testing requires that automatic closure of certain valves be demonstrated in response to simulated high radiation signals.

The general test method used places outboard primary containment isolation valves for penetrations in the open position after verification that the other (inboard) isolation valves for the same penetration are closed. A simulated high radiation signal is then generated and automatic closure of the outboard isolation valve is verified. Subsequent procedure steps verify automatic closure of the inboard isolation valves while the outboard isolation valves are closed.

During the surveillance test which resulted in this event, an auxiliary (non-licensed) operator assisting a licensed operator with the test opened inboard drywell ventilation and purge valves 27AOV-112 and -113 and torus inboard ventilation and purge valves 27AOV-116 and -117 when the procedure step called for checking the valves closed. A subsequent step directed the opening of outboard isolation valves 27AOV-111, -114, -115, and -118 in preparation for auto closure in response to the simulated high radiation signal.

As soon as the outboard isolation valves were opened as described above, a path from the drywell atmosphere to the torus atmosphere existed and nitrogen flowed from the drywell to the torus resulting in loss of the differential pressure. The loss of differential pressure also allowed water to rise in the downcomer legs resulting in a torus water level decrease to approximately 1/8 inch below the minimum allowed level.

The shift supervisor directed that the surveillance test activity be stopped and instructed Operations personnel to restore the drywell and torus ventilation and purge valve lineup to normal (that is, valves 27AOV-111, -112, -113, -114, -115, -116, -117, and -118 closed).

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

Torus water level was restored to within the limits of Technical Specification 3.7.A.1.b at 0830 hours (24 minutes after the start of the event) and drywell to torus differential pressure was restored to within the limits of 3.7.A.7.a at 0920 hours (approximately 1.3 hours after the start of the event).

Cause of Event

The event was caused by a personnel error. The auxiliary operator opened four valves that the procedure stated to check closed.

Review of the surveillance procedure and interviews with personnel involved indicates the following:

- The auxiliary operator was experienced in performing activities of the same nature as those required during performance of the surveillance that resulted in this event and was reading procedure steps directly from a correct, controlled copy of the procedure.
- The procedure steps related to the event clearly state the requirements and do not contain human factors flaws such as format deficiencies or incomplete valve nomenclature.
- Personnel assigned to perform the surveillance had no other concurrent duties.
- The licensed operator performing the surveillance and the assisting auxiliary operator were in direct contact with each other through the use of sound powered telephone headsets.
- Actions taken to restore the drywell to torus differential pressure and torus water level to within Technical Specification limits were appropriate and prompt.
- The licensed operator that was directing the test was not positioned to observe valve positioning directly or to observe remote valve position indication. As a result, the licensed operator could not provide "backup" verification of proper execution of some procedure steps during conduct of the surveillance.

Analysis of Event

Primary containment drywell to torus differential pressure is maintained with the drywell atmospheric pressure \approx 1.7 psi higher than torus atmospheric pressure to force most of the water in the downcomer legs out of the legs. This results in reduced loading of the internal

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and external torus components and structural members in the event of a postulated Loss of Coolant Accident (LOCA). Since LOCA events are very low frequency events and since the maximum loading of torus components and structural members generally occur under the most severe LOCA, the event did not represent a significant hazard during the short time period that differential pressure was less than the 1.7 psi limit.

Minimum torus water level is based on maintaining sufficient torus water volume to act as a heat sink during LOCA events. During this event the volume of water did not change but was simply redistributed to inside of the downcomer legs as differential pressure decreased. The redistribution of the water was of no consequence except for the potential effect on torus components and structural members as discussed above.

Corrective Action

Short-Term Corrective Action

1. Conduct of the surveillance test was terminated. Drywell to torus differential pressure and torus water level were promptly restored to within Technical Specification limits as discussed in the "Description of Event".
2. The personnel involved were counselled concerning the importance of taking care that each action or manipulation of plant equipment is the proper action for the evolution being conducted and that action is proper for the plant conditions.

Long-Term Corrective Action

1. A training program which provides self-verification techniques to utilize when performing assigned tasks will be instituted for plant personnel. Operations personnel will complete this activity by September.

Additional Information

Failed Components: None

Previous Similar Events

Licensee Event Reports 84-003, 84-008, 86-019, 87-016, and 88-002 are similar events in which personnel errors directly caused entry into Limiting Conditions for Operation.

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

Additional Information

Failed Components: None

Previous Similar Events

Licensee Event Reports 84-003, 84-008, 86-019, 87-016, and 88-002 are similar events in which personnel errors directly caused entry into Limiting Conditions for Operation.