

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) CRYSTAL RIVER UNIT 3	DOCKET NUMBER (2) 0 5 0 0 0 3 0 2	PAGE (3) 1 OF 13
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TITLE (4)
FAILURE TO RECOGNIZE ENTRY INTO TECHNICAL SPECIFICATION ACTION STATEMENT

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)																																																																																													
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LICENSEE CONTACT FOR THIS LER (12)

NAME W. K. Bandhauer, Nuclear Safety Supervisor	TELEPHONE NUMBER AREA CODE 9 0 4 7 9 5 1 - 6 4 8 6
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NFRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NFRDS
X	BI	VI	C 2 5 1 5	Yes					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On May 9, 1984, a discharge check valve (RWV-38) on one of the required Nuclear Services Seawater Pumps (RWP-2A) was found stuck open due to corrosion. Technical Specification 3.7.4.1 requires two independent emergency nuclear services seawater pumps and their associated flow paths to be operable. This failure mode removed the independence of the emergency seawater pumps. Plant personnel failed to recognize this loss of independence until May 17, 1984.

A review of other safety systems with respect to pump discharge check valves will be conducted to determine other instances in which similar failures could occur. The results of this review will be discussed with operations personnel to avoid future occurrences of this type. Engineering is investigating methods to minimize the corrosion rate of these valves.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

EVENT DESCRIPTION

On May 9, 1984, Crystal River Unit 3 was in steady state operation at 94% reactor power and generating 817 MWe. During the performance of a surveillance it was discovered that a check valve, RWV-38, (BI, V) on the discharge of a Nuclear Services Seawater Pump, RWP-2A, (BI, P) had failed open. RWP-2A and RWP-2B discharge to a common header. To prevent bypass flow thru this check valve the normal duty pump, RWP-1, (BI, P) was secured and RWP-2A was started.

An engineering evaluation was performed to determine the effects this failure would have on the Nuclear Services Seawater System. This analysis revealed that a failure of RWP-2A would result in sufficient bypass flow that the redundant pump, RWP-2B, would be incapable of providing the required design flow (11,000 gpm with the failure as opposed to the required 14,100 gpm). A dedicated operator was stationed at the manual discharge valve, RWV-24, (BI, P) for RWP-2A. This operator was directed to shut the valve in the event RWP-2A was shut down. RWV-38 was removed and replaced. Inspection of the failed valve revealed the disc seat ring had separated from the body due to corrosion and blocked the valve in the open position.

SEQUENCE OF EVENTS

<u>TIME</u>	<u>DATE</u>	<u>EVENT</u>
1930	May 9, 1984	RWV-38 was found stuck open bypassing flow from RWP-1. RWP-2A was started and RWP-1 was secured. Plant personnel failed to recognize that RW pumps were no longer independent.
1930	May 12, 1984	Time limit expired for operation without two independent RW pumps per Technical Specification (T.S.) 3.7.4.1.
NA	May 15, 1984	Nuclear Engineering was requested to perform calculations to determine the independent operability of RWP-2B with RWV-38 failed open.
1530	May 17, 1984	Engineering calculations were completed showing RWP-2B would not provide adequate flow if RWP-2A failed. A dedicated operator was stationed at RWV-24 (RWP-2A discharge valve). Entered the action statement of T.S. 3.7.4.1.
0635	May 18, 1984	RWP-2A secured and tagged out for the replacement of RWV-38.
2250	May 18, 1984	RWV-38 replaced and tested. Exited the action statement of T.S. 3.7.4.1.

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SAFETY CONSIDERATIONS

The failure of RWV-38 resulted in the loss of independence of the Nuclear Services Sea Water System Pumps as required by T.S. 3.7.4.1. Plant personnel failed to realize this loss of redundancy until engineering calculations were performed eight days later. Operation in this mode is contrary to T.S. 3.7.4.1. Crystal River Unit 3 operated in this condition for a period of 219 hours and 20 minutes. A review of components cooled by Nuclear Services Seawater System revealed the plant would have had ample indication and time to respond even to a total loss of the Nuclear Services Seawater System. Operations personnel could have either isolated the bypass flow path or utilized redundant systems to provide cooling to vital systems.

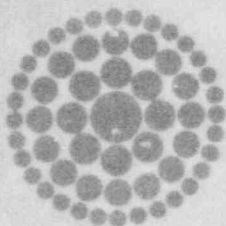
CORRECTIVE ACTION

Engineering calculations determined that RW pumps were not independent with RWV-38 failed open. The independence of the RW pumps was re-established by stationing an operator whose sole function was to shut RWV-24, if RWP-2A was shut down.

A review of other safety systems with respect to pump discharge check valves in which a single failure could result in loss of independence will be conducted. The results of this review will be discussed with Operations personnel to avoid future occurrences of this type. Engineering is investigating methods to minimize the corrosion rate of these valves.

SIMILAR LERS

A review of previous LERs did not reveal any events where plant personnel failed to recognize a requirement to enter a TS action statement.



**Florida
Power**
CORPORATION

June 11, 1984
3F0684-07

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

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Licensee Event Report No. 84-011-00

Dear Sir:

Enclosed is Licensee Event Report (LER) No. 84-011-00 which is submitted in accordance with 10 CFR 50.73.

Should there be any questions, please contact this office.

Sincerely,

G. R. Westafer
Manager, Nuclear Operations
Licensing and Fuel Management

RHT/feb

Enclosure

cc: Mr. James P. O'Reilly
Regional Administrator, Region II
Office of Inspection & Enforcement
U.S. Nuclear Regulatory Commission
101 Marietta Street N.W., Suite 2900
Atlanta, GA 30323

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