



Entergy

Entergy Operations, Inc.

P.O. Box B

Killona, LA 70066

Tel 504-464-3120

Charles M. Dugger

General Manager

Plant Operations

Waterford 3

W3F1-96-0201

A4.05

PR

December 2, 1996

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

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Reporting of Licensee Event Report

Gentlemen:

Attached is Licensee Event Report Number LER-96-015-00 for Waterford Steam Electric Station Unit 3. This Licensee Event Report is submitted in accordance with 10CFR50.73(a)(2)(i)(b).

Very truly yours,

C.M. Dugger
General Manager
Plant Operations

CMD/ELL/ssf
Attachment

cc: L.J. Callan (NRC Region IV), C.P. Patel (NRC-NRR),
J.T. Wheelock - INPO Records Center, R.B. McGehee,
N.S. Reynolds, NRC Resident Inspectors Office,
Administrator - LRPD

090001

9612040065 961202
PDR ADOCK 05000382
S PDR

11
Ien

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-B F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

PAGE (3)

WATERFORD STEAM ELECTRIC STATION UNIT 3

05000 382

1 OF 5

TITLE (4)

FAILURE TO ISOLATE CONTAINMENT PENETRATION 20

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 NAME	DOCKET NUMBER
11	1	96	96	015	00	12	02	96	N/A	05000
									FACILITY NAME	DOCKET NUMBER
									N/A	05000
OPERATING MODE (9)		1		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)						
POWER LEVEL (10)		100		20.2201(b)		20.2203(a)(2)(v)		X 50.73(a)(2)(i)		50.73(a)(2)(viii)
				20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
				20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
				20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER
				20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
				20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME

TELEPHONE NUMBER (include Area Code)

T.J. GAUDET, LICENSING MANAGER

(504) 739-6666

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

[illegible]

SUPPLEMENTAL REPORT EXPECTED (14)

EXPECTED
SUBMISSION
DATE (15)

MONTH	DAY	YEAR
-------	-----	------

YES
(If yes, complete EXPECTED SUBMISSION DATE).

NO

01	15	97
----	----	----

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On November 1, 1996, it was determined that on October 24, 1996, containment penetration 20 was not totally isolated during maintenance on valve CC-808A, Containment Fan Cooler (CFC) Component Cooling Water (CCW) Inlet Isolation Valve. With the actuator removed from CC-808A, positive closure of the valve was not possible. Clearance 96-1329 was utilized to isolate penetration 20 by closing valves CC-802A, CC-8062, CC-8021A, and CC-8083A/B. However, an additional flow path to the temporary chiller connection from penetration 20 was identified that was not isolated. This flow path was from CCW line 3CC6-405A to line 3CC6-405B. Although no manual valves exist in this flow path, check valve CC-8081A is present. Technical Specification 3.6.3, action c, does not allow credit to be taken for a check valve to isolate the penetration. Waterford 3 was in Mode 1, operating at 100% power at the time of the event. This event did not compromise the health and safety of the public or plant personnel.

**REQUIRED NUMBER OF DIGITS/CHARACTERS
FOR EACH BLOCK**

BLOCK NUMBER	NUMBER OF DIGITS/CHARACTERS	TITLE
1	UP TO 46	FACILITY NAME
2	8 TOTAL 3 IN ADDITION TO 05000	DOCKET NUMBER
3	VARIES	PAGE NUMBER
4	UP TO 76	TITLE
5	6 TOTAL 2 PER BLOCK	EVENT DATE
6	7 TOTAL 2 FOR YEAR 3 FOR SEQUENTIAL NUMBER 2 FOR REVISION NUMBER	LER NUMBER
7	6 TOTAL 2 PER BLOCK	REPORT DATE
8	UP TO 18 -- FACILITY NAME 8 TOTAL -- DOCKET NUMBER 3 IN ADDITION TO 05000	OTHER FACILITIES INVOLVED
9	1	OPERATING MODE
10	3	POWER LEVEL
11	1 CHECK BOX THAT APPLIES	REQUIREMENTS OF 10 CFR
12	UP TO 50 FOR NAME 14 FOR TELEPHONE	LICENSEE CONTACT
13	CAUSE VARIES 2 FOR SYSTEM 4 FOR COMPONENT 4 FOR MANUFACTURER NPRDS VARIES	EACH COMPONENT FAILURE
14	1 CHECK BOX THAT APPLIES	SUPPLEMENTAL REPORT EXPECTED
15	6 TOTAL 2 PER BLOCK	EXPECTED SUBMISSION DATE

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
WATERFORD STEAM ELECTRIC STATION UNIT 3	05000 382	96	015	00	2 OF 5

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

REPORTABLE OCCURRENCE

This event is being reported per 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the Technical Specifications for the failure to isolate containment penetration 20. Technical Specification (TS) 3.6.3 requires that each containment isolation valve shall be operable. Furthermore, the TS states if one or more isolation valve(s) is inoperable, maintain at least one isolation valve operable in each affected penetration that is open and isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange or be in at least hot standby within the next 6 hours and in cold shutdown within the following 30 hours. Maintenance on CC-808A, Containment Fan Cooler (CFC) Component Cooling Water (CCW) Inlet Isolation Valve, relied on check valve CC-8081A for containment isolation rather than a closed manual valve or blind flange.

INITIAL CONDITIONS

At the time of the event, Waterford 3 was in Mode 1, operating at 100% power. Technical Specification LCO 3.6.3 was in effect for maintenance on valve CC-808A. No other major equipment was out of service and no procedures were being performed specific to this event.

EVENT DESCRIPTION

The Containment Fan Cooling System (EISS Code BK) consists of four fan coolers that draw air from the containment (EISS Code NH) and discharge it to a ring header around the top of containment. The fan cooler units consist of a vane axial fan and two banks of cooling coils supplied by the Component Cooling Water (CCW) System (EISS Code CC). The four fan cooler units are divided into two systems of two units each. For safety related purposes each system is powered by separate safety related buses. As a result of a special inspection conducted at Waterford 3 on October 21-25, 1996, it was determined that testing of CFC Containment isolation valves (EISS Code BK-ISV)

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
WATERFORD STEAM ELECTRIC STATION UNIT 3	05000 382	96	-- 015	-- 00	3 OF 5

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

was necessary to ensure their remote manual closure function would be available following an accident with a loss of Instrument Air (EIS Code LD). These valves are governed by Technical Specification 3.6.3. Testing was performed on the CFC isolation valves and their associated accumulators (EIS Code ACC), and CFC 'A' Containment Isolation valve CC-808A failed this test. Condition Identification/ Work Authorization (CIWA) 305695/01151918 was prepared to perform maintenance on valve CC-808A.

During preparation for maintenance on CC-808A, it was recognized that with the actuator removed from CC-808A, positive closure of the valve would not be possible. Preparation of a clearance to isolate penetration 20 by closing valves CC-802A, CC-8062, CC-8021A, and CC-8083A/B for the planned maintenance was started by the Shift Support Center, but was put on hold due to maintenance being delayed.

On the night of October 24, 1996, the on-shift Operations Staff was notified that the CFC maintenance was to be performed that night and preparation of the clearance continued. At this time, containment isolation, worker protection, using a check valve as train separation, and accident monitoring were discussed by the Control Room Staff. Additional discussion included CCW as a closed system with no planned system breaches occurring during maintenance and the fact that multiple failures would have to occur for communication to exist between containment and outside atmosphere. Clearance 96-1329 was finalized at approximately 2100 and was hung at approximately 2145.

On October 25, 1996, maintenance was completed on CC-808A, the clearance was removed, and the valve tested successfully. On November 1, 1996, another clearance was being prepared for a different CFC when the problem was discovered relating to alternate containment isolation when the normal containment isolation valves are declared inoperable. At that time, it was discovered that though CCW is a closed system and it would require multiple

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
WATERFORD STEAM ELECTRIC STATION UNIT 3	05000 382	96	-- 015	-- 00	4 OF 5

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

failures, a flowpath could exist from the Containment to a class 3 system (CCW) and/or outside atmosphere if check valve CC-8081A failed. Though CC-8081A is an active component and the penetration does meet General Design Criteria 57, the valve cannot be used as a alternate containment isolation per Technical Specification 3.6.3, which requires use of at least one closed manual valve or a blind flange.

CAUSAL FACTORS

The preliminary cause of this event has been identified as personnel error. During the discussion by Operations personnel regarding containment isolation, worker protection, use of CC-8081A for train separation, and accident monitoring, no consideration was given to the fact that use of check valve CC-8081A for containment isolation was not allowed under TS 3.6.3, action c. Personnel were aware of the need to establish containment isolation and followed all established procedures in doing so. At the time of the event, the error was not recognized.

CORRECTIVE ACTIONS

Letter W3B1-96-0083, titled "Reinforcement of Expectations Concerning Tech Spec Operability", was issued from the Operations Manager to all Licensed Operators. In this letter, specific expectations regarding Technical Specification 3.6.3, Containment Isolation, were emphasized. These expectations were also reinforced during a SS/CRS meeting held on November 13, 1996.

Additional corrective measures identified as a result of the root cause analysis for this event will be provided in the follow-up submittal to this LER.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
WATERFORD STEAM ELECTRIC STATION UNIT 3	05000 382	96	-- 015	-- 00	5 OF 5

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

SAFETY SIGNIFICANCE

The purpose of CC-808A is to provide a means to manually isolate the closed CCW system inside containment. This meets the requirement of General Design Criteria 57 which specifies that for closed systems that penetrate containment, the lines shall have at least one containment isolation valve which is either automatic, or lock closed, or capable of remote manual operation outside containment.

Failure to isolate penetration 20 had no actual safety significance. In order for the release pathway to have been created, the following multiple failures would have to have occurred: 1) loss of coolant accident with fuel failure; 2) breach in the CFC tubes or the Seismic 1, ASME Safety Class 3, CCW piping inside containment; 3) failure of check valve 8081A (an active, tested component); 4) failure of the operable CCW train; 5) failure of the operable CCW train piping.

Additionally, check valve CC-8081A is tested quarterly in the closed position per procedure OP-903-118, "Primary Auxiliaries Quarterly IST Valve Tests". It was successfully tested under WA 01150842 in November 1996.

Based on the above, this event did not compromise the health and safety of the public or plant personnel.

SIMILAR EVENTS

No previous similar events were identified.