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10CFR50.73

December 12, 1994
NRC-94-0116

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

Reference: Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43

Subject: Licensee Event Report (LER) No. 94-009

Please find enclosed LER No. 94-009, dated December 12, 1994, for a reportable event that occurred on November 10, 1994. A commitment to provide lessons learned from this event to operations and radwaste personnel is made in this LER. A copy of this LER is also being sent to the Regional Administrator, USNRC Region III.

If you should have any questions, please contact Jimmy L. Martin, Compliance Engineer at (313) 586-4225.

Sincerely,

Enclosure: NRC Forms 366, 366A

cc: T. G. Colburn
J. B. Martin
M. P. Phillips
P. L. Torpey
A. Vegel

Wayne County Emergency
Management Division

IE22

NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), 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.

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Fermi 2	05000 341	1 OF 4

TITLE (4)
Unplanned Primary Containment Isolation of Torus Water Management System

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
11	10	94	94	-- 009 --	00	11	10	94		05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	4
POWER LEVEL (10)	000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

	20.402(b)		20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
	20.405(a)(1)(i)		50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)		50.36(c)(2)	50.73(a)(2)(vii)	OTHER
	20.405(a)(1)(iii)		50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)
	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 (Include Area Code)
Jimmy L. Martin, Compliance Engineer	(313) 586-4225

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 15 single-spaced typewritten lines) (16)

On November 10, 1994 at 1046 hours, the Torus Water Management System (TWMS) containment isolation valves automatically closed due to a High-High water level in the drywell floor drain sump. This occurred during the pumping of water from the drywell equipment drain sump to the drywell floor drain sump to allow Radwaste Decontamination Personnel to clean the equipment drain sump. Isolation of the TWMS primary containment isolation valves is reportable as an actuation of an Engineered Safety Feature (ESF).

The cause of this event was poor communications and failure to adequately monitor and control the pump out of the drywell equipment drain sump. Lessons learned from this event will be provided to operations and radwaste 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

Initial Plant Conditions:

Operational Condition:	4	Cold Shutdown
Reactor Power:	0	percent
Reactor Pressure:	0	psig
Reactor Temperature:	116	degrees Fahrenheit

Description of the Event:

On November 10, 1994 the drywell equipment drain sump (WH) was being pumped out with a portable pump to the drywell floor drain sump to allow Radwaste Decontamination Personnel (Contractor, Non-Licensed) to clean the equipment sump. This evolution was authorized by the Nuclear Assistant Shift Supervisor following a discussion with the Radwaste Decontamination Supervisor. However, a joint pre-job briefing was not held with all involved personnel. The Control Room Operators (Utility, Licensed) were notified prior to start of the evolution.

This was considered a routine evolution and no specific instructions to monitor the floor drain sump level were provided. The first of two permanent pumps (P) in the floor drain sump (with a nominal pumping capacity of 70 gpm each) was expected to automatically start as necessary to keep the sump level in the normal band.

Pumping commenced at approximately 1040 hours. At 1041 hours, the Control Room (NA) received an expected drywell floor drain sump level rate of change alarm when the sump level changed from about 16.5 inches to 22 inches, due to the filling rate. This was followed by an expected drywell equipment drain sump Low-Low level alarm, also due to pumping down of the sump. At 1046 hours the Control Room received the drywell floor drain sump level "High-High" alarm (ANN). This resulted in the automatic start of the second drywell floor drain sump pump and automatic (JE) closure of primary containment isolation valves (ISV) (Group 12) for Torus Water Management System [(TWMS) (CG)]. The alarm cleared in about one (1) minute, when the sump pumped down into the normal band.

A review of Emergency Response Information System graphs and documentation revealed that the flow to the floor drain sump was approximately 100 gpm. This input exceeded the 70 gpm nominal pumping capacity of the first drywell floor drain sump pump that had automatically started at the high end of the normal level band. The level continued to rise until the "High-High" level was reached initiating the alarm, the starting of the second drywell floor drain sump pump and the closing of the TWMS primary containment isolation valves (an Engineered Safety Feature).

Cause of the Event:

This event occurred due to inadequate control and monitoring of the drywell equipment drain sump pump out. Control Room operators expected one pump to automatically start and control the sump level. An adequate joint pre-job briefing of the involved operations and radwaste personnel was not conducted. Thus, there was not a common understanding among those personnel of the flow capacities of the portable pump and the floor drain sump pumps. Also, no explicit communication of expectations occurred regarding the need for monitoring drywell floor drain sump pumps or level.

This event was not contributed to by any failed system or components. The ESF components functioned as expected.

Analysis of the Event:

The TWMS is designed to provide thermal mixing of the torus water, torus water inventory control, torus water quality maintenance, and to drain and fill the torus to facilitate inside torus recoating, inspection, and repair work. The TWMS is not required for reactor shutdown or accident mitigation and as such is not a safety-related system.

TWMS is isolated from primary containment following an accident. It also automatically isolates on a High-High level condition for drywell or torus area floor drain sumps. The floor drain sump level isolation signals are not ESF signals.

The TWMS isolation on high sump water level functioned as designed on an actual high level condition. As a result, this event did not affect the safe operation of the plant or the safety of the public. If actual conditions had existed which required TWMS isolation, the safe operation of the plant and the safety of the public would have been assured.

Corrective Action(s):

Lessons learned from this event will be communicated to operations and radwaste personnel. This will cover the need to accurately communicate the details of planned tasks between the involved organizations. The use of pre-job briefs covering expectations of all involved organizations, any necessary stop and hold points, and communication and other assignments of responsibility will be emphasized.

Also, lessons learned will be communicated to operations personnel regarding the need to monitor plant parameters and equipment performance during this type of evolution to ensure proper operation of automatic features such as sump level control.

Previous Similar Events:

There are no previous similar events.

Two (2) related events of Torus Water Management System isolations occurred during testing and troubleshooting of equipment:

LER 86-009 Functional Testing of an Engineering Design Change to the Drywell Floor Drain Sump System resulted in isolation of TWMS during removal of test jumpers.

LER 86-042-01 During troubleshooting of a Turbine Building sump level switch, a lifted lead caused a fuse to blow resulting in TWMS isolation.