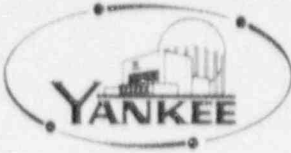


YANKEE ATOMIC ELECTRIC COMPANY

Telephone (413) 424-5261



Star Route, Rowe, Massachusetts 01367

December 3, 1990
BYR 90-157

TO: NRC - DOCUMENT CONTROL DESK
DOCUMENT: LICENSEE EVENT REPORT, LER
EXCEPTIONS: SEND ORIGINAL COPY

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

Subject: Licensee Event Report No. 50-29/90-008
Inoperable Vapor Container Atmosphere Recirculation
Fan

Dear Sir:

In accordance with 10 CFR 50.73(a)(2)(i), the attached
Licensee Event Report is hereby submitted.

Very truly yours,

Normand N. St. Laurent
Normand N. St. Laurent
Plant Superintendent

DAR/pkg
ENCLOSURE

cc: [3] NSARC Chairman (YAEC)
[1] Institute of Nuclear Power Operations (INPO)
[1] USNRC, Region I
[1] Resident Inspector

9012100349 901203
PDR ADOCK 05000029
S PDC

LF22
11

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Yankee Nuclear Power Station, Rowe, MA. 01367	DOCKET NUMBER (2) 0 5 0 0 0 0 2 9	PAGE (3) 1 OF 0 3
--	--------------------------------------	----------------------

TITLE (4)
Inoperable Vapor Container Atmosphere Recirculation Fan

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)
1	1	0	9	0	0	0	0	1			0 5 0 0 0
1	1	0	9	0	0	0	0	1			0 5 0 0 0

OPERATING MODE (8) 5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)									
	POWER LEVEL (10) 0 0 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)					
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.38(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.38(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)							

LICENSEE CONTACT FOR THIS LER (12)

NAME Gregory A. Maret Technical Director	TELEPHONE NUMBER
	AREA CODE: 4 1 3 4 2 4 - 5 2 6 1

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH DAY YEAR
--	-------------------------------	----------------

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

On November 4, 1990 at 1115 hours with the plant in Mode 5, a surveillance flow check of the VC Atmosphere Recirculation System showed that Fan FN 18-3 was not providing the minimum flow requirement of 6,000 CFM. Investigation found that the fan was rotating in reverse. Further investigation found the leads at the contactor were reversed.

The root cause of this event has been attributed to personnel error in that a facility employee, an electrician, incorrectly fastened the motor leads to the contactor on completion of contactor replacement. The electrician failed to implement a Temporary Change for the lifting of leads associated with the motor contactor replacement, and also failed to adequately perform the retest required by the maintenance procedure for the contactor replacement.

The incorrectly fastened leads were refastened correctly on November 4, 1990.

An independent review of electrical maintenance performed from the beginning of the refueling outage until the time of the discovery of the incident has been performed. No other discrepancies were found.

There was no adverse effect to the public health and safety. Disciplinary actions have been taken on the electrician involved in this maintenance activity.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Yankee Nuclear Power Station Rowe, MA. 01367	DOCKET NUMBER (2) 0 5 0 0 0 0 2 9	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 0	- 0 0 8	- 0 0	0 2	OF	0 3

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

BACKGROUND INFORMATION

The Vapor Container (VC) Atmosphere Recirculation System provides mixing of the VC atmosphere to reduce hydrogen pocketing following a LOCA.

The recirculation system consists of three 6,000 CFM fans and ducting. Gravity operated dampers are used to prevent backflow through stopped fans. Their discharges are connected to the ventilation system ring duct which directs air flow through ducting to all areas of the VC thus eliminating hydrogen pockets.

On September 15, 1990 fan FN 18-3 [EIIIS Code: FAN] was removed from service for replacement of a failed contactor [EIIIS Code: CNTR]. When the motor leads were re-connected to the new contactor they were inadvertently reversed, causing the motor/fan assembly to rotate in reverse.

The contactor replacement was conducted using an approved plant procedure. The procedure required a rotation check of the motor prior to sign-off by the electrician.

EVENT DESCRIPTION

On November 4, 1990 at 1115 hours with the plant in Mode 5, a surveillance flow check of the VC Atmosphere Recirculation System showed that Fan FN 18-3 was not providing the minimum flow requirement of 6,000 CFM. Investigation found that the fan was rotating in reverse. Further investigation found that the leads at the contactor were reversed.

CAUSE OF EVENT

The root cause of this event has been attributed to personnel error in that a facility employee, an electrician, incorrectly fastened the motor leads to the contactor on completion of contactor replacement. The electrician failed to implement a Temporary Change for the lifting of leads associated with the motor contactor replacement, and also failed to adequately perform the retest required by the maintenance procedure for the contactor replacement.

SAFETY ASSESSMENT

This event is reportable per 10CFR50.73(a)(2)(1)(B) since it involves a condition prohibited by Facility Technical Specifications.

Two of the three Atmosphere Recirculation System fans remained available to provide mixing of the VC atmosphere following a LOCA.

There was no adverse effect to the public health and safety.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Yankee Nuclear Power Station Rowe, MA. 01367	DOCKET NUMBER (2) 0 5 0 0 0 0 2 9	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 0	- 0 0 8	- 0 0	0 3	OF	0 3

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

CORRECTIVE ACTIONS

- . The incorrectly fastened leads were refastened correctly on November 4, 1990.
- . The individual was suspended for three days for failure to correctly follow an approved plant procedure.

ADDITIONAL INFORMATION

An independent review of electrical maintenance performed from the beginning of the refueling outage until the time of the discovery of the incident has been performed. No other discrepancies were found.

SIMILAR EVENTS

None