

## LICENSEE EVENT REPORT

CONTROL BLOCK:

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 V A N A S : (2) 0 0 - 0 0 0 0 0 0 - 0 0 (3) 4 1 1 1 1 (4) (5)  
7 8 9 LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 57 CAT 58

CON'T

0 1 REPORT SOURCE (6) 4 0 5 0 0 0 3 3 8 (7) 0 5 3 0 7 9 (8) 0 6 2 9 7 9 (9)  
7 8 60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

On 5/30/79 at about 1820 following a power reduction to secure a feedwater pump, an upper flux deviation alarm was received. Subsequent calculations yielded a quadrant power tilt ratio of 1.024 in the upper core. This was in excess of the 1.02 limit as per T.S. 3.2.4. Reportable pursuant to T.S. 6.9.1.9.b. This event did not affect the health and safety of the general public.

SYSTEM CODE R C (11)		CAUSE CODE X (12)		CAUSE SUBCODE X (13)		COMP. SUBCODE Z (15)		VALVE SUBCODE Z (16)	
7 8		9 10		11 12		13 14		15 16	
17 LER/RO REPORT NUMBER		EVENT YEAR 7 9 (22)		SEQUENTIAL REPORT NO. 0 7 6 (24)		OCCURRENCE CODE 0 3 (28)		REPORT TYPE L (30)	
21 22		23 24		25 26		27 28		29 30	
ACTION TAKEN X (18)		FUTURE ACTION X (19)		EFFECT ON PLANT B (20)		SHUTDOWN METHOD Z (21)		HOURS 0 0 0 0 (22)	
33 34		35 36		37 38		39 40		41 42	
ATTACHMENT SUBMITTED Y (23)		NPR-4 FORM SUB. N (24)		PRIME COMP. SUPPLIER N (25)		COMPONENT MANUFACTURER W 1 2 0 (26)		REVISION NO. 0 (32)	
43 44		45 46		47 48		49 50		51 52	

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The exact cause of the tilt is unknown and is presently under investigation. The

1 1 actions given in T.S. 3.2.4 were followed and the tilt was reduced to within the 1.02

1 2 limit in approximately 7 hours. An evaluation of incore flux map data and PDQ design

1 3 simulations suggests that the power tilt could be caused by one or more

1 4 dropped rod cluster control assembly (RCCA) rodlets.

FACILITY STATUS (1) 5 (E) (28) % POWER (0) 6 5 (29) OTHER STATUS (30) N/A METHOD OF DISCOVERY (A) (31) DISCOVERY DESCRIPTION (32) Operator Observation  
 ACTIVITY CONTENT RELEASED OF RELEASE (1) 6 (Z) (33) (Z) (34) AMOUNT OF ACTIVITY (35) N/A LOCATION OF RELEASE (36)  
 PERSONNEL EXPOSURES NUMBER (1) 7 (0) 0 0 (37) (Z) (38) TYPE DESCRIPTION (39) N/A  
 PERSONNEL INJURIES NUMBER (1) 8 (0) 0 0 (40) DESCRIPTION (41) N/A  
 LOSS OF OR DAMAGE TO FACILITY TYPE (1) 9 (Z) (42) DESCRIPTION (43) N/A 282 222 7907030 425 5  
 PUBLICITY ISSUED (2) 0 (N) (44) DESCRIPTION (45) N/A NRC USE ONLY

NAME OF PREPARER W. R. Cartwright

PHONE: 703-894-5151

#### Description of Event

On 5/30/79, at approximately 1820, power was reduced to 65% to secure a feedpump for maintenance. At this time an upper detector flux deviation alarm was received. Analysis of the detector currents indicated the presence of a quadrant power tilt ratio of 1.024 in the upper half of the core. This was in excess of T.S. 3.2.4 limit which restricts the quadrant power tilt ratio to  $\leq 1.02$ .

#### Probable Consequences of Occurrence

The limit of 1.02 provides DNB and linear heat generation rate protection for X-Y plane power tilts. Technical Specification 3.2.4 provides a period of two hours of operation between 1.02 and 1.09 to allow for identification and correction of a dropped or misaligned rod before a power reduction is necessary to reinstate the margin of uncertainty for FQ. Since the unit was already at reduced power and no control rod misalignment could be determined during this two hour period, the power range Neutron Flux-high trip setpoints were reduced to comply with this specification. At this time there appears to be no generic implication. As a result, the public health and safety were not endangered by this event. A safety evaluation for plant operation with several dropped rodlets was performed. The evaluation indicated that operation with several dropped rodlets did not invalidate the appropriate accident analysis limits.

#### Cause of Occurrence

There has been indication of control rod misalignment or flow maldistribution. An evaluation of incore flux map data and PDQ design simulations suggests that the power tilt could be caused by several dropped RCCA rodlets.

#### Immediate Corrective Action

After the presence of the tilt was noted, the actions given by T.S. 3.2.4 were followed. The Power Range Neutron Flux High Trip Setpoint was reduced to 100%, and the tilt was monitored using the excore detectors and incore system. The tilt was reduced to below the 1.02 limit after approximately 7 hours. Subsequent calculations of quadrant tilt indicated the tilt remained less than 1.02. Incore flux map surveillance has been increased to biweekly intervals (dependent on stable core conditions).

#### Scheduled Corrective Action

The tilt ratio is being closely monitored by both incore and excore detector systems as well as the incore thermocouple system.

#### Actions Taken to Prevent Recurrence

The tilt ratio is being monitored and operations which could result in an increase in the tilt ratio are being carefully observed. Further evaluation of this matter is being pursued with Westinghouse.

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