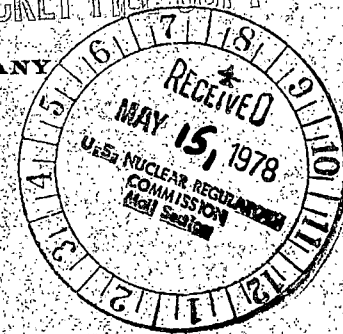


REGULATORY DOCKET FILE COPY

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

May 12, 1978



Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Region II, Suite 818
230 Peachtree Street, Northwest
Atlanta, Georgia 30303

Serial No. 263
PG&M/DLB:das
Docket No. 50-281
License No. DPR-37

Dear Mr. O'Reilly:

Pursuant to Surry Power Station Technical Specifications, the Virginia Electric and Power Company hereby submits the following Licensee Event Report for Surry Unit No. 2.

Report No.	Applicable Technical Specification
LER-78-013/03L-0	TS 6.6.2.b(3)

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be placed on the agenda for the next meeting of the System Nuclear Safety and Operating Committee.

Very truly yours,

C. M. Stallings

C. M. Stallings
Vice President-Power Supply
and Production Operations

Enclosures (3 copies)

cc: Dr. Ernst Volgenau, Director (30 copies)
Office of Inspection and Enforcement

Mr. William G. McDonald, Director (3 copies) ✓
Office of Management Information
and Program Control

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4/1

LICENSEE EVENT REPORT

CONTROL BLOCK: _____ (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

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

CON'T
 0 1 | R P | L 6 | 0 5 | 0 0 | 0 2 | 8 1 | 7 | 0 4 | 0 8 | 7 8 | 8 | 0 5 | 0 5 | 7 8 | 9
7 8 60 61 68 69 74 75 80
 REPORT SOURCE DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | During normal startup, following an outage for steam generator inspection,
 0 3 | the reactor was brought critical below the minimum insertion limit on
 0 4 | "D" Control Bank. This is contrary to Technical Specifications 3.12.A.4
 0 5 | and is reportable per Technical Specifications 6.6.2.b(3).
 0 6 | _____
 0 7 | _____
 0 8 | _____

0 9 | R B | A | A | Z Z Z Z Z Z | Z | Z | L | 0 | 7 8 | 0
9 10 11 12 13 18 19 20 21 22 23 24 26 27 28 29 30 31 32
 SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP. SUBCODE VALVE SUBCODE
 LER/RO REPORT NUMBER EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.
 ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPRD-4 FORM SUB. PRIME COMP. SUPPLIER COMPONENT MANUFACTURER
 H H | C | Z | 0 0 0 1 | Y | N | Z | Z 9 9 9 | 26
33 34 35 36 37 40 41 42 43 44 47
 CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | The event was caused by an undetected error in the estimated critical
 1 1 | position calculation. The reactor was immediately returned to shut-
 1 2 | down conditions by emergency boration.
 1 3 | _____
 1 4 | _____

1 5 | C | 0 0 0 | NA | A | Operator Observation
7 8 9 10 12 13 44 45 46 80
 FACILITY STATUS % POWER OTHER STATUS METHOD OF DISCOVERY DISCOVERY DESCRIPTION
 1 6 | Z | Z | NA | NA | LOCATION OF RELEASE
7 8 9 10 11 44 45 80
 ACTIVITY CONTENT AMOUNT OF ACTIVITY LOCATION OF RELEASE
 1 7 | 0 0 0 | Z | NA
7 8 9 11 12 13 80
 PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION
 1 8 | 0 0 0 | NA
7 8 9 11 12 80
 PERSONNEL INJURIES NUMBER DESCRIPTION
 1 9 | Z | NA
7 8 9 11 12 80
 LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION
 2 0 | N | NA
7 8 9 10 80
 PUBLICITY ISSUED DESCRIPTION
7 8 9 10 80

NAME OF PREPARER T. L. Baucom PHONE: (804) 357-3184

Title: Critical Below Insertion Limits

1. Description of Events:

During normal startup, following an outage for steam generator inspection, the reactor was brought critical below the minimum insertion limit for "D" Bank. This is contrary to Technical Specifications 3.12.A.4 and is reportable as per Technical Specifications 6.6.2.b.(3).

2. Probable Consequences:

The insertion limits are determined to satisfy safety requirements such as shutdown margin, power distribution limits, and the maximum worth from an ejected control rod. A violation of the insertion limits does not necessarily result in a violation of the applicable safety limits because of conservatism used in developing these limits. An evaluation of this event has determined that due to the conservative assumptions used, the appropriate safety limits were not violated. Therefore, the health and safety of the general public were not affected.

3. Cause of Event:

This event was caused by personnel error. An error was made and went undetected in the calculation of the Estimated Critical Position which led to an over-dilution of the reactor coolant system. As a result of this dilution, the reactor was brought critical below the insertion limits.

4. Immediate Corrective Action:

The reactor was immediately returned to shutdown conditions using the emergency boration system. This is the required response for the violation of this limiting condition for operation.

5. Subsequent Corrective Action:

Personnel involved in this event were reinstructed.

6. Actions Taken To Prevent Recurrence:

Personnel were instructed to take greater care when making and checking calculations.

7. Generic Implications:

None