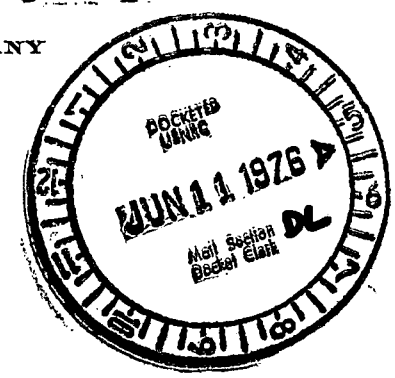
Regulatory Docket File

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261



June 4, 1976

Mr. Norman C. Moseley, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Region II - Suite 818
230 Peachtree Street, Northwest
Atlanta, Georgia 30303

Serial No. 069
PO&M/ALH:jlf

Docket No. 50-281
License No. DPR-37

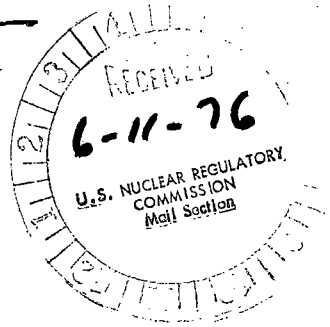
Dear Mr. Moseley:

Pursuant to Surry Power Station Technical Specification 6.6.2, the Virginia Electric and Power Company hereby submits a copy of Reportable Occurrence No. AO-S2-76-03.

The substance of 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 for
Vice President-Power Supply
and Production Operations



Enclosure

cc: Mr. Robert W. Reid, Chief (40)
Operating Reactors Branch 4

5945

LICENSEE EVENT REPORT

A0-S2-76-03
Regulatory Docket File

CONTROL BLOCK: [ ] (1–6)

(PLEASE PRINT ALL REQUIRED INFORMATION)

Docket Date 6-4-76

LICENSEE NAME	LICENSE NUMBER	LICENSE TYPE	EVENT TYPE
01 VASPS2 (7–8, 9–14)	00-00000-00 (15–25)	4 1 1 1 0 (26–30)	0 1 (31–32)

CON'T	CATEGORY	REPORT TYPE	REPORT SOURCE	DOCKET NUMBER	EVENT DATE	REPORT DATE
01 (7–8)	P O (57–58)	T (59)	L (60)	0 5 0 – 0 2 8 1 (61–68)	0 5 2 1 7 6 (69–74)	0 6 0 2 7 6 (75–80)

EVENT DESCRIPTION

02 With Unit 2 at cold shutdown following a refueling, routine chemistry analysis of the
03 primary coolant boron concentration indicated that an unplanned dilution had occurred.
04 This event is reportable per T.S.6.6.2.A(4). The immediate operator action was to
05 terminate the source of the dilution, which was found to be leakage from the secondary
06 side of 2A steam generator. An increased analysis frequency of boron concentration was (Con't)

SYSTEM CODE	CAUSE CODE	COMPONENT CODE	PRIME COMPONENT SUPPLIER	COMPONENT MANUFACTURER	VIOLATION
07 Z Z (9–10)	F (11)	H T E X C H (12–17)	N (43)	W 1 2 0 (44–47)	N (48)

CAUSE DESCRIPTION

08 Steam Generator "2A" had three tubes which had apparently been cut during the removal
09 of a section of the seventh tube support plate. When the S/G level was raised above
10 the level of the cuts, water passed into the primary side of loop A, which was (Con't)

FACILITY STATUS	% POWER	OTHER STATUS	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION
11 G (9)	0 0 0 (10–12)	Z (13–44)	B (45)	Routine Chemistry Sampling (46–80)

FORM OF ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY	LOCATION OF RELEASE
12 Z (9)	Z (10)	N/A (11–44)	N/A (45–80)

PERSONNEL EXPOSURES

NUMBER	TYPE	DESCRIPTION
13 0 0 0 (9–11)	Z (12)	N/A (13–80)

PERSONNEL INJURIES

NUMBER	DESCRIPTION
14 0 0 0 (9–11)	N/A (12–80)

OFFSITE CONSEQUENCES

15 N/A

LOSS OR DAMAGE TO FACILITY

TYPE	DESCRIPTION
16 Z (9)	N/A (10–80)

PUBLICITY

17 N/A

ADDITIONAL FACTORS

18 Any adverse effect from this dilution could have been negated by boration by the use
19 of borated makeup, or via the accumulators. Therefore, this event did not (Con't)

NAME: E. M. Sweeney, Jr. PHONE: (804) 357-3184

GPO 881-667

EVENT DESCRIPTION (CONTINUED)

initiated until the source of the dilution water was terminated. (AO-S2-76-03)

CAUSE DESCRIPTION (CONTINUED)

connected to the reactor vessel through a 2" bypass line.

The boron concentration of the reactor vessel changed from 2396 ppm to a minimum of 1836 ppm. This resulted in a minimum shutdown margin of 11.6%, as compared to a required margin of 1%. The shutdown margin prior to the dilution was 18.3%.

Although the dilution was discovered by chemistry analysis, the plant design incorporates features which would have alerted the operator of a dilution had it been of a magnitude such that a significant reduction in shutdown margin occurred. The increasing audio and metered source range counts, and high-flux-at-shutdown alarm would have alerted the operator to the need for primary system boration.

The actual faulty tubes resulted from the grinding operation during the tube support plate removal procedure. It was felt that all suspect tubes were correctly plugged, but the additional leaking tubes were created due to close working quarters and conditions. A visual inspection by Westinghouse personnel failed to pick up the subject leaking tubes prior to the tube plugging operation.

ADDITIONAL FACTORS (CONTINUED)

affect the health or safety of the public.