

LICENSEE EVENT REPORT

AO-S1-76-02
UPDATE REPORT

CONTROL BLOCK: 1 2 3 4 5 6

(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME 01 V A S P S 1 14														LICENSE NUMBER 00 - 000000 - 00 25										LICENSE TYPE 4 1 1 1 0 30					EVENT TYPE 0 1 31 32	
CATEGORY 01 CONT 7 8		REPORT TYPE M I 57 58		REPORT SOURCE T L 59 60		DOCKET NUMBER 0 5 0 - 0 2 8 0 61 68										EVENT DATE 0 3 1 3 7 6 69 74					REPORT DATE 0 5 1 7 7 0 75 80									

EVENT DESCRIPTION

02 It was determined that the worst break LOCA core thermal transient analysis is inaccurate since the effects of steam generator tube plugging on the LOCA were not considered therein. This was initially reported on March 26, 1976. (AO-S1-76-02 UPDATE)																																																																															
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SYSTEM CODE 07 Z Z 7 8 9 10		CAUSE CODE F 11		COMPONENT CODE H T E X C H 12 17					PRIME COMPONENT SUPPLIER N 43		COMPONENT MANUFACTURER W 1 2 0 44 47					VIOLATION N 48	
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CAUSE DESCRIPTION

08 Steam generator tube deterioration has resulted in the need to plug a number of tubes in Surry steam generators. Surry Unit No. 1 has 6.31 percent of its steam generator tubes plugged, and Surry Unit No. 2 is expected to have 5.55 percent of its (CONT'D)																																																																															
09																																																																															
10																																																																															

FACILITY STATUS 11 Z 7 8 9		% POWER 0 0 0 10 12		OTHER STATUS NA 13		METHOD OF DISCOVERY B 44		DISCOVERY DESCRIPTION NA 46	
FORM OF ACTIVITY RELEASED 12 Z 7 8 9		CONTENT OF RELEASE Z 10		AMOUNT OF ACTIVITY NA 11		LOCATION OF RELEASE NA 45			

PERSONNEL EXPOSURES

NUMBER 13 0 0 0 7 8 9		TYPE Z 12		DESCRIPTION NA 13	
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PERSONNEL INJURIES

NUMBER 14 0 0 0 7 8 9		DESCRIPTION NA 12	
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OFFSITE CONSEQUENCES

15 There are no offsite consequences associated with this event.																																																																															
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LOSS OR DAMAGE TO FACILITY

TYPE 16 Z 7 8 9		DESCRIPTION NA 10	
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PUBLICITY

17 NA 7 8 9		8403070418 760517 PDR ADOCK 05000280 S PDR	
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ADDITIONAL FACTORS

18 The nuclear steam supply system vendor has performed LOCA analyses, using the March 1975 model, to examine the effects of various steam generator tube plugging (CONT'D)																																																																															
19																																																																															

NAME: B. R. Sylvia

PHONE: (804) 771-4442

CAUSE DESCRIPTION (CONT'D)

tubes plugged at the end of the current refueling outage. The nuclear steam supply system vendor continues to conduct research into the generic tube deterioration phenomenon in PWR steam generators.

ADDITIONAL FACTORS (CONT'D)

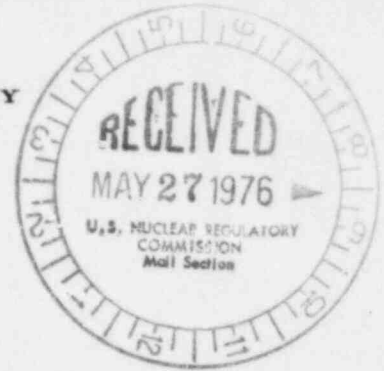
configurations on the Surry units. The results show that a total of 8.8 percent of a unit's steam generator tubes can be plugged before the ECCS criteria, peak clad temperature 2200 F, are exceeded.

Additional analyses, using the March 1975 model, are being conducted to examine the effects of non-uniform distribution of plugged tubes between loops. However, the current best estimate of the impact of non-uniform tube plugging is a 30 F increase in peak clad temperature. When this is applied to the results for uniform plugging, the maximum allowable plugging level is reduced to 7.5%. A special analysis run was made to determine if the worst non-uniform plugging currently present at Surry would result in exceeding the ECCS peak clad temperature limit. The results show that the ECCS peak clad temperature limit is not exceeded due to the non-uniform plugging in either Surry unit. Further, this analysis contained sufficient margin to permit a significant number of additional tubes to be plugged in each unit at Surry.

In conclusion, the ECCS peak clad temperature limits are not exceeded in either Surry unit as a result of plugged steam generator tubes nor are these limits expected to be exceeded in the foreseeable future.

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

May 25, 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. 950 S
PO&M/ALH:jlf

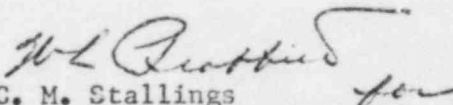
Docket No. 50-280
License No. DPR-32

Dear Mr. Moseley:

Pursuant to Surry Power Station Technical Specification 6.6.2, the Virginia Electric and Power Company hereby submits a copy of the Supplemental Report to AO-S1-76-02.

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,


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

Enclosure

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

5315

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