

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)  
Virgil C. Summer Nuclear StationDOCKET NUMBER (2)  
0 5 0 0 0 3 9 5 1 OF 0 2TITLE (4)  
Overpower Delta Temperature

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)
0 8	2 8	8 5	8 5	0 2 5	0 0 0	9 2	7 8	5			0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)									
POWER LEVEL (10) 1 0 0		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)			
		20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)			
		20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vi)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
		20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)					
		20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)					
		20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)  
NAME  
A. R. Koon, Jr., Assoc. Mgr., Regulatory Compliance  
TELEPHONE NUMBER  
AREA CODE  
8 0 3 3 4 5 1 - 5 1 2 0 1 9

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		
A	J	E	E	C	B	D	W	1	2	0	Y

SUPPLEMENTAL REPORT EXPECTED (14)  
YES (If yes, complete EXPECTED SUBMISSION DATE) ☐ NO ☒  
EXPECTED SUBMISSION DATE (15)  
MONTH DAY YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (18)

On August 28, 1985 the Licensee identified a nonconservative response for the Overpower Delta Temperature (OPΔT) setpoint following a Reactor Trip which occurred on August 24 (Reference LER 85-022). The setpoint on all three instrumentation channels increased on decreasing T<sub>ave</sub> contrary to the requirements of Technical Specification 2.2.1 (Item 8, Table 2.2-1), "Reactor Trip System Instrumentation Setpoints."

The variance of the OPΔT setpoint was initially identified during a post trip review on August 24. The condition was evaluated by shift personnel performing the review and determined to be within the allowable instrument tolerance and a plant restart was authorized. However, a subsequent review of other trip packages determined that the variance was in fact a nonconservative shift in the OPΔT setpoint.

The nonconservative response resulted from a failure to install an electrical jumper on channel logic cards TY 412L, TY 422L, and TY 432L. The missing jumpers were installed and their function tested prior to declaring the channels operable at 1530 hours on August 28, 1985.

Calibration procedures for OPΔT were revised on August 28, 1985. The procedures now functionally test the circuit response to increasing and decreasing temperatures. The procedure revisions are considered to be adequate corrective action to prevent recurrence.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)  VIRGIL C. SUMMER NUCLEAR STATION	DOCKET NUMBER (2)  0 5 0 0 0 3 9 5 8 5 - 0 2 5 - 0 0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 5	0 2 5	0 0	0 2	OF	0 2

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

On August 28, 1985 the Licensee identified a nonconservative response for the Overpower Delta Temperature (OP $\Delta$ T) setpoint following a Reactor Trip which occurred on August 24 (Reference LER 85-022). The setpoint on all three instrumentation channels increased on decreasing T<sub>ave</sub> contrary to the requirements of Technical Specification 2.2.1 (Item 8, Table 2.2-1), "Reactor Trip System Instrumentation Setpoints."

The variance of the OP $\Delta$ T setpoint was initially identified during a post trip review on August 24. The condition was evaluated by shift personnel performing the review and determined to be within the allowable instrument tolerance and a plant restart was authorized. However, a subsequent review of other trip packages determined that the variance was in fact a nonconservative shift in the OP $\Delta$ T setpoint.

The nonconservative response resulted from a failure to install an electrical jumper on channel logic cards TY 412L, TY 422L, and TY 432L. The purpose of the jumper is to ensure that the OP $\Delta$ T circuitry provides protection for decreasing temperature as might be expected on a steam line break. Due to personnel oversight, the jumper was not installed during plant startup. The oversight was not previously detected since surveillance tests only verified that protection would be provided for increasing temperatures.

The three instrumentation channels were declared inoperable at 1215 hours on August 28, 1985, and a plant shutdown subsequently initiated per the requirements of Limiting Condition for Operation (LCO) 3.0.3. The missing jumpers were installed and their function tested prior to declaring the channels operable at 1530 hours on August 28, 1985. The shutdown was terminated and the plant returned to 100% power.

There were no adverse consequences for this event. An engineering evaluation performed during a review of the event determined that the safety limit curves for the Virgil C. Summer Nuclear Station would not be violated for operation without OP $\Delta$ T. As shown in FSAR Figure 15.1-1 and confirmed by the NSSS vendor, the safety limits can be protected for all conditions of T<sub>ave</sub>,  $\Delta$ T and Reactor Coolant System (RCS) pressure without relying on the OP $\Delta$ T trip. Protection is provided by High Neutron Flux, Overtemperature Delta Temperature (OT $\Delta$ T), and Pressurizer Low Pressure trips.

Calibration procedures for OP $\Delta$ T were revised on August 28, 1985. The procedures now functionally test the circuit response on increasing and decreasing temperatures. The procedure revisions are considered to be adequate corrective action to prevent recurrence.

SOUTH CAROLINA ELECTRIC & GAS COMPANY

POST OFFICE 764

COLUMBIA, SOUTH CAROLINA 29218

O. W. DIXON, JR.  
VICE PRESIDENT  
NUCLEAR OPERATIONS

September 27, 1985

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

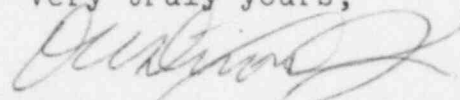
SUBJECT: Virgil C. Summer Nuclear Station  
Docket No. 50/395  
Operating License No. NPF-12  
LER 85-025

Dear Sir:

Attached is Licensee Event Report #85-025 for the Virgil C. Summer Nuclear Station. This report is submitted pursuant to the requirements of 10CFR50.73(a)(2)(1).

Should there be any questions, please call us at your convenience.

Very truly yours,



O. W. Dixon, Jr.

CJM/OWD:lcd  
Attachment

cc: V. C. Summer	J. F. Heilman
T. C. Nichols, Jr./O. W. Dixon, Jr.	C. L. Ligon (NSRC)
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