NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Virgil C. Summer Nuclear Station	0 5 0 0 0 3 9 5	1 OF 0 2

TITLE (4)
Reactor Trip

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 4	8 5	8 5	0 2 2	0 1	0 9	2 0	8 5		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9): 1

POWER LEVEL (10): 0 0 8

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

20.402(b)	20.405(c)	X 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)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iii)	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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
A. R. Koon, Jr., Assoc. Mgr., Regulatory Compliance	8 0 3 3 4 5 - 5 2 0 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	

SUPPLEMENTAL REPORT EXPECTED (14)

		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

At 1922 hours on August 24, 1985, a reactor trip from approximately 8% power occurred on "A" Steam Generator Lo-Lo level. During plant startup at approximately 26% power, operational problems with the condensate system resulted in feedwater temperature decreasing to the low bistable setpoint of 225°F. This signal, in coincidence with the normal startup low feed flow signal, resulted in automatic closure of the Feedwater Isolation Valve (FIV 1611A) for "A" steam generator. Power reduction and startup of the Emergency Feedwater System did not prevent the trip.

Initial post trip review verified all safety systems functioned as designed and plant overall response was normal. The reactor was restarted on August 25, 1985. Subsequent reviews of trip data revealed a problem with Overpower Delta Temperature setpoints. This issue will be addressed in Licensee Event Report #85-025.

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☆ U.S.GPO:1984-0-454-481/18759

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

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

On August 24, 1985 at 1922 hours during a plant startup, the reactor tripped from 8% reactor power due to a Lo-Lo level in "A" steam generator. At 1811 hours, after feedwater system warming, the Feedwater Isolation Valves were opened, a reactor power increase from 3% was initiated, and turbine roll-up was commenced. Reactor power was increased to approximately 26%. Operators experienced difficulties maintaining deaerator level and pressure that resulted in tripping of condensate pumps on deaerator high level. When the condensate pumps were restarted, the resulting flow of cold water to the deaerator storage tank caused a decrease in feedwater temperature. Initial post trip review verified all safety systems functioned as designed and plant overall response was normal. Subsequent reviews of trip data revealed a problem with Overpower Delta Temperature setpoints. This issue will be addressed in Licensee Event Report #85-025.

The cause of this event is attributed to the requirement to maintain minimum values of feedwater flow and temperature during plant startup. Feedwater Isolation Valve automatic closure is initiated when feedwater flow is below 16% and feedwater temperature is below 225°F. These limits were imposed as a result of modifications to the Model "D3" steam generators to address tube vibration and hydraulic performance concerns. A routine startup problem with the condensate system or turbine roll-up that delays the availability of turbine extraction steam for feedwater heating sometimes results in Feedwater Isolation Valve automatic closure.

The Licensee has initiated an evaluation program to determine if improvements or modifications to the feedwater or condensate system could be accomplished to enhance flexibility during startup. Operators have been reminded of the need to exercise caution during feedwater system startup. Licensee Event Report (LER) 84-009 documents a similar event.

SOUTH CAROLINA ELECTRIC & GAS COMPANY
POST OFFICE 764
COLUMBIA, SOUTH CAROLINA 29218

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

September 20, 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 85-022, Revision 1

Dear Sir:

Attached is Revision 1 to Licensee Event Report #85-022 for the Virgil C. Summer Nuclear Station. This report is submitted pursuant to the requirements of 10CFR50.73(a)(2)(iv).

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

Very truly yours,

O. W. Dixon, Jr.

PDL/OWD:dwf
Attachment

cc: V. C. Summer
T. C. Nichols, Jr./O. W. Dixon, Jr.
E. H. Crews, Jr.
E. C. Roberts
W. A. Williams, Jr.
D. A. Nauman
J. Nelson Grace
Group Managers
O. S. Bradham
C. A. Price
S. R. Hunt
J. F. Heilman
C. L. Ligon (NSRC)
K. E. Nodland
R. A. Stough
G. Percival
C. W. Hehl
J. B. Knotts, Jr.
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1/1