



South Carolina Electric & Gas Company
P.O. Box 88
Jenkinsville, SC 29066
(803) 345-4040

10CFR50.73
John L. Skolds
Vice President
Nuclear Operations

February 10, 1992

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

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION
DOCKET NO. 50/395
OPERATING LICENSE NO. NPF-12
LER 92-001 (ONO 920002)

Attached is Licensee Event Report No. 92-001 for the Virgil C. Summer Nuclear Station. This report is submitted pursuant to the requirements of 10CFR50.73(a)(2)(i).

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

Very truly yours,

John L. Skolds

CJM:JLS:cjm
Attachment

c: O. W. Dixon Jr.
R. R. Mahan
R. J. White
S. D. Ebnetter
G. F. Wunder
General Managers
Marsh & McLennan
G. J. Taylor
T. L. Matlosz
S. R. Hunt

J. W. Flitter
L. J. Montondo
NRC Resident Inspector
J. B. Knotts Jr.
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RTS (ONO 920002)
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1-20-92

NUCLEAR EXCELLENCE - A SUMMER TRADITION!

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PDR ADOCK 05000395
S PDR

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Virgil C. Summer Nuclear Station

DOCKET NUMBER (2)
0 5 0 0 0 3 9 5 1 OF 0 3

TITLE (4)
Missed Surveillance for Axial Flux Difference

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 NAME					
0	1	1	9	2	9	2	0	2	1	0	9	2		

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)

OPERATING MODE (9)	1	20.402(b)		20.406(a)		80.73(a)(2)(iv)		73.71(b)
POWER LEVEL (10)	1,0,0	20.406(a)(1)(i)		80.73(a)(1)		80.73(a)(2)(iv)		73.71(a)
		20.406(a)(1)(ii)		80.73(a)(2)		80.73(a)(2)(iv)		OTHER (Specify in Abstract below and in Text, NRC Form 305A)
		20.406(a)(1)(iii)	X	80.73(a)(2)(ii)		80.73(a)(2)(iv)(A)		
		20.406(a)(1)(iv)		80.73(a)(2)(iii)		80.73(a)(2)(iv)(B)		
		20.406(a)(1)(v)		80.73(a)(2)(iii)		80.73(a)(2)(iv)		

LICENSEE CONTACT FOR THIS LER (12)

NAME: W. R. Higgins, Supervisor, Regulatory Compliance

TELEPHONE NUMBER: AREA CODE 8 0 3, 3 4 5 - 4 0 4 2

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
X				N					

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) (16)

On January 11, 1992, at approximately 1830 hours, Operations personnel observed that the integrated plant computer system (IPCS) was indicating an Axial Flux Difference (AFD) of 0 as compared to Main Control Board (MCB) indications of approximately +1.5%. The computer was declared inoperable at 1845 hours and manual tracking of the AFD was initiated in accordance with Technical Specification Surveillance Requirement 4.2.1.1(b) for monitoring and logging of indications when the AFD Monitor Alarm is inoperable. The computer was shutdown, restarted, and the function of software programs verified prior to returning the system to operation at 2200 hours.

A review of the sequence of events summary determined that the failure to perform certain critical calculations was due to the deletion of computer point U1169 (a calculated value that represents the statistical average of the four nuclear power range channels). Control Room personnel were unaware of errors which could be generated within the IPCS due to the deletion of certain computer points from PROCESSING (utilization of input data for software calculations).

SCE&G considers this event to be isolated and not indicative of deficiencies in either plant programmatic controls or computer software. To emphasize the importance of being cautious when making changes to monitored computer points, this LER will be placed in the Operations and Instrumentation and Control (another group that routinely removes points from PROCESSING) Departments required reading to emphasize "Lessons Learned." Additionally, SCE&G is developing a list of computer points affecting critical software programs that should not be removed from PROCESSING on the IPCS. This information will be provided to both groups to insure they are aware of the critical points. These actions will be complete by May 1, 1992.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		Virgil C. Summer Nuclear Station	0 1 5 1 0 0 0 3 9 5	9 2	0 0 1	0 0

TEXT (if more space is required, use additional NRC Form 306A 9/117)

PLANT IDENTIFICATION:

Westinghouse - Pressurized Water Reactor

EQUIPMENT IDENTIFICATION:

Integrated Plant Computer System (IEEE-ID)

IDENTIFICATION OF EVENT:

On January 11, 1992, at approximately 1830 hours, Operations personnel observed that the integrated plant computer system (IPCS) was indicating an Axial Flux Difference (AFD) of 0 as compared to Main Control Board (MCB) indications of approximately +1.5%. The computer was declared inoperable at 1845 hours and manual tracking of the AFD was initiated at 1945 hours in accordance with Technical Specification Surveillance Requirement 4.2.1.1(b) which requires the monitoring and logging of indications when the AFD Monitor Alarm is inoperable.

EVENT DATE AND TIME:

January 11, 1992, at 1845 hours.

REPORT DATE:

February 10, 1992

This report was initiated by Off-Normal Occurrence Report 92-002.

CONDITIONS PRIOR TO EVENT:

Mode 1, 100% reactor power

DESCRIPTION OF EVENT:

The IPCS at Virgil C. Summer Nuclear Station (VCSNS) was removed from service at approximately 0800 hours on January 11, 1992, for performance of a modification. On completion of the modification, the IPCS was restored to operation at 1325 hours with all software programs confirmed to be running. This confirmation is made by observing the status of programs considered to be important to the operation of the plant, as monitored by a "task monitor" (provides RUNNING/HALTED status) software program on the IPCS.

Problems with the operation of heat balance related programs on the IPCS were noted at approximately 1600 hours. At approximately 1830 hours, the significance of the error was determined by operations and computer personnel when the computer indication for AFD was observed to be zero as compared to the MCB indications of +1.5%. The IPCS was subsequently declared inoperable at 1845 hours and logging of Technical Specification surveillances initiated. All functions performed by the IPCS were returned to operability at 2200 hours after the system was shutdown and restarted.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Virgil C. Summer Nuclear Station	DOCKET NUMBER (2) 0 5 0 0 0 3 9 5	LER NUMBER (4)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER (1)	REVISION NUMBER			
		9 2	0 0 1	0 0	0 3	OF	0 3

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

CAUSE OF EVENT:

A review of the sequence of events summary determined that the IPCS failure to perform certain critical calculations required to reflect plant status was due to the deletion of computer point U1169 from PROCESSING at 1522 hours on January 11, 1992. U1169 is a calculated value that represents the statistical average of the four nuclear power range channels. If two or more of the power range instruments are not within a standard deviation from the calculated mean, this point will generate an alarm. When the input returns to normal, a return message would also be printed.

The alarm summary for this date indicated that the power range channels were apparently noisy and causing repetitive alarms. Control Room personnel attempting to remove U1169 from ALARM PROCESSING actually deleted the point from PROCESSING. The impact of removing U1169 from PROCESSING instead of ALARM PROCESSING was not known by the individual performing the function. SCE&G considers this event to have resulted from a lack of knowledge on errors which can be generated within the IPCS due to the deletion of certain computer points from PROCESSING.

ANALYSIS OF EVENT:

At the time of this event the plant was operating at a 100% steady state condition. There were no transients or operational events that could significantly affect the value of AFD during the timeframe that the IPCS generated alarm was inoperable. SCE&G does not consider the inoperable alarm to have caused a safety concern with respect to the operation of the plant since the Control Room operators routinely observe AFD on the MCB.

IMMEDIATE CORRECTIVE ACTIONS:

The IPCS was declared inoperable at 1845 hours, and Operations personnel initiated logging of Technical Specification parameters monitored by the computer system. The computer was shutdown, restarted and the function of software programs verified prior to returning the system to operation at 2200 hours.

ADDITIONAL CORRECTIVE ACTIONS:

SCE&G considers this event to be isolated and not indicative of deficiencies in either plant program logic controls or computer software. To emphasize the importance of being cautious when making changes to monitored computer points, this LER will be placed in both the Operations and the Instrument and Control (another group that routinely removes points from PROCESSING) Department's required reading to emphasize "Lessons Learned." Additionally, SCE&G is developing a list of computer points affecting critical software programs that should not be removed from PROCESSING on the IPCS. This information will be provided to both groups to preclude future problems. These actions will be complete by May 1, 1992.

PRIOR OCCURRENCES:

None.