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)
Hope Creek Generating Station	0 5 0 0 0 3 5 4	1 OF 0 3

TITLE (4) Noncoincident Scram Signal Resulting From Neutron Monitoring System Component Failure

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 4	1 6	8 6	8 6	0 0 4	0 0	0 5	0 9	8 6		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
5	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 1 0 0	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
C. W. Allen	AREA CODE 6 0 9 — 3 3 9 - 5 2 1 3 8

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	
B	I G	A M P	G 0 8 2	Y							

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)

While in OPERATIONAL CONDITION 5 with initial fuel loading activities in progress, a noncoincident reactor protection system (RPS) initiation occurred as a result of a trip signal generated by an average power range monitor (APRM) of the neutron monitoring system (NMS). The APRM trip signal originated from the failure of one of the APRM's associated local power range monitors (LPRM). The LPRM failed high which resulted in the generation of an invalid APRM-Neutron Flux Upscale trip signal. The resultant scram signal is categorized as noncoincident because the RPS circuitry "shorting links" were not installed at the time of the event. Removal of the RPS circuitry "shorting links" during initial core loading is required by the plant technical specifications. The noncoincident scram condition required no control rod movement as all control rods were already fully inserted into the core. The immediate corrective action consisted of bypassing the failed LPRM and resetting the noncoincident scram condition. Initial fuel loading activities proceeded with no recurrence of the event. The followup corrective action consisted of restoring the failed LPRM to operable status.

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PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor (BWR/4)
Reactor Protection System (RPS)/Neutron Monitoring System (NMS)

IDENTIFICATION OF OCCURRENCE:

Noncoincident Scram Signal Resulting From Neutron Monitoring System Component Failure
Event Date: 04/16/86
Event Time: 0249
This LER was initiated by Incident Report No. 86-038.

CONDITIONS PRIOR TO OCCURRENCE:

OPERATIONAL CONDITION 5 - activities relative to initial fuel loading in progress - 20 fuel bundles located in core - RPS circuitry "shorting links" removed - neutron flux level equal to 30 cps - all control rods fully inserted.

DESCRIPTION OF OCCURRENCE:

While in OPERATIONAL CONDITION 5 with initial fuel loading activities in progress, a noncoincident scram signal was initiated from the "B" RPS trip system as a result of a Neutron Flux Upscale trip signal generated by Channel "F" APRM. LPRM 4c-32-25, assigned to Channel "F" APRM, failed high thus generating the invalid APRM-Neutron Flux Upscale trip signal. This noncoincident scram condition required no control rod movement as all control rods were already fully inserted into the core.

APPARENT CAUSE OF OCCURRENCE:

NMS component failure; LPRM 4c-32-25 failed high.

ANALYSIS OF OCCURRENCE:

The twentieth fuel bundle had been loaded into core position 17-42 approximately one minute prior to event initiation. It has been concluded that fuel loading did not contribute to event initiation because the failed LPRM was not located in the quadrant of the core which fuel was being loaded. Troubleshooting activities later revealed a faulty Gain Switch on the LPRM Auxiliary Card (GE Part No. 136B2503AAG1) to be the "root" cause of the event. The failure of this NMS component has been determined to be NPRDS reportable. Because the RPS circuitry "shorting links" were not installed at the time of the event, the scram condition is categorized as

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

ANALYSIS OF OCCURRENCE (CONT'D):

noncoincident. Removal of the RPS circuitry "shorting links" during initial core loading is required by the plant technical specifications. The public health and safety was not compromised by this event. This LER is being submitted pursuant to 10CFR50.73(a)(2)(iv).

CORRECTIVE ACTION:

The immediate corrective action consisted of bypassing LPRM 4c-32-25 and resetting the noncoincident scram condition. The followup corrective action consisted of replacing the LPRM Auxiliary Card. Card replacement and calibration activities were performed under Work Order No. 86-04-18-030-3.

Sincerely,

R. S. Salvesen

R. S. Salvesen
General Manager
Hope Creek Operations

CWA:bar
SORC Mtg. 86-104

PSE&G

Public Service Electric and Gas Company P. O. Box A Hancocks Bridge, New Jersey 08038

Hope Creek Generating Station

May 9, 1986

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

Dear Sir:

HOPE CREEK GENERATING STATION
DOCKET NO. 50-354
UNIT NO. 1
LICENSEE EVENT REPORT 86-004-00

This Licensee Event Report is being submitted pursuant to the requirements 10CFR50.73(a)(2)(iv).

Sincerely yours,

R. S. Salvesen
General Manager
Hope Creek Operations

KMH:bar

SORC Mtg. 86-104
Attachment

C Distribution

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