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)

Reactor Water Cleanup System Isolation

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 5 0 0 0
1 1	1 1	8 6	8 6	–	0 7 8	–	0 0	1 2	1 0	8 6		0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)					
POWER LEVEL (10)	0 9 5	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
P. Mary	6 0 9 3 3 9 – 5 2 3 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)

This event consisted of an automatic isolation of the Reactor Water Cleanup (RWCU) System from a valid high differential flow signal received when placing 'B' filter demineralizer in service. Investigation by System Engineering revealed existing leakage prior to the event and density related flow errors resulted in a 50 gpm indicated differential flow. A differential flow of 56.3 gpm between influent and effluent outside containment will trip and cause RWCU isolation. While placing the 'B' filter demineralizer in service, chemistry technicians had only a 6.3 gpm margin with which to work and thus the probability of an isolation was greatly increased. After resetting the trip RWCU was returned to service. Corrective action includes leak repair and redesign by GE of portions of the RWCU system.

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

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor (BWR/4)
Reactor Water Cleanup (RWCU) System (EIIS Designator CE)

IDENTIFICATION OF OCCURRENCE

Inadvertent Isolation of Reactor Water Cleanup System
Event Date: 11/11/86
Event Time: 1950
This LER was initiated by Incident Report No. 86-249.

CONDITIONS PRIOR TO OCCURRENCE

Plant in OPERATIONAL CONDITION 1 with a Reactor power of 95% and a unit load of 1070 MWe. 'A' Reactor Water Cleanup (RWCU) filter demineralizer being backwashed.

DESCRIPTION OF OCCURRENCE

On November 11, 1986, chemistry technicians completed backwashing and precoating 'A' RWCU filter demineralizer and were placing 'B' RWCU filter demineralizer in service when initiation of the RWCU steam leak isolation timer occurred. Forty five (45) seconds later the outboard RWCU isolation valve closed causing both RWCU pumps to trip. The isolation was reset and both RWCU pumps returned to service. However, at 2015 there was a similar recurrence.

APPARENT CAUSE OF OCCURRENCE

The event is attributed to existing leakage within the RWCU system which hampered chemistry technicians in placing a filter demineralizer in service.

ANALYSIS OF OCCURRENCE

The RWCU utilizes differential flow instrumentation to compare flow rates within the various system pathways providing a means of determining if gross leakage out of the system has occurred. Upon high differential flow being sensed, valves are closed to isolate the system from the reactor. Prior to the event, RWCU system leakage totalled, approximately 34 gpm which, due to density difference, resulted in an indicated differential flow error of 50 gpm.

The system isolates, as referred to above, at 56.3 gpm after 45 seconds. During the event, the 6.3 gpm flow margin was insufficient, to allow Chemistry Technicians to place the 'B' filter-demineralizer in service.

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

ANALYSIS OF OCCURRENCE

Thus, the system isolated on high differential flow. 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

Corrective maintenance on the leaking flow element and regenerative heat exchanger has been completed. An investigation is in progress by GE to determine how to provide automatic density compensation to eliminate a portion of the existing flow error electronically.

Sincerely,

R. S. Salvesen /jam

R. S. Salvesen
General Manager -
Hope Creek Operations

PM:dyp
SORC Mtg. 86-319

PSE&G

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

Hope Creek Operations

December 10, 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 86-078

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

Sincerely yours,

R. S. Salvesen/jar

R. S. Salvesen
General Manager -
Hope Creek Operations

RGB:dyp

SORC Mtg. 86-319
Attachment

C Distribution

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