NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1	N Y J A F 1 (2)	0 0 - 0 0 0 0 0 - 0 0 0 (3)	4 1 1 1 1 (4)	(5)
7 8	9 LICENSEE CODE 14	15 LICENSE NUMBER 25	26 LICENSE TYPE 30	57 CAT 58

CON'T

0 1	REPORT SOURCE L (6)	0 5 0 0 0 3 3 3 (7)	1 0 2 2 8 3 (8)	0 6 0 1 8 4 (9)
7 8	60	61 DOCKET NUMBER 68	69 EVENT DATE 74	75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 UPDATE REPORT: During normal full power operation the HPCI System was declared
0 3 inoperable when required by Technical Specification 3.5.C. Other systems were
0 4 tested as required by Technical Specification 4.5.C.1.a and were fully operable.
0 5 The event did not represent a significant hazard to public health and safety. See
0 6 attachment for additional information.
0 7
0 8

0 9	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
	S F (11)	E (12)	X (13)	V A L V E X (14)	F (15)	D (16)

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
8 3	—	0 4 9	/	0 3	X	—	1

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
A (18)	X (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	Y (24)	N (25)	S 0 7 5 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 HPCI inoperability was caused by fracture of the turbine stop valve stem as a
1 1 result of excessive tensile stress. The excessive stress was the result of
1 2 improper adjustment of the stop valve balance chamber. Corrective action included
1 3 replacement of the valve stem and adjustment of the balance chamber. See attachment
1 4 for additional information.

1 5	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
	E (28)	1 0 0 (29)	NA	A (31)	Operator observation

1 6	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
	Z (33)	Z (34)	NA	NA

PERSONNEL EXPOSURES

1 7	NUMBER	TYPE	DESCRIPTION (39)
	0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

1 8	NUMBER	DESCRIPTION (41)
	0 0 0 (40)	NA

LOSS OF OR DAMAGE TO FACILITY (43)

1 9	TYPE	DESCRIPTION
	Z (42)	NA

8406080124 840601
PDR ADOCK 05000333
S PDR

PUBLICITY

2 0	ISSUED	DESCRIPTION (45)	NRC USE ONLY
	N (44)	NA	

NAME OF PREPARER Peter Schlau PHONE: 315-342-3840

GPO 917-926

NEW YORK POWER AUTHORITY
JAMES A. FITZPATRICK NUCLEAR POWER PLANT

DOCKET NO. 50-333

ATTACHMENT TO LER 83-049/03X-01 PAGE 1 of 1

During a plant inspection on October 10, 1983, the HPCI stop valve stem was noticed to have fractured. The system was declared inoperable, placing the plant in a seven day limiting condition of operation, per Technical Specification, Section 3.5.C. Redundant safety systems were surveillance tested in accordance with Technical Specification Section 4.5.C.1.a. No significant hazard to the public existed since redundant safety systems were available.

Immediate corrective action was to replace the existing stem. The failed stem was sent to Battelle Columbus Laboratories for metallurgical failure analysis. The Battelle failure analysis revealed a low-cycle fatique failure. The failure was caused principally by a combination of: (1) the presence of a zone in the stem surface that consisted of abnormal microstructure, intergranular attack, and low hardness, (2) abnormally high axial tensile loads, and (3) the stress-concentration effects of sharp fillets at the point of failure. A copy of this failure analysis will be provided for Terry Steam Turbine Company to review and identify any possible design or manufacture deficiencies.

General Electric Service Information Letter 352 identifies improper balance chamber adjustment as a possible cause of valve internals damage. The forces associated with too low a balance chamber pressure would be abnormally high, as indicated by the Battelle failure analysis, and would cause rapid opening of the valve. The plant has performed adjustment of the balance chamber in accordance with Service Information Letter 352. The valve now operates in a smooth manner. Further information on balance chamber adjustment and long term corrective actions is contained in LER 84-012-00.

James A. FitzPatrick
Nuclear Power Plant
P.O. Box 41
Lycoming, New York 13093
315 342.3840

New York Power Authority

Corbin A. McNeill, Jr.
Resident Manager

June 1, 1984
JAFP 84-0555

Document Control Desk
United States Regulatory Commission
Washington, DC 20555

REFERENCE: DOCKET NO. 50-333
LICENSEE EVENT REPORT: 83-049/03X-1

Dear Sir:

We have enclosed the referenced Licensee Event Report in accordance with Regulatory Guide 1.16.

If there are any questions concerning this report, please contact Mr. Robert Liseno at 315-342-3840, extension 220.

Very truly yours,

CORBIN A. McNEILL, JR.
RESIDENT MANAGER

CAM:RTL:nan
Enclosure

CC: USNRC, Region I (1)
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