Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511
914 739.8200

New York Power Authority

January 21, 1991
IP3-91-011

Docket No. 50-286
License No. DPR-64

Document Control Desk
Mail Station PI-137
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

The attached Licensee Event Report LER 91-003-00 is hereby submitted in accordance with the requirements of 10CFR50.73. This event is of the type defined in the requirements per 10CFR50.73(a)(2)(iv).

Very truly yours,

Joseph Russell
Resident Manager
Indian Point Three Nuclear Power Plant

VC/rj
Attachment

cc: Mr. Thomas T. Martin
Regional Administrator
Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

INPO Records Center
Suite 1500
1100 Circle 75 Parkway
Atlanta, Georgia 30339

IE22

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Indian Point Unit 3	0 5 0 0 0 2 8 6	1 OF 0 3

TITLE (4)
MANUAL REACTOR TRIP FROM LOSS OF ALL CONDENSER COOLING WATER

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)
1 2	2 7	9 0	9 1	— 0 0 3	— 0 0	0 1	2 1	9 1		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)			
N		20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	0 4 8	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
Vincent R. Coulehan	AREA CODE 9 1 4 7 3 6 8 0 4 7

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	
X	A B	6 7	W 1 2 0	N							

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)

On December 27, 1990, with the reactor at 48 percent power, a manual unit trip was initiated because control room operators observed all circulating water pumps had tripped off. Plant systems functioned properly following the trip, with the exception of 32 reactor coolant pump, which tripped during 6.9KV transfer from onsite to offsite power. The cause of the loss of circulating water pumps was a fault in a non-safety-related transformer. Following repairs, the unit was returned to service on December 28, 1990.

DESCRIPTION OF THE EVENT

On December 27, 1990 at approximately 1111 hours, control room operators heard a loud noise followed by several category alarms on the supervisory panels. Control room operators reviewed all panels and observed that the six condenser circulating water pumps (G080)(KE)(P) had tripped. The Senior Reactor Operator directed the Reactor Operator to manually trip the reactor. All systems functioned normally with the exception of number 32 reactor coolant pump (Westinghouse Model 93)(W120)(AB)(P) which tripped during the 6.9KV transfer from the onsite to the offsite power source.

INVESTIGATION OF THE EVENT

The reactor trip was a manual trip initiated at the direction of the Senior Reactor Operator. This trip was initiated because control room operators noted the loss of circulating water pumps which provide cooling water to the condensers. The loss of circulating water occurred when the excitation fields to the circulating water pumps' synchronous motors were lost.

This loss of excitation fields is attributed to a non-safety-related transformer fault. Station service transformer 312 (SST-312), located in the plant turbine building, developed a fault on its primary side.

The loss of power on bus section 312 immediately resulted in the loss of excitation power to three circulating water pump motors. A few milliseconds later, voltage to a motor control center (MCC) that supplies the excitation fields to the remaining three circulating water motors dropped low enough to cause these circulators to trip.

During the 6.9KV bus transfer, 32 reactor coolant pump tripped as a result of an overcurrent relay actuation (Westinghouse) (W120)(67). The Technical Services Department investigated and determined the trip to be spurious.

Plant personnel inspected the station service transformer SST-312 and found severe damage to the primary side, B phase connection.

CAUSE OF THE EVENT

The cause of this event was a fault on the primary side of the station service transformer 312.

CORRECTIVE ACTIONS

Bus section 312 was megger-checked and re-energized via a tie breaker 312-313.

ANALYSIS OF THE EVENT

This event is reportable under 10CFR50.73(a)(2)(iv). This event has been considered under the guidelines of the plant's FSAR and Technical Specifications. A turbine trip/reactor trip is an analyzed event in Chapter 14 of the FSAR.

SECURING FROM THE EVENT

Station service transformer 313 was placed in service following extensive testing on December 28, 1990. The plant returned to service at approximately 1130 hours on December 28, 1990.