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**Fred Dacimo**  
Vice President, Operations

June 27, 2003

Re: Indian Point Unit No. 2  
Docket No. 50-247  
LER 2003-003-00  
NL-03-113

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop O-P1-17  
Washington, DC 20555-0001

Dear Sir:

The attached Licensee Event Report 2003-003-00 is hereby submitted in accordance with the requirements of 10 CFR 50.73.

There are no commitments contained in this letter.

Sincerely,

A handwritten signature in black ink, appearing to be "FD" followed by a flourish.

Fred Dacimo  
Vice President, Operations  
Indian Point Energy Center

Attachment

cc: Mr. Hubert J. Miller  
Regional Administrator - Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Mr. Patrick D. Milano, Senior Project Manager  
Project Directorate I  
Division of Licensing Project Management  
U.S. Nuclear Regulatory Commission  
Mail Stop O-8-C2  
Washington, DC 20555

Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
PO Box 38  
Buchanan, NY 10511

IE22

# LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

APPROVED BY OMB NO. 3150-0104

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1) Indian Point, Unit 2	DOCKET NUMBER (2) 05000247	PAGE (3) 1 OF 4
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TITLE (4)  
Automatic Reactor trip initiated by a main turbine trip on auto stop oil.

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	DOCKET NUMBER
04	28	2003	2003	-003-	00	06	27	2003	FACILITY NAME	DOCKET NUMBER
										05000
										05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10) 100		20.2201(b)	20.2203(a)(2)(v)	50.73(a)(2)(i)	50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)	X 50.73(a)(2)(iv)(A)	OTHER -
		20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)	
NAME T. R. Jones, Licensing Engineer	TELEPHONE NUMBER (Include Area Code) (914) 734-5190

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
B	FK	RLY	GE	Y					

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)		
YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO		MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On April 28, 2003 at 1648 hours Indian Point Unit 2 experienced an automatic reactor trip with all control rods fully inserting. The trip was initiated by a main turbine trip on auto stop oil.

The auto stop oil turbine trip was caused by a trip of the over frequency relays actuated by a disturbance associated with the 345kV North Ring Bus at the Buchanan Substation and the Consolidated Edison 138kV system. Following the grid disturbance breakers 11 and 7 opened followed by a Phase A ground fault on breaker F7. When Consolidated Edison attempted to re-close breaker 11, a relay [EIIS:FK:68] malfunction occurred causing Unit 2 output breaker 9 to open resulting in a turbine trip.

The resultant trip placed the plant in natural circulation with 480-volt buses 2A and 3A de-energized as per design. All three Emergency Diesel Generators (EDGs) started and buses 2A and 3A were manually energized by 22 EDG, this was an expected response. 480-volt buses 5A and 6A remained energized from off-site sources during this event. No steam generator or pressurizer safety valves lifted and actuation of the Safety Injection System was not required. No radioactive release to the environment occurred as a result of this transient.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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Indian Point, Unit 2	05000247	2003	-003-	00	2 OF 4

## TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

## PLANT AND SYSTEM IDENTIFICATION

Westinghouse 4-Loop Pressurized Water Reactor

## EVENT IDENTIFICATION

Automatic Reactor trip initiated by a main turbine trip on auto stop oil.

## EVENT DATE

April 28, 2003

## REFERENCE

Condition Reporting System Number: 200302511

## PAST SIMILAR EVENTS

Licensee Event Report Number: 2001-007-00

Licensee Event Report Number: 1997-018-00

## EVENT DESCRIPTION

On April 28, 2003 at 1648 hours Indian Point Unit 2 experienced an automatic reactor trip with all control rods fully inserting. The trip was initiated by a main turbine trip on auto stop oil.

The auto stop oil turbine trip was caused by a trip of the over frequency relays actuated by a disturbance associated with the 345kV North Ring Bus at the Buchanan Substation and the Consolidated Edison 138kV system. This disturbance was caused by a Phase A ground fault on 345kV transmission line Y94. Following the grid disturbance breakers 11 and 7 opened at the Buchanan Substation followed by a Phase A ground fault on 138kV breaker F7. When Consolidated Edison attempted to re-energize line Y94 by closing breaker 11 a CEYB (General Electric type) relay malfunction occurred causing output breaker 9 to open resulting in a turbine trip.

The resultant trip placed the plant in natural circulation with 480-volt buses 2A and 3A de-energized as per design. All three Emergency Diesel Generators (EDGs) started and buses 2A and 3A were manually energized by 22 EDG, this was an expected response. 480-volt buses 5A and 6A remained energized from off-site sources during this event. No steam generator or pressurizer safety valves lifted and actuation of the Safety Injection System was not required. No radioactive release to the environment occurred as a result of this transient.

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

## EVENT ANALYSIS

This event is reportable in accordance with 10CFR50.73(a)(2)(iv)(A) which requires a Licensee Event Report (LER) for any event that resulted in manual or automatic actuation of the Reactor Protection System (RPS) including: reactor scram or reactor trip.

## EVENT SAFETY SIGNIFICANCE

This event was initiated as a result of a grid disturbance on the North 345kV ring bus at the Buchanan switchyard. This is an expected plant response due to the actuation of the over-frequency protection circuit. These relays were added as part of a plant modification after a similar event in July 1997 resulted in a 100% load reject. Since this event is bounded by section 14.1.12 (Loss of all power to the Station Auxiliaries) of the Updated Final Safety Analysis Report (UFSAR) the safety significance was determined to be minimal.

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

## CORRECTIVE ACTION

The root cause of this event was the malfunction of the CEYB relay. This relay detected the fault in the wrong direction. The CEYB relay detected a fault on line W93 when the fault was actually on line Y94. This malfunction caused breaker 9 to open resulting in Unit 2 tripping off line. Consolidated Edison removed the CEYB relay from the system to determine cause of malfunction. There are redundant relays in place monitoring the distribution system. Entergy has assigned Corrective Actions to follow up with Consolidated Edison and obtain their root cause report for the faults on the Y94 feeder and breaker F7 and the failure of the CEYB relay. The root cause report from Consolidated Edison is expected by the end of the third quarter 2003. This report will also contain Consolidated Edison's actions to prevent re-occurrence. Entergy Management has increased their involvement in the substation activities since the event. Senior levels of Entergy management have been meeting with their Consolidated Edison counterparts to ensure that appropriate actions are being taken to increase the reliability of the electrical system. Entergy has named a switchyard coordinator who is responsible for the interface between the plant and Consolidated Edison.

## PREVIOUS OCCURRENCES

Similar events occurred December 26, 2001 and July 26, 1997 and are documented in LER 2001-007-00 and LER 1997-018-00. The root cause of the December 2001 event was the failure of a blocking relay on Consolidated Edison's 345kV line Y94. The root cause of the July 1997 event was malfunction of a directional relay device associated with transformer TA5. As a result of the July 1997 event, over-frequency relays were added to the overall unit protection scheme. The over-frequency relays actuated as per design for the December 26, 2001 event.