Stephen B. Bram
Vice President

Consolidated Edison Company of New York, Inc.
Indian Point Station
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April 19, 1991

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 91-006-00

Document Control Desk
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

The attached Licensee Event Report LER 91-006-00 is hereby submitted in accordance with the requirements of 10 CFR 50.73.

Very truly yours,

Attachment

cc: Mr. Thomas T. Martin
Regional Administrator - Region I
US Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Francis J. Williams, Jr., Project Manager
Project Directorate I-1
Division of Reactor Projects I/II
US Nuclear Regulatory Commission
Mail Stop 14B-2
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Senior Resident Inspector
US Nuclear Regulatory Commission
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NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WTH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Indian Point Unit No. 2	0 5 0 0 0 2 4 7	1 OF 0 4

TITLE (4)

Loss of 138 kv Offsite Power

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 3	2 0	9 1	9 1	— 0 0 6	— 0 0	0 4	1 9	9 1	Indian Point No. 3	0 5 0 0 0 2 8 6
										0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10)	0 1 0 0		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
James J. Maylath, Senior Engineer	AREA CODE 9 1 4 5 2 6 - 5 3 5 6

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	E J	B Y C	W 1 2 0	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)

On March 20, 1991, during a cold shutdown outage for refueling, the 138 kv normal offsite power supply was lost. This resulted in a loss of power to all station 6.9 kv and 480V buses. Due to maintenance being performed on two emergency diesels, only the third diesel automatically started. This diesel was manually connected to 480V bus 6A, and power was restored to two other 480V buses through the tie breakers which allowed for restoration of service water and component cooling pumps. Due to maintenance being performed on one of the batteries, there was a loss of one DC bus when its battery charger lost power. This bus was manually re-energized by means of a connection to another DC bus through a tie breaker. At the time of the event there was no fuel in the core and the spent fuel cooling flow was never lost because the spent fuel pump was being fed from an alternate source. Another 138kv feeder and 13.8kv offsite power remained available during this event. 138kv offsite power was restored within half an hour, and all 480V buses were returned to normal supplies by 2100 hours.

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse 4-Loop Pressurized Water Reactor

IDENTIFICATION OF OCCURRENCE:

Loss of 138kv offsite power.

EVENT DATE:

March 20, 1991

REPORT DUE DATE:

April 19, 1991

REFERENCES:

Significant Event Report (SOR) 91-141

PAST SIMILAR OCCURRENCE:

December 3, 1990; LER 90-016-00

DESCRIPTION OF OCCURRENCE:

On March 20, 1991 at 1918 hours, with the unit in cold shutdown for refueling, the normal offsite power source, 138kv feeder 95332 from Buchanan substation, was lost. As a result, 6.9kv bus 5 and 6 normal supply breakers ST5 and ST6 opened causing a loss of power to all station 6.9kv and 480V buses. This initiated an automatic start of Emergency Diesel Generator (EDG) #23. At the time EDG #21 and #22 were tagged out for maintenance. As designed, EDG #23 did not pick up 480V bus 6A because the logic for closure was not satisfied. Loss of either 480V bus 5A or 6A in conjunction with a unit trip is required to load the 480V buses on the diesel when no Safety Injection (SI) signal is present. EDG #23 output breaker was manually closed onto 480V bus 6A, providing power to Service Water Pump #26 which was started. The tie breaker between 480V buses 6A and 3A was manually closed, energizing Component Cooling Pump #23 which was started. The tie breaker between 480V buses 2A and 3A was also closed, and Motor Control Center 24 was reset to place Battery Charger #22 in service, and lighting was restored in the Primary Auxiliary Building and Containment Building. Battery #21 was tagged out for maintenance at the time of the event, and 125V DC Power Panel #21 was de-energized when Battery Charger #21 which is fed from the bus lost power with the event. 138kv from feeder 95331 and three gas turbines were available throughout the above

DESCRIPTION OF OCCURRENCE: (continued)

scenario but were not used. The 13.8kv offsite power was already supplying some MCC27 loads which included the Spent Fuel Pump, PAB Exhaust Fan #21 and Battery Charger #24 through temporary connections at the time of the event. 13.8kv offsite power was available throughout the event. Since two EDG's were out of service, a temporary diesel was started but not connected to 480V bus 5A.

The 138kv normal offsite power supply was re-established at 1947 hours, and the operators proceeded to restore the 138kv offsite power to the electrical distribution system. The tie breaker between 125V DC Power Panels 21 and 22 was manually closed to allow for operation of the breakers associated with restoring 6.9kv bus 5. The DC tie breaker was opened upon restoration of normal power to buses 5 and 5A at 2014 hours. The DC tie breaker was reclosed at 2045 hours because Battery Charger #21 did not indicate output volts. 480V bus 2A was restored to normal power at 2048 hours, and the tie breaker between buses 2A and 3A was opened. 480V bus 3A was restored to normal power at 2054 hours, and the tie breaker between buses 3A and 6A was opened. Normal power was paralleled to 480V bus 6A, and EDG #23 was removed from the bus at 2101 hours. EDG #23 was shutdown and placed in auto at 2125 hours. Battery Charger #21 remained out of service and was repaired during the following week.

ANALYSIS OF OCCURRENCE:

This report is being made because actuation of an Engineered Safety Features System (ESF) occurred. Any manual or automatic actuation of an ESF is reportable under 10 CFR 50.73 (A)(2)(iv). There were no adverse safety implications as a result of this event. All ESF performed as expected. A temporary diesel was started to establish a second source of emergency power. During the course of this event component cooling water was only lost for two minutes, and spent fuel pool cooling flow was never lost. At the time of the event there was no fuel in the core. This event did not cause any injury to personnel.

CAUSE OF OCCURRENCE:

Just prior to the event there was a potential transformer (PT) failure on 345kv bus section 1-3 at Buchanan Substation. This equipment is owned by the New York Power Authority and the cause of this occurrence is set forth in LER 50-286/91-004. This failure resulted in smoke and debris which probably caused a flashover fault on 138kv feeder 95332 which runs between Buchanan Substation and the Indian Point 138kv yard and which feeds the 6.9kv buses through the 138/6.9kv Station Auxiliary Transformer. This resulted in the loss of the feeder 95332 which is the normal offsite power source for the 6.9kv and 480V buses.

CORRECTIVE ACTION:

Upon authorization from the District Operator (DO), power was restored to the 6.9kv and 480V buses from the normal 138kv source which is feeder 95332. Corrective action with the New York Power Authority's PT equipment is set forth in LER 50-286/91-004.