

Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511
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December 19, 1991
IP3-NRC-91-071

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 91-012-00 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)(v).

Very truly yours,

A handwritten signature in cursive script, appearing to read 'J. Russell', written over the typed name.

Joseph Russell
Resident Manager
Indian Point Three Nuclear Power Plant

ed/rj
Attachment

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

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Indian Point Unit 3	DOCKET NUMBER (2) 0 5 0 0 0 2 8 6	PAGE (3) 1 OF 14
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TITLE (4) Design Bases Reconstitution Revealed Procedural Inadequacy that Could Have Resulted in Overloading Vital Buses During a LOCA

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	1	2 1 9 1	9 1	0 1 2	0	1 2	1 9	9 1			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)

POWER LEVEL (10) 1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
	20.405(a)(1)(i)	50.36(c)(1)	<input checked="" type="checkbox"/> 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 Edward Diamond, Senior Plant Engineer	TELEPHONE NUMBER AREA CODE 9 1 4 7 3 6 1 8 0 4 5
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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)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On November 21, 1991, with the reactor at one hundred percent power, a vital bus load study revealed a procedural inadequacy that could potentially result in an overload of the vital buses during a loss of coolant accident with offsite power available. The root cause has been attributed to insufficient plant design documentation. Emergency and operating procedures have been revised to correct the procedural inadequacy and preclude the postulated event.

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

DESCRIPTION OF THE EVENT

On November 21, 1991, with the reactor at one hundred percent power, the New York Power Authority discovered a procedural inadequacy that could have potentially resulted in an overload of the vital buses during a loss of coolant accident (LOCA). During a LOCA with offsite power available, emergency operating procedures (EOPs) would have directed the operators to restore non-safeguards loads to the electrical buses. New bus load calculations done as part of the continuing electrical distribution system design bases reconstitution indicated that performance of the EOPs under these conditions could have overloaded the vital buses and put the plant in an unanalyzed condition.

During an earlier phase of the reconstitution effort a similar event was uncovered for a LOCA with a loss of offsite power (LER-286-89-010).

CAUSE OF THE EVENT

The cause of the event was the procedural inadequacy identified by the electrical distribution system load study done for design bases reconstitution.

The root cause of the event was insufficient plant design documentation. Electrical distribution system bus loading was not adequately detailed in the original plant design documents. It had been assumed since plant startup that the buses were sized to accommodate simultaneous operation of safeguards and non-safeguards loads. Calculations did not exist for LOCA scenarios with additional, manual bus loading.

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

CORRECTIVE ACTIONS

As noted above, an electrical distribution system design bases reconstitution is in progress.

As a result of this event, emergency and operating procedures have been revised and implemented to provide vital bus load management during a LOCA with offsite power available. A new procedure, TOP-67, "Alignment and Operation of Non-Safeguards Equipment During a Safety Injection with Outside Power Available", the use of which is directed by the EOPs, provides improved direction for re-establishing non-safeguards equipment to the vital buses. Operators were trained on the procedures prior to assuming watch duties.

A formalized table of equipment loads and capacities will be developed by January 1992 to aid operators in load management decisions.

An assessment of the 480 volt vital buses identifying non-essential loads and evaluating the potential for removing the non-essential equipment to other power supplies will be completed by December 1992.

ANALYSIS OF THE EVENT

This event is being reported pursuant to 10CFR50.73(a)(2)(v)(D), a condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident. Final Safety Analysis Report (FSAR) LOCA scenarios require operation of safeguards equipment. Under the conditions established by the previous EOPs, sufficient electrical load could have been manually restored such that the electrical buses could have tripped on overcurrent and locked-out. If the hypothetical bus lock-out had occurred, it would have prevented the EDGs from energizing the safeguards loads.

This condition has not occurred at the plant, procedures have been corrected, and operators have been trained to prohibit such an occurrence.

A similar event was reported in LER 286-89-010.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

SECURING FROM THE EVENT

Corrective action has been accomplished via revision of EOPs and the creation of a new procedure to specifically address the vital bus overload concerns. The plant operators have been trained on use of the new procedures. The plant remained at one hundred percent power throughout the event.