

Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511
914 736.8003



Mr. Fred R. Dacimo
Plant Manager

June 26, 2000
IPN-00-050

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
License No. DPR-64
Licensee Event Report # 2000-006-00
**Plant Outside Design Basis Because Cable Separation Criteria
were Violated Due to Human Error in Preparation of the Engineering
Change for Sparring a Channel III Cable and in Configuration Control
of Test Equipment**

Dear Sir:

The attached Licensee Event Report (LER) 2000-06-00 is hereby submitted as required by 10 CFR 50.73. This event is of the type defined in 10 CFR 50.73 (a)(2)(ii)(B) for a condition recorded in the New York Power Authority's (NYPA) corrective action process as Deviation Event Report DER 00-01262.

NYPA is making no new commitment in this LER.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Fred Dacimo'.

Fred Dacimo
Plant Manager
Indian Point 3 Nuclear Power Plant

cc: See next page

JE22

cc: Mr. Hubert J. Miller
Regional Administrator
Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

INPO Record Center
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U.S. Nuclear Regulatory Commission
Resident Inspectors' Office
Indian Point 3 Nuclear Power Plant

LICENSEE EVENT REPORT (LER)

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

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.

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TITLE (4)
Plant Outside Design Basis Because Cable Separation Criteria were Violated Due to Human Error in Preparation of the Engineering Change for Sparring a Channel III Cable and in Configuration Control of Test Equipment

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
06	20	1985	2000	-- 006	-- 00	06	26	2000		05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9) N	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)	<input checked="" type="checkbox"/> 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)	50.73(a)(2)(iv)	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 Angelo Vai, Electrical Design Engineering Supervisor	TELEPHONE NUMBER (Include Area Code) (914)788-2647
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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

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 15 single-spaced typewritten lines) (16)

On May 26, 2000, Operations personnel determined that the plant was in a condition outside its design basis due to a violation of the licensing basis cable channelization criteria. A spare, non-vital channel III cable was found coiled in a channel II cable tray. The non-vital channel III cable was improperly spared on June 20, 1985 due to a human error. Short term corrective actions removed the spare cable from the channel II tray and disconnected the cable from its power source. On June 8, 2000, preliminary extent of condition general walkdowns identified two cables crossing between cable trays, a violation of licensing basis cable channelization criteria. The two cables, not in service, were removed. The extent of condition evaluation will be done by walking down a sample of cable trays to verify that cables have been properly spared and that cable runs do not cross between cable trays. These events had no effect on the health and safety of the public because no actual faults occurred and because postulated faults are either not credible or do not cause loss of redundant equipment

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

Note: The energy Industry identification system Codes are identified withing the brackets { }.

DESCRIPTION OF EVENT

On May 26, 2000, at approximately 1442 hours, with steady state reactor power at approximately 100 percent, Operations personnel determined that the plant was in a condition outside its design basis due to a violation of the licensing basis cable {CBL} channelization criteria in Chapter 8 of the current Final Safety Analysis Report (FSAR). A spare, non-vital channel III cable was found coiled in a channel II cable tray {TY}. The condition was recorded in a deviation report (DER 00-01262) and corrective actions have corrected the condition. A one hour event notification was made to the NRC (Log No 37043).

During a 41 foot Pipe penetration walkdown, Design and Analysis Electrical Engineering (IDEE) personnel identified the cable channelization discrepancy. A spare, non-vital cable, identified as LZ7-XR4 exited a channel III conduit {CND}, passed through channel II cable tray 39T/FB, and the taped and protected spared end was coiled in channel II cable tray 46T/DB. The other end of the spared cable was terminated on a terminal block {BLK} in terminal box {JBX} XR4 that was energized from Instrument Bus {BU} 32 circuit 16. This resulted in an energized channel III cable located in a channel II cable tray containing vital channel II cables. This violates criteria in FSAR Section 8.2.

An engineering investigation found that the engineering change notice (ECN 80-3-053-022) for sparing the cable was not complete due to an error in the preparation of the change notice (design error). It did not specify termination requirements in sufficient detail for the field work to be properly completed. The non-vital channel III cable was improperly spared on June 20, 1985.

An extent of condition (EOC) investigation for this event was initiated. On June 8, 2000, during an EOC walkdown, two cables were found in the Cable Spreading Room {NA} that entered a channel IV cable tray, crossed to a channel II cable tray then crossed to a channel I cable tray. These cables were non-vital, non-channelized test cables installed during original plant start up. The two cables discovered were not documented on plant drawings or documentation. The cables were used during testing of the control rod drive units during the original plant start up and have not been used since. This condition was recorded in a deviation report (DER 00-1411) and the cables have been removed. Since this condition placed the plant outside its design basis, a one hour event notification was made to the NRC (Log No. 37069).

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

CAUSE OF THE EVENT

The cause of the June 20, 1985 event was human error in preparation of the Engineering Change Notice (ECN 80-3-053-022) that directed the sparing of channel III cable, LZ7-XR4. The cause of the June 8, 2000 event was human error in configuration control of test equipment. The cause of the human error is indeterminate due to the number of years since the event.

CORRECTIVE ACTIONS

The following corrective actions have been or will be performed under the New York Power Authority's corrective action program to address the cause of the event:

- Personnel have removed spare cable LZ7-XR4 from cable tray 46T/DB and 39T/FB and secured it so as not to violate cable channelization criteria.
- Spare cable LZ7-XR4 has been disconnected from its power source.
- Since the time of these events, improvements have been made in the areas of modification design and control (e.e., Design Change Process MCM-1, and Engineering Change Notice, MCM-9). Engineering believes that these procedures, along with improved personnel training, and overall work practices are adequate to preclude the recurrence of the two events.
- An extent of condition review for cable trays will be performed.

The extent of condition review will include a walkdown inspection of a sampling of spare cables in cable trays, outside containment, to verify the following: spared cables have been disconnected from any power source and, the cable is spared in a location consistent with plant cable channelization criteria.

The second cross channelization (June 8, 2000) was discovered during the general inspection part of the EOC inspection for the first event (May 26, 2000). This general inspection has been completed for all cable trays containing safety related cables located outside the containment building. No other violations were found. An EOC for cable trays located inside the containment building will be performed.

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

ANALYSIS OF EVENT

The event is reportable under 10 CFR 50.73 (a)(2)(ii)(B). The licensee shall report any operation or condition that resulted in the plant being in a condition that was outside the design basis of the plant.

There are no Licensee Event Reports (LER) for the previous two years that involve a violation in cable channelization criteria.

SAFETY SIGNIFICANCE

These events did not affect the public health and safety. There have been no actual faults. An evaluation of the cables in cable trays 39T/FB and 46T/DB was performed to determine the power source and function of those cables that service vital equipment, and the cables and power sources for the redundant equipment. Based on this evaluation, no redundant vital equipment or power supplies were jeopardized.

Cable LZ7-XR4 contains 118 VAC power from Instrument Bus 32 circuit 16. Circuit 16 services only non-vital instrumentation. Loss of these devices does not prevent or degrade any safety function. This circuit is protected by a Category I branch circuit breaker at the Instrument Bus Distribution Panel {PL}. Thus any fault that could have occurred in the cables in the cable tray that could have entered cable LZ7-XR4 would have been cleared by the Category I branch circuit breaker before affecting Instrument Bus 32.

During the approximate 15 years that cable LZ7-XR4 has been incorrectly coiled in cable tray 46T/DB, there have been no faults or events that have caused any equipment to fail or mis-operate as a result of this channelization violation.

The two non-vital non-channelized cables have not been connected to any power source so they did not pose an external hazard to the cables they contact. The cable trays involved are control level cable trays with no heavy power cables and the cables circuits are protected by overcurrent protection devices designed to clear faults before substantial cable damage occurs. Thus a random fault in one cable tray being carried over the intervening undocumented test cables is not a credible failure.

A review of the two events against the guidelines of NEI 99-02, Rev. 0, "Regulatory Assessment Performance Indicators Guideline," concluded it was not a safety system functional failure (SSFF). The event did not meet the definition of a SSFF as defined in 10 CFR 50.73 (a)(2)(v).