

Indian Point 3  
Nuclear Power Plant  
P.O. Box 215  
Buchanan, New York 10511  
914-736-8000



**New York Power  
Authority**

March 3, 1993  
IP3-NRC-93-019

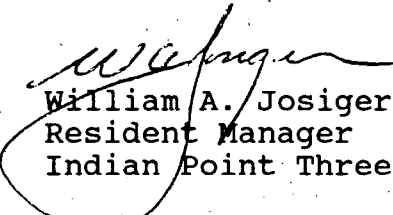
Docket No. 50-286  
License No. DPR-64

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U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Sir:

The attached Licensee Event Report LER 93-006-00 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)(ii)(B).

Very truly yours,

  
William A. Josiger  
Resident Manager  
Indian Point Three Nuclear Power Plant

waj/jc/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

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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 0 4			
TITLE (4) Low Pressure Steam Dump System Inoperability Due to Violation of Cable Separation Criteria by Power Supply Cable for Main Boiler Feed Pump Lubrication Oil Purifier																							
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	1	2	0	9	3	9	3	0	0	6	0	0	3	0	3	9	3	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)				50.73(a)(2)(iv)				73.71(b)									
POWER LEVEL (10)		20.405(a)(1)(i)				50.36(a)(1)				50.73(a)(2)(v)				73.71(c)									
0 13 10		20.405(a)(1)(ii)				50.36(a)(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)(ix)													
LICENSEE CONTACT FOR THIS LER (12)																							
NAME David W. O'Brien Technical Licensing Coordinator												TELEPHONE NUMBER											
												AREA CODE		9 1 1 4 7 1 3 6 1 8 1 0 1 7									
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																							
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC													
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR							
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)												<input checked="" type="checkbox"/> NO											

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

On January 20, 1993, with the plant operating at 30 percent power, Indian Point 3 (IP3) Site Engineering personnel identified a condition wherein the plant's cable separation criteria was not met. A cable, identified as the power supply cable to the main boiler feed pumps lubrication oil purifier, crossed two cable trays which contained cables for the low pressure steam dump system. The cause for this event was improper installation of the main boiler feed pumps lubrication oil purifier and inappropriate determination that this installation would not adversely affect adjacent equipment. Upon discovery of this condition, the low pressure steam dump system was declared inoperable and the required compensatory action was taken. The power supply cable was removed and restored proper cable separation. The low pressure steam dump system was declared operable at 2215 hours on January 21, 1993.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Indian Point Unit 3	0500028693	—	006	—00	02	OF	04

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

INVESTIGATION OF THE EVENT

At 1600 hours on January 20, 1993, with the plant operating at 30 percent power, Site Engineering personnel determined that the power supply cable for the main boiler feed pumps lubrication oil purifier (SL) (PFR) crossed adjacent cable trays carrying redundant control cables for the low pressure steam dump valves, MS-FCV-1207, MS-FCV-1209 and MS-FCV-1211 (SB) (FCV) (F130). The Indian Point 3 station has six low pressure steam dump valves; three were not affected. This condition was discovered during a cable tray fire barrier walkdown inspection in the turbine building. These valves are QA Category I valves which provide turbine overspeed protection as described in the Final Safety Analysis Report (FSAR) Chapter 14A, Section 6.0. This condition violated the cable separation criteria in the Indian Point 3 (IP3) Electrical Separation Implementation Design Guide, Revision 6.0.

The low pressure steam dump system (SB) was administratively declared inoperable at 1600 hours on January 20, 1993 pending further evaluation by the plant staff. The gross turbine-generator electrical output was held below the limit of 950 MWe as required by technical specification 3.4.D and figure 3.4-1.

At 1500 hours the next day (January 21, 1993), the plant staff concluded their evaluation and determined that, due to the violation of the cable separation criteria, the plant was in a condition outside its design basis. At 1525 hours on January 21, 1993, with the plant operating at 60 percent power, a non-emergency one hour report was made to the NRC Operations Center via the emergency notification system in accordance with 10CFR50.72(b)(1)(ii)(B).

Temporary modification 93-00456 was initiated to supply temporary power to the main boiler feed pumps lubrication oil purifier and to remove the original power supply cable from the cable trays. This re-established proper cable separation. This temporary modification was completed and the low pressure steam dump system was declared operable at 2215 hours on January 21, 1993. The low pressure steam dump system was declared inoperable for 30 hours and 15 minutes from the discovery of the event.

CAUSE OF THE EVENT

The cause of the event was an inappropriate action by the plant staff when they determined that the installation of the main boiler feed pumps lubrication oil purifier, which was QA non-

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		9 3	0 0 6	0 0	0 3	OF	0 4

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

Category I, would not affect any adjacent QA Category I systems, mechanically or electrically. The electrical installation of the main boiler feed pumps lubrication oil purifier was completed by the Maintenance Department on May 14, 1980.

At that time, the IP3 Electrical Separation Implementation Design Guide, Revision 6.0, was in effect. The Maintenance Department staff at that time was not aware of the cable separation requirements associated with the low pressure steam dump system.

The following factors contributed to the event:

1. The main boiler feed pumps lubrication oil purifier was installed without a modification package. Administration Procedure AP-12, Rev. 3, "Modifications", did not require one at that time. The use of a modification package would have precluded the event.
2. The plant staff believed at the time that no QA Category I equipment was contained within the turbine building.

#### CORRECTIVE ACTIONS

The plant was placed in compliance with the cable separation criteria by the following:

1. The nonconforming power supply cable was removed and alternate power feed provided for the main boiler feed pumps lubrication oil purifier. This restored proper cable separation.

The following corrective actions will prevent recurrence of this event:

1. The work control and modification control programs and procedures that are currently in place at the Authority ensure that the design basis of the plant is maintained. The combination of the Modification Control Manual Procedures and Administration Procedures ensures that all design changes undergo a comprehensive engineering review that assesses the safety significance of the design change.
2. By May 15, 1993, the cable trays carrying cables for turbine building QA Category I equipment will be reviewed in detail and evaluated for tray content and other anomalies.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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ANALYSIS OF THE EVENT

This event is reportable under 10CFR50.72(b)(1)(ii)(B) which was made at 1525 hours on January 21, 1993, and under 10CFR50.73(a)(2)(ii)(B). The licensee shall report any event or condition that resulted in the condition of the nuclear power plant, including its principal safety barriers, being seriously degraded, or that resulted in the nuclear power plant being in a condition that was outside the design basis of the plant. Part of the design basis of the plant is the IP3 Electrical Separation Implementation Design Guide. This design basis was violated when the power supply cable for the main boiler feed pumps lubrication oil purifier entered and crossed cable trays with redundant control cables for the low pressure steam dump valves, MS-FCV-1207, MS-FCV-1209, and MS-FCV-1211. This condition had existed since the initial installation of the main boiler feed pumps lubrication oil purifier in 1980.

SAFETY SIGNIFICANCE

The event did not affect the public health and safety.

The combination of events that could result in any consequences from this condition are extremely unlikely. The event would affect three of the six low pressure dump valves. It would require a failure of the subject cable and a coincident trip of the main generator. This could result in exceeding the turbine design overspeed value. The plant is designed to withstand the generation of turbine missiles which may be a consequence of a turbine overspeed event. This possible scenario has been evaluated satisfactorily in FSAR Chapter 14A.

Similar events were reported in LERs 91-008-00, 91-008-01, and 92-018-00.

SECURING FROM THE EVENT

Technical specification compensatory actions for an inoperable low pressure steam dump system were taken at 1600 hours on January 20, 1993. The low pressure steam dump system was declared operable at 2215 hours on January 21, 1993 when cable separation criteria was achieved by the removal of the main boiler feed pumps lubrication oil purifier power supply cable.