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November 4, 1999

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 1999-018-00

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

The attached Licensee Event Report 1999-018-00 is hereby submitted in accordance with the requirements of 10 CFR 50.73.

Very truly yours,

A. Alan Blind

Attachment

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

Mr. Jefferey Harold, Project Manager
Project Directorate I-1
Division of Reactor Projects I/II
US Nuclear Regulatory Commission
Mail Stop 14B-2
Washington, DC 20555

Senior Resident Inspector
US Nuclear Regulatory Commission
PO Box 38
Buchanan, NY 10511

IE22

PDR ADOCK

NRC FORM 366 (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 06/30/2001

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.

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Indian Point No. 2	05000-247	1 OF 4

TITLE (4)

Plant Operation in Condition Prohibited by Technical Specifications

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
10	06	1999	1999	-- 018 --	00	11	04	1999		05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	N
POWER LEVEL (10)	000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

	20.2201(b)		20.2203(a)(2)(v)	X	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)		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	TELEPHONE NUMBER (Include Area Code)
James J. Maylath, Senior Engineer	(914) 734-5356

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
X	YES (If yes, complete EXPECTED SUBMISSION DATE).		NO		12	20	1999

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

On October 6, 1999, with the unit at hot shutdown, 125VDC control power for 480V Bus 2A was interrupted during the installation of a temporary facility change on the 125VDC transfer switch associated with Bus 2A. This rendered breaker control inoperable for the Bus 2A supply and load breakers for approximately one minute. During this interval, Bus 2A degraded voltage actuation channels were inoperable due to the lack of 125VDC power. This was contrary to the requirements of Technical Specification Table 3.5-3, Item 3.b. Throughout this event, bus and load fault protection was available through the amptector current sensing devices. No operating loads supplied by Bus 2A were tripped as a result of this event. The temporary facility change was implemented to allow repair of the Bus 2A 125VDC transfer switch. The 125VDC power supply for Bus 2A was returned to its original design configuration upon completion of repairs to the transfer switch. The root cause of this event is presently still under investigation. Insufficient planning and lack of communication in the implementation of the temporary facility change have been preliminarily identified as apparent causes of this event. This report will be supplemented upon completion of the root cause investigation and the determination of appropriate corrective action.

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

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse 4-Loop Pressurized Water Reactor

IDENTIFICATION OF OCCURRENCE:

Plant Operation in Condition Prohibited by Technical Specifications

EVENT DATE:

October 6, 1999

REPORT DATE:

November 4, 1999

REFERENCES:

Condition Reporting System (CRS) No. 199907577 and 199907583

PAST SIMILAR OCCURRENCE:

None

DESCRIPTION OF OCCURRENCE:

On October 6, 1999, with the unit at hot shutdown and Reactor Coolant System average temperature at approximately 330°F, a temporary facility change on the 125VDC transfer switch that supplies 125VDC control power to Bus 2A was being implemented. The temporary facility change was being implemented to allow repair of the Bus 2A 125VDC transfer switch. The temporary facility change called for connecting an alternate 125VDC supply for control power to Bus 2A from the same DC power panel as the normal supply to the transfer switch, and then disconnecting the 125VDC supply from the output of the transfer switch, thus maintaining 125VDC control power for 480V Bus 2A. During the installation of this change, 125VDC control power for 480V Bus 2A was interrupted for approximately one minute. This rendered breaker control inoperable for the Bus 2A supply and load breakers for this interval. During this interruption of 125VDC control power, the Bus 2A degraded voltage actuation channels were inoperable. This was contrary to the requirements of Technical Specification Table 3.5-3, Item 3.b.

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

ANALYSIS OF OCCURRENCE:

This report is being submitted in accordance with 10CFR50.73(a)(2)(i)(B) because the plant was in a condition prohibited by Technical Specifications. Technical Specification 3.0.1 was entered at approximately 0557 hours on October 6, 1999 when the 125VDC control power for 480V Bus 2A was interrupted by unplanned disconnection of interconnecting wires carrying the control power. The control power was restored approximately one minute later, and Technical Specification 3.0.1 was exited. Recognition that the plant had entered Technical Specification 3.0.1 did not occur until nearly six hours later when the Watch Engineer identified that the loss of Bus 2A control power rendered the Bus 2A degraded voltage actuation channels inoperable. Throughout this event, bus and load fault protection was available through the amptector current sensing devices, which would have operated to trip the breakers if required. No operating loads supplied by Bus 2A were tripped as a result of this event, and during the short duration of the control power interruption, there were no conditions that required the operation (opening or closing) of the Bus 2A supply or load breakers. None of the three other 480V buses was affected by this event. These other 480V buses supply equipment that is redundant and diverse to the loads supplied by 480V Bus 2A. The 125VDC power supply for Bus 2A was returned to its original design configuration upon completion of repairs to the transfer switch. This event had no adverse impact on the health and safety of the public and did not cause any injury to the public or to personnel or damage to equipment.

CAUSE OF OCCURRENCE:

During the installation of the temporary facility change on the 125VDC transfer switch, the alternate 125VDC supply for 480V Bus 2A was connected prior to disconnecting the transfer switch output. These connections and disconnections were made at different terminal points on a terminal block in a Bus 2A switchgear cabinet in accordance with the work package for the temporary facility change. There were interconnecting wires between these terminal points, with each pair of terminal points energized with 125VDC (+ and -) carried by the existing cable from the output of the transfer switch. The alternate 125VDC source, installed with this temporary facility change, maintained 125VDC on these terminal points. When Maintenance technicians disconnected the cable from the output of the transfer switch at the terminal block in the Bus 2A switchgear cabinet, the interconnecting wires on the terminal block, which were physically over the wires from the cable being disconnected, were momentarily lifted to allow for disconnection of the cable. The lifting of the interconnecting wires resulted in the loss of 125VDC control power for Bus 2A, as described above.

The root causes that led to the lifting of the interconnecting wires at the terminal block in the Bus 2A switchgear cabinet are presently still under investigation. Insufficient planning and lack of communication in the implementation of the temporary facility change have been preliminarily identified as apparent causes of this event.

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

CORRECTIVE ACTION:

125VDC control power was restored to 480V Bus 2A after approximately one minute. On October 9, 1999, following repair of the Bus 2A transfer switch, this temporary facility change was removed. During the removal of the temporary facility change, the following immediate corrective actions were taken:

a) The method used to remove the temporary facility change was revised to include the use of temporary wires to bypass the terminal screws being removed so that continuity of the 125VDC supply would be maintained through the interconnecting wires on the terminal block in the Bus 2A switchgear cabinet.

b) The work instruction package was enhanced to improve human factors.

c) The removal of the temporary facility change was treated as an infrequently performed test or evolution in accordance with Station procedures.

d) Lessons learned from the event during the installation of the temporary facility change were incorporated into the pre-job briefing for the removal of the temporary facility change.

e) The Maintenance Administrative Directive, MAD-5, "Conduct of Maintenance" which is used to ensure adequate preparation of work packages has been changed to require a field walkdown be conducted jointly by the planner and the responsible engineer for all temporary facility changes during the planning process.

An investigation of this event was initiated. This report will be supplemented following completion of the investigation and determination of the root cause and appropriate corrective actions to preclude repetition of this event. Commitment dates for implementation of these corrective actions, as well as any training requirements, will be detailed in a supplement to this report.