NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Indian Point, Unit 3	0 5 0 0 0 2 8 6	1 OF 0 5

TITLE (4)
Source Range Reactor Trip Due To Personnel Error

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 5 0 0 0
0 2	0 4	8 9	8 9	0 0 4	0 0	0 3	0 6	8 9		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)	X	50.73(a)(2)(iv)		73.71(b)	
POWER LEVEL (10)	0 0 0	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
Vincent R. Coulehan	AREA CODE 9 1 4 7 3 6 8 0 4 7

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	I G	D E T	W 1 2 0	N					

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 February 4, 1989 with the Unit 3 reactor subcritical at less than E-10 amps in the intermediate range, a reactor trip was initiated by an I&C technician troubleshooting number 32 source range. All plant systems functioned properly.

It was determined that an I&C technician removed instrument fuses for the source range resulting in a loss of voltage to the high flux trip bistable. The source range has been repaired and placed back in service.

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

DESCRIPTION OF THE EVENT

On February 4, 1989 at 0040 hours a plant shutdown was in progress. As power was reduced to below E-10 amps in the intermediate range, the logic that reenergizes the two nuclear instrumentation source range channels was made up. 31 source range energized normally, but 32 source range failed to energize. An Instrument and Controls (I&C) technician performing troubleshooting on the Westinghouse (W120) Source Range Nuclear Instrumentation N-32 Detector (IG) (DET) (Model 6051D50G01) removed the fuses from number 32 source range detector, which deenergized the high flux bistable, resulting in a reactor trip. Control room operators immediately commenced Emergency Operating Procedures (EOP) E-0, "Reactor Trip or Safety Injection" and ES-0.1, "Reactor Trip Response". The plant was stabilized with all rods on bottom. Number 32 source range detector was subsequently reenergized and functioned normally.

INVESTIGATION OF THE EVENT

To address this event a meeting was held on February 9, 1989 with all personnel involved. The focus of this meeting was to include the responsible individuals in the process of determining the root causes of this event and also in providing an input in developing corrective actions. The following is a summary of factors leading to the trip as identified by this group.

1. The I&C technician was not aware that the reactor trip breakers were not open.

2. The I&C technician interpreted the announcement on the paging system (unit 3 off-line) to mean the reactor was shut down (in his words, "in a safe condition").

3. The I&C technician did not have a clear understanding of the difference between the plant being shut down and the trip breakers being open. This particular technician also did not know that it was unacceptable to activate the reactor protection system while the plant was shut down.

4. When the I&C technician came into the control room he interpreted the environment (the general high level of activity) to mean that there was an urgency associated with restoring the SR channel to service.

5. The RO and the SRO both assumed the I&C technician would only "look" to determine the cause of the problem and would not take any action. They did not specifically tell the I&C technician not to touch anything and neither did they tell him to do other than investigate the problem.

It has been determined by this discussion as well as by an independent investigation that the Source Range Trip was initiated by a loss of voltage to the Source Range High Flux Trip Bistable resulting from the removal of instrument fuses for the source range drawer. The event occurred because:

1. The I&C technician acted on his own without consulting the control room operators.

2. The senior reactor operator had acknowledged the presence of the I&C technician but assumed, based on standard practices, that the technician would discuss corrective measures before implementing them.

CAUSE OF THE EVENT

The following is a summary of the causal factors leading to the trip signal, as well as the root cause of this event.

Prior to being called to the control room, the I&C technician heard the page "Unit 3 is off line". This was interpreted by the technician that the reactor was shut down. Upon entering the control room, the technician thought all the control rods were fully inserted. He did not see that shutdown bank A was still partially withdrawn. The technician thought it was safe to work on the source range monitor including deenergizing the same. The Senior Reactor Operator had acknowledged the presence of the technician but assumed, based on standard practices, that the technician would discuss corrective measures before implementing them.

The generation of the reactor trip signal by the source range lies with the following:

Inadequate communication between the control room operators and the I&C technician. The root cause is cognitive personnel error.

CORRECTIVE ACTIONS

The following corrective actions have been implemented as a result of this event:

1. A revision has been incorporated in the I&C Troubleshooting Procedure directing that technicians take no corrective actions until they discuss in detail the proposed corrective actions and possible consequences with the senior reactor operator on watch and get his approval to proceed.

2. The I&C technician involved has been counseled concerning unwarranted challenges to the plant's protection systems.

3. All personnel involved, Senior Reactor Operator, Reactor Operator, and I&C Technician, have been counseled as to the importance of effective communication.

4. Source Range number 32 has been repaired.

ANALYSIS OF THE EVENT

This event is reportable under 10CFR50.73.a.iv.

The Source Range Hi Flux Trip is not utilized in any safety analysis in the plant's FSAR. Therefore, this event did not effect plant safety.

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

SECURING FROM THE EVENT

Plant personnel reenergized source range 32. The control room operators continued to place the plant in a cold shutdown condition.

*U.S. GPO: 1988-520-589/00070

Indian Point 3
Nuclear Power Plant
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New York Power Authority

March 6, 1989
IP3-89-020

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

Document Control Desk
Main Station PI-137
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

The attached Licensee Event Report LER 89-004-00 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)(iv).

Very truly yours,

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

VC/rj
Attachment

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

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