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May 1, 1995

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 95-10-00

Document Control Desk
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

The attached Licensee Event Report LER 95-10-00 is hereby submitted in accordance with the requirements of 10 CFR 50.73.

Very truly yours,

Thomas Schmeider

Attachment

cc: Mr. Thomas T. Martin
Regional Administrator - Region I
US Nuclear Regulatory Commission
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King of Prussia, PA 19406

Mr. Francis J. Williams, Jr., Project Manager
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NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WTH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Indian Point Unit No. 2	0 5 0 0 0 2 4 7	1 OF 0 4

TITLE (4)

Inadvertent Start of Component Cooling Water (CCW) Pumps

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 3	3 1	9 5	9 5	— 0 1 0	— 0 0	0 5	0 1	9 5		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
		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
James Maylath, Senior Engineer	AREA CODE 9 1 4 7 3 4 — 5 3 5 6

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	

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 March 31, 1995, with the unit at cold shutdown for refueling, two component cooling water pumps were inadvertently started during the replacement of a circuit breaker. The inadvertent start occurred when the circuit breaker was opened in accordance with a tagout. Upon the start of the pumps, the circuit breaker was replaced, and the pumps secured and returned to automatic. At no time during this event were the two component cooling water pumps needed to fulfill a safety related function, nor was the portion of the circuitry which started these pumps associated with Engineered Safety Feature (ESF) actuation logic.

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse 4-Loop Pressurized Water Reactor

IDENTIFICATION OF OCCURRENCE:

Inadvertent Start of Component Cooling Water (CCW) Pumps

EVENT DATE:

March 31, 1995

REPORT DUE DATE:

May 1, 1995

REFERENCES:

Significant Occurrence Report (SOR) 95-248

PAST SIMILAR EVENT:

LER 94-003

DESCRIPTION OF OCCURRENCE:

On March 31, 1995, with the unit at cold shutdown for refueling and one component cooling water pump in operation, the two remaining component cooling water pumps were inadvertently automatically started. A molded case circuit breaker, Circuit Breaker 19 in Instrument Bus 23, was de-energized as planned prior to replacement. This breaker supplies a circuit which is designed to protect a running component cooling water pump from runout in the event of low discharge pressure conditions. Upon de-energization, this circuit as designed automatically started the remaining two CCW pumps. Low pressure conditions did not actually exist. The breaker was replaced, and the pumps were secured and returned to automatic. At no time during the event were the two inadvertently started component cooling water pumps needed to fulfill a safety related function.

The component cooling water system is designed to remove heat from the reactor coolant system via the residual heat removal system during plant shutdown, to cool the letdown flow to the chemical and volume control system during power operation, to cool the spent fuel pool, and to provide cooling to dissipate waste heat from various primary plant components. In addition, this system provides cooling for engineered safety feature and safe shutdown components.

DESCRIPTION OF OCCURRENCE: (continued)

The system is a closed system and includes three CCW pumps, two component cooling heat exchangers and one surge tank. Heat is removed from the CCW system by the service water system through the component cooling heat exchangers. The CCW pumps do not run during the injection phase of a loss of coolant accident (LOCA) with loss of offsite power. Auxiliary pumps provide cooling for the safety injection pumps and the recirculation pumps during this phase. The CCW pumps are started during the recirculation phase of a LOCA to provide cooling for the RHR heat exchangers, safety injection pumps, the recirculation pumps, and other equipment.

The CCW pumps are protected from being damaged from operation under runout conditions by a circuit which starts the remaining pumps. If one CCW pump is running and the discharge pressure drops to 80 psig, the protection circuit starts the remaining two pumps. If two CCW pumps are running and the discharge pressure drops to 107 psig, the protection circuit starts the remaining pump. The pump start signal is developed upon de-energization of a relay, PC-600/X which de-energizes a time delay relay that has contacts in the pump start circuit (set at 5 seconds). This start circuitry is not the Engineered Safety Feature (ESF) actuation circuity for these pumps.

ANALYSIS OF OCCURRENCE:

This report is being made because an inadvertent actuation of an Engineered Safety Feature, the CCW pumps, occurred and is reportable under 50.73(a)(2)(iv).

The CCW pumps are listed in the Engineered Safety Features section of the Indian Point Unit No. 2 Technical Specifications. These pumps are also listed in the Final Safety Analysis Report as having "shared functions." These functions include normal operation and accident mitigation. The portion of the circuitry associated with the starting of the two CCW pumps was associated with the normal operation function, not the ESF function. However, the event was reportable since ESF equipment (with a shared usage role) was operated unnecessarily regardless of the actuation circuitry.

There was no safety significance of this event since at no time during the event were the two inadvertently started CCW pumps needed for a safety related function. If they had been needed they would have been available, as they were already running. All equipment operated as designed.

CAUSE OF OCCURRENCE:

The CCW pumps started when the circuit breaker which supplies the pump runout protection circuit was de-energized in order to provide personnel protection for replacement of a molded case circuit breaker. The circuit breaker had been tagged out by Operations, and a work permit was issued. The Operations personnel who implemented the tagout were not aware that opening the breaker would de-energize the PC-600/X relay and the time delay relay, causing the two pumps to start in five seconds. These conditions were not indicated in the operating procedures or drawings used in establishing the tagout. Opening the circuit breaker de-energized relays which started the two remaining CCW pumps.

CORRECTIVE ACTION:

Following the inadvertent start of the two CCW pumps, the molded case circuit breaker was replaced, and the two pumps were secured and returned to automatic. Component cooling flow required for the plant condition was maintained, and the starting of the two additional pumps only enhanced this flow.

A similar inadvertent start of two CCW pumps, which is set forth in LER 94-003, occurred on November 2, 1994. All corrective action items stated in LER 94-003, which included revised drawings and Instrument and Control (I&C) procedures, had been accomplished prior to the March 31, 1995 event. From this it was clear that de-energizing the pump runout circuit would initiate an automatic start of the pumps. The activities surrounding the March 31, 1995 event were different and were not within the scope of the previous corrective action items, which addressed work directly in the pump runout circuit. On March 31, 1995, a molded case circuit breaker on Instrument Bus 23, Circuit 19 was being replaced, and no work was planned to be done in the pump runout circuit. So, the personnel establishing the tagout for the breaker were not aware that a branch of this circuit supplied the pump runout circuit. In the operating procedures and drawings used in establishing the tagout, there was no reference to the I&C procedures or pump runout circuit (the pump runout circuit was below the level of detail of the drawings that were used). A further review of wiring diagram drawings and point to point termination lists would have shown the connection of the pump runout circuit to the supply from Circuit 19 of Instrument Bus 23.

Abnormal Operating Instruction (AOI) 27.1.6 which addresses the loss of an instrument bus has been revised to indicate the automatic start of the CCW pumps when the power supply to the runout protection circuit from Instrument Bus 23, Circuit 19 is lost. This was one of the procedures used to establish the tagout because this AOI shows some of the automatic actuations which could occur when a power supply is lost. The drawings often used in establishing a tagout are the "CCR Drawings". For the instrument bus circuits the associated CCR drawing would be the one line drawing which typically does not detail every branch circuit within a circuit breaker power supply . The CCR drawings for all instrument bus and 125V DC circuits will be revised on a programmatic basis to include reference drawings to enable the operator to quickly review what is fed from a particular branch circuit breaker. These revisions will assure that Operations personnel will be aware of the potential consequences of opening an instrument bus or 125V DC panel branch circuit breaker when establishing future tagouts.