

Indian Point 3
Nuclear Power Plant



New York Power
Authority

October 6, 1997
IPN-97-136

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

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
License No. DPR-64
Licensee Event Report 97-021-00

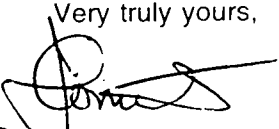
**One Train of Engineered Safeguards Logic Out-of-Service;
A Condition Prohibited by Technical Specifications**

Dear Sir:

The attached Licensee Event Report (LER) 97-021-00 is submitted as required by 10 CFR 50.73. This event is of the type defined in 10 CFR 50.73 (a)(2)(i)(B).

The Authority is making no new commitments in this letter.

Very truly yours,

for 
Robert J. Barrett
Site Executive Officer
Indian Point 3 Nuclear Power Plant

Attachment

cc: see next page

9802260093 980218
PDR ADOCK 05000286
H PDR

LICENSEE EVENT REPORT (LER)

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MABB 7714), 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.

FACILITY NAME (1)
Indian Point 3DOCKET NUMBER (2)
05000286PAGE (3)
1 OF 4

TITLE (4) One Train of Engineered Safeguards Logic out-of-service; A 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
09	06	97	97	-- 021 --	00	10	06	97	FACILITY NAME	DOCKET NUMBER
										05000
										05000
OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		000	20.402(b)		20.405(c)		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	
			20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)	
			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
Kevin Kingsley, Licensing EngineerTELEPHONE NUMBER (Include Area Code)
(914) 736-6034

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

SUPPLEMENTAL REPORT EXPECTED (14)

YES
(If yes, complete EXPECTED SUBMISSION DATE).

X NO

EXPECTED
SUBMISSION
DATE (15)

MONTH DAY YEAR

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

On September 6, 1997, with the plant in hot shutdown (Reactor Coolant System temperature and pressure at 547 degrees F and 2235 psi, respectively), the Engineered Safeguards Features (ESF) relay logic system Train A was deenergized to provide personnel protection while a defective relay in the ESF cabinet was replaced. Because the Indian Point 3 Technical Specification does not have an action statement which addresses an ESF instrumentation train out-of-service, the actions of specification 3.0 were applied. Administrative Procedure, AP-21.9 was followed to implement a 13-hour time limit for reducing Reactor Coolant System temperature to below 350F. The defective relay was replaced and the Train A ESF relay logic system was returned to service in approximately 3 hours, at which time the requirements of specification 3.0 no longer applied. This report is being made because NUREG 1022 states that entry into Standard Technical Specification 3.0.3 or its equivalent for any reason or justification is reportable. The New York Power Authority has initiated action to revise the Indian Point 3 Technical Specification to identify the required actions for an ESF relay logic train being out-of-service. There was no affect on the health and safety of the public because the redundant ESF Train B was in service during the 3 hours that Train A was deenergized for the relay replacement.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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

Note: Energy Industry Identification System Codes are identified within the brackets, { }.

DESCRIPTION OF EVENT:

On September 5, 1997 with the plant in hot shutdown, testing of the main feedwater pumps and valves using test procedure ENG-617 identified a defective relay {RLY}, FWX1. The function of the relay is to close feedwater isolation valve {V} FCV-417 in response to a Safety Injection signal from the Engineered Safety Feature (ESF) relay logic system {JE}. The relay is physically located within the control cabinet for ESF logic train A. Plant management evaluated three alternatives to establish suitable conditions for replacing the relay:

1. Cool down the RCS to less than 200 degrees F which is the condition where the ESF relay logic systems are not required to be operable. This approach is undesirable because it will add a thermal cycle to the RCS pressure boundary components.
2. Allow I&C personnel to replace the relay while the relay logic in the control cabinet remains energized. This approach is undesirable because there is a small risk that unintentional bumping of relay racks while performing the corrective maintenance could result in an inadvertent ESF actuation.
3. Deenergize the Train A ESF relay logic circuit while the relay is replaced. Although this alternative is the most desirable compared to the other two, it results in a reportable event because the Indian Point 3 Technical Specifications does not contain a requirement that specifically addresses having an ESF relay logic train out-of-service.

Following a decision to use alternative 3 and preparation of a work package to perform the relay replacement, on September 6, 1997 at approximately 0130 hours, the Train A ESF relay logic was deenergized by removing the control power fuse. Relay replacement was completed and the control power fuse was reinstalled to restore the relay logic to service at approximately 0430 hours. Therefore the total time that one ESF relay logic train was inoperable was approximately 3 hours.

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

CAUSE OF EVENT:

An inadequacy in Table 3.5-3 of the Technical Specifications to address a condition in which an ESF logic train is out-of-service resulted in entry into Technical Specification 3.0 to support a corrective maintenance activity.

CORRECTIVE ACTIONS:

The Authority has previously identified this deficiency and is in the process of requesting an amendment to the Indian Point 3 Technical Specifications. The proposed amendment adds a new item in Table 3.5-3 to explicitly identify operability requirements for the ESF relay logic trains. The proposed Limiting Condition for Operation (LCO) and the corresponding required action statement are based on the Westinghouse Standard Technical Specifications (NUREG 1431) and Westinghouse analysis WCAP-10271 for evaluation of surveillance frequencies and out-of-service times for ESF actuation systems. The proposed amendment will add an LCO that requires both ESF trains in service when the plant is above cold shutdown. The required action with one ESF train out-of-service is to restore the system within six hours or place the plant in hot shutdown condition within the next six hours. If additional time is needed to restore the system, a total time of 48 hours is allowed to place the unit in cold shutdown, which is the condition where the ESF instrumentation logic is no longer needed for plant protection.

ANALYSIS OF EVENT:

This report is being submitted in accordance with 10 CFR 50.73 (a)(2)(i)(B) for operation or condition prohibited by Technical Specification. The Indian Point 3 Technical Specifications do not provide an action statement for an ESF logic train being out of service. The Authority applied specification 3.0 when one ESF train was deenergized. This report is being made because the guidance of NUREG 1022 states that entry into Standard Technical Specification 3.0.3 or its equivalent for any reason or justification is reportable.

A review of LERs submitted during the past two years did not identify other LERs involving similar circumstances.

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SAFETY SIGNIFICANCE:

There was no affect on the health and safety of the public because the redundant ESF relay logic train (Train B) was in service during the time that Train A was out-of-service to replace a defective relay. The Standard Technical Specifications allows a period of up to six hours to restore an ESF relay logic train to operable status. This time period is justified based on the redundant relay logic train being operable and the low probability of an event occurring which requires ESF actuation. In addition, the Train A ESF actuated components (i.e., pumps, valves, etc) are capable of being manually started even if the ESF relay logic is not available to initiate the automatic start sequence.