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

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New York Power Authority

John H. Garrity
Resident Manager

May 27, 1993
IPN-93-042

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

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

Dear Sir:

The attached Licensee Event Report LER 93-015-00 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)(C). The commitments made by the Authority are listed in Attachment 1.

Very truly yours,

JHGarrity

John H. Garrity
Resident Manager
Indian Point Three Nuclear Power Plant

JHG/fp
Attachments

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
700 Galleria Parkway
Atlanta, Georgia 30339-5957

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Attachment 1
LIST OF COMMITMENTS MADE IN LETTER IPN-93-042

Number	Commitment	Due
IPN-93-042-01	Operations department to establish the following policies: 1) Strict adherence to operating procedures. 2) Plant operations are not permitted without approved procedures. 3) Operations personnel shall insist on approved procedures prior to conducting an evolution. 4) If a procedure is not clear, management must ensure that a revision or temporary procedure change is used prior to conducting the evolution. 5) Operations procedure feedback form shall be used to solicit and acknowledge feedback to upgrade the quality of existing operating procedures.	Prior to plant startup
IPN-93-042-02	Indian Point 3 is currently implementing a procedure upgrade program to address procedure inadequacies. This program will use specific criteria to measure the adequacy of approximately 204 operating procedures. Those procedures that do not meet the threshold criteria will be upgraded prior to startup.	Prior to plant start up.

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 4

TITLE (4)
Service Water System Placed in a Configuration not Controlled by Plant Operating Procedures 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 4	2 7	9 3	9 3	0 1 5	0 0	0 5	2 7	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)	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)	X 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
Edward A. Cook, Senior Nuclear Operations Engineer	AREA CODE 9 1 4 7 3 6 - 8 2 0 0

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)		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 April 27, 1993, at approximately 1930 hours, in response to a NRC question, Operations Management determined that the service water system had been cross-connected in a configuration that was not covered by the plant's operating procedures. This action was taken to prevent damage to service water pumps that were operating with insufficient flow. The configuration existed only while the plant was in the cold shutdown condition. Indian Point 3 Technical Specification 6.8.1 requires that written procedures be established, implemented and maintained as recommended in Appendix A of Regulatory Guide 1.33. The cause for this event is an error in judgement by Operations management due to an inadequate appreciation of the requirement for procedural control of plant systems in all modes of operation. A contributing factor was inadequate procedural direction to cover the required operation. On May 8, 1993, a procedure for cross connecting the service water system headers in cold shutdown was issued with an approved safety evaluation. The Operations Manager and the General Manager-Operations conducted meetings with all operations personnel to discuss compliance with operating procedures. As a result of these meetings, management decided that a policy of strict adherence to operating procedures shall be established prior to plant startup. To address the broader procedural adequacy issue, Indian Point 3 is currently implementing a procedure upgrade program.

DESCRIPTION OF THE EVENT

On April 7, 1993, at approximately 1000 hours, while the plant was in cold shutdown, a high pressure condition on the service water system was alarmed in the control room. Alarm Response Procedure ARP-12, which directs action to be taken on "SERVICE WATER HEADER HIGH-LOW PRESSURE", states that if conditions do not warrant immediate shutdown of a pump, have the Technical Services Department initiate an evaluation of long term continued operation in the present condition.

The Operations Shift Supervisor and Watch Engineer, in consultation with the Operations Manager and System Engineer, concluded that the service water pumps were operating with insufficient flow and that continued operation of the service water pumps in the current system lineup would degrade the material condition of the pumps and lead to pump damage. The Shift Supervisor directed the Senior Reactor Operator to cross-connect the essential and non essential service water headers. With the headers cross-connected one service water pump supplied both headers allowing the nonessential pump to be stopped and the alarm condition to clear. The System Engineer is the representative of the Technical Services Department and is the station system expert.

On April 27, 1993, at approximately 1930 hours, in response to a NRC question, NYPA determined that the cross-connected service water system configuration was a condition not covered by operating procedures. No specific procedure guidance directed the cross-connecting of essential and non essential service water headers.

CAUSE OF THE EVENT

The cause of this event was an error in judgement resulting from habit intrusion. The Operations management personnel involved in the decision to cross-connect the headers incorrectly assumed that this operation was permissible and that additional specific procedural guidance was not required. Historically, the service water system headers had been routinely cross-connected when the plant was in the cold shutdown condition and no one had recognized the requirement to provide procedural guidance for this evolution. Contributing factors were inadequate procedural guidance to cover the required operation and concern about potential damage to safeguards equipment.

CORRECTIVE ACTION

System Operating Procedure SOP-RW-5 Rev.12 "Service Water System Operation" was issued on May 8, 1993. Section 4.4 was added to specifically direct the actions to be taken for cross-connecting headers while in cold shutdown. The Technical Services Department wrote a nuclear safety evaluation to evaluate operation with the headers cross-connected. The evaluation considered the potential for a seismic event and assumed the failure of all non-qualified piping in the service water system. The resultant procedure was written such that no operator intervention would be required to maintain decay heat removal after a seismic event with the service water system headers cross-connected.

The Operations Manager and the General Manager-Operations conducted meetings with each watch section to obtain feedback on the quality of operations procedures and to ensure all operators are aware of management's intent to require that:

1) Strict adherence to operating procedures is essential.

2) Plant operations are not permitted without approved procedures.

3) Operations personnel shall insist on approved procedures prior to conducting an evolution.

4) If a procedure is not clear, management must ensure that a revision or temporary procedure change is used prior to conducting the evolution.

Prior to plant startup, the Operations department shall require the use of an operations procedure feedback form to solicit and acknowledge feedback to upgrade the quality of existing operating procedures.

Indian Point 3 is currently implementing a procedure upgrade program to address procedure inadequacies. This program will use specific criteria to measure the adequacy of approximately 204 operating procedures. Those procedures that do not meet the threshold criteria will be upgraded prior to startup.

ANALYSIS OF THE EVENT

This event is reportable under 10 CFR 50.73(a)(2)(ii)(C). Indian Point 3 Technical Specification 6.8.1 requires that written procedures be established, implemented and maintained as recommended in Appendix A of Regulatory Guide 1.33, November, 1992. Procedures were not available for operating the service water system in the configuration described in this Licensee Event Report (LER). There have been no other similar LERs for Indian Point 3.

SAFETY SIGNIFICANCE

This event had no effect on the health and safety of the public. From April 7, to May 8, 1993, the potential existed for service water flow to be temporarily lost if a seismic event with a loss of off-site power were to occur during the time that the headers were cross-connected. This could have resulted in the loss of decay heat removal for approximately twenty minutes after an earthquake. During this period containment integrity was available. If flow were to be lost it would require operator action to separate the service water headers and align the non-essential service water header as the essential header. After the headers are separated the emergency diesel generators can be restarted and decay heat removal would be available. Operations personnel have estimated that it would take approximately twenty minutes to restore emergency diesel generator operation and restore decay heat removal.

To heat the reactor coolant temperature from 115 degrees to 200 degrees on April 7, 1993 (adding in an extra 10 per-cent decay heat safety margin) would take 38 minutes.

Although operation with the service water headers cross-connected while the plant is in the cold shutdown condition had not been previously analyzed, the Authority does not consider that this condition would have significantly compromised plant safety because reasonable operator intervention would restore decay heat removal.

A review of past operations indicated that Indian Point 3 has been operated with the service water system headers cross-connected during past outages when the plant was in cold shutdown. Those prior operations had the same safety significance as the event reported in this LER.

In order to determine the extent of condition, Indian Point 3 is currently implementing a procedure upgrade program to address operator concerns regarding adequacy of procedures.