

Indian Point 3  
Nuclear Power Plant  
P.O. Box 215  
Buchanan, New York 10511  
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John H. Garrity  
Resident Manager

December 3, 1993  
IPN-93-155

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

SUBJECT: Indian Point 3 Nuclear Power Plant  
Docket No. 50-286  
Licensee Event Report # 93-049-00  
"Violation of Technical Specifications Due to a Failure to  
Adequately Test the Valves Connecting the Emergency City  
Water Supply to the Charging Water Pumps' Coolers"

Dear Sir:

The attached Licensee Event Report (LER) 93-049-00 is hereby submitted in accordance with the requirements of 10CFR50.73. This event is of the type defined in the requirements pursuant to 10CFR50.73(a)(2)(i)(B). Also attached are the commitments made by the Authority in this LER.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'JH Garrity'.

John H. Garrity  
Resident Manager  
Indian Point 3 Nuclear Power Plant

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JHG/DWO/vjm

cc: See Next Page

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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

U.S. NRC Resident Inspectors' Office  
Indian Point 3

Attachment 1  
List of Commitments

Number	Commitment	Due
IPN-93-155-01	Surveillance test 3PT-R39 will be revised to include exercising all valves required to establish city water flow to the charging pumps' oil coolers. This revision will be completed by January 15, 1994.	January 15, 1994
IPN-93-155-02	The Indian Point 3 (IP3) Inservice Testing Program (IST) has recently been revised to Revision 4 dated November 5, 1993. Included in this new revision are the quarterly exercising of AC-701A and AC-701B and cold shutdown exercising of AC-756A and AC-756B requirements. Implementing procedures for these new IST testing requirements will be developed by April 1, 1994.	April 1, 1994
IPN-93-155-03	The Performance and Reliability Supervisor will review this LER and the lessons learned from this event with his staff to reinforce the need for attention to detail. This action will be completed by December 10, 1993.	December 10, 1993

**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 (MNB 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 Unit 3	DOCKET NUMBER (2) 05000286	PAGE (3) 1 OF 6
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TITLE (4) Violation of Technical Specifications Due to a Failure to Adequately Test the Valves Connecting the Emergency City Water Supply to the Charging Water Pumps' Coolers

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
11	03	93	93	-- 049 --	00	12	03	93	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 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 David Collins, Senior Performance Engineer	TELEPHONE NUMBER (Include Area Code) (914) 736-8458
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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 15 single-spaced typewritten lines) (16)

On November 3, 1993, with plant in the cold shutdown condition, the Authority determined that the periodic surveillance test demonstrating the operability of the emergency city water supply to the Chemical and Volume Control System (CVCS) charging pumps' coolers inadequately addressed the equipment testing requirements as defined by Technical Specification section 4.1.B. and table 4.1-3, item 12. This is a violation of Technical Specification requirements. The cause of the event was due to personnel errors resulting from inattention to detail. These personnel errors involved the failure to include in the past all the valves connecting the emergency city water supply to the coolers in the test when the test was initially written and during its subsequent revisions. Corrective actions include revising and performing this surveillance test prior to plant startup.

**LICENSEE EVENT REPORT (LER)**  
TEXT CONTINUATION

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 (MNBB 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.

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

**DESCRIPTION OF EVENT**

On November 3, 1993, in response to the NRC Resident Inspector's questions, the Authority determined that the periodic surveillance test to demonstrate the operability of the emergency city water supply to the Chemical and Volume Control System (CVCS) (CB) charging pumps (P) inadequately addressed the equipment testing requirements as defined by Technical Specification section 4.1.B and table 4.1-3, item 12. At the time of discovery, the plant was in the cold shutdown condition with reactor power at 10 cps, Reactor Coolant (AB) system temperature at 107 degrees Fahrenheit and reactor coolant system pressure at atmospheric. A Deviation Event Report (DER) 93-674 was written to document this determination.

The CVCS charging pumps are provided with lube oil and variable speed drive oil coolers (CLR) which are normally supplied with cooling water from the Component Cooling Water (CCW) (CC) system. However, in the event of a loss of CCW to the charging pumps, the lube oil and the variable speed drive oil coolers can receive cooling water from the City Water Makeup (CWM) (KI) system. To initiate emergency city water cooling, the normal CCW supply and return lines to the charging pumps are isolated by shutting valves, AC-756A and AC-756B and opening the city water tie-in supply and return valves, AC-701A (ISV) and AC-701B (ISV). The supply piping configuration includes a CWM isolation valve (MW-26), two check valves in series (MW-682 and MW-683) (V), two telltale drain valves (MW-681 and MW-684) (V), and a CCW isolation valve (AC-701A). After the supply lineup is established, flow is initiated by opening the emergency city water return drain valve (AC-701B) on the oil cooler CCW return line.

Technical Specification section 3.2.B.7 states in part that the reactor shall not be brought above the cold shutdown condition unless the city water piping and valves are operable to the extent required to provide emergency cooling water to the charging pumps. To support the above limiting condition of operation, Technical Specification section 4.1.B and table 4.1-3, item 12 specifies in part that the city water connections to the charging pumps shall be checked to ensure temporary connections are available and valves are operable every 18 months.

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

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

Surveillance test 3PT-R39, revision 6, "Emergency City Water to Charging and B.A. Transfer Pumps," required stroking open the city supply valve (MW-26) and exercising open the check valves (MW-682 and MW-683) by verifying flow through a down stream drain valve (MW-684); however, the procedure did not functionally test the capability of establishing city water cooling flow by manually exercising the following valves:

- AC-756A Charging Pump Coolers CCW Supply Valve
- AC-756B Charging Pump Coolers CCW Return Valve
- AC-701A Charging Pump Coolers City Water Tie-in Supply to CCW Isolation Valve
- AC-701B Charging Pump Coolers City Water Return Drain from CCW Isolation Valve
- MW-681 Charging Pump Coolers City Water Tie-in Supply Checks Upstream Drain Valve
- MW-684 Charging Pump Coolers City Water Tie-in Supply Checks Downstream Drain Valve

**CAUSE OF THE EVENT**

The cause of the event was due to personnel errors resulting from inattention to detail. When surveillance test 3PT-R39 was initially written in August 1978, the procedure writer misinterpreted Technical Specification section 4.1.B by concluding the surveillance requirement applied only to valves and equipment assigned to the City Water system (CWM). The CCW valves required to support the emergency city water cooling line-up (AC-756A, AC-756B, AC-701A, and AC-701B) were incorrectly assumed to be outside the testing requirement scope. The error was carried forward in subsequent revisions to the surveillance test.

In 1989, 3PT-R39 was revised to incorporate modification MOD 89-03-162 Mult, "City Water Tie-In for Charging Pumps Emergency Cooling" which installed the permanent tie-in piping from the (CWM) system to the charging pumps CCW supply line. The modification added the check valves (MW-682 and MW-683) and their upstream and downstream telltale drain valves (MW-681 and MW-684). While this revision verified the ability to establish city water flow through the check valves, explicit instructions to exercise closed the drain valves were not included. This error was carried forward in subsequent revisions to the surveillance test.

**LICENSEE EVENT REPORT (LER)**  
TEXT CONTINUATION

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

**CORRECTIVE ACTIONS**

The following corrective actions have been or will be performed to prevent recurrence of this event:

- All subject valves have been manually exercised. This was completed on December 2, 1993.
- Surveillance test 3PT-R39 will be revised to include exercising all valves required to establish city water flow to the charging pumps' oil coolers. This revision will be completed by January 15, 1994.
- The Indian Point 3 (IP3) Inservice Testing Program (IST) has recently been revised to Revision 4 dated November 5, 1993. Included in this new revision are the quarterly exercising of AC-701A and AC-701B and cold shutdown exercising of AC-756A and AC-756B requirements. Implementing procedures for these new IST testing requirements will be developed by April 1, 1994.
- The Performance and Reliability Supervisor will review this LER and the lessons learned from this event with his staff to reinforce the need for attention to detail. This action will be completed by December 10, 1993.

**ANALYSIS OF THE EVENT**

This event is reportable under 10 CFR50.73 (a) (2) (i) (B). The licensee shall report: "Any operation or condition prohibited by the plant's Technical Specifications." Technical Specification section 4.1.B and table 4.1-3, item 12, require that the city water connections to the charging pumps be checked to ensure valves are operable on a frequency of eighteen months. The criterion to check the CCW valves was not met since the test was initially written in August 1978 and the criterion to check the city water supply telltale drain valves was not met since their installation in August 1989. LERs 93-001, 93-003, 93-009, 93-019, 93-023, 93-024, 93-028, 93-034, 93-040, 93-041 have been previously submitted involving similar inadequate Technical Specification required surveillance testing.

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**TEXT CONTINUATION**

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**SAFETY SIGNIFICANCE**

This event had no significant effect on the health and safety of the public. All subject valves were manually exercised verifying the ability to provide an emergency city water cooling line-up to the charging pump oil coolers. Thus, had the valves been required to be operated prior to discovering this condition, the valves would have been able to perform as designed.

**LICENSEE EVENT REPORT (LER)**  
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