



Entergy Nuclear Northeast  
Indian Point Energy Center  
450 Broadway, GSB  
P.O. Box 249  
Buchanan, NY 10511-0249  
Tel 914 734 6700

**Fred Dacimo**  
Site Vice President  
Administration

July 15, 2005  
Indian Point Unit No. 3  
Docket Nos. 50-286  
NL-05-086

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Mail Stop O-P1-17  
Washington, DC 20555-0001

Subject: Licensee Event Report # 2005-003-00, "Inadvertent Actuation and Automatic Start of the Auxiliary Feedwater Pumps During Reactor Protection Logic Testing Due to Personnel Error."

Dear Sir:

The attached Licensee Event Report (LER) 2005-003-00 is the follow-up written report submitted in accordance with 10 CFR 50.73. This event is of the type defined in 10 CFR 50.73(a)(2)(iv)(A) for an event recorded in the Entergy corrective action process as Condition Report CR-IP3-2005-02626.

There are no commitments contained in this letter. Should you or your staff have any questions regarding this matter, please contact Mr. Patric W. Conroy, Manager, Licensing, Indian Point Energy Center at (914) 734-6668.

Sincerely,

A handwritten signature in black ink, appearing to be "Fred R. Dacimo".

Fred R. Dacimo  
Site Vice President  
Indian Point Energy Center

JE22

Attachment: LER-2005-003-00

cc:

Mr. Samuel J. Collins  
Regional Administrator – Region I  
U.S. Nuclear Regulatory Commission

U.S. Nuclear Regulatory Commission  
Resident Inspector's Office  
Resident Inspector Indian Point Unit 3

Mr. Paul Eddy  
State of New York Public Service Commission

INPO Record Center

# LICENSEE EVENT REPORT (LER)

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

<b>1. FACILITY NAME</b> <b>INDIAN POINT 3</b>	<b>2. DOCKET NUMBER</b> <b>05000-286</b>	<b>3. PAGE</b> <b>1 OF 4</b>
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**4. TITLE** Inadvertent Actuation and Automatic Start of the Auxiliary Feedwater Pumps During Reactor Protection Logic Testing Due to Personnel Error

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV. NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
05	16	2005	2005 - 003 - 00			07	15	05		05000
									FACILITY NAME	DOCKET NUMBER
										05000

<b>9. OPERATING MODE</b>  1	<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §:</b> <i>(Check all that apply)</i>																																				
<b>10. POWER LEVEL</b>  100%	<table style="width:100%; border: none;"> <tr> <td><input type="checkbox"/> 20.2201(b)</td> <td><input type="checkbox"/> 20.2203(a)(3)(i)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)(C)</td> <td><input type="checkbox"/> 50.73(a)(2)(vii)</td> </tr> <tr> <td><input type="checkbox"/> 20.2201(d)</td> <td><input type="checkbox"/> 20.2203(a)(3)(ii)</td> <td><input type="checkbox"/> 50.73(a)(2)(ii)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(A)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(1)</td> <td><input type="checkbox"/> 20.2203(a)(4)</td> <td><input type="checkbox"/> 50.73(a)(2)(ii)(B)</td> <td><input type="checkbox"/> 50.73(a)(2)(viii)(B)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(i)</td> <td><input type="checkbox"/> 50.36(c)(1)(i)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(iii)</td> <td><input type="checkbox"/> 50.73(a)(2)(ix)(A)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(ii)</td> <td><input type="checkbox"/> 50.36(c)(1)(ii)(A)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(x)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(iii)</td> <td><input type="checkbox"/> 50.36(c)(2)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(A)</td> <td><input type="checkbox"/> 73.71(a)(4)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(iv)</td> <td><input type="checkbox"/> 50.46(a)(3)(ii)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(B)</td> <td><input type="checkbox"/> 73.71(a)(5)</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(v)</td> <td><input type="checkbox"/> 50.73(a)(2)(i)(A)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(C)</td> <td><input type="checkbox"/> OTHER</td> </tr> <tr> <td><input type="checkbox"/> 20.2203(a)(2)(vi)</td> <td><input type="checkbox"/> 50.73(A)(2)(I)(B)</td> <td><input type="checkbox"/> 50.73(a)(2)(v)(D)</td> <td></td> </tr> </table> <p style="text-align: right; font-size: small;">Specify in Abstract below or in NRC Form 366A</p>	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(A)(2)(I)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	
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**12. LICENSEE CONTACT FOR THIS LER**

<b>NAME</b> Michael Sicard, Superintendent, Instrument & Controls Maintenance	<b>TELEPHONE NUMBER (Include Area Code)</b> (914) 736-3687
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**13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT**

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

<b>14. SUPPLEMENTAL REPORT EXPECTED</b> <input type="checkbox"/> YES <i>(If yes, complete 15. EXPECTED SUBMISSION DATE)</i> <input checked="" type="checkbox"/> NO	<b>15. EXPECTED SUBMISSION DATE</b>	MONTH	DAY	YEAR

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

On May 16, 2005, at approximately 10:39 hours, both motor driven auxiliary feedwater (AFW) pumps automatically started after exceeding the actuation circuit 28 second time delay during performance of the low-low level steam generator water level section of procedure 3-PT-M13B1, Reactor Protection Logic Channel Functional Test. The steam driven AFW pump did not start. Upon recognition of pump start, operators secured the pumps. The apparent cause was personnel error due to failure to utilize adequate work practices. An Instrumentation and Control technician timing the AFW actuation circuit after being armed, stepped into the control room board area and became distracted and failed to notify the test technician for release of the arming signal. Corrective actions included briefing I&C personnel on the event and counseling I&C personnel on management expectations for remaining focused on the job. The test procedure will be revised to eliminate the need to leave the test area and minimize the time needed for an arming signal to be present. High intensity training will be established for I&C personnel on selection and use of human performance tools. The event had no effect on public health and safety.

**LICENSEE EVENT REPORT (LER)**

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Indian Point Unit 3	05000-286	2005	003	00	2 OF 4

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

Note: The Energy Industry Identification System Codes are identified within brackets { }

**DESCRIPTION OF EVENT**

On May 16, 2005, at approximately 10:39 hours, while at 100% steady state reactor power, both motor driven auxiliary feedwater (AFW) pumps {BA} automatically started after exceeding the actuation circuit 28 second time delay during performance of the low-low level steam generator water level section of procedure 3-PT-M13B1, "Reactor Protection Logic Channel Functional Test (Reactor Power Greater Than 35%-P8)." Operators recognized the AFW pump start and immediately secured both motor driven AFW pumps. The steam driven AFW pump did not start and was not expected to start during this portion of the test. The test was terminated and a control room stand down performed to review the event. On May 16, 2005, at 1418 hours, an eight hour non-emergency notification was made to the NRC for a valid actuation of the AFW system under 10CFR50.72(b)(3)(iv)(A). The event was recorded in the Indian Point Energy Center corrective action program (CAP) as CR-IP3-2005-02626.

On May 16, 2005, two teams of Instrumentation and Control (I&C) technicians were briefed to perform surveillance test 3-PT-M13B1. Test 3-PT-M13B1 demonstrates the operability of the Reactor Protection System {JE} Logic relays (Train B) in accordance with the surveillance requirements of Technical Specification 3.3.1. Surveillance procedure 3-PT-M13B1, at section 4.10.5, requires an arming signal to be inserted into the actuation circuitry and that the appropriate alarms and indications are verified to occur. The procedure requires the arming signal to be released no later than twenty (20) seconds after introduction. The procedure notes that the logic system will initiate AFW actuation per design after approximately twenty eight (28) seconds. The technicians performing the test were qualified for the test and were advised in a pre-job brief of the possibility of an AFW actuation when performing this portion of the test. Two technicians performed the test with one technician performing arming and the other technician performing timing with a stop watch and verifying annunciators and indications. During performance of the arming portion of the test, the technician with the stop watch stepped into the control room board area to verify an expected first out annunciator. While in the control room board area, a watchstander asked a question to the technician. The technician responded to a watchstander question and became distracted and allowed the arming signal to exist longer than the procedure required 20 second time frame and the design actuation time of 28 seconds. In accordance with design, the AFWS actuated and the motor driven AFW pumps started.

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

A review was performed of other sections of procedure 3-PT-M13B1 and other procedures for Unit 2 and 3. Due to design differences, the other Unit 3 train does not have the human performance (HP) timing challenge. A review of Unit 2 procedures and design determined that Unit 2 design was changed in the past to include test relays that block the test signal from actuating the equipment. No other procedures were found to approach the actuation timing setpoints as is required in procedure 3-PT-M13B1.

**CAUSE OF EVENT**

The cause of the motor driven AFW pump actuation and start was satisfaction of the actuation logic for pump start. The apparent cause of the inadvertent actuation of the AFW pumps was human error as a result of inadequate work practices. An I&C technician performing a timing function during a section of the test which requires insertion of an arming signal into the actuation circuitry failed to adhere to the procedure and question his actions. The technician allowed himself to be distracted by a question from a control room watchstander. The technician failed to stay focused and therefore did not effectively follow the test procedure. The technician was briefed on the test and was aware that the test had the potential to initiate actuation of the AFW pumps and required the technician to notify another technician to disarm the actuation circuit within 20 seconds. A contributing cause was complacency and a test procedure that operates very close to the actuation setpoints but does not adequately address the human performance requirements for test actions outside the immediate test area.

**CORRECTIVE ACTIONS**

The following corrective actions have been or will be performed under the CAP to address the causes of this event.

- I&C Maintenance personnel were briefed on the event and counseled on management expectations on a questioning attitude, procedure adherence and use of human performance tools.
- The test procedure 3-PT-M13B1 was revised to eliminate the need to walk out into the control room board area and to minimize the time needed for an arming signal to be present. Completion of the procedure revision is scheduled for July 31, 2005.
- The expectations for I&C Maintenance personnel will be strengthened through high intensity training on selection and use of human performance tools. Completion of training is scheduled for August 31, 2005.

**LICENSEE EVENT REPORT (LER)**

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

**Event Analysis**

The event is reportable under 10CFR50.73(a)(2)(iv)(A). The licensee shall report any event or condition that resulted in manual or automatic actuation of any of the systems listed under 10CFR50.73(a)(2)(iv)(B). Systems to which the requirements of 10CFR50.73(a)(2)(iv)(A) apply for this event include the AFWS. This event meets the reporting criteria because the AFWS was actuated on a low-low steam generator level signal due to actuation of the logic during testing.

**Past Similar Events**

A review of the past two years of Licensee Event Reports (LERs) for events that involved an ESF actuation identified no LERs.

**Safety Significance**

This event had no effect on the health and safety of the public. There were no actual safety consequences for the event because Operators were aware of the possibility of an inadvertent AFW pump start during testing and have alarms/indications alerting them to AFW pump start. The operators had adequate time to terminate AFW pump operation and limit any addition of AFW into the SGs. Operators during this event recognized the AFW pump start and took appropriate actions in accordance with plant procedures to limit the effects of an inadvertent AFW actuation. Operators did not observe any reactivity changes as a result of this event.