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NL-12-003

January 9, 2012

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Stop O-P1-17  
Washington, D.C. 20555-0001

SUBJECT: Licensee Event Report # 2011-006-00, "Technical Specification Prohibited Condition Due to Exceeding the Allowed Completion Time for an Inoperable Isolation Valve Seal Water System Due to an Out of Position Valve"  
Indian Point Unit No. 3  
Docket No. 50-286  
DPR-64

Dear Sir or Madam:

Pursuant to 10 CFR 50.73(a)(1), Entergy Nuclear Operations Inc. (ENO) hereby provides Licensee Event Report (LER) 2011-006-00. The attached LER identifies an event where an inoperable Isolation Valve Seal Water System exceeded the Technical Specification allowed completion time, which is reportable under 10 CFR 50.73(a)(2)(i)(B). This condition was recorded in the Entergy Corrective Action Program as Condition Report CR-IP3-2011-05110.

There are no new commitments identified in this letter. Should you have any questions regarding this submittal, please contact Mr. Robert Walpole, Manager, Licensing at (914) 254-6710.

Sincerely,

A handwritten signature in black ink, appearing to read "JAV".

JAV/abr

cc: Mr. William Dean, Regional Administrator, NRC Region I  
NRC Resident Inspector's Office, Indian Point 3  
Mr. Paul Eddy, New York State Public Service Commission  
LEREvents@inpo.org

IE22  
NRR

## 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.

1. FACILITY NAME: INDIAN POINT 3

2. DOCKET NUMBER  
05000-2863. PAGE  
1 OF 4

4. TITLE: Technical Specification Prohibited Condition Due to Exceeding the Allowed Completion Time for an Inoperable Isolation Valve Seal Water System Due to an Out of Position Valve

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
11	12	2011	2011	006	00	1	09	2012		05000
9. OPERATING MODE  1			11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)							
10. POWER LEVEL  100%			<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 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 checked="" type="checkbox"/> 50.73(a)(2)(i)(B) <input type="checkbox"/> 50.73(a)(2)(v)(D)							
			Specify in Abstract below or in NRC Form 366A							

## 12. LICENSEE CONTACT FOR THIS LER

NAME  
John Ryan, Supervisor, Operations Watch StaffTELEPHONE NUMBER (Include Area Code)  
(914) 254-8277

## 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
A	BD	V	W165	Y					

## 14. SUPPLEMENTAL REPORT EXPECTED

☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE) ☒ NO

## 15. EXPECTED SUBMISSION DATE

MONTH DAY YEAR

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

On November 12, 2011, during operator rounds a Nuclear Plant Operator (NPO) discovered the normally open valve IV-1400 of the Isolation Valve Seal Water (IVSW) System (IVSWS) closed. A review of the Check Off List (COL), plant drawings and Technical Specification (TS) 3.6.9 (IVSW System) determined that valve IV-1400 should be open in Modes 1, 2, 3 and 4. A review of the electronic Shift Operator Management System (eSOMS) equipment data base and past surveillances determined valve IV-1400 has been out of position since performance of refueling surveillance 3PT-R025D5 on March 27, 2011. With valve IV-1400 closed an IVSW header was inoperable. TS 3.6.9, Limiting Condition for Operation (LCO) requires the IVSWS to be operable. With one IVSW system header inoperable, TS 3.6.9 Condition A requires the restoration of the IVSWS to operable within 7 days. The condition is reportable because the inoperable header exceeded the TS 3.6.9 allowed completion time. The apparent cause was inadequate procedure use and adherence. Valve IV-1400 was not restored to the open position at completion of testing (3PT-R025D5) as required as a result of the inappropriate use of N/A contrary to guidance provided in procedure OAP-115 (Operations Commitments and Policy details) for use of the N/A provision. OAP-115 was inappropriately applied since the IV-1400 test position differed from the COL position. Corrective actions included opening the valve, counseling individuals involved, briefing of operations personnel of the event on procedure use and adherence and effective use of human performance tools. The event had no effect on public health and safety.

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
Indian Point Unit 3	05000-286	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		2011	- 006	- 00	

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

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

## DESCRIPTION OF EVENT

On November 12, 2011, at 100% steady state reactor power, during operator rounds a Nuclear Plant Operator (NPO) discovered at 00:25 hours, the normally open valve {V} IV-1400 of the Isolation Valve Seal Water (IVSW) System (IVSWS) {BD} closed. A review of the Check Off List (COL), plant drawings and Technical Specification (TS) 3.6.9 (IVSW System) determined valve IV-1400 should be open in Modes 1, 2, 3 and 4. A review of the electronic Shift Operator Management System (eSOMS) equipment data base and past surveillances determined valve IV-1400 had been out of position since performance of refueling surveillance 3PT-R025D5 on March 27, 2011. With valve IV-1400 closed an IVSWS header was inoperable. TS 3.6.9, Limiting Condition for Operation (LCO) requires the IVSWS to be operable. With one IVSW system header inoperable, TS 3.6.9 Condition A requires the restoration of the IVSWS to operable within 7 days. A review of the unit narrative logs determined the plant entered Mode 4 when IVSWS would be required to be operable on April 5, 2011. This condition was a violation of TS 3.6.9. The condition was recorded in the Indian Point Energy Center (IPEC) Corrective Action Program (CAP) as Condition Report CR-IP3-2011-05110.

The IVSWS improves the effectiveness of certain Containment Isolation Valves (CIVs) by providing a water seal to valve leakage paths. This improves the effectiveness for certain valves isolating ability during any condition that requires containment isolation. The system consists of a tank in which valve sealing fluid (water) under inert gas pressure is stored and a network of lines for distributing the sealing fluid to the CIVs. CIV sealing is accomplished by injecting water between the seats and stem packing of globe and double disc type isolation valves. When actuated, the IVSWS interposes water between two isolation points located outside containment. The resulting water seal, which is higher than peak containment pressure, blocks leakage of containment atmosphere through the valve seats and stem packing. Valve IV-1400 is a manual valve that supplies water to IVSWS Station Number 4. Valve IV-1400 is normally open to maintain Station 4 header (line #542) pressurized with water up to individual IVSWS isolation valves for 22 CIVs. These individual CIVs are manually operated as plant conditions dictate in accordance with procedure 3-SOP-CB-011 (Non-Automatic Containment Isolation) in the post accident phase. Valve IV-1400 is not operated or checked in the SOP. Therefore, when an operator lines up any of the Station Number #4 associated CIVs, there would be no pressurized water for valve sealing due to the closed IV-1400 which would not be readily apparent to the operator. On November 12, 2011, valve IV-1400 was restored to open per 3-COL-CB-004. Valve IV-1400 is a manual globe valve manufactured by Whitey Co. {W165}, Model SS-6NBS6-G-SH.

An investigation of the event was performed and determined that valve IV-1400 was closed during performance of 3PT-R025D5 on March 27, 2011 and the restoration position listed as "N/A.". Valve IV-1400 is manipulated in seven surveillance tests as well as in the COL (COL-CB-004). All seven surveillance tests were performed during the refueling outage (RO). The COL was not performed during the RO. During restoration, the guidance in procedure OAP-115 (Operations Commitments and Policy Details), Step 4.4.1.5 was inappropriately applied (If all of the following conditions are met during surveillance procedure performance and operations evolutions, THEN post-test/restoration valve alignments may be designated N/A). OAP-115 states that non-conditional steps shall only be marked N/A with the approval of the Shift Manager, Control Room Supervisor, Facility Shift Supervisor. This approval was not documented. Interviews of individuals that performed 3PT-R25D5 determined that they believed that the final position of IV-1400 would be restored via performance of another test or the COL. It was not recognized that 3PT-R25D5 was the last test in the series to be performed and the restoration position needed to be performed as required in the procedure.

**LICENSEE EVENT REPORT (LER)**

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An extent of condition review was performed per 3-COL-CB-004 (Isolation Valve Seal Water) initial position verification and all checks were found satisfactory with no additional discrepancies identified.

**Cause of Event**

The apparent cause was inadequate procedure use and adherence. Valve IV-1400 was not restored to the open position at completion of testing (3PT-R025D5) as required as a result of the inappropriate use of N/A contrary to guidance provided in procedure OAP-115 (Operations Commitments and Policy details) for use of the N/A provision. OAP-115 was inappropriately applied since the IV-1400 test position differed from the COL position. Operators inappropriately assumed that other testing or COLs would later restore the valve to the appropriate position. Procedure 3PT-R025D5 was signed on March 27, 2011 and its review completed on March 28, 2011. The restoration of 3PT-R025D5 Attachment 1 for IVSW Station 4 Test Valve Lineup was N/A'ed using the guidance in OAP-115, Step 4.4.1.5. This guidance was appropriate for all valves in this attachment with the exception of IV-1400. The lead test group operator made the HP error of N/A'ing this restoration. This HP error was not caught in the subsequent peer review sheet (independent verification) due to a lack of attention to detail. The supervisor performing peer review missed the improper use of the N/A provision of OAP-115. The requirement to perform 3-COL-CB-004 prior to changing modes per procedure 3PT-V053 (Mode Change Checklist, Mode 4 to Mode 5) is discretionary and was not performed. Human Performance tools were not effectively used (self checking, attention to detail, and questioning attitude) to ensure that valve IV-1400 was repositioned prior to signing off the procedure steps.

**Corrective Actions**

The following corrective actions have been performed under Entergy's Corrective Action Program to address the cause:

- Valve IV-1400 was restored to open in accordance with 3-COL-CB-004.
- Operations personnel were briefed on the event and lessons learned.
- Counseled individuals involved on the expectations and standards for procedure use and adherence and effective use of Human Performance tools such as self checking, attention to detail, and questioning attitude.

**Event Analysis**

The event is reportable under 10CFR50.73(a)(2)(i)(B). The licensee shall report any operation or condition which was prohibited by the plant TS. The IVSW Technical Specification (TS) Limiting Condition for Operation (LCO), TS 3.6.9 requires the IVSWS to be operable in Modes 1,2,3 and 4. The required action A.1 for TS 3.6.9 Condition A, one IVSWS header inoperable or one IVSW automatic actuation valve inoperable, is to restore IVSWS to operable within a completion time of 7 days. This event meets the reporting criteria because IVSWS header valve IV-1400 was out of position in excess of 7 days based on the performance of refueling surveillance 3PT-R025D5 on March 27, 2011. A review of the unit narrative logs determined the plant entered Mode 4 when IVSWS would be required to be operable on April 5, 2011. The closed valve (IV-1400) rendered the IVSWS inoperable. The valve was restored to open per 3-COL-CB-004 on November 12, 2011. The inoperable condition during past operation exceeded the 7 day allowed completion time for TS 3.6.9 and the required TS actions were not performed.

There was no safety system functional failure reportable under 10CFR50.73(a)(2)(v) as the minimum required CIVs were available to perform the function. The IVSWS is not credited for dose mitigation. In accordance with reporting guidance in NUREG-1022, an additional random single failure need not be assumed in that system during the condition.

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

## Past Similar Events

A review was performed of Licensee Event Reports (LERs) for the past three years for any events reporting TS prohibited conditions due to mis-positioned components. No applicable LERs were identified.

## 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 there were no accidents or transients requiring the IVSW system. In accordance with UFSAR Section 6.5, the employment of the IVSWS during a loss-of-coolant accident, while not considered for analysis of the consequences of the accident, provides an additional means of conservatism in ensuring that leakage is minimized. No detrimental effect on any other safeguards systems will occur should the seal water system fail to operate. The UFSAR discussion is consistent with the basis provided in TS 3.6.9 since the containment is designed with an allowable leakage rate not to exceed 0.1% of the containment air weight per day. The maximum allowable leakage rate is used to evaluate offsite doses resulting from a Design Basis Accident (DBA). Confirmation that the leakage rate is within limits is demonstrated by the performance of a Type "A" leakage rate test in accordance with the Containment Leakage Rate Testing Program as required by Technical Specification 3.6.1. During the performance of the Type "A" test, no credit was taken for the IVSW System in meeting the containment leakage rate criteria. As such, in the event of a DBA without an operable IVSW System, both the whole body and thyroid offsite doses would be within the guidelines specified in 10 CFR Part 50.67. In addition, all the CIVs fed from Station Number 4 were successfully tested for leak tightness during the outage.