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J. E. Pollock
Site Vice President

NL-09-042

May 11, 2009

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

SUBJECT: Licensee Event Report # 2009-002-00, "Technical Specification Prohibited Condition Caused by Two Main Steam Safety Valves Outside Their As-Found Lift Setpoint Test Acceptance Criteria"
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) 2009-002-00. The attached LER identifies an event where there was a Technical Specification prohibited condition for two inoperable Main Steam Safety Valves, 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-IP3-2009-00716.

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) 734-6710.

Sincerely,

JEP/cbr

cc: Mr. Samuel J Collins, 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

JE22
NRK

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
05000-286

3. PAGE
1 OF 3

4. TITLE: Technical Specification Prohibited Condition Caused by Two Main Steam Safety Valves Outside Their As-Found Lift Setpoint Test Acceptance Criteria

| 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 |
| 3 | 10 | 2009 | 2009 | 002 - 00 | | 05 | 11 | 2009 | | 05000 |
| | | | | | | | | | FACILITY NAME | DOCKET NUMBER |
| | | | | | | | | | | 05000 |

9. OPERATING MODE
1

10. POWER LEVEL
100%

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*

| | | | |
|---|---|---|---|
| <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
Steven Manzione, Component Engineering Supervisor

TELEPHONE NUMBER (Include Area Code)
(914) 734-6772

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 |
|-------|--------|-----------|--------------|--------------------|-------|--------|-----------|--------------|--------------------|
| X | SB | RV | C710 | 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 March 10, 2009, during the performance of surveillance procedure 3-PT-R006A, main steam safety valves (MSSV) MS-45-1 and MS-48-3 failed their As-Found lift set point test. In accordance with the test, these valves must lift at +/- 3% of their required setting. Valve MS-45-1 lifted at 1112.7 psig outside its acceptance range of 1034 to 1096 psig. Valve MS-48-3 lifted at 1165.1 psig outside its acceptance range of 1077 to 1143 psig. All other MSSVs tested passed their As-Found test criteria and were left within +/- 1% of their required setting in accordance with the test procedure. Technical Specification (TS) 3.7.1, "Main Steam Safety Valves," requires the MSSVs to be operable in accordance with TS Table 3.7.1-1 and Table 3.7.1-2. TS Surveillance Requirement (SR) 3.7.1.1 requires each MSSV be verified to lift per Table 3.7.1-2 in accordance with the Inservice Testing Program. Operability of the MSSVs includes the ability to open within the setpoint tolerances. As these two valves were found outside their limit they failed their As-Found testing. In accordance with NUREG-1022, Section 3.2.2, reporting guidelines, the existence of similar discrepancies in multiple valves is an indication that the discrepancy may have arose over a period of time, and therefore existed during plant operation and is reportable. The apparent cause of the two MSSVs lifting greater than 3% of their nominal setpoint is indeterminate but most likely caused by setpoint drift. Corrective actions included adjusting the valves, subsequent maintenance during the refueling outage, and re-testing with an As-Left setting within the +/- 1% As-Left set point criteria. The event had no effect on public health and safety

LICENSEE EVENT REPORT (LER)

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| Indian Point Unit 3 | 05000-286 | 2009 | - 002 | - 00 | 2 OF 3 |

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 March 10, 2009, during the performance of surveillance procedure 3-PT-R006A, main steam (MS) {SB} safety valves (MSSVs) {RV} MS-45-1 and MS-48-3 failed their As-Found lift set point test. In accordance with the test, these valves must lift at +/- 3% of their required setting. Valve MS-45-1 lifted at 1112.7 psig outside its acceptance range of 1034 to 1096 psig. Valve MS-48-3 lifted at 1165.1 psig outside its acceptance range of 1077 to 1143 psig. All other MSSVs valves tested passed their As-Found test criteria and were left within +/- 1% of their required setting in accordance with the test procedure. Technical Specification (TS) 3.7.1, "Main Steam Safety Valves," requires the MSSVs to be operable in accordance with TS Tables 3.7.1-1 and 3.7.1-2. TS Surveillance Requirement (SR) 3.7.1.1 requires each MSSV be verified to lift per Table 3.7.1-2 in accordance with the Inservice Testing (IST) Program. Operability of the MSSVs is determined by periodic surveillance testing in accordance with the TS and IST program. As these two valves were found outside their limit they failed their AS-Found test criteria. MS-45-1 is associated with steam generator (SG)-31 and MS-48-3 is associated with SG-33.

There are five code safety valves (MSSVs) and one atmospheric dump valve (ADV) {RV} on each main steam (MS) line outside the Reactor Containment {NH} and upstream of the MS isolation valves {ISV}. The five code safety valves (MSSV) consist of four 6-inch by 10-inch and one 6-inch by 8-inch valve per SG on each of four MS lines. The valves are set to open at 1065, 1080, 1095, 1110, and 1120 psig. The operability of the MSSVs is defined as the ability to open within the set points tolerances, relieve SG overpressure, and reset when pressure has been reduced. The accident analysis requires five MSSVs per SG to provide overpressure protection for design basis transients occurring at 102% reactor thermal power. The MSSVs are Code relief valves, manufactured by Crosby Valve and Gauge Company {C710}. The 6-inch by 8-inch valves (e.g., MS 45-1) are Model # HC-65W-6Q8. The 6-inch by 10-inch valves (e.g., MS-48-3) are Model # HC-65W-6R10.

Cause of Event

The apparent cause of the two MSSVs lifting greater than 3% of their nominal setpoint is indeterminate but most likely caused by setpoint drift. MS-45-1 and MS-48-3 were disassembled and inspected and identified to have some scoring on their valve spindles. Assessment with Original Equipment Manufacturer (OEM) could not directly relate the indications discovered on the valves' spindles to the As-Found test results.

Corrective Actions

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

- Adjusted and tested each valve (MS45-1, MS-48-3) within the +/- As-Left set point criteria upon initial discovery of failures.
- Performed Preventive Maintenance (PM) and replaced the valve spindle on each valve during the refueling outage.
- Adjusted and tested each valve (MS-45-1, MS-48-3) with As-Left settings within the +/-1% As-Left setpoint criteria following the PM.

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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. TS 3.7.1, "Main Steam Safety Valves," requires the MSSVs to be operable in accordance with TS Tables 3.7.1-1 and 3.7.1-2. TS Surveillance Requirement (SR) 3.7.1.1 requires each MSSV be verified to lift per Table 3.7.1-2 in accordance with the Inservice Testing Program. Operability of the MSSVs includes the ability to open within the setpoint tolerances. As these two valves were found outside their limit they failed their As-Found testing criteria. In accordance with NUREG-1022, Section 3.2.2, reporting guidelines, the existence of similar discrepancies in multiple valves is an indication that the discrepancy may have arose over a period of time, and therefore existed during plant operation and is reportable.

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 multiple test valve failures and none 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 MSSVs.

There was no significant potential safety impact of the condition under reasonable and credible alternate conditions. Had an accident or transient occurred during the condition of the two out of tolerance MSSVs, the condition is judged to have not significantly affected accident mitigation capability and the MSSVs overpressure function would have been adequate. The design basis of the MSSVs is to limit the secondary system pressure to 110% of design pressure when passing 100% of design steam flow. The combined MSSVs are sufficient to relieve 108% of design steam flow. Each MS line has an ADV capable of releasing steam to the atmosphere. The ADVs have the capability to relieve approximately 10% of total steam. The combined pressure relief capability of the MSSVs and ADVs is approximately 118% of rated steam flow. Engineering judgment concluded adequate pressure relief was available with 18 of 20 MSSVs and 4 ADVs as a result of 2 of 20 MSSVs lifting at a higher pressure set point than specified.