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Indian Point Energy Center
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Fred Dacimo
Site Vice President
Administration

December 17, 2003

Re: Indian Point Unit No. 2
Docket No. 50-247
NL-04-157

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

Subject: Licensee Event Report 2004-003-00, "Plant in a Condition Prohibited by
Technical Specifications due to Error Making Gaseous Radiation Monitor
Inoperable"

Dear Sir:

Pursuant to 10 CFR 50.73(a)(1), Entergy Nuclear Operations Inc. (ENO) hereby provides Licensee Event Report (LER) 2004-003-00. The enclosed LER identifies an event where the plant was operated in a condition prohibited by Technical Specifications, which is reportable under 10 CFR 50.73(a)(2)(i)(B). This condition has been recorded in the ENO Corrective Action Program as Condition Report CR-IP2-2004-05027.

There are no new commitments identified in this letter. Should you have any questions regarding this submittal, please contact Mr. Patric W. Conroy, Manager, Licensing at (914) 734-6668.

Sincerely,

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

Fred R. Dacimo
Vice President, Operations
Indian Point Energy Center

cc: next page

JEAR

cc: Mr. Hubert J. Miller
Regional Administrator – Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

Resident Inspector's Office
Indian Point Unit 2
U.S. Nuclear Regulatory Commission
P.O. Box 59
Buchanan, NY 10511-0059

Mr. Paul Eddy
Public Service Commission
3 Empire State Plaza, 10 Fl
Albany, NY 12223-1350

INPO Record Center
700 Galleria Parkway
Atlanta, Georgia 30339-5957

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 Unit 2	2. DOCKET NUMBER 050-247	3. PAGE 1 OF 4
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4. TITLE
Plant in a Condition Prohibited by Technical Specifications due to Error Making Gaseous Radiation Monitor Inoperable

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
10	20	2004	2004	003	0	12	17	2004	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE Mode 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)									
10. POWER LEVEL 90.7%	<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 S. Prussman	TELEPHONE NUMBER (Include Area Code) (914) 734-6694
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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

14. SUPPLEMENTAL REPORT EXPECTED None	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
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16. ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced type written lines)

On October 20, 2004, at approximately 1920 hours, Chemistry determined that the set point of vapor containment noble gas gaseous radiation monitor 42 (R-42) was not in compliance with the Technical Specification (TS) 3.3.6 allowable value (AV) of \leq three (3) times background. The R-42 set point was not changed when implementing TS amendment 238 (conversion to TS based on NUREG 1431 and implementation of NRC Generic Letter 89-01, removing effluent regulation to the ODCM) on December 19, 2003. The R-42 set point that was not changed was based on a calculation of the set point required to assure effluents were limited to less than 10 CFR 20 limits and has been consistently above the background by more than a factor of three. The event, the Project Team revising the TS and the TS section reviewer(s) not identifying the basis for the existing set point or that the operator aid containing the set point required a change to reflect the revised TS AV, was apparently caused by a process control inadequacy. Corrective action was taken to reset the R-42 set point to meet the TS AV with the term "background" synonymous with the monitor reading during periods of minimal or no primary leakage and to revise the set point in Operator Aid 2-OA-04-004. Additional corrective action will be taken to review radiation monitor requirements in TS, Technical Requirements Manual and Operational Dose Control Manual to verify that the proper set points / allowable values are incorporated. Action is also underway to formalize and improve the process for controlling radiation monitor set points. The event had no significant effect on public health and safety since the existing set point adequately isolated the required penetrations.

LICENSEE EVENT REPORT (LER)

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Indian Point Unit 2	05000-247	2004	- 03	- 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 the brackets {}.

DESCRIPTION OF EVENT

On October 20, 2004, at approximately 1920 hours, while at about 90.7 percent daily average steady state reactor power during coast-down, Chemistry determined that the set point of vapor containment (VC) {NH} noble gas gaseous radiation monitor {MON} 42 (R-42) was not in compliance with the Technical Specification (TS) 3.3.6 allowable value of \leq three (3) times background. The set point for R-42 was 1.2E-2 micro-curies/cc while the background at the time was 1.2E-5 micro-curies/cc, a factor of 1000 difference. This set point has been used since well before the implementation of TS amendment 238 (conversion of TS based on NUREG 1431 and implementation of NRC Generic Letter 89-01, removing effluent regulation to the Offsite Dose Calculation Manual (ODCM)) on December 19, 2003 and has been consistently above the background by more than a factor of three. Condition Report IP2-2004-5027 was initiated to document this event. Corrective action was taken to reset the R-42 set point to meet the TS allowable value with the term "background" synonymous with the monitor reading during periods of minimal or no primary leakage.

R-42 is a process radiation monitor that monitors containment atmosphere for gaseous activity and initiates closure of the containment purge supply valves FCV-1170 and 1171 {FCV}, the containment purge exhaust valves FCV-1172 and 1173, and the containment pressure relief valves PCV-1190, 1191, and 1192 {PCV} on a high radiation signal (Updated Final Safety Analysis Report (UFSAR) Sections 11 and 5.2). When the plant is on line, these valves are normally closed, with the exception of the pressure relief valves which are periodically opened for short time periods during a pressure relief.

The TS Section 3.3.6 allowable value (AV) for R-42 (i.e., \leq three (3) times background) became effective with the implementation of TS amendment 238 on December 19, 2003. Prior to this amendment, there were no AVs in the TS for the gaseous radiation monitor (R-42) used for leakage detection (TS 3.1.F) and containment isolation of purge and pressure relief valves (TS Table 3.5-4). When the TS were revised in amendment 238 the default set point of NUREG 1431 (\leq 2 times background) was adopted with some modification. This failed to recognize that existing set point was based on the requirements of 10 CFR 20 release requirements (an environmental TS requirement).

The set points for the Victoreen Digital Radiation Monitoring System (DRMS) {IL}, of which R-42 is a channel, are controlled by an Operator Aid that is posted on the DRMS console in the Central Control Room (CCR) {NA}. The set point change process for R-42 has been informal with responsibility variable. At various times it has been under the control of the System Engineer, Radiation Protection and Chemistry, and Operations Support. The last Operator Aid was signed by the Operations Support Supervisor. Approved set point changes are implemented in the field by Operators or by Instrumentation and Control Technicians. At the time of this event, surveillance test PT-M82 verified the set points in the operator aid. The R-42 high alarm set point of 1.2E-2 micro-curies/cc has been used since at least 1997 and was based on a back-calculation for maximum concentration in the containment under typical release rates to ensure compliance with 10CFR20 release rate limits. The use of this set point since at least 1997 was determined from a review of completed copies of surveillance test PT-M82 since historical copies of the Operator Aid could not be located. This set point was not changed by the project to convert TS to the NUREG 1431 TS (ITS Project). A review concluded that the ITS Project team as well as the reviewers did not identify that the current set point was based on 10 CFR 20 criteria or identify the need to change the set point when adopting the new value.

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

The ITS project was managed and run by a Project Manager reporting to the Licensing Manager. Preparation of submittals, coordinating reviews, and update of plant documents were among the responsibilities of the project, which was composed of supplemental personnel. Review records for TS Section 3.3.6 could not be located, therefore, it is not clear whether the actual reviewer(s) made an error by not verifying the set point or a process problem caused the error. The submittal states that the R-42 Allowable Value was determined using engineering judgment and that the addition of the AV was a more restrictive change. The ITS Project team was required to validate the inclusion of more restrictive changes into procedures which did not occur in this case. The set point for R-42 was not entered into PT-M82 and the operator aid was not revised. Whether the cause of this error by the ITS project team was human error or process error could not be determined because of a lack of records and personnel are no longer working on site. The errors by reviewers and the ITS team could be human error (i.e., a failure to meet the expectation of capturing a more restrictive AV in a procedure and verifying the same) or a process control inadequacy (i.e., the process and procedures were inadequate to establish clear guidance and responsibilities). The existing ineffective control process for radiation monitor set points during the period of time the TS change was prepared, reviewed, and approved indicates that process error was the most likely cause of this event.

CAUSE OF EVENT

The apparent cause of the event was a process control inadequacy by the ITS Project team and by TS section reviewer(s) who did not identify that the original set point was based on 10 CFR 20 limits or that the operator aid containing the set point required a change to reflect the new set point.

CORRECTIVE ACTIONS

The following corrective actions have been or will be performed under the corrective action program:

- The set point on R-42 was reset.
- The Operator Aid 2-OA-04-004 was revised to reflect the requirements of TS 3.3.6.
- A review was conducted of radiation monitor set points in TS, Technical Requirements Manual and Operational Dose Control Manual to verify that the proper set points / allowable values are incorporated.
- Formalizing and improving the process for controlling radiation monitor set points has been initiated in corrective actions.

EVENT ANALYSIS

This event is reportable under 10 CFR 50.73(a)(2)(i)(B). The licensee shall report any operation or condition which was prohibited by the plant TS. This event meets the criteria since the required set point of TS 3.3.6 for R-42 of \leq three (3) times background was not met. R-42 was set at 1.2E-2 micro-curies/cc, more than 1000 times greater than the background at the time of 1.2E-5 micro-curies/cc. This condition has existed since implementation of TS amendment 238 on December 19, 2003, a period of approximately 10 months. The set point was corrected.

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SIMILAR EVENTS

IPEC Licensee Event Reports (LER) for the past two years were reviewed and three TS violations on Unit 2 were identified. These events, LERs 2002-05 and 06 and LER 2003-02, were not caused by process control issues.

SAFETY SIGNIFICANCE

This event had no significant effect on the health and safety of the public. There was no actual event requiring operation of the R-42 to isolate the containment ventilation system {VA}. The set point used in R-42 prior to this condition being identified is adequate to meet the Containment Ventilation isolation function for an accident. The assumed release of the source term is very rapid and the set point is well below the source term used for evaluating accident conditions (FSAR section 14). Additionally, downstream Plant Vent Monitor R-44 provides the same auto closure function.