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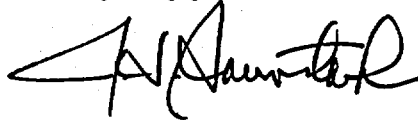
November 17, 1999

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 1999-019-00

Document Control Desk
US Nuclear Regulatory Commission
Mail Station PI-137
Washington, DC 20555

The attached Licensee Event Report 1999-019-00 is hereby submitted in accordance with the requirements of 10 CFR 50.73.

Very truly yours,



Attachment

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

Mr. Jefferey Harold, Project Manager
Project Directorate I-1
Division of Reactor Projects I/II
US Nuclear Regulatory Commission
Mail Stop 14B-2
Washington, DC 20555

Senior Resident Inspector
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IE22

POB ADD 05000247

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), 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. If 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.

FACILITY NAME (1)

Indian Point No. 2

DOCKET NUMBER (2)

05000-247

PAGE (3)

1 OF 4

TITLE (4)

Inadvertent Disabling of Rod Position Plant Computer Program

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
10	28	1999	1999	-- 019 --	00	11	17	1999		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)	099	20.2201(b)	20.2203(a)(2)(v)	50.73(a)(2)(i)	50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)	50.73(a)(2)(iv)	<input checked="" type="checkbox"/> OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vi)	

LICENSEE CONTACT FOR THIS LER (12)

NAME
James J. Maylath, Senior Engineer

TELEPHONE NUMBER (Include Area Code)
(914) 734-5356

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
A	ID	CPU	W120	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).

NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On October 28, 1999, with the unit at 99% power during surveillance testing, the alarm limits for the control rod position deviation (Rod-vs-Bank) alarm were discovered to be plus or minus 24 steps. The design alarm limits are plus or minus 12 steps (or plus 17 or minus 12 steps if above 211 steps) in accordance with Technical Specification requirements for power levels above 50%. There was no plant operation outside of Technical Specifications because the Technical Specification action statement concerning an inoperable rod position monitor was followed for the duration that the alarm limits were outside the acceptable range. However, this report is being made as a management discretion because of the potential significance of an incorrect rod position alarm setting. The rod position monitoring plant computer program had been erroneously allowed to be disabled due to lack of proper software configuration control of software upgrades related to the Y2K issue. On October 29, 1999, the program was returned to service. In January 1998, as part of the initial Y2K assessment of PROTEUS, a test had been performed that demonstrated the Y2K compliance of the overall PROTEUS system with this program intact. A further detailed code review that confirms this program is not date-sensitive and, therefore, not subject to Y2K concerns, was performed on November 3, 1999.

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TEXT CONTINUATION**

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Indian Point No. 2	05000-247	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		1999	-- 019	-- 00	

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

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse 4-Loop Pressurized Water Reactor

IDENTIFICATION OF OCCURRENCE:

Inadvertent Disabling of Rod Position Plant Computer Program

EVENT DISCOVERY DATE:

October 28, 1999

REPORT DATE:

November 17, 1999

REFERENCES:

Condition Reporting System (CRS) No. 199908234

PAST SIMILAR OCCURRENCE:

LER 1998-016

DESCRIPTION OF OCCURRENCE:

On October 28, 1999, with the unit at 99% power during the performance of Surveillance Test PT-M7 "Analog Rod Supervision Functional", it was determined that the alarm limits for the control rod position deviation (Rod-vs-Bank) were plus or minus 24 steps. Technical Specification 3.10.6 requires that above 50% power the Rod-vs-Bank alarm limits must be plus or minus 12 steps (or plus 17 or minus 12 steps if above 211 steps). The Rod Position Supervision Alarm function (for the rod position monitor) was declared to be inoperable and Technical Specification 3.10.9 was invoked. An investigation of this condition determined that alarm limits changed to plus or minus 24 steps on September 29, 1999 during a communication interface test on the plant computer (PROTEUS). PROTEUS contains a program, RODLOW, which determines the Rod-vs-Bank alarm limits. The RODLOW program had been erroneously disabled in March 1999. However, since the unit was then at 99% power, the proper alarm limits for the Rod-vs-Bank alarm were already established and did not revert to plus or minus 24 steps until September 29, 1999 when the unit was in a hot shutdown condition. Since the RODLOW program was disabled, the Rod-vs-Bank alarm limits were not within the proper range when the unit was brought above 50% power during the October 1999 startup.

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

ANALYSIS OF OCCURRENCE:

This report is being voluntarily submitted as a management discretion because of the potential significance of an incorrect rod position alarm setting due to the disabling of the RODLOW computer program in March 1999. There was no plant operation outside of Technical Specifications because the Technical Specification action statement, Section 3.10.9 concerning an inoperable rod position monitor, was followed for the duration that the alarm limits were outside the acceptable range. However, from the time when the unit was brought above 50% power until the unacceptable Rod-vs-Bank alarm limits were discovered, the Station was unaware of the condition that required the action statement.

Review of operator's logs which document actual rod position revealed that there were no incidences of actual rod positions being outside the allowance bands prescribed by the Technical Specifications and Operations procedures. Therefore, for the duration that the Rod-vs-Bank alarm limits were outside the acceptable range, core power distribution and peaking factors were not adversely impacted by the inadvertent disabling of the RODLOW program. Since appropriate Rod-vs-Bank alarm limits were not maintained above 50% power, the potential did exist for operation outside prescribed limits, however, this was demonstrated not to be the case. There were no adverse safety impacts related to any of the actions taken in the disabling or reinstatement of the RODLOW or any other PROTEUS programs. In addition, historical data indicates that no rod misalignments occurred during the period that the Rod-vs-Bank alarm limits were outside the acceptable range. The error that led to the unacceptable Rod-vs-Bank alarm limits had no impact on PROTEUS Y2K compliance. This condition had no adverse impact on the health and safety of the public and did not cause any injury to the public or to personnel or damage to equipment.

CAUSE OF OCCURRENCE:

The cause of the Rod-vs-Bank alarm limits being in an unacceptable range was the disabling of the RODLOW computer program. Analysis revealed that the RODLOW program had become disabled during PROTEUS software changes that were performed in late March 1999. Surveillance Test PT-M7 did not detect that the RODLOW program had been disabled before October 28, 1999 because the proper alarm limits for the Rod-vs-Bank alarm were already established when RODLOW was disabled and did not revert to plus or minus 24 steps until September 29, 1999 during a PROTEUS communication interface test.

During March 1999, Con Edison had contractors conduct a detailed assessment and perform remediation and post-remediation testing for Y2K issues in the PROTEUS System. Part of the detailed assessment was a source code review. During that review, there were a number of PROTEUS programs that were identified as obsolete, and a few that could not be evaluated because the source code could not be located. The names of programs in these categories were added to a list of software to be potentially placed in the "DISABLED" state as part of the

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CAUSE OF OCCURRENCE (con't.):

remediation, and left in that state for post-remediation testing and continued normal operation of PROTEUS. Additional analysis was performed to better understand the nature and function of the programs on the "To be DISABLED" list. Most of the programs on the list were found to be obsolete. A small number of programs remained that were either unfamiliar to the systems analysts who were working together on the project, or for which a source listing had not been located. The RODLOW program was among that small number of programs. Following a conference call between Con Edison and the contractor which established the list, there was no further communication on this issue. The understanding at the end of the conference call was that Con Edison had the action to determine the appropriate disposition for that small number of programs. Due to an oversight, that effort was never completed. Only minor cosmetic upgrades were necessary to bring existing PROTEUS programs into Y2K compliance. RODLOW was not recognized as an active program when these upgrades were implemented. This led to erroneously allowing the RODLOW program to remain on the list of PROTEUS programs that were scheduled to become disabled. Therefore, the root causes of the Rod-vs-Bank alarm limits being in an unacceptable range were a lack of proper software configuration control caused by inadequate supervision of the software upgrades.

CORRECTIVE ACTION:

Following the discovery of the unacceptable Rod-vs-Bank alarm limits, the RODLOW computer program was enabled and further detailed code review performed on November 3, 1999 confirmed this program as not date-sensitive and, therefore, not subject to Y2K concerns. All other PROTEUS programs that had been disabled were reviewed and determined to have been appropriately dispositioned. Although a test had been performed as part of the initial Y2K assessment of PROTEUS in January 1998 that demonstrated the overall readiness of the system with the RODLOW program intact, on November 8, 1999 an additional confirmatory test was performed which verified the continuing operability of the PROTEUS computer system. Computer Applications personnel were briefed on the circumstances surrounding this event and were cautioned to treat all computer software changes as modifications subject to Station Administrative Orders.

Further corrective actions that will be implemented prior to the end of the 2000 refueling outage are:

- a) Station Administrative Orders on computer systems will be enhanced to improve configuration control and address the issues that led to the erroneous disabling of the RODLOW program. Proper interface with contractor personnel will be emphasized.
- b) Plant Operating Procedures will be revised to provide for confirmatory checks on PROTEUS software associated with the Rod-vs-Bank alarm limits and Quadrant Power Tilt program when unit power is raised above 50%.