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U. S. Nuclear Regulatory Commission
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Perry Nuclear Power Plant
Docket No. 50-440
Reply to Notice of Violation

Gentlemen:

This letter acknowledges receipt of the Notice of Violation contained within Inspection Report 50-440/92011 dated July 2, 1992. The report identified areas examined by Region III Inspectors from May 27 through June 15, 1992.

Responses to Examples A and B of Notice of Violation 50-440/92011-01 are provided in Attachment 1 and 2 respectively.

If you have any questions, please feel free to call.

Sincerely,

Michael D. Lyster

MDL:RWG:ss

Attachments

cc: NRC Project Manager
NRC Resident Inspector Office
NRC Region III

600058

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RESPONSE TO NOTICE OF VIOLATION

50-440/92011-01A
Restatement of Violation

Technical Specification 6.8.1.a required that written procedures and instructions be established, implemented, and maintained as recommended in Appendix A of Regulatory Guide 1.33, revision 2, February 1978. Appendix A, Item 4, required instructions for filling, venting, startup, and changing modes of operation of the emergency core cooling system.

Perry Administrative Procedure (PAP)-0205, "Operability of Plant Systems," Section 6.5.3, required in part that necessary modifications to a lineup or checklist be documented.

Contrary to the above, on May 26, 1992, the Instrument and Control (I&C) Instrument Valve Lineup/Fill-Vent sheet for nine flow transmitter instruments associated with the residual heat removal (RHR) system was authorized by the unit supervisor (SRO) without documenting required modifications for the existing plant conditions (50-440/92011-01A(DRP)).

Reason for the Violation

On May 26, 1992, the reactor plant was in operational Condition 4 (Cold Shutdown), with the reactor vessel level band being maintained between 200 and 260 inches above the top of the active fuel. The RHR B loop was operating in the shutdown cooling mode. The day shift operating crew was preparing to restore the RHR A loop to standby readiness for a retest of RHR heat exchanger bypass valve 1E12-F048A. The previous Operations shift crew had requested the 0000-0800 shift Instrument and Control (I&C) Supervisor make preparations for a fill and vent of the RHR system instruments, which would be performed later that day. The fill and vent lineup sheet which was prepared contained instruments from the A, B, and C RHR loops.

At approximately 1445 hours, the Control Room requested that I&C perform a fill and vent of the RHR A loop instruments. When the two I&C technicians assigned to perform the task arrived in the Control Room, the on-shift Unit Supervisor approved the fill and vent lineup sheet, as written. The Unit Supervisor later recalled having verbally instructed the technicians to perform the fill and vent for the A loop instruments only. This instruction was not acknowledged by either of the technicians involved. The technicians subsequently discussed the fill and vent evolution with other Control Room personnel, and proceeded to the Auxiliary Building to complete their assigned task.

At approximately 1525 hours, Control Room alarm "Possible Reactor Siphon Via RHR-F006B and F064B" annunciated, indicating that the RHR B loop minimum flow valve, 1E12-F064B had opened while the RHR suction was aligned to the reactor pressure vessel (RPV). The Control Room operating crew quickly assessed what had occurred and paged the I&C technicians to terminate the fill and vent

evolution. At 1527 hours, valve 1E12-F064 was shut and reactor vessel level stabilized at 202 inches. Reactor vessel level was maintained within the pre-established band throughout the event.

The root cause for this event is personnel error due to inattention to detail regarding the approval of an inappropriate fill and vent lineup sheet. The B and C loop instruments included on the I&C Instrument Valve Lineup/Fill-Vent Sheet should have been lined out prior to approval by the Unit Supervisor, as required by PAP-0205, Section 6.5.3. A contributing cause for this event was inadequate communication on the part of the Operations and I&C personnel involved in this event. Assumptions were made concerning the specific task to be accomplished rather than verification through formal repeat back of instructions.

Corrective Actions Taken and Results Achieved

Upon receipt of the Control Room alarm, the operating crew made preparations to isolate and secure the RHR B loop. However, since the cause of the alarm was quickly determined, the crew instructed the I&C technicians to secure from the fill and vent and closed valve 1E12-F064B to terminate the event. This allowed the shutdown cooling loop to remain in service throughout the event and reactor vessel level was maintained within the previously established band.

After the event, the responsible Unit Supervisor was counseled with regard to his role in the event. Additionally, the Operations Superintendent issued a Daily Instruction to reiterate the Operations Department philosophy of "Control Not Speed."

Actions to Avoid Further Violations

The Plant General Manager directed a Human Performance Enhancement System (HPES) evaluation be performed to investigate potential causual factors for this event. The recommendations of the HPES evaluation were reviewed by the respective organizations for incorporation into the overall corrective action for the reactor vessel draindown event.

As a result, the Fill and Vent Summary Sheet which contained instruments from all three RHR loops will be eliminated. Existing Fill and Vent Summary Sheets containing only the instruments from each the respective RHR loops (A, B, and C) will continue to be used in order to minimize the possibility of a similar occurrence.

Additionally, licensed and non-licensed Operations personnel will receive training which covers lessons learned from this event. Emphasis will be placed on verbal communication accuracy, a thorough review of work documents, ensuring verbal instructions support written directions and the consequence of assumptions. The use of "repeat backs" for acknowledgment of instruction will also be re-emphasized during that training. Instrument and Controls personnel will receive similar training regarding this event.

Date When Full Compliance Will Be Achieved

Full compliance with the requirements cited in this violation was achieved on May 26, 1992 with the completion of actions to restore the RHR shutdown cooling lineup.

RESPONSE TO NOTICE OF VIOLATION

50-440/92011-01B
Restatement of the Violation

Technical Specification 6.8.1.a required that written procedures and instructions be established, implemented, and maintained as recommended in Appendix A of Regulatory Guide 1.33, revision 2, February 1978. Appendix A, Item 4, required instructions for filling, venting, startup, and changing modes of operation of the emergency core cooling systems.

Perry Administrative Procedure (PAP)-0201, "Conduct of Operations," revision 8, Section 6.4.2, required in part that operation of mechanisms and apparatuses shall only be accomplished with the knowledge and consent of the licensed operator "at the controls." Instrument Maintenance Instruction (IMI)-E2-1, "Instrument Valve Line-Ups," revision 1, Section 4.2, required in part that the supervising operator (RO) (sic) be informed of any interlocks that may be received during the performance of that instruction.

Contrary to the above, on May 26, 1992, the supervising operator "at the controls" was not informed of the authorization or planned performance of fill and vent evolution on the nine flow transmitters associated with the RHR system and that the RHR Train "B" minimum flow valve would open (440/92011-01B(DRP)).

Reason for the Violation

When the I&C technicians who were assigned the task of completing the RHR instrument fill and vent arrived in the Control Room, they briefly discussed the evolution with the Unit Supervisor (US). The US subsequently approved the fill and vent lineup sheet presented by the I&C technicians. The I&C technicians also discussed the effects of venting one of the RHR loop A transmitters with a Supervising Operator (SO) in the "horseshoe" area of the Control Room. The SO was one of the extra licensed operators normally stationed to augment the shift complement during refueling outages. At the time of the event, the extra SO was assigned the responsibility for managing the retest of RHR heat exchanger bypass valve 1E12-F048A. While it is the normal practice to notify the SO "at the controls" when evolutions are being performed, the technicians considered their discussion with the extra SO to be sufficient. Therefore, the cause for this apparent violation of procedural guidance is inadequate communication.

Corrective Actions Taken and Results Achieved

When the alarm annunciated in the Control Room, it was acknowledged by the SO "at the controls". The SO was assisted by the US in quickly diagnosing the problem that had occurred and taking prompt actions to terminate the transient. The immediate restoration of the RHR B loop instrument by the I&C technicians also contributed to minimizing the loss of reactor vessel inventory.

Actions to Avoid Further Violations

I&C personnel will review the lessons learned from this event with emphasis placed on the use of "repeat backs" for acknowledgment when receiving directions. Operations personnel will receive similar training. Additionally, the procedural requirements for notifying the Supervising Operator of alarms, interlocks, or trips that may be received during task performance will be reviewed for potential enhancements.

Date When Full Compliance Will Be Achieved

Full compliance with the examples cited in parts A and B the subject violation was achieved on May 26, 1992 with the completion of actions to restore the RHR shutdown cooling lineup.