

Vent Path Violations

Self-Revealing

Introduction:

During mid-loop operations during the Unit 1 refueling outage steam generator manways were to be installed to facilitate eddy current testing and steam generator tube cleaning. The outage safety plan required that the hot leg vent path be established prior to the installation of the nozzle dams and per procedure OP-4F "Reactor Coolant System Reduced Inventory Requirements", an "Acceptable hot leg vent path" must be established. This is in accordance with Generic Letter 88-17 (listed in the procedure prerequisites).

Description:

At approximately 0400 on April 9, 2004 the Point Beach Shift Outage Manager was notified of difficulties in removing one of the bolts on the pressurizer manway. This was a critical path activity that would delay the exit from reduced inventory condition. The next scheduled activity was to install the steam generator nozzle dams. The outage schedule and safety plan had the pressurizer manway logic tied as a predecessor to the start of the nozzle dam installation. The Shift Outage Manager consulted with the Outage Control Center Operations representative, who in turn consulted with the Work Control Center Supervisor and the on-shift Shift Manager. After reviewing OP-4F, the decision was made to commence the installation of the nozzle dams. Installation of the cold leg nozzles was completed and installation of the hot leg nozzles was in progress during the 0600 Outage Control Center meeting. During the discussion a problem with the removal of the pressurizer manway was mentioned. The Site Director of Operations asked if a hot leg vent path had been established prior to installation of the nozzle dams and was told that a path had been established. After the meeting the Shift Outage Manager determined that there was no hot leg vent and gave direction to stop the installation of the 1A steam generator hot leg nozzle.

Analysis:

The inspectors determined that changing the outage schedule to install the hot leg nozzle dams before the hot leg vent path was established without performing a change to the shutdown risk condition was a performance deficiency warranting a significance evaluation in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," issued on June 20, 2003. The inspectors determined that the issue was more than minor because: (1) failure to recognize the change in risk condition resulted in compensatory shutdown safety analysis risk management actions to protect the remaining reactor decay heat removal paths not being taken, actions intended to prevent an unplanned change in the orange risk condition; and (2) if left uncorrected, it would become a more safety significant concern if elevated reactor decay heat removal risk categories were entered without the required risk management actions in place and subsequent heat removal challenges were to occur.

ask Pat.
maybe Crit V too

OP-4F ~ reviews.

The inspectors further determined that the procedural guidance in OP-4F was vague and added to the wrong decision. Even though the procedure had been reviewed several times and the operators had used it for training, the inadequacies were not recognized and it was not revised to specify the requirements for the hot leg vent path. The bases for the 50.59 evaluation for the use of the nozzle dams included specifics on the use of the pressurizer manway as the hot leg vent path. The finding also affected the cross-cutting area of Human Performance because the combination of training, safety evaluations, and the 50.59 evaluation provided enough information to prevent the schedule shift had an adequate review of the information available be performed. (NOTE: also discussed in Cross-Cutting section, 4OA4)

The inspectors completed a significance determination of the issue using IMC 0609, "Significance Determination Process," dated March 21, 2003, Appendix G, "Shutdown Operations Significance Determination Process," dated February 27, 2001. The inspectors answered "Yes" to C. (1) of the "RCS Cold Shutdown and Refueling operation RCS open and Refueling Cavity level < 23" table 1 screening questions associated with Inventory Control Guideline. The inspectors reviewed the "Findings requiring phase 2 analysis" section and determined that a phase 2 evaluation was not required. Therefore, the finding was considered to be of very low safety significance (Green). The finding was assigned to the Reactor Safety/Mitigating Systems Cornerstone for Unit 1.

Enforcement:

10CFR 50.65, Section (a)(4) states "Before performing maintenance activities the licensee shall assess and manage the increase in risk that may result from the proposed maintenance activities. Contrary to this the licensee changed the outage maintenance schedule without reviewing the safety assessment. Because the nozzles were installed for only nine minutes and there was no reactor coolant system water temperature change associated with a plant configuration change, no violation of regulatory requirements occurred. This issue was considered a finding (FIN) of very low safety significance (FIN XXXXXXXX). The licensee entered the issue into its corrective action system as CAP055538, "Potential for No Hot Leg Vent Path During Unit 1 Steam generator Nozzle Dam Installation."