



ADDITIONAL EVENT DESCRIPTION AND PROBABLE CONSEQUENCES

At 2:48 P.M. an operator opened isolation valves V07161 and V07162 while releasing a clearance following maintenance on valve FCV-07-1A. This caused the "A" containment spray header to be pressurized by the shutdown cooling pump (1A LPSI pump). Approximately 2000 gallons of water from the reactor coolant system was injected through the containment spray header. Simultaneously, cavitation of 1A LPSI pump was observed. The 1A LPSI pump was stopped, the misaligned valves were closed, and it was confirmed that flow through the containment spray header was terminated. The 30 personnel working in the containment building were evacuated, monitored, and decontaminated as required. Additionally, all personnel in containment were given a body burden analysis as a precaution.

The RCS level was restored to proper level and accessible portions of the shutdown cooling system were vented. At 3:55 P.M. the 1A LPSI pump was restarted and shutdown cooling flow temporarily re-established. However, this pump was stopped after about 10 minutes run time due to apparent cavitation. The 1B LPSI pump and piping were aligned and vented, and a shutdown cooling flow of 500 gpm was established at 5:30 P.M. The normal shutdown cooling flow rate was established by 6:30 P.M.

This event did not constitute a hazard to the public, and no personnel were injured. All body burden analyses indicated normal body spectrographs. The reactor coolant system temperature indication did not exceed 185°F. No permanent plant equipment damage was incurred.

ADDITIONAL CAUSE DESCRIPTION AND CORRECTIVE ACTION

During the outage, maintenance had been performed on flow control valve FCV-07-1A. The valve had been de-energized for maintenance; therefore, it was in its "fail-open" position. Isolation valves for FCV-07-1A (V07161 and V07162) were shut by a plant clearance. While releasing the clearance, the operator, following improperly written clearance release instructions, removed tags from V07161 and V07162 before energizing FCV-07-1A. The operator then opened V07161 and V07162, allowing the shutdown cooling pump to pressurize the "A" containment spray header. Due to pump cavitation, and to prevent further containment spray-down, the shutdown cooling pump was tripped manually and the isolation valves were closed.

Following containment spray-down, the personnel working in the containment building were evacuated and decontaminated as required, and the containment building was isolated. The containment building was decontaminated and released for access. Investigation of plant equipment inside containment showed no damage as a result of the spray-down. Operators involved in the clearance release were reinstructed on proper clearance procedures. For future outages with shutdown cooling operation, these valves will be tagged closed on a separate clearance to prevent recurrence of this situation. This has been addressed procedurally.