

Licensee/Facility:

FLORIDA POWER & LIGHT CO.
Saint Lucie
Jensen Beach, Florida
Dockets: 050-00335
[1] CE

Notification:

MR Number: 2-2004-0003
Date: 04/02/2004
Call from Licensee

Subject: ST. LUCIE REACTOR COOLANT SYSTEM LEAKAGE

Discussion:

This is an update to Event Notification 40631, dated March 31, 2004, regarding a Notice of Unusual Event (NOUE) due to reactor coolant system (RCS) leakage exceeding 10 gallons per minute (gpm). The leak was caused by misalignment of the RCS shutdown cooling purification system during maintenance. The licensee terminated the NOUE at 7:15 p.m. EST.

On March 31, 2004, an error occurred during preparations for maintenance on the purification system. Consequently, when a purification system valve was opened for testing, a flowpath was established from the shutdown cooling system to the 1D holdup tank. At 6:05 p.m. EST, Unit 1 control room operators identified a decrease in reactor cavity water level (approximately one inch) and an increase in the 1D holdup tank level and entered the off-normal procedure for excessive RCS leakage. At 7:04 p.m. EST, operators isolated the leak path from the RCS to the 1D holdup tank. The licensee estimated that approximately 7000 gallons was diverted from the RCS to the holdup tank. Subsequent to the event, the licensee determined that the incorrect valve alignment and leakage past the seat of the valve being tested had resulted in leakage from the RCS to the hold up tank for some time before the valve was opened. This accounted for some of the total leakage collected.

At the time of the event, the reactor cavity was flooded up. Although not needed to mitigate the event, one train of low pressure safety injection and two charging pumps were available to provide additional inventory to the RCS.

The licensee has established an Event Review Team to perform a root cause analysis and develop corrective actions.

Regional Action: Early on April 1, 2004, the Senior Resident Inspector performed a review of the incident. The safety significance was evaluated by Region II staff, including a Senior Reactor Analyst. The safety significance was very low due to the reactor cavity being flooded up. The resident inspectors are continuing to review the event and monitor the licensee's activities.

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