

Licensee/Facility:

ENTERGY NUCLEAR OPERATIONS, INC.
 Pilgrim
 Plymouth, Massachusetts
 Dockets: 050-00293
 [1] GE-3

Notification:

MR Number: 1-2003-0010
 Date: 10/01/2003
 Resident Inspctr.Tel.,E-MAIL

Subject: REACTOR COOLANT PRESSURE BOUNDARY LEAKAGE LOCATED AT NOZZLE N10, A
 CAPPED 4 INCH REACTOR VESSEL PENETRATION

Discussion:

While in a cold shutdown condition, at approximately 04:30 on October 1, 2003, a leak characterized as a steady stream approximately the width of a pencil was identified at reactor vessel (RV) nozzle location N10, a 4 inch RV penetration. This nozzle is located approximately 84 inches above the top of active fuel. Preliminary ultrasonic testing (UT) has indicated a 1.75 inch circumferential indication in the center of the pipe cap to RV nozzle weld. This penetration was previously utilized to return control rod drive (CRD) system flow to the reactor but the line was removed and the penetration capped in November of 1977. The nozzle was last inspected using manual ultrasonic testing in 1999 at which time no indications were identified. There were no indications of leakage from N10 during the post RFO-14 (May, 2003) in service pressure test. However, a bare metal visual inspection of the nozzle, which is normally insulated and not readily accessible, was not accomplished or required during this test. The area under vessel where signs of this leak were first identified was inspected. The licensee is evaluating the cause of the leak, the appropriate method of repair and is conducting an extent of condition evaluation.

The licensee and NRC resident inspectors have been closely tracking drywell leakage which has been an issue both prior to and coming out of RFO 14. The licensee had taken actions in RFO 14 and during a subsequent forced outage to address sources of identified and unidentified leakage and were taking additional actions to identify and repair sources of reactor coolant leakage in the drywell which had been trending upward. Prior to the discovery of the reactor coolant pressure boundary leakage on October 1, 2003, the unidentified Reactor Coolant System Leakage rate had remained below the technical specification and station administrative limits.

The resident inspectors and Region 1, with headquarters support, continue to closely follow this issue. The NRC plans to perform inspection to determine the facts and assess the conditions surrounding the leakage located at nozzle N10. Followup inspection will also review the corrective actions taken to resolve this condition.

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