Follow-Up Assignment Sheet (Detail)

Assigned To: FOSTER, JACK W
Assignment Dt: 01/23/1999
Region No. 2
Facility: BRUNSWICK
Unit 1
Vendor Name:
050-00325

Reported By:

50.72 No: 35310	**Event Dt:** 01/23/1999	**Event Type:** Manual Scram	**GL No:**
MR No:	**HQ MR No:**	**HQ MR Dt:**	**Insp. Rpt. No:**
TAC No:	**Part 21 No:**	**Briefing No:**	**IRS No:**
IN No:	**BL No:**	**LER No:** 05000000990000(	**RIS No:**
PN No:		**Inspection Type:**	

Approvals:

Submitted by: FOSTER, JACK W
Submitted Dt: 10/27/2003
Closeout Reviewed by: K. GRAY
Closeout Dt: 11/05/1999
Approved by: REIS, TERRY (KAG)
Approved Dt: 10/27/2003

Event Description:
PRIMARY CONTAINMENT ISOLATIONS FOLLOWING A MANUAL REACTOR SCRAM FROM 25% POWER DUE TO LOWERING TEMPERATURE IN THE BOTTOM HEAD REGION OF THE REACTOR PRESSURE VESSEL DURING SINGLE REACTOR RECIRCULATION LOOP OPERATION

The following text is a portion of a facsimile received from the licensee:

"EVENT: On January 23, 1999, at 06:38, primary containment groups 2, 6, and 8 isolations were received following a manual reactor scram. The reactor scram was inserted on Unit 1 due to lowering temperature in the bottom head region of the reactor pressure vessel during single reactor recirculation loop operation. The cooldown was augmented by recirculation pump runback to 28% demand (expected action at low power due to total feedwater flow) which reduced circulation through the vessel. A technical specification shutdown was not required due to bottom head temperature at the time of the reactor scram. Following the manual reactor scram, reactor water level lowered to 160 inches. This is below the Reactor Water Level Low Level One setpoint of 166 inches. This is a normal level transient following a reactor scram and was anticipated by the operating crew. Although these isolations were anticipated by the operating crew, they were not explicitly discussed prior to the reactor scram; therefore, this report is being made in accordance with 10 CFR 50.72(b)(2)(ii). All required isolations occurred as a result of the Reactor Water Level Low Level One initiation signal. Reactor water level immediately swelled above the Low Level One setpoint. Group 2 isolation valves include drywell equipment and floor drains, traversing incore probe, residual heat removal (RHR) discharge isolation to radwaste, and RHR process sampling valves. Group 6 isolation valves include containment atmosphere control system and post-accident monitoring valves. Group 8 isolation valves include RHR system shutdown cooling isolation valves; these valves were closed prior to the isolation signal."

"INITIAL SAFETY SIGNIFICANCE EVALUATION: Minimal. All systems responded as designed from the Reactor Water Level Low Level One initiation signal."

"CORRECTIVE ACTION(S): Isolations occurred as designed; no corrective actions [are] required."

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The licensee stated that Technical Specification 3.4.9, Reactor Coolant System Pressure and Temperature Limits - Normal Operation With the Core Critical, specifies minimum temperatures while critical. If parameters go outside these references limits, this technical specification requires the parameters to be restored within 30 minutes. With temperature lowering in the bottom head region, the licensee chose to manually scram the reactor to restore the parameter before expiration of the 30-minute limiting condition for operation.

All rods fully inserted following the manual reactor scram. There were no emergency core cooling actuations or safety injections, and none were expected. None of the relief valves lifted.

The unit is currently stable in Mode 3 (Hot Shutdown). Normal feedwater is being used to supply water to the reactor vessel. The main steam isolation valves are open, the turbine stop and control valves are closed, and the condenser is available as a heat sink. All containment parameters appear to be normal. Offsite power is available, and the emergency diesel generators are operable if needed.

NOTE: Prior to this event, the unit was operating at reduced power to facilitate the performance of a recirculation pump motor-generator set brush replacement.

The licensee notified the NRC resident inspector.

Closeout:
Root cause code #3