

Franke, Mark

From: Fletcher, Cecil
Sent: Thursday, October 08, 2009 3:33 PM
To: Franke, Mark
Subject: Crystal River SI Charter Draft
Attachments: Crystal River SI Charter.doc

Mark,

Here is my first draft.

Cecil Fletcher II

US Nuclear Regulatory Commission
Region II-Atlanta
Reactor Inspector
Division of Reactor Safety-EB3
404-562-4973

ASF

October 8, 2009

MEMORANDUM TO: Louis Lake, Team Leader
Special Inspection

FROM: Luis A. Reyes /RA/
Regional Administrator

SUBJECT: SPECIAL INSPECTION CHARTER TO EVALUATE CRYSTAL
RIVER CONTAINMENT BUILDING

You have been selected to lead a Special Inspection to assess the circumstances associated with a gap discovered in the concrete of the containment building at Crystal River Unit 3. Your onsite inspection should begin on October 13, 2009. Robert Carrion, Senior Reactor Inspector, Rich Chou, Reactor Inspector, and an independent Civil Engineering Contractor (TBD) will assist you in this inspection.

A. Basis

Recently, the plant shut down for a planned refueling outage and to replace the steam generators inside containment. In order to move the steam generators into containment, workers began removing concrete to create the necessary opening. During that work, a small gap was found while making approx 25 ft X 25 ft concrete cut (liner is still intact). The gap is about 1/2 inch wide and 10 inches inward from the outside edge of the concrete and located just at the layer of horizontal tendons. The Crystal River containment is about 42 inches thick, contains both horizontal and vertical tensioned steel tendons, and is lined with steel plate. The gap was found about a foot from the outer surface of the concrete.

The licensee believes that the gap in the concrete exists all the way around the containment and all the way up and down (360 degrees, full height of containment). The discovery of this gap in the concrete does not appear to represent a major reduction in safety, and there are no immediate concerns because the plant is shut down.

In accordance with Management Directive 8.3, "NRC Incident Investigation program," deterministic and conditional risk criteria were used to evaluate the level of NRC response for this event.

Based on the deterministic criteria that this issue: involved possible adverse generic implications, the event was evaluated for risk in accordance with Management Directive

8.3. Due to lack of information on the structural integrity of the concrete containment and how it would interact with the free-standing steel liner during a seismic event in its current condition, a risk analysis was not able to be performed at this time. However, if the concrete containment reacted adversely with the free-standing steel liner during a seismic event, LERF would be adversely affected and a Special Inspection would be warranted. Therefore, Region II determined that the appropriate level of NRC response was to conduct a Special Inspection.

B. Scope

The inspection is expected to perform data gathering and fact-finding in order to address the following:

1. Develop a complete description of the problems and circumstances surrounding the gap in the containment building.
2. Verify that the licensee has appropriately evaluated Operability and Reportability.
3. Review structural integrity testing data of the containment.
4. Assess the adequacy of the licensee's maintenance and inspection programs related to this event.
5. Assess the licensee's activities related to the problem investigation performed to date (e.g., root cause analysis, extent of condition,
6. Collect data necessary to develop and assess the safety significance of any findings in accordance with IMC 0609, "Significance Determination Process."
7. Determine potential generic issues or any design and construction inadequacies and make recommendations for appropriate follow-up actions (e.g., Information Notices, Generic Letters, and Bulletins).

C. Guidance

Inspection Procedure 93812, "Special Inspection," provides additional guidance to be used during the conduct of the Special Inspection. Your duties will be as described in Inspection Procedure 93812. The inspection should emphasize fact-finding in its review of the circumstances surrounding the event. Safety or security concerns identified that are not directly related to the event should be reported to the Region II office for appropriate action.

You will report to the site, conduct an entrance, and begin inspection no later than October 13, 2009. In accordance with IP 93812, you should promptly recommend a change in inspection scope or escalation if information indicates that the assumptions utilized in the MD 8.3 risk analysis were not accurate. A report documenting the results of the inspection should be issued within 45 days of the completion of the inspection. A copy of the inspection report shall be forwarded to the Crystal River Unit 3 License Renewal Inspection Team. The report should address all applicable areas specified in section 3.02 of Inspection Procedure 93812. At the completion of the inspection, you should provide recommendations for improving the Reactor Oversight Process baseline

inspection procedures and the Special Inspection process based on any lessons learned.

This charter may be modified should you develop significant new information that warrants review. Should you have any question concerning this charter, contact Mark Franke at (404) 562-6349.

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