

## **Franke, Mark**

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**From:** Fletcher, Cecil  
**Sent:** Tuesday, October 13, 2009 8:57 AM  
**To:** Sykes, Marvin; Franke, Mark  
**Subject:** RE: Crystal River SI Charter.doc

Marvin,

I'm working from home today and tomorrow, so I will have to concur electronically also. I don't have the final copy that was sent out, but if I can get the location of the latest version, I will make the corrections.

Cecil

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**From:** Sykes, Marvin  
**Sent:** Tuesday, October 13, 2009 7:55 AM  
**To:** Franke, Mark; Fletcher, Cecil  
**Subject:** RE: Crystal River SI Charter.doc

Mark,

I'll be sure to let Catherine know that the document is coming back for corrections.

Len also suggested that we get Lou added to the concurrence block for the charter to ensure that he understands and accepts the assignment. If he is not in the office today, an email concurrence would suffice.

Marvin

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**From:** Franke, Mark  
**Sent:** Tuesday, October 13, 2009 6:40 AM  
**To:** Fletcher, Cecil  
**Cc:** Sykes, Marvin  
**Subject:** FW: Crystal River SI Charter.doc

Meena provided NRR input last night at 2230.

We had one of the names mixed up ("George Thomas" is the correct name) and she had some other comments.

Also, CCI is sending "Anthony Masters" to be part of the team.

Please get with Catherine and see if we can incorporate the changes into final in time for Luis to sign.

Thanks,  
Mark

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**From:** Khanna, Meena  
**Sent:** Monday, October 12, 2009 10:30 PM  
**To:** Franke, Mark  
**Subject:** Crystal River SI Charter.doc

Mark, I just included a few edits...pls feel free to use them as you wish...and you have my concurrence. Also, I forwarded to Kamal, Hans and Farhad...they may provide some comments to you first thing in the morning.

A-65

thanks,  
Meena



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931**

**MEMORANDUM TO:** Louis F. Lake, Team Leader  
Special Inspection

**FROM:** Luis A. Reyes  
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 delamination 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, George Thomas of NRR/HQs, and an independent Structural Engineering Contractor (TBD) will assist you in this inspection.

**A. Basis**

Recently, the plant was shut down for a planned refueling outage as well as 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 approximately a 25 foot x 25 foot concrete cut (liner is still intact). The gap is about one half 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 is evaluating the extent of the condition. 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

**CONTACT:** Mark Franke RII/DRS  
404-562-6349

MEMORANDUM TO: Louis F. Lake, Team Leader  
Special Inspection

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Regional Administrator

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CONTAINMENT BUILDING

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CONTACT: Mark Franke RII/DRS  
404-562-6349

PUBLICLY AVAILABLE       NON-PUBLICLY AVAILABLE       SENSITIVE       NON-SENSITIVE

ADAMS:  Yes      ACCESSION NUMBER: \_\_\_\_\_       SUNSI REVIEW COMPLETE

OFFICE	RII:DRP	RII:DRS	RII:DRP	RII:DRS	RII:DRS	RII:DRP	HQ:NRR
SIGNATURE							
NAME	SNinh	CFletcher	MSykes	MFranke	KKennedy	LWert	MKhanna
DATE	10/ /2009	10/ /2009	10/ /2009	10/ /2009	10/ /2009	10/ /2009	10/ /2009
E-MAIL COPY?	YES NO						

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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 has determined that the appropriate level of NRC response is 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 (e.g., root cause analysis, extent of condition, etc).
6. Assess the licensee's corrective action/"fix" in addressing the containment delamination issue.
7. Collect data necessary to develop and assess the safety significance of any findings in accordance with IMC 0609, "Significance Determination Process."
8. 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.

Docket No.: 50-302  
License No.: DPR-72

**References:**

Inspection Procedure 93812, Special Inspection  
Management Directive 8.3, NRC Incident Investigation Program  
Inspection Manual Chapter 0609, Significance Determination Process  
Inspection Manual Chapter 0612, Power Reactor Inspection Reports