



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001
January 14, 2011

LICENSEE: Southern Nuclear Operating Company, Inc.

FACILITY: Vogtle Electric Generating Plant, Units 1 and 2

SUBJECT: SUMMARY OF OCTOBER 21, 2010, MEETING WITH SOUTHERN NUCLEAR OPERATING COMPANY, INC. AND WESTINGHOUSE ON SUBMITTAL SCHEDULE FOR STEAM GENERATOR INTERIM REPAIR CRITERIA (TAC NOS. ME3003 AND ME3004)

On October 21, 2010, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Southern Nuclear Operating Company, Inc. (SNC/licensee), Westinghouse, and other utilities at NRC Headquarters, Executive Boulevard Building, Room 3 B 18, 6003 Executive Boulevard, Rockville, Maryland. The purpose of the meeting was to discuss the analysis, results, and submittal plan for the anticipated license amendment requests for steam generator (SG) tube Interim Alternative Repair Criteria (IARC) to support the spring 2011 outages. A list of attendees is provided as Enclosure 1.

The licensee presented (as a spokesman for multiple utilities) information (see Enclosure 2) describing the schedule development and analytical results associated with the H* analysis in support of the planned IARC. The licensee presented details of the H* lengths that would be included in the license amendment requests and indicated what analysis has been completed. The results were compared and contrasted to the existing H* values for the affected plants.

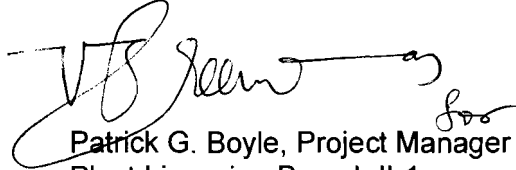
The NRC staff engaged in a dialog discussing the details of the inspection scope and completed computational analysis. The NRC staff also discussed status of the forthcoming technical report with Westinghouse and the planned submittal dates as they apply to the IARC schedule.

The submittal plan presented at the meeting is consistent with the NRC staff expectations on the current approach to resolution of the remaining issues associated with development of the permanent SG tube alternative repair criteria and an acceptable timeline for the IARC submittals to allow the staff to complete its review within the requested time frame. No outstanding issues were identified at the meeting.

Members of the public were not in attendance. Public Meeting Feedback forms were available at the meeting but no comments were received.

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Please direct any inquiries to me at 301-415-3936.

A handwritten signature in black ink, appearing to read 'P. Boyle', with a long horizontal flourish extending to the right.

Patrick G. Boyle, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

Enclosures:

1. List of Attendees
2. Licensee Presentation "Industry/NRC Meeting on Interim
SG Tube Repair Criteria," power point dated October 21, 2010.

cc w/encls: Distribution via Listserv

LIST OF ATTENDEES

NRC MEETING WITH SOUTHERN NUCLEAR OPERATING CO. (SNC)

REGARDING SG TUBE H* CRITERION IARC SCHEDULE

OCTOBER 21, 2010

<u>NAME</u>	<u>AFFILIATION</u>
Robert Martin	NRC/NRR/DORL
Patrick Boyle	NRC/NRR/DORL
Emmett Murphy	NRC/NRR/DCI
Andrew Johnson	NRC/NRR/DCI
John Lubinski	NRC/NRR/DCI
Robert Taylor	NRC/NRR/DCI
Ken Karwoski	NRC/NRR/DCI
Thomas Hess	SNC
Hermann Lagally	Westinghouse
Gary Whitman	Westinghouse
Damian Testa	Westinghouse
Ben Mays	Luminent/Comanche Peak
Dan Mayes	Duke
Jay Smith	Exelon
Steve Wideman	Wolf Creek Nuclear Operating Corporation
Jim Riley	NEI

INDUSTRY/NRC MEETING ON INTERIM SG TUBE REPAIR CRITERIA

OCTOBER 21, 2010

Purpose

- Establish criteria for an Interim SG Tube Alternate Repair Criteria (IARC) license amendment request to support Spring 2011 outages.
- Discuss criteria for IARC amendment requests for Fall 2011 outages
- Discuss submittal dates for spring and fall 2011 outages.
- Establish meeting date to discuss success path for Permanent ARC.

Background

■ Previous Amendments have:

- Excluded degradation found in the portion of the tubes below 17 inches (B^*) from the top of the hot leg tubesheet from the requirement to plug
- Required full-length inspection of the tubes within the tubesheet but does not require plugging tubes if any circumferential cracking observed in the region greater than 17 inches from the top of the tubesheet is less than a value sufficient to permit the remaining circumferential ligament to transmit the limiting axial loads.
- Excluded degradation found in the portion of the tubes below 13.1 inches (H^*) from the top of the tubesheet for Model F (HL and CL) from the requirement to plug (Current TS Requirements)

H-STAR Depth (in)

			Square Cell Calculations			
		Implemented H*	Whole Bundle		Whole Plant	
Limiting Plant	Limiting Condition	Plant Tech Spec	95/50	95/95	95/50	95/95
Byron & Braidwood 2 (D5)	SLB	16.95	13.35	13.36	N/A	N/A
Millstone 3 (F)	NOP	13.10	14.57	14.60	15.15	15.20
Turkey Point 3 & 4 (44F 3-Loop)	NOP	17.28	17.58	17.62	17.79	17.80
Surry 1 & 2 (51F)	NOP	16.7	17.41	17.43	17.72	17.74
Point Beach 1 (44F 2-Loop)	SLB	17 (IARC)	TBD	TBD	N/A	N/A

Results include Poisson Contraction and Probabilistic Analysis

Interim Inspection Scope

- SG Tube Inspection Scope
 - TTS+3" to Interim H* Depth with Qualified Technique
 - Flaws identified within the Interim H* Depth will be repaired upon detection
 - Scope Expansion IAW Current Industry Guidance
- Plants will monitor for slippage

Interim ARC Proposal for F/51F/44F

- Model Specific H^* Depths are based on:
 - Square Cell Analysis which includes:
 - Poisson Contraction
 - Probabilistic Analysis
 - Bottom of the Expansion Transition (BET)
 - Eccentricity Effects
- SG Leakage Factor will remain the same as current one-time ARC

Interim ARC Proposal for D5

- H* depth based on previous One Cycle Value:
 - Square Cell Analysis used to conservatively support previous one cycle H* value includes:
 - Poisson Contraction
 - Probabilistic Analysis
 - Bottom of the Expansion Transition (BET)
 - Eccentricity Effects
- SG Leakage Factor will remain the same as current one-time ARC
 - Leakage Evaluation

Interim ARC LAR Documentation

- Response to NRC Unresolved Issues Letter, 11/23/2009
- Final Westinghouse Technical Report
- White paper on leakage
- Importance of BET
- Effects of Tubesheet Bore Eccentricity

Schedule

- Spring 2011 IARC's will be submitted by Dec 15, 2010

Plant	SG Model	LAR Requested Approval Date
Vogtle 1	F	3/12/11
Comanche Peak 2	D5	4/4/11
Wolf Creek	F	4/8/11
Seabrook 1	F	4/10/11
Braidwood 2	D5	4/18/11
Surry 2	51F	5/3/11

Plants with Fall 2011 Outages

■ Submittal Date

- ❑ Point Beach 1 (Currently under previous IARC)
- ❑ Millstone 3
- ❑ Vogtle 2 (LAR will be submitted with Vogtle 1)
- ❑ Byron 2 (LAR will be submitted with Braidwood 2)

Open Questions

- PARC meeting date?

Please direct any inquiries to me at 301-415-3936.

/RA by VSreenivas for/

Patrick G. Boyle, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

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NAME	PBoyle	RMartin	SRohrer (THarris for)	RTaylor	GKulesa	PBoyle (VSreenivas for)
DATE	1/13 /11	1/13//11	1/14/11	1/13/11	1/14/11	1/14/11

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