

October 6, 1992

Docket Nos. 50-327
and 50-328

MEMORANDUM FOR: Frederick J. Hebdon, Director
Project Directorate II-4, DRPE, NRR

FROM: David E. LaBarge, Senior Project Manager
Project Directorate II-4, DRPE, NRR

SUBJECT: FORTHCOMING MANAGEMENT MEETING WITH TENNESSEE VALLEY
AUTHORITY - SEQUOYAH NUCLEAR PLANT

DATE & TIME: November 4, 1992
1:30 pm

LOCATION: One White Flint North
1555 Rockville Pike
Rockville, Maryland 20852
Room 16-B-11

PURPOSE: To discuss a Best Estimate LOCA Containment Analysis
developed for the Sequoyah Nuclear Plant and its intended
use in reducing the containment ice condenser requirements
for the plant.

PARTICIPANTS:

<u>NRC</u>	<u>TVA</u>	<u>WESTINGHOUSE</u>
T. Lee, RES/RPS	R. Bryan	J. Gresham
J. Kudrick, NRR/SPLB	E. McKeown	L. Smith
D. LaBarge, NRR/DRPE	J. Rathjen	L. Tomasic
R. Goel, NRP/SPLB	J. Willis	

Original signed by
David E. LaBarge, Senior Project Manager
Project Directorate II-4, DRPE, NRR

cc: See next page

- Attachments:
1. Presentation Outline
 2. Preliminary Agenda

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*Meetings between NRC technical staff and applicants or licensees are open for interested members of the public, petitioners, intervenors, or other parties to attend as observers pursuant to "Open Meeting Statement of NRC Policy," 43 Federal Register 28058, 6/28/78.

NAME	PDII-4/LA	PDII-4/PM <i>mt</i>	PDII-4/D		
OFC	MSanders <i>ms</i>	DLaBarge:as	FHebdon		
DATE	10/6/92	10/6/92	10/6/92		

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E. Merschoff	RII

Sequoyah Nuclear Plant

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BEST ESTIMATE CONTAINMENT ANALYSES

Attachment 1

SEQUOYAH UNITS 1 AND 2

TVA/WESTINGHOUSE/NRC

PROGRAM BENEFITS

- Removal of baskets for increased ease in accessing the ice condenser
- Increase in the ice weight maldistribution in the ice condenser
- Increase in localized flow blockage in the ice condenser
- Reduced total required ice weight

which could potentially result in:

- Relaxation in surveillance intervals to 24 months
- Relaxation in equipment diesel loading requirements
- Relaxation in containment cooling system requirements
- Increase in the quantity of equipment out-of-service
- Potential future degradation of equipment.

BEST ESTIMATE ANALYSIS EFFORTS AT WESTINGHOUSE

- Basis is the Best Estimate ECCS Thermal Hydraulic Program
- Westinghouse has continued to develop and refine thermal hydraulic analysis methods for accident analysis
- Currently developing and applying best estimate thermal hydraulic methods using WCOBRA/TRAC for LBLOCA

BEST ESTIMATE METHODOLOGY

- a. Mass and Energy Releases with WCOBRA/TRAC
 - Verification of secondary to primary heat transfer
 - Benefits of > 25% demonstrated by scoping effort
- b. Containment and subcompartment analyses with WGOthic
 - Development on heat transfer models
 - Benefits of > 25% demonstrated by scoping effort

BEST ESTIMATE PROGRAM FOR SEQUOYAH

- a. Mass and Energy Release Task Plan Summary
 - Develop WCOBRA/TRAC for LOCA Mass and Energy Release Analysis
 - Develop M/E Release Plant Model for Sequoyah
 - Run Realistic Reference LOCA Transient and Review Strategy
 - Perform M/E Release Sensitivity Calculations
 - Develop Integrated M/E Release Calculation Methodology for Containment Response Analysis
 - Licensing Submittal and Approval
- b. Containment/Subcompartment Task Plan Summary
 - Development and Validation of an Ice Condenser and Drain Model
 - Development of a Detailed Ice Condenser Containment Model
 - Sensitivity Analyses with Detailed Model
 - Development of a Production Version of the WGOthic Model
 - Sequoyah-Specific Analysis
 - Licensing Submittal and Approval

BEST ESTIMATE CONTAINMENT ANALYSES

SEQUOYAH UNITS 1 AND 2

TVA/WESTINGHOUSE/NRC

PRELIMINARY AGENDA

- | | | | | |
|---|---|--------|--------|-------------|
| ● | <u>PURPOSE OF MEETING</u> | TVA | 5 min | 1:30 - 1:35 |
| ● | <u>SUMMARY OF SEQUOYAH EFFORT</u> | TVA | 15 min | 1:35 - 1:50 |
| | * 5-YEAR PLAN | | | |
| | * MAINTENANCE & OPERATIONS | | | |
| | * SURVEILLANCE | | | |
| | * POTENTIAL SAFETY IMPROVEMENTS | | | |
| ● | <u>CURRENT LICENSING BASIS</u> | | | |
| | <u>ANALYSIS OVERVIEW</u> | H- LCS | 20 min | 1:50 - 2:10 |
| | * ANALYSIS CONSIDERATIONS | | | |
| | * PERFORMANCE CONSIDERATIONS | | | |
| | - ICE BLOCKAGE | | | |
| | - ICE WEIGHT | | | |
| ● | <u>CURRENT BEST ESTIMATE</u> | | | |
| | <u>LOCA EFFORT</u> | H- RDA | 25 min | 2:10 - 2:35 |
| ● | <u>** Break **</u> | All | 10 min | 2:35 - 2:45 |
| ● | <u>BEST ESTIMATE MASS AND</u> | | | |
| | <u>ENERGY RELEASE & CONTAINMENT</u> | | | |
| | <u>RESPONSE ANALYSIS PROGRAM</u> | H- JAG | 40 min | 2:45 - 3:25 |
| | * PURPOSE | | | |
| | * METHODOLOGY | | | |
| | * CURRENT DEVELOPMENT | | | |
| | * SCOPING ANALYSIS | | | |
| | * BENEFITS | | | |
| ● | <u>BEST ESTIMATE PROGRAM</u> | | | |
| | <u>FOR SEQUOYAH</u> | H- LCS | 20 min | 3:25 - 3:45 |
| | * SCOPE | | | |
| | * SCHEDULE | | | |
| | * BENEFITS | | | |
| ● | <u>SUMMARY</u> | TVA | 10 min | 3:45 - 3:55 |
| ● | <u>FEEDBACK</u> | NRC | 5 min | 3:55 - 4:00 |