UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

December 2, 1992

Docket Nos. 50-259, 50-260,
and 50-296

LICENSEE: Tennessee Valley Authority

FACILITY: Browns Ferry Nuclear Plant, Units 1, 2, and 3

SUBJECT: SUMMARY OF A MEETING WITH THE LICENSEE REGARDING COMBINED ZONE SECONDARY CONTAINMENT

On September 29, 1992, representatives of the Tennessee Valley Authority (TVA) met with the NRC staff in Rockville, Maryland, to discuss their plans for changing the way in which they had been complying with the Technical Specifications (TS) operability and surveillance requirements (i.e., TS 3.7.C) for secondary containment integrity at the Browns Ferry Nuclear Plant (BFN).

Meeting attendees are listed in Enclosure 1. A copy of TVA's presentation handouts is provided as Enclosure 2 which includes TVA's responses to prior staff questions.

Historically, TVA considered the BFN secondary containment volume to be segregated into four distinct zones - Unit 1 Reactor Zone, Unit 2 Reactor Zone, Unit 3 Reactor Zone, and Refueling Zone. Each zone was assigned a portion of the total Standby Gas Treatment System (SGTS) flowrate (i.e., secondary containment inleakage) that would still allow the system to draw down and maintain the secondary containment at -0.25 inch of pressure. However, due to scheduler constraints on Unit 3, TVA notified the staff that it intended to combine the allowed inleakage of all zones into one aggregate sum that would be representative of the secondary containment at large. This would, in effect, provide TVA with the flexibility to breach the walls of the Unit 3 Reactor Zone up to 189 square inches and still maintain secondary containment integrity. TVA intended to use this allowed breach margin to expedite modifications of secondary containment penetrations into the Unit 3 Reactor Zone while Unit 2 was still operating.

During the meeting, the staff expressed a number of reservations regarding TVA's proposed "combined zone secondary containment configuration." The staff was particularly concerned about TVA's ability to comply with the TS surveillance requirement for secondary containment (i.e., TS 4.7.C). The staff was not at all certain that the previous surveillance test for confirming secondary containment integrity would be relevant for the combined zone configuration. Further complicating this concern were the difficulties associated with conducting this kind of surveillance during plant operation. In all likelihood, such testing would cause a reactor scram.

At the conclusion of the meeting, the staff indicated that it would need additional time to further review TVA's proposed secondary containment configuration change, and to examine TVA's calculations for assigning allowable breach margin, including procedures for controlling breaches in secondary containment.

It should be noted that shortly after this meeting, Region II conducted a special inspection (see Inspection Report 50-259, 50-260, and 50-296/92-36 dated October 29, 1992) of TVA's proposed configuration change of secondary containment and TVA's method for determining total allowable breach margin. Region II concluded that TVA's proposed configuration changes and breach margin methodology were acceptable.

Original signed by
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Office of Nuclear Reactor Regulation

Enclosures:
1. Attendees
2. Agenda

cc w/enclosures:
See next page

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T. Murley/F. Miraglia	12-G-18
J. Partlow	12-G-18
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F. Hebdon	
T. Ross	
J. Williams	
M. Sanders	
OGC	15-B-18
E. Jordan	MNBB-3302
J. Hayes	10-D-4
B. Wilson	RII
P. Kellogg	RII
C. Patterson	RII
E. Christnot	RII
ACRS(10)	
L. Plisco	12-G-18
E. Merschoff	RII

OFC	PDII-4/LA	PDII-4/PM	PDII-4/PM	PDII-4/D	
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DATE	12/ /92	12/ /92	12/ /92	12/ /92	

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W. Beckner	10-E-4
R. Hernan	14-C-7
ACRS(10)	
L. Plisco	17-G-21
E. Merschoff	RII
D. Wheeler	12-D-22
J. Flack	NLS-324
E. Rodrick	NLS324
J. Schiffgens	10-E-4

Enclosure 1

ATTENDEES

BROWNS FERRY EXPANDED INDIVIDUAL PLANT EXAMINATION MEETING

OCTOBER 15, 1992

Name	Organization
Thierry Ross	NRR/PDII-4
William Beckner	NRR/SPSB
John Schiffgens	NRR/SPSB
Ron Hernan	NRR/PDI-4
Paul Kellogg	Region II (Phone conferee)
Duke Wheeler	RES/SAIB
John Flack	RES/SAIB
Ed Rodrick	RES/SAIB
Greg Pierce	TVA/BFN Licensing
Mike Hellums	TVA/Corporate Licensing
Henry Jones	TVA/BFN Engineering
Richard McMahon	TVA/Corporate PRA

AGENDA FOR TVA/NRC MEETING
OCTOBER 15, 1992
EXPANDED INDIVIDUAL PLANT EXAMINATIONS FOR BROWNS FERRY

TOPIC	SPOKESMAN
BACKGROUND	G. D. PIERCE
NRC COMMENTS (NRC's 7/22/92 LETTER)	H. L. JONES
RESPONSE TO NRC COMMENTS	H. L. JONES
CONCLUSION	G. D. PIERCE

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TVA/NRC MEETING
OCTOBER 15, 1992
EXPANDED INDIVIDUAL PLANT EXAMINATIONS FOR BROWNS FERRY

TOPIC	SPOKESMAN
NRC COMMENTS (NRC's 7/22/92 LETTER)	H. L. JONES

- UNITS 1 AND 3 SUFFICIENTLY SIMILAR TO UNIT 2 SUCH THAT UNIT 2 IPE IS APPLICABLE TO UNITS 1 AND 3
- SIGNIFICANT VULNERABILITIES ENVELOPED BY THE ANALYSIS OF THE TEN SHARED SYSTEMS
  - SYSTEMATIC EVALUATION OF SHARED SYSTEMS AND BASIS FOR ELIMINATION
- ANALYSIS LIMITED TO TWO INITIATING EVENTS
  - BASIS FOR ELIMINATING ANY INITIATORS
- EFFECT OF SHUT DOWN UNITS ON OPERATING UNITS

TVA/NRC MEETING
OCTOBER 15, 1992
EXPANDED INDIVIDUAL PLANT EXAMINATIONS FOR BROWNS FERRY

TOPIC	SPOKESMAN
RESPONSE TO NRC COMMENTS	H. L. JONES

COMMENT: UNITS 1 AND 3 SUFFICIENTLY SIMILAR TO UNIT 2 SUCH THAT UNIT 2 IPE IS APPLICABLE TO UNITS 1 AND 3

RESPONSE:

- ALL THREE UNITS HAVE A HIGH DEGREE OF SIMILARITY AND SHARE A COMMON FSAR
- OVERALL REGULATORY FRAMEWORK FOR UNITS 1 AND 3 IS BASED ON SIMILARITY IN PLANT CONFIGURATION AND REQUIRED CORRECTIVE ACTIONS
- DESIGN BASELINE PROGRAM FOR UNITS 1 AND 3 WILL VERIFY CRITERIA ARE ADEQUATE AND PROPERLY IMPLEMENTED PRIOR TO THE RESTART OF EACH UNIT
- DIFFERENCES BETWEEN UNITS 1 AND 3 SYSTEMS AND SYSTEM MODELS IN THE IPE WILL BE EVALUATED, AND MODELED, IF SIGNIFICANT
- PROCEDURAL CONTROLS

TVA/NRC MEETING
OCTOBER 15, 1992
EXPANDED INDIVIDUAL PLANT EXAMINATIONS FOR BROWNS FERRY

TOPIC	SPOKESMAN
RESPONSE TO NRC COMMENTS	H. L. JONES

COMMENT: SIGNIFICANT VULNERABILITIES ENVELOPED BY THE ANALYSIS OF THE TEN SHARED SYSTEMS

(SYSTEMATIC EVALUATION OF ALL SHARED SYSTEMS AND BASIS FOR ELIMINATION)

RESPONSE:

- ENCLOSURE 2 TO TVA'S 2/07/92 LETTER:
  - PROVIDED CRITERIA USED FOR DESIGN OF SHARED SYSTEMS
  - IDENTIFIED SHARED SYSTEMS
  - DESCRIBED SHARED FUNCTIONS
  - JUSTIFIED THE ELIMINATION OF ANY SHARED SYSTEM
- TOP SYSTEMS IN UNIT 2 IPE WILL BE MODELED

TVA/NRC MEETING
OCTOBER 15, 1992
EXPANDED INDIVIDUAL PLANT EXAMINATIONS FOR BROWNS FERRY

TOPIC	SPOKESMAN
RESPONSE TO NRC COMMENTS	H. L. JONES

COMMENT: ANALYSIS LIMITED TO TWO INITIATING EVENTS

(BASIS FOR ELIMINATING ANY INITIATORS)

RESPONSE:

- LOSS OF OFFSITE POWER AND LOSS OF PLANT AIR CONSIDERED REASONABLE AND REPRESENTATIVE INITIATING EVENTS
  - BOTH EVENTS DIRECTLY RESULT IN THE SHUTDOWN OF ALL THREE UNITS
  - LOSS OF OFFSITE POWER WAS LEADING INITIATING EVENT FOR UNIT 2 IPE (69 PERCENT OF CDF)

TVA/NRC MEETING
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TOPIC	SPOKESMAN
RESPONSE TO NRC COMMENTS	H. L. JONES

COMMENT: EFFECT OF SHUT DOWN UNITS ON OPERATING UNITS

RESPONSE:
- BFN IPE CONSIDERED EFFECTS OF UNITS 1 AND 3 SHUTDOWN AND UNIT 2 IN OPERATION
- TVA'S 2/07/92 LETTER JUSTIFIED THREE UNIT OPERATION AS MOST LIMITING CASE

TVA/NRC MEETING
OCTOBER 15, 1992
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- EVALUATION OF SYSTEMS SHARED BETWEEN UNITS WAS NOT REQUIREMENT OF GENERIC LETTER 88-20

- NUREG-1335 STATES THAT ONLY POWER OPERATION AND HOT STANDBY NEED BE CONSIDERED FOR THE PURPOSES OF THE IPE

- BFN'S PROPOSAL IS PROACTIVE, RESPONSIVE TO NRC COMMENTS, AND IS A GOOD FAITH EFFORT