



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

April 1, 1992

Docket Nos. 50-390
and 50-391

LICENSEE: Tennessee Valley Authority (TVA)
FACILITY: Watts Bar Nuclear Plant, Units 1 and 2
SUBJECT: MEETING SUMMARY - MARCH 24, 1992, MANAGEMENT MEETING ON
LICENSING STATUS (TAC M72494 and M72495)
REFERENCE: Meeting notice by P. Tam, March 10, 1992

On March 24, 1992, NRC and TVA representatives met at the Watts Bar site to discuss plant construction status, licensing status, and high priority licensing issues. Enclosure 1 is the list of participants. TVA's presentation is summarized in Enclosure 2.

The NRC staff stated that since Watts Bar Unit 1 is a near-term-operating-license (NTOL) plant, the staff will accord appropriate priorities to its review. However, the staff requested that TVA be prudent in its prioritization of various licensing issues such that the NRC staff review work would not be unnecessarily accelerated.

TVA stated that a realistic schedule for fuel loading and other major milestones (e.g., cold hydro, hot functional testing) will be published in the near future. TVA expects the fuel load date to be late 1993 to early 1994.

The staff (S. Varga) gave an overview description of the major events leading to issuance of an operating license (OL) by the Director of the Office of Nuclear Reactor Regulation (NRR) (handout included as Enclosure 3). The basis to issue the license is the Watts Bar Safety Evaluation Report (NUREG-0847) and its supplements. Both the ACRS and the Commission have indicated their interest in holding meetings to review TVA's application before issuance of a low-power OL to Watts Bar Unit 1.

During discussion of the high priority licensing issues, the following commitments were made or reaffirmed:

- (1) Station Blackout (10 CFR 50.63) -- TVA offered to submit a letter, in the near future, to describe the concept of its plan to deal with station blackout. TVA reaffirmed its commitment to submit detailed information in August 1992.

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- (2) Small-break LOCA ECCS Model -- The staff affirmed that 10 CFR 50.46 does not tie re-analysis to issuance of an OL. TVA's commitment to perform a re-analysis has already been acknowledged by the staff's letter dated March 11, 1992.
- (3) Environmental Qualification (EQ) -- The staff agreed to formally communicate interim review results when such are available, but reaffirmed that the final safety evaluation will not be issued until implementation of the program is complete, and a site audit is performed (currently scheduled for late 1992).
- (4) Integrated Design Inspection (IDI) -- The staff agreed to consider whether the IDI followup inspection, currently scheduled for August 1992, can be split into two inspections: one to be done in the April - June period emphasizing civil calculations, and one in August emphasizing mechanical calculations.
- (5) QA Records CAP -- The staff stated that it will issue a position paper in the next few days to address concerns with the use of Bayesian statistics.

Participants agreed to hold another management meeting on May 8, 1992.

Original signed by
Peter S. Tam, Senior Project Manager
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Participant list
- 2. TVA handout
- 3. Chart showing milestones leading to low-power OL

cc w/enclosures:
See next page

OFC	PDII4/LA	PDII-4/PM	PDII-4/D	
NAME	MSanders <i>MS</i>	PTam:dw/as <i>PT</i>	FHebdon <i>FH</i>	
DATE	4/1/92	4/1/92	4/1/92	

cc:

Mr. Marvin Runyon, Chairman
Tennessee Valley Authority
ET 12A
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Mr. John B. Waters, Director
Tennessee Valley Authority
ET 12A
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Mr. W. H. Kennoy, Director
Tennessee Valley Authority
ET 12A
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Mr. W. F. Willis
Senior Executive Officer
ET 12B
400 West Summit Hill Drive
Knoxville, Tennessee 37902

General Counsel
Tennessee Valley Authority
ET 11H
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Mr. Dwight Nunn
Vice President, Nuclear Projects
Tennessee Valley Authority
3B Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dr. Mark O. Medford
Vice President, Nuclear Assurance,
Licensing and Fuels
Tennessee Valley Authority
3B Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Mr. Mark J. Burzynski
Manager, Nuclear Licensing
and Regulatory Affairs
Tennessee Valley Authority
5B Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Mr. John H. Garrity, Site Vice President
Watts Bar Nuclear Plant
Tennessee Valley Authority
P. O. Box 800
Spring City, Tennessee 37381

Mr. George L. Pannell
Site Licensing Manager
Watts Bar Nuclear Plant
Tennessee Valley Authority
P. O. Box 800
Spring City, Tennessee 37381

Mr. H. H. Weber, Manager
Engineering Modifications
Watts Bar Nuclear Plant
Tennessee Valley Authority
P. O. Box 800
Spring City, Tennessee 37381

Honorable Robert Aikman, County Judge
Rhea County Courthouse
Dayton, Tennessee 37322

Honorable Johnny Powell, County Judge
Meigs County Courthouse, Route 2
Decatur, Tennessee 37322

Mr. Michael H. Mobley, Director
Division of Radiological Health
T.E.R.R.A. Building 6th Floor
150 9th Avenue North
Nashville, Tennessee 37219-5404

Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
101 Marietta Street, N. W.
Atlanta, Georgia 30323

Senior Resident Inspector
Watts Bar Nuclear Plant
U. S. Nuclear Regulatory Commission
Route 2, Box 700
Spring City, Tennessee 37381

Tennessee Valley Authority
Rockville Office
11921 Rockville Pike
Suite 402
Rockville, Maryland 20852

ENCLOSURE 1

LIST OF PARTICIPANTS

MANAGEMENT MEETING

March 24, 1992

<u>Name</u>	<u>Affiliation</u>
John Allen	TVA/Corporate Engineering
Ken Barr	NRC/Region II/Project Branch 4
Mark Burzynski	TVA/Corporate Licensing
J. S. Chards	TVA/Watts Bar
Jon Christensen	TVA/Watts Bar Site Quality
W. L. Elliott	TVA/Watts Bar Engineering
John Garrity	TVA Watts Bar Site VP
Fred Hebdon	NRC/NRR/Project Directorate II-4
Gary Humphrey	NRC Resident Inspector at Watts Bar
Roger Huston	TVA/Rockville Licensing Office
Kenneth Ivy	NRC Resident Inspector
N. C. Kazanas	TVA/VP CA
Julio Lara	NRC Resident Inspector at Watts Bar
Mark Medford	TVA/VP NAL &F
C. D. Nelson	TVA/Watts Bar Plant Maintenance
D. E. Nunn	TVA/VP Nuclear Projects
Paul Pace	TVA Watts Bar Site Licensing
George Pannell	TVA Watts Bar Site Licensing
Luis Reyes	NRC/Region II Director DRP
Peter Tam	NRC/NRR/Project Directorate II-4
Steve Varga	NRC/NRR/Division of Reactor Projects I/II
John Vorees	TVA Watts Bar Site Licensing
H. H. Weber	TVA Watts Bar Engineering
Glenn A. Walton	NRC Senior Resident Inspector at Watts Bar
Bruce Wilson	NRC/Region II Project Branch 4

NRC/TVA MANAGEMENT MEETING AGENDA
MARCH 24, 1992
9 A.M.

- I. OPENING REMARKS J. GARRITY, TVA
J. PARTLOW, NRC
- II. UNIT 1 CONSTRUCTION STATUS AND MAJOR MILESTONES H. WEBER, TVA
- SYSTEM COMPLETION SCHEDULES
 - TURNOVER TO STARTUP
 - TURNOVER TO OPERATIONS
 - COLD HYDRO
 - HOT FUNCTIONAL TESTING
 - FUEL LOADING
- III. OVERVIEW OF EVENTS LEADING TO OPERATING LICENSE ISSUANCE S. VARGA, NRC
- IV. TOP TVA ISSUES REQUIRING NRC ATTENTION G. PANNELL, TVA
- QA RECORDS
 - CABLE ISSUES
 - CIVIL IDI
 - FIRE PROTECTION
 - MASTER FUSE LIST
- V. OTHER REGULATORY ISSUES F. HEBDON, NRC
G. PANNELL, TVA
- STATION BLACKOUT
 - FSAR CHAPTER 8
 - EAGLE 21
 - ECCS MODEL
 - IPE
 - EQ
 - TMI IMPLEMENTATION
 - TECH SPECS
- VI. PRA PROGRAMS J. ALLEN, TVA
- VII. CLOSING STATEMENTS D. NUNN, TVA
J. PARTLOW, NRC
- NEXT MANAGEMENT MEETING

I. OPENING REMARKS

NRC AND TVA MANAGEMENT ACTIONS TO DATE HAVE FOCUSED RESOURCES ON THE PRIORITY LICENSING ISSUES AT WATTS BAR. THIS FOCUS HAS RESULTED IN THE RESOLUTION OF A NUMBER OF SIGNIFICANT ISSUES. THE REDUCTION IN LICENSING RISK FOR A NUMBER OF OTHER ITEMS HAS ALSO BEEN ACHIEVED.

CONTINUED NRC/TVA MANAGEMENT ATTENTION TO THE PRIORITY ISSUES WILL INCREASE NRC AND TVA CONFIDENCE IN THE QUALITY OF ISSUE RESOLUTION AND IN OUR ABILITY TO SUPPORT THE WATTS BAR PROJECT SCHEDULE WITH NUCLEAR SAFETY AS OUR PRIMARY FOCUS.

II. UNIT 1 CONSTRUCTION STATUS AND MAJOR MILESTONES

- **SYSTEM COMPLETION SCHEDULES**
- **TURNOVER TO STARTUP**
- **TURNOVER TO OPERATIONS**
- **COLD HYDRO**
- **HOT FUNCTIONAL TESTING**
- **FUEL LOADING (4TH QUARTER 1993 -
1ST QUARTER 1994)**

**III. OVERVIEW OF EVENTS LEADING TO
OPERATING LICENSE ISSUANCE**

(NRC)

**IV. TOP TVA ISSUES REQUIRING
NRC ATTENTION**

QA RECORDS CAP

BACKGROUND

- CAP WAS DEVELOPED IN 1988 TO ADDRESS CONSTRUCTION AND OPERATIONS RECORDS PROBLEMS SUCH AS RETRIEVABILITY, STORAGE, AND TECHNICAL/ADMINISTRATIVE ISSUES.
- SCOPE WAS EXPANDED IN 1991 TO INCLUDE COVERAGE OF ALL ANSI RECORD TYPES, RECORDS TECHNICAL REVIEWS, AND EVALUATION OF PHYSICAL HARDWARE AGAINST RECORDS

CHRONOLOGY

- TVA SUBMITTED CAP REVISION 4 12/06/91
- RESPONDED TO NRC REVIEW OF CAP REVISION 4 02/14/92
- NRC REVIEW OF 02/14 RESPONSE IN PROGRESS
 - NRC CONCERNED WITH METHODOLOGY FOR CONFIRMATORY REVIEW SAMPLING
 - TVA AND NRC TO DISCUSS THESE QUESTIONS UPON RECEIPT FROM NRC
- CAP 75% COMPLETE TARGET 07/92

CONCLUSION

- PROMPT RESOLUTION OF NRC STATISTICAL METHODOLOGY CONCERNS IS NEEDED

CABLE ISSUES CAP

BACKGROUND

- **THIS CAP ADDRESSES VARIOUS CONCERNS RELATED TO WBN CABLE INSTALLATION AND ROUTING, MATERIALS, AND EQUIPMENT**

CHRONOLOGY

- **INITIAL CAP SUBMITTED** **12/16/88**
 - **REVISION 1 TO CAP SUBMITTED** **06/27/89**
 - **INITIAL NRC SER ISSUED** **09/11/89**
 - **REVISION 2 TO CAP SUBMITTED** **10/11/90**
 - **NRC SER ISSUED** **04/25/91**
 - **NRC/NRR REVIEW AUDIT** **03/02-06/92**
 - **FINAL NRC SER ON PROGRAM** **EXPECTED 04/92**
- SYSTEM DESIGN COMPLETE** **06/04/92**

CONCLUSION

- **ISSUANCE OF NRC SER IN APRIL WILL SUPPORT TVA IMPLEMENTATION ACTIVITIES**

CIVIL IDI (INCLUDING WALKDOWN ATTRIBUTES)

BACKGROUND

- **THE CIVIL INDEPENDENT DESIGN INSPECTION (IDI) WAS NOT CONDUCTED WITH THE IDI FOR OTHER DISCIPLINES DUE TO LIMITED CIVIL CALCULATION AVAILABILITY IN EARLY 1991.**

CHRONOLOGY

- **INITIAL DBVP CAP SUBMITTAL** **10/20/88**
 - **REVISION 4 (NO CHANGE TO CALC PROGRAM)** **11/08/91**
- **NRC INSPECTION REPORT 89-12 (SER)** **11/20/89**
- **CIVIL COMMODITY ATTRIBUTES JUSTIFICATIONS** **06/28/91**
 - **NRC REVIEW OF CIVIL COMMODITY ATTRIBUTES DEFERRED TO PHYSICAL PLANT WALKDOWNS WITH CIVIL IDI**
- **CALCULATIONS TO SUPPORT CIVIL IDI 80% COMPLETE**

CONCLUSION

- **IMPROVEMENT IN NRC CIVIL IDI SCHEDULE IS NEEDED TO SUPPORT CIVIL COMPLETION DUE TO RAMPDOWN OF ENGINEERING PERSONNEL**
- **COMPLETION OF CIVIL/SEISMIC CALCULATIONS BY JUNE 1992**
- **WALKTHROUGH OF COMMODITY ATTRIBUTES 100% COMPLETE BY JUNE 1992**

FIRE PROTECTION CAP

BACKGROUND

- THIS CAP ADDRESSES THE MEANS TO ASSURE THAT THE WBN FIRE PROTECTION PROGRAM SATISFIES WBN LICENSING REQUIREMENTS

CHRONOLOGY

- INITIAL CAP SUBMITTED 12/16/88
- INITIAL NRC SER ISSUED 09/07/89
- TVA FIRE PROTECTION REPORT SUBMITTED 02/05/92
SUPERSEDED PREVIOUS FIRE PROTECTION COMMITMENTS AND SUBMITTALS AND THE FIRE PROTECTION PLAN IN THE FSAR (NRC CONCURRED WITH TVA APPROACH)
- TVA ASSOCIATED CIRCUITS SUBMITTAL 07/92

CONCLUSION

- NRC PROGRAMMATIC REVIEW NEEDED TO SUPPORT DESIGN COMPLETION

MASTER FUSE LIST SPECIAL PROGRAM

BACKGROUND

- BUSSMAN "KAZ" ACTUATORS WERE INAPPROPRIATELY USED IN CONTROL CIRCUITS AS FUSES
- THERE WAS NOT AN ADEQUATE DESIGN STANDARD FOR THE USE OF PROPER OVERCURRENT DEVICES FOR PENETRATION PROTECTION
- RECENT NRC REVIEW CONCERNS REGARDING CONFIGURATION CONTROL AND SCOPE OF PROGRAM

CHRONOLOGY

- INITIAL SUBMITTAL IN NPP VOLUME 4 05/22/89
- NRC SER 12/28/89
- MASTER FUSE LIST REVISION 0 WAS ISSUED BASED ON FIELD WALKDOWN AND DRAWING REVIEW 05/01/90
- NPP VOLUME 4, REVISION 1, ISSUED TO CLARIFY SCOPE 09/06/91
- TVA'S RESPONSE TO NRC'S REQUEST FOR ADDITIONAL INFORMATION (RAI) 11/27/91
- NRC'S REVIEW OF RAI RESPONSE COMPLETE (WAITING FOR SER)

CONCLUSION

- ISSUANCE OF SER NEEDED TO SUPPORT CLOSURE

V. OTHER REGULATORY ISSUES

STATION BLACKOUT

BACKGROUND

- THIS PROJECT ADDRESSES COMPLIANCE WITH THE STATION BLACKOUT RULE, 10 CFR 50.63, CONCERNING THE LOSS OF ALL AC POWER.

CHRONOLOGY

- PERFORM STUDY PHASE OPTIONS 11/90
 - ANALYSIS, CALCULATIONS, AND DESIGN 06/08/92
 - SBO SUBMITTAL 08/08/92
 - NRC SER ISSUED 02/93
 - RESPONSE TO SER OPEN ISSUES 04/93
- SYSTEM DESIGN COMPLETE 06/08/92**

CONCLUSION

- TVA PROGRAM WILL MEET 10 CFR 50.63 REQUIREMENTS

FSAR CHAPTER 8 REVIEW

BACKGROUND

- TVA HAS RESPONDED TO NRC'S RAI REGARDING REMAINING SSER OPEN ISSUES

CHRONOLOGY

- NRC SER ISSUED WITH OPEN ITEMS IDENTIFIED 06/82
 - NRC ISSUED RAI FOR CHAPTER 8 06/20/91
 - TVA SUBMITTED RESPONSE TO RAI 09/13/91
 - NRC REVIEW OF TVA RAI RESPONSE ONGOING
 - TELECON WITH NRC 03/17/92
(KEY OPEN ISSUES: NEW CSSTs, DG LOADING,
BATTERY CAPACITY)
- SYSTEM DESIGN COMPLETE 10/30/92

CONCLUSION

- COMPLETION OF NRC REVIEW AND TVA COMMITMENTS ARE NEEDED TO FINALIZE DESIGN

EAGLE-21

BACKGROUND

- **WBN IS REPLACING ITS FOXBORO PROCESS CONTROL SYSTEM, WHICH IS BASED ON ANALOG ELECTRONICS, WITH WESTINGHOUSE'S EAGLE-21 PROCESS PROTECTION SYSTEM, WHICH IS BASED ON DIGITAL ELECTRONICS USING MICROPROCESSORS.**

NOTE -- SEVERAL REACTOR PROTECTION DESIGN CHANGES ARE INCLUDED:

- **NEW STEAMLINER BREAK PROTECTION FEATURES,**
- **REDUCTION OF SG LOW-LOW LEVEL REACTOR TRIP SETPOINT**
- **SG LOW-LOW LEVEL TRIP TIME DELAY,**
- **ELIMINATION OF FW LOW FLOW REACTOR TRIP BY INCORPORATING A MEDIAN SIGNAL SELECTOR FOR SG LEVEL CONTROL.**

CHRONOLOGY

- **NRC SER ISSUED FOR EAGLE-21 PART OF RTD BYPASS ELIMINATION** **06/13/89**
- **EAGLE-21 INSTALLED AT SQN** **10/90**
- **NRC NOTIFIED OF EAGLE-21 INSTALLATION PLAN** **07/10/91**
- **EAGLE-21 DESCRIPTION AND V&V PLAN SUBMITTED** **02/26/92**
- **EAGLE-21 HARDWARE CONSTRUCTED AND IN STORAGE** **COMPLETE**

CONCLUSION

- **WBN IMPLEMENTATION CONSISTENT WITH INDUSTRY AND SQN LESSONS LEARNED**

ECCS MODEL

BACKGROUND

- WESTINGHOUSE MADE SEVERAL CHANGES TO WBN'S ECCS EVALUATION MODEL FOR LOCA ANALYSIS TO INCORPORATE IMPROVEMENTS AND CORRECT ERRORS. THESE CHANGES WERE REPORTED TO NRC PER 10 CFR 50.46. THE MODEL CHANGES RELATED TO SBLOCA WERE DEFINED AS SIGNIFICANT PER 10 CFR 50.46 (PCT CHANGED > 50°F), AND NRC REQUESTED SBLOCA REANALYSIS.

CHRONOLOGY

- WESTINGHOUSE IDENTIFIED ECCS MODEL CHANGES 06/20/91
- TVA REPORTED CHANGES TO NRC 07/22/91
- TVA SUBMITTED SBLOCA REANALYSIS SCHEDULE 02/26/92
- NRC ACCEPTANCE OF WBN'S SUBMITTALS 03/11/92
- FUTURE ANNUAL UPDATES COULD RESULT IN > 50°F CHANGES TBD
- SUBMIT SBLOCA RESULTS TO NRC (COMMITMENT) BFL

CONCLUSION

- NRC POSITION OF ALLOWING APPROPRIATE SCHEDULING OF REANALYSIS WILL NOT PRESENT BARRIER TO LICENSING

INDIVIDUAL PLANT EXAMINATION (IPE)

BACKGROUND

- ° THIS PROJECT ADDRESSES COMPLIANCE WITH GENERIC LETTER (GL) 88-20 RECOMMENDATIONS FOR UTILITIES TO PERFORM AN IPE/PRA AND AN IPE FOR EXTERNAL EVENTS (IPEEE)

CHRONOLOGY

- ° GL 88-20 ISSUED 11/23/88
- ° GL 88-20 SUPPLEMENT 1 GUIDANCE FOR IPE 08/29/89
- ° TVA RESPONSE TO GL 10/30/89
- ° GL 88-20 SUPPLEMENT 2 ISSUED 04/04/90
- ° GL 88-20 SUPPLEMENT 4 ISSUED FOR IPEEE 06/28/91
- ° TVA RESPONDS COMMITTING TO PERFORM IPEEE 12/20/91

SYSTEM DESIGN COMPLETE

- ° IPE/PRA 09/01/92
- ° IPEEE 06/28/94

CONCLUSION

- ° TVA PROGRAM WILL MEET NRC REQUIREMENTS AND SCHEDULE OF GL 88-20

THREE MILE ISLAND (TMI) IMPLEMENTATION

BACKGROUND

- NRC/NRR HAS COMPLETED REVIEW AND PROVIDED APPROVAL ON 48 OF THE 62 TMI ITEMS. THE REMAINING 14 ITEMS ARE BEING TRACKED IN THE SUPPLEMENTAL SAFETY EVALUATION REPORTS (SSER) AND ALSO ON NRC'S TAC LIST.

CHRONOLOGY

- TVA IMPLEMENTATION OF 8 ITEMS THAT HAVE NOT BEEN CLOSED BY NRR AS IDENTIFIED IN SSER 8 IN PROCESS
- REVISED RESPONSES TO 3 SSER 8 ITEMS
 - II.B.3, CORE DAMAGE PROCEDURE 07/31/92
 - II.D.1, RELIEF AND SAFETY VALVE TEST REQUIREMENT 06/01/92
 - III.A.2, EMERGENCY PREPAREDNESS 08/11/92
- NRC REVIEW/APPROVAL OF 3 SSER 8 ITEMS 06/30/92
 - RG 1.97, (PAM)
 - II.F.2 (ICCM)
 - I.G.1 (NATURAL CIRCULATION TESTING)

CONCLUSION

- TVA WILL COMPLETE ALL REQUIRED TMI ITEMS PRIOR TO FUEL LOAD. SPDS WILL BE FUNCTIONAL BY FUEL LOAD, HOWEVER OPERABILITY CERTIFICATION IS SCHEDULED TO OCCUR DURING THE FIRST REFUELING OUTAGE

ENVIRONMENTAL QUALIFICATION (EQ) SPECIAL PROGRAM

BACKGROUND

- **SPECIAL PROGRAM WILL ENSURE THAT WBN MEETS 10 CFR 50.49**

CHRONOLOGY

- **REVISION 1, NUCLEAR PERFORMANCE PLAN VOLUME 4 09/16/91**
- **NRC SER. 12/28/89**
- **FSAR AMENDMENT 64 08/16/90**
- **NRC REVIEW OF TVA'S APRIL 1991 PROGRAM
SUBMITTAL IN PROGRESS**
- **NRC/TVA TECHNICAL REVIEW MEETING 03/05/92**
- **CLOSURE OF EQ BINDER TECHNICAL
OPEN ITEMS 01/93**
- **NRC AUDIT WHEN NEAR 100% TBD**

CONCLUSION

- **PROMPT TVA RESOLUTION OF REVIEW ITEMS AND COMPLETION
OF NRC PROGRAMMATIC REVIEW ARE NEEDED TO SUPPORT
PROJECT SCHEDULE**

TECHNICAL SPECIFICATION DEVELOPMENT

BACKGROUND

- ° THIS PROJECT WILL DEVELOP WATTS BAR SPECIFIC TECHNICAL SPECIFICATIONS BASED ON THE NEW RESTRUCTURED STANDARD TECHNICAL SPECIFICATIONS UNDER DEVELOPMENT BY NRC/INDUSTRY.

CHRONOLOGY

- ° PHASE 1 - DEVELOP SITE SPECIFIC VERSION BASED ON DRAFT STANDARD COMPLETE
- ° PHASE 2 - PREPARE SUBMITTAL VERSION OF TECH SPEC BASED ON RESOLUTION PROCESS IN NRC AUGUST 92
- ° PHASE 3 - NEGOTIATE AND DISTRIBUTE PROOF AND REVIEW TECH SPEC WITH OTSB REVIEWER. SPRING 93
- ° PHASE 4 - PERFORM TECH SPEC CERTIFICATION FALL 93

CONCLUSION

- ° CONTINUED NRC REVIEW COMMITMENT FOR WBN NEEDED INDEPENDENT OF NRC/INDUSTRY INTERACTIONS

VI. PRA PROGRAMS

PRA PROGRAMS

Meeting Objectives

- Major PRA Programs
- Schedules and Open Items
- TVA Ownership of PRAs
- Emerging Issues
- Conclusions

PRA Programs

Current PRA Activities

	Browns Ferry	Sequoyah	Watts bar
IPE	PRA	PRA	PRA
IPEEE	Seismic Margins/ FIVE	Seismic Margins/ FIVE	Seismic Margins/ FIVE
Multi-Unit PRA	Modified Unit 2	Not Required	Not Required

PRA PROGRAMS

Status of Schedules and Open Items

- Overall Effort and Current Schedules are Shown on the Attached Chart
- TVA Multi-unit PRA Proposal for Browns Ferry Submitted to NRC on 2/7/92
 - Limited 3 Unit PRA that Focuses on Shared Systems
 - 10 Shared Systems Identified for Analysis with 3 Units in Operation
 - Target for Completion is Prior to Unit 3 Restart
 - TVA Awaiting Feedback from NRC on Proposal: Working Meeting Proposed
- TVA Awaiting Generic SER for A-46 Seismic Issues
 - A-46 and IPEEE Activities Need to be Coordinated
 - SER Needed to Complete Scope and Schedule

TVA SCHEDULE FOR PROBABILISTIC RISK ASSESSMENT (IPE/PRA) AND INDIVIDUAL PLANT EXAMINATION FOR EXTERNAL EVENTS (IPEEE)

February, 1992

	FY 1992												FY 1993								FY 1994			
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	1st	2nd	3rd
IPE / PRA																								
WBN UNIT 1	PLANT/CONTAINMENT ANALYSIS																							
SON UNIT 1													UPDATE											
BFN UNIT 2	PLANT/CONTAINMENT ANALYSIS																							
BFN UNIT 1 & 3	PLANT/CONTAINMENT ANALYSIS																							
BLN													EXPANDED PRA PLANT ANALYSIS ONLY											
IPEEE																								
WBN																								
UNIT 1																								
UNIT 2	PRIOR TO UNIT 2 FUEL LOAD																							
SCN																								
UNIT 1	UNIT 1/UNIT 2 COMBINED																							
UNIT 2	SCHEDULE																							
BFN																								
UNIT 1	WAITING SER																							
UNIT 2	ON A-46																							
UNIT 3	SEISMIC ISSUE																							
BLN																								
UNIT 1	DEFERRED																							
UNIT 2	DEFERRED																							

▼ SCHEDULE DATE
 ▼ COMMITMENT

1st Qtr.
FY 1997

PRA PROGRAMS

TVA Ownership Of PRAs

- **TVA & Contractor Integrated Team:**
 - Data Analysis
 - Systems Analysis
 - Plant Analysis
 - Containment Analysis

- **Significant Site involvement in PRA**
 - Site Technical Review of System Notebooks
 - Dedicated SRO from Each Site
 - Human Factors Through Interviews with 3 or More Operating Crews
 - FIVE and Seismic IPEEE Work Done at Sites

- **TVA Management Reviews for IPE/IPEE Results**
 - Scheduled Reviews at Key Milestones (Level 1, Level 2, and Final Report)
 - Key Site Managers Involved in Reviews

PRA PROGRAMS

Emerging Issues

- Shutdowns Plant PRA Activities
- Severe Accident Management Activities
- Reliability Centered Maintenance
 - Maintenance Rule Activity
 - Starting in 1992

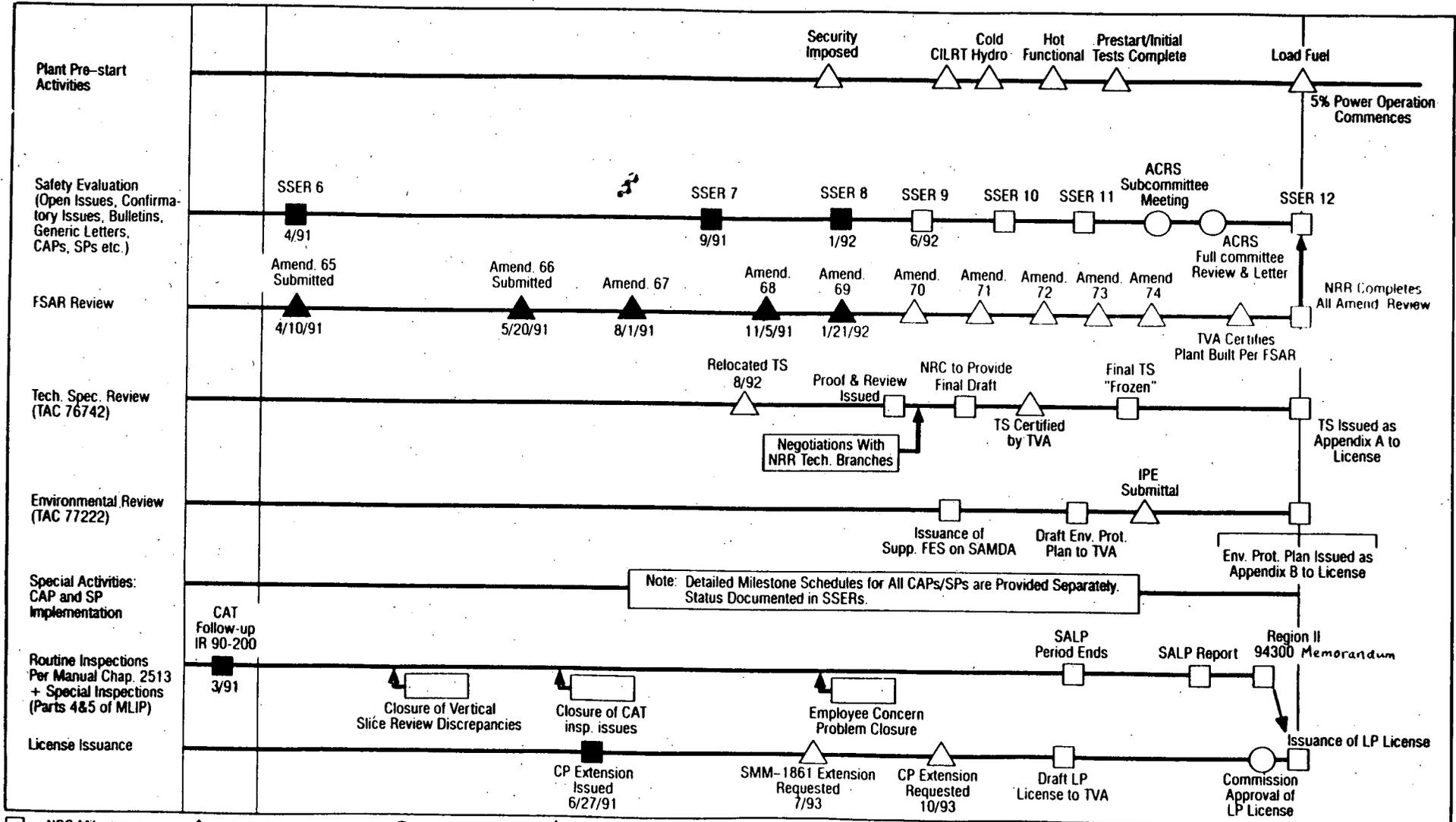
PRA PROGRAMS

Conclusions

- Significant Resource Commitment to PRA Efforts
- Substantial TVA Involvement in PRA Efforts
- Living PRA Program
- Need to Resolve Open Items to be Able to Assess Resource and Schedule Impacts

WATTS BAR UNIT 1 : MAJOR MILESTONES TO LOW POWER (LP) LICENSE

4/91



□ = NRC Milestones ▲ = TVA Milestones ○ = Meetings ▲ (with dot) = Date not defined

DISTRIBUTION

Docket File

NRC PDR

Local PDR

S. Varga

14-E-4

G. Lainas

14-H-3

F. Hebdon

B. Wilson

RII

H. Livermore

RII

G. Walton

RII

K. Barr

RII

L. Reyes

RII

P. Tam

M. Sanders

OGC

15-B-18

ACRS (10)

L. Reyes

RII

WBN Rdg. File