

SEP 29 1992

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Docket Nos. 50-390, 50-391
License Nos. CPPR-91, CPPR-92

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

Gentlemen:

SUBJECT: MEETING SUMMARY - WATTS BAR UNIT 1

This letter refers to the meeting conducted at the Watts Bar site on September 22, 1992. The purpose of the meeting was to discuss plant construction activities. A list of attendees and a copy of the TVA handout are enclosed.

It is our opinion that this meeting was beneficial and provided a better understanding of TVA's activities. Should you have any questions concerning this letter, please contact me.

Sincerely,

(Original signed by J. Johnson)

Ellis W. Merschoff, Director
Division of Reactor Projects

Enclosures:

1. List of Attendees
2. Presentation Summary

cc w/encls: (See page 2)

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PDR ADOCK 05000390
A PDR

IA3

IR01

SEP 29 1992

Tennessee Valley Authority

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cc w/encls:

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TVA Representative
Tennessee Valley Authority
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General Counsel
Tennessee Valley Authority
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The Honorable Robert Aikman
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Rhea County Courthouse
Dayton, TN 37321

The Honorable Johnny Powell
County Executive
Meigs County Courthouse
Decatur, TN 37322

M. H. Mobley, Director
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State of Tennessee

A. Harris

bcc w/encls: (See page 3)

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bcc w/encls:

E. W. Merschoff, DRP/RII
J. R. Johnson, DRP/RII
K. P. Barr, DRP/RII
B. M. Bordenick, OGC
J. B. Brady, DRP/RII
M. S. Callahan, GPA/CA
R. D. Gibbs, DRP/RII
F. J. Hebdon, NRR
G. C. Lainas, NRR
P. S. Tam, NRR
J. F. Wechselberger, EDO
NRC Document Control Desk

NRC Resident Inspector
U. S. Nuclear Regulatory Commission
Route 2, Box 700
Spring City, TN 37381

RII:DRP

JBrady:vyg
09/23/92

RII:DRP

KBarr
09/28/92

RII:DRP

BWilson
09/28/92

RII:DRP

JJohnson
09/16/92

ENCLOSURE 1

LIST OF ATTENDEES

Name

Title

NRC Staff

E. Merschhoff	Director, Division of Reactor Projects, Region II, (RII)
B. Wilson	Branch Chief, Division of Reactor Projects, RII
K. Barr	Section Chief, Division of Reactor Projects, Watts Bar, RII
G. Lainas	Assistant Director for Region II Reactors, Office of Nuclear Reactor Regulation, (NRR)
F. Hebdon	Director, Project Directorate II-4, NRR
P. Tam	Senior Project Manager, NRR
G. Walton	Senior Resident Inspector, Watts Bar, RII

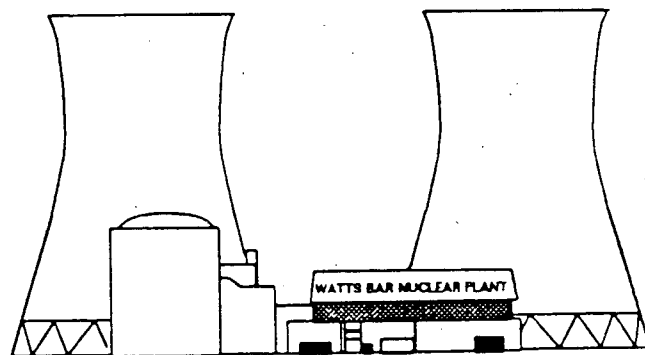
TVA Staff

W. Elliott	Engineering Manager, Watts Bar
R. Lewis	Project Manager, QA Records, Watts Bar
M. Medford	Vice President, Nuclear Assurance, Licensing and Fuels
D. Moody	Plant Manager, Watts Bar
W. Museler	Vice President, Watts Bar Site
D. Nunn	Vice President, Nuclear Production
G. Pannell	Site Licensing Manager, Watts Bar
H. Weber	Engineering and Modifications Manager, Watts Bar
J. Christensen	Site Quality Manager, Watts Bar
A. Capozzi	PAC/AC Project Manager, Watts Bar

NRC/TVA MANAGEMENT MEETING

SEPTEMBER 22, 1992

WATTS BAR NUCLEAR PLANT



WATTS BAR NUCLEAR PLANT
TVA/NRC MANAGEMENT MEETING
TRAINING CENTER CLASSROOM 5
SEPTEMBER 22, 1992
9 A.M.

OPENING REMARKS

EBNETER/NUNN

INTRODUCTION (5 minutes)

MUSELER

ENGINEERING AND MODIFICATIONS (5 minutes)

WEBER

- Overview
- Engineering
- Modifications
- Startup

PLANT (5 minutes)

MOODY

- System Turnover Process
- Procedures
- Maintenance Rule

LICENSING STATUS (30 minutes)

PANNELL

- Technical Specifications
- NRC Region II Open Items
- NRC NRR SSER Open Items
- FSAR
- Inspection Activities
 - CAPs/Special Projects
 - Overall Inspection Schedule
- Generic Issues
 - Thermolag
 - Station Blackout
 - IPE

OVERALL QUALITY (5 minutes)

CHRISTENSEN

PAC/AQ RESULTS TO DATE (5 minutes)

CAPOZZI

QA RECORDS STATUS (5 minutes)

LEWIS

CLOSING REMARKS

NRC/TVA

INTRODUCTION

- **OVERALL SCHEDULE STATUS**

- On track for January 94 fuel load
- Some adjustments required (No major milestone changes)

- **CHALLENGES**

- Craft Productivity
- Safety-Related Testing Start
- Open Item Closures

ENGINEERING AND MODIFICATIONS

ONGOING ENGINEERING/MODIFICATIONS/STARTUP WORK

- **ENGINEERING**

- NE complete on over 51 systems
- Continuing refined SPAE process (System 211 complete)
- Continuing work on completion plans for Civil, Mechanical, and Electrical discipline work
- Engineering focus shifting to field test support, closure, and closeout of CAP/Special Projects
- Civil IDI by NRC completed

- **MODIFICATIONS**

- Quality is remaining high
- Productivity based on Work Sampling has consistently improved
- Craft ramp-up in Unit 1 is in progress with a planned headcount projected at 1380

- **STARTUP**

- 9 Systems Component testing complete
- 6 Acceptance Test completed
- 4 Systems turned over to Plant
- Ready to begin safety-related test

- **SOME SYSTEM HARD SPOTS IN COMPLETION DATES BEING EVALUATED**

PLANT

SYSTEM TURNOVER PROCESS

- **SYSTEM WALKDOWNS**
- **PERFORMANCE OF WALKDOWNS**
- **SYSTEM PLANT ACCEPTANCE EVALUATION**
- **SYSTEM PRE-OPERABILITY CHECKLIST (SPOC)**
- **VERIFICATION AND VALIDATION SYSTEM**

PROCEDURE UPGRADE

- **COMPLETED AS SYSTEMS ARE TURNED OVER**
- **TESTED TO THE EXTEND PRACTICAL DURING TESTING**
- **USED TO PERFORM CORRECTIVE/PREVENTATIVE MAINTENANCE**
- **EOPs CHECKED ON SIMULATOR AND BEING WALKED DOWN IN FIELD**
- **USE FOR SURVEILLANCE AFTER TURNOVER**
- **FOLLOWING SYSTEM WATERFALL AND MEETING SCHEDULE**
- **EFFORT TO COMPLETE SEPTEMBER OF 1993**

MAINTENANCE RULE IMPLEMENTATION PLAN

- **MAINTENANCE RULE WAS PUBLISHED IN JULY 1991, AND BECOMES EFFECTIVE IN JULY 1996**
- **WBN ACTIVITIES TO SUPPORT IMPLEMENTATION OF THE RULE**
- **SIX MAJOR PROGRAMMATIC ELEMENTS OF THE RULE**
- **SUMMARY**

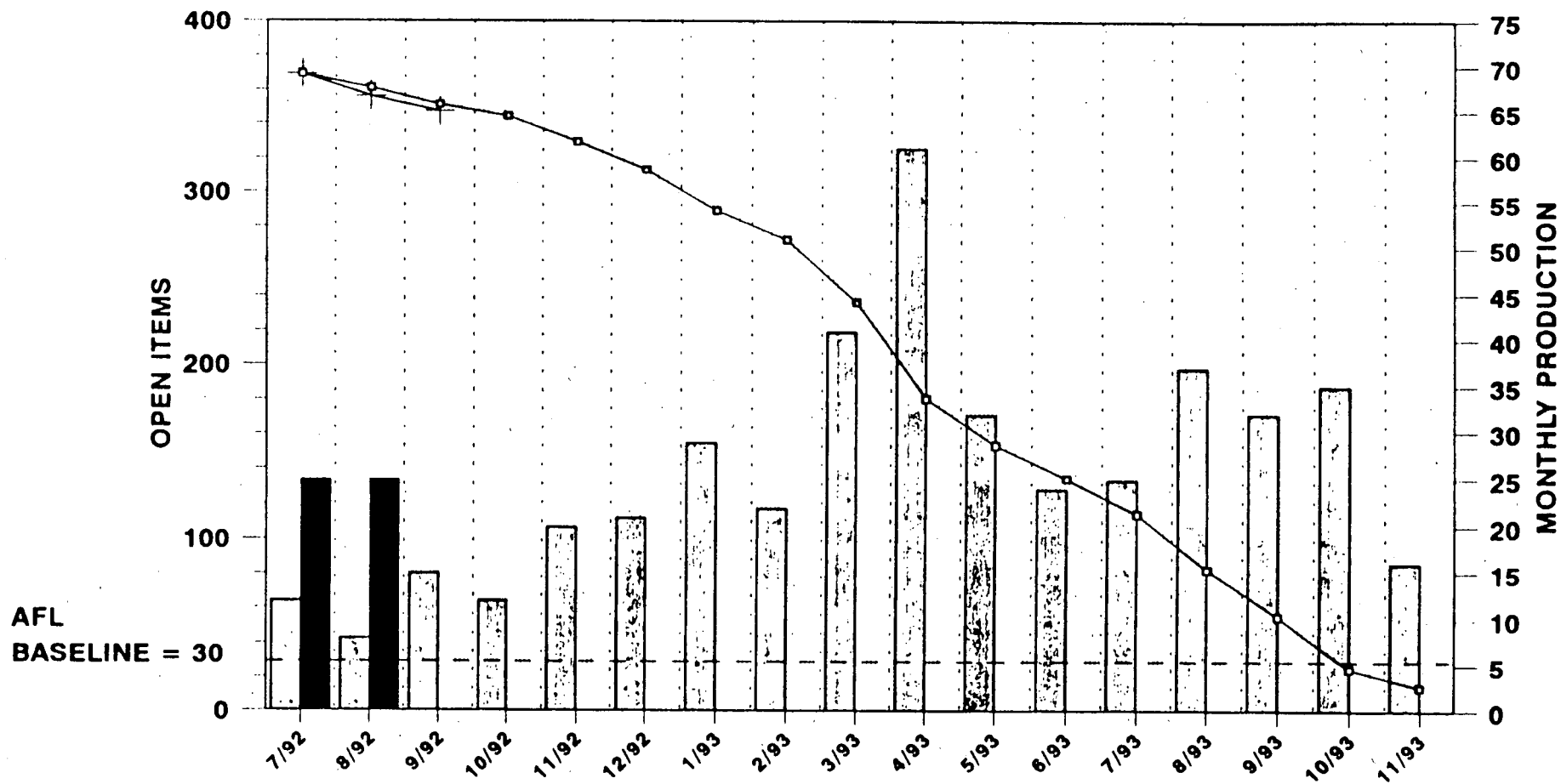
LICENSING STATUS

TECHNICAL SPECIFICATION DEVELOPMENT

- **WATTS BAR SPECIFIC TECHNICAL SPECIFICATIONS WILL BE DEVELOPED BASED ON THE NEW RESTRUCTURED STANDARD TECHNICAL SPECIFICATIONS UNDER DEVELOPMENT BY NRC/INDUSTRY**
- **PROPOSED TECHNICAL SPECIFICATIONS AND SUPPORTING DOCUMENTS WERE SUBMITTED FOR NRC REVIEW AUGUST 27, 1992**
- **CONTINUED NRC REVIEW COMMITMENT SPECIFICALLY FOR WBN CONFIRMED AT 9/15/92 MEETING WITH NRC TECH SPEC BRANCH CHIEF**
- **NRC REVIEW SCHEDULE TO BE DEVELOPED NEAR TERM. INTERACTION ON THE SUBMITTAL EXPECTED TO BEGIN THIS FALL LEADING TO A "PROOF AND REVIEW" TECH SPEC BY SPRING AND A "FINAL DRAFT" TECH SPEC BY SUMMER 1993**

NRC OPEN ITEMS WORKOFF CURVE

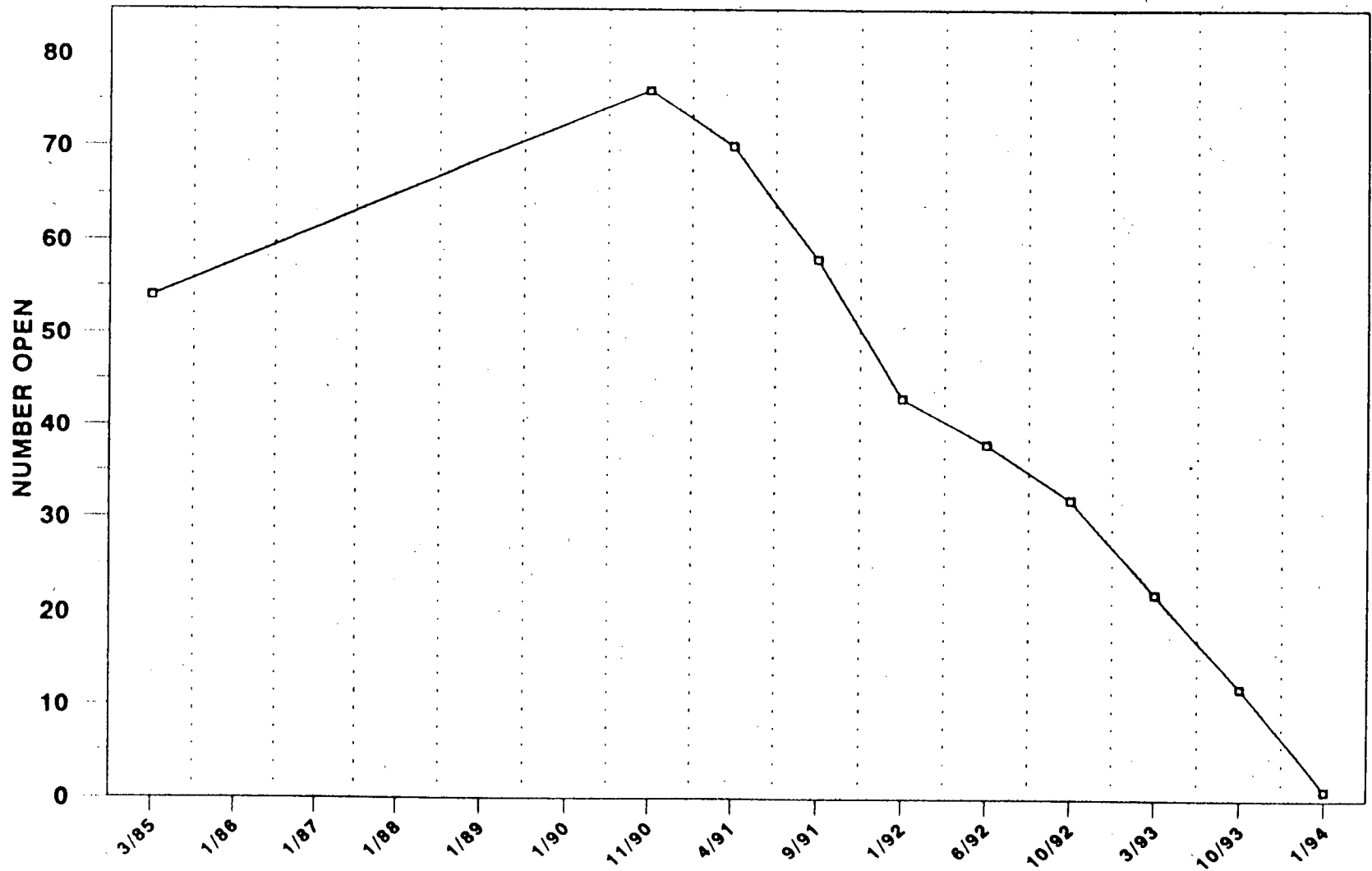
WBN-LICENSING



PLANNED WORKOFF	369	361	351	344	329	313	289	272	236	180	153	134	114	82	55	25	14
ACTUAL TO GO	369	358	347														
PERIOD PLANNED	12	8	15	12	20	21	29	22	41	61	32	24	25	37	32	35	16
PERIOD ACTUAL	25	25															
PERIOD ADDED	12	16															

NOTE: There are 101 packages with NRC to be closed. Closure of these packages will close 135 open items.

NRR SSER OPEN ITEMS (OIs, CIs, LCs, CAPs/SPs)



WBN-12

NUMBER OPEN	54						76	70	58	43	38	32	22	12	1
	SSER 4						SSER 5	SSER 6	SSER 7	SSER 8	SSER 9	SSER 10	SSER 11	SSER 12	SSER 13

FSAR COMPLETION PROJECT

- **PRIMARY GOALS**

- Provide documentation to certify that WBN is designed and constructed as described in the FSAR
- Ensure text is written from a technical standpoint in addressing system engineering and operations
- Ensure that commitments and corresponding documentation is at an appropriate level and that there are no over-commitments
- Ensure that the format is clearly defined and consistent with established format and figures
- Chapters will be certified as correct when all systems, structures, components, and integrated text and descriptive material within a chapter is complete

- **PROJECT SCHEDULE**

- Completion of FSAR text is being accomplished in accordance with the SPAE Phase II completion schedule for individual systems
- The schedule for certifying the FSAR is August 1993

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- Heat Code
- Traceability
- Seismic Analysis
- Concrete Quality
- Soil Liquefaction
- Use-as-Is CAQs

WATTS BAR RECOMMENDED INSPECTION SCHEDULE

Activities	Oct '92					Nov '92					Dec '92					Jan '93					Feb '93					Mar '93					Apr '93					
	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25	1	8	15	22	1	8	15	22	29	5	12	19	26	3		
MC 2513 Inspection																																				
NRC Inspection 390, 391/92-29																																				
Corrective Action Program																																				
100% CAP Completion -																																				
Master Fuse List																																				
75% CAP Completion - Replacement																																				
Items (Piece Parts)																																				
100% CAP Completion -																																				
Welding Program																																				
75% CAP Completion -																																				
Microbiologically Induced Corrosion																																				
75% CAP Completion -																																				
Vendor Information																																				
75% CAP Completion -																																				
Large Bore HAAUP																																				
75% CAP Completion -																																				
QA Records																																				
Eagle 21 Inspection																																				
DBVP - Mechanical Calcs IDI																																				
100% CAP Completion -																																				
Replacement Items (Piece Parts)																																				
75% CAP/SP Completion -																																				
Radiation Monitoring																																				
75% CAP Completion -																																				
Small Bore HAAUP																																				
75% CAP Completion -																																				
HVAC and Supports																																				
75% CAP Completion -																																				
Cable Issues																																				
75% CAP Completion -																																				
Env. Qual./Mech. Egpt. Qual.																																				
75% CAP Completion -																																				
Cable Trays & Supports																																				
75% CAP Completion -																																				
Instrument Lines																																				
75% CAP Completion - Q-List																																				
75% CAP Completion -																					</															

WATTS BAR RECOMMENDED INSPECTION SCHEDULE

Activities	May '93				Jun '93				Jul '93				Aug '93				Sept '93				Oct '93				Nov '93							
	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	
MC 2513 Inspection																																
75% CAP Completion - Mod. Energy Line Break Flooding																																
75% CAP Completion - DBVP																																
75% CAP Completion - Electrical Issues																																
75% CAP Completion - Electrical Conduit and Conduit Supports																																
100% CAP/SP Completion - Radiation Monitoring System																																
Containment Isolation Inspection																																
Emergency Operating Procedures																																
Reg. Guide 1.97 Inspection																																
100% CAP/SP Completion - Containment Cooling																																
100% CAP/SP Completion - Env. Qual./Mech. Eqpt. Qual.																																
100% CAP/SP Completion - Detailed Control Room Des. Review																																
100% CAP Completion - HVAC Duct and Supports																																
100% CAP Completion - Fire Protection																																
100% CAP Completion - Cable Tray & Supports																																
100% CAP Completion - Electrical Conduit & Supports																																
100% CAP Completion - Instrument Lines																																
100% CAP Completion - Small Bore HAAUP																																
100% CAP Completion - Equipment Seismic Qualification																																
NUREG 0737 Inspection																																
100% CAP/SP Completion - Mod. Energy Line Break Flooding																																
100% CAP Completion - Large Bore HAAUP																																
100% CAP Completion - Electrical Issues																																
100% CAP Completion - DBVP																																
100% CAP Completion - Cable Issues																																

TVA WBN THERMO-LAG ISSUE ACTIVITIES

**ISSUE: ADEQUACY OF THERMO-LAG FIRE BARRIER SYSTEMS
(BULLETIN 92-01 AND 92-01, SUPPLEMENT 1)**

- **WBN MUST ADDRESS BEFORE INDUSTRY INITIATIVE ARE COMPLETE
IN ORDER TO SUPPORT LICENSING**
- **WBN TESTING THERMO-LAG CONFIGURATION**
- **TVA EVALUATING ALTERNATE FIRE PROTECTION METHODS**
- **MEETING WITH NRC PLANNED TO PRESENT DETAILS OF TVA
PROPOSED APPROACH (EARLY OCTOBER)**

STATION BLACKOUT (SBO)

- **OVERVIEW**

- Detailed Station Blackout submittal provided to NRC on August 31, 1992
- Approach to Station Blackout is ac-independent for a 4-hour duration

- **SCHEDULE**

- NRC's schedule for review - November 1992

INDIVIDUAL PLANT EXAMINATION (IPE)

- **OVERVIEW**

- No vulnerabilities were identified at WBN
- Level I Analysis (systems outside containment) and Level II Analysis (systems inside containment) submitted August 31, 1992
- Level I core damage frequency (CDF) calculated at 3.3×10^{-4} per year
- PRA results were consistent with results of plants that were derived from comparable methods, data bases, and workscope

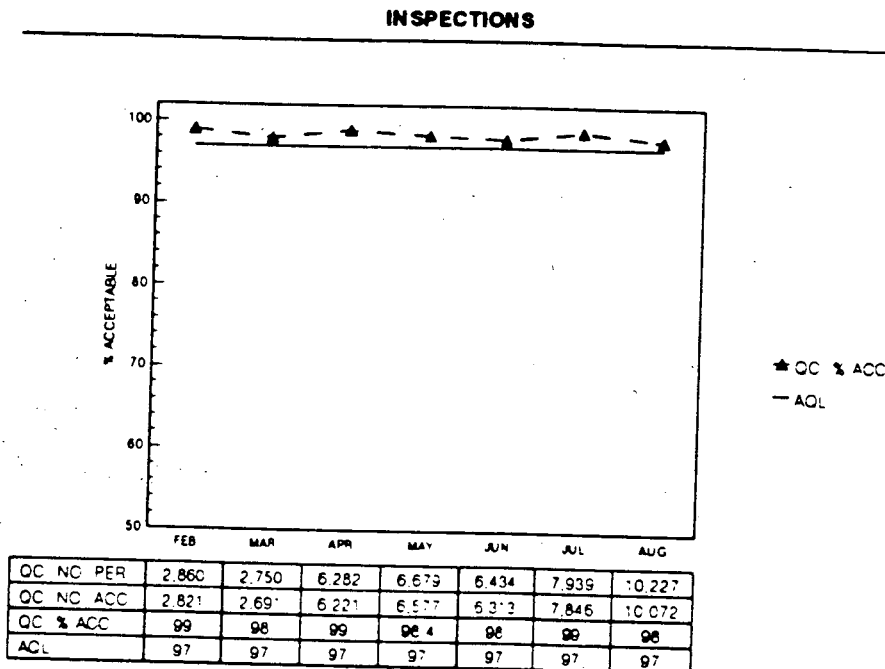
- **SCHEDULE**

- No NRC schedule has been provided

OVERALL QUALITY

OVERALL QUALITY

● INSPECTION RESULTS



● WORKPLAN PROCESS

- Conducted the following monthly vertical slice assessments of engineering, work planning, installation, inspection, training, and documentation related to workplans:

June 6

July 4

August 9

Results have been satisfactory

OVERALL QUALITY (CONTINUED)

- **STARTUP AND TEST**

- Conducted the following overviews:
 - 70 Monitors
 - Two assessments (SPAE process and readiness for preop testing)

Resolved a number of typical early programmatic weaknesses, ready for testing

- **OPPORTUNITIES FOR IMPROVEMENT**

- Overview inspection results - mechanical discipline
- Difficulty in identifying effective corrective action
- Lessons learned by Site Quality based on NRC identified Master Fuse List problems

PAC/AQ RESULTS TO DATE

PAC/AQ RESULTS TO DATE

- **COMPLETED**

- Prototype review of ERCW System
- All commitments have been identified and catalogued within one data base
- Commitments have been matched to their implementing documents with few exception
- Technical adequacy review of all WBN Corrective Action Programs (CAPs), Special Programs (SPs), Maintenance Process and Workplan Process

- **IN PROCESS**

- One Vertical Slice Review of an electrical system
 - System 211, 6.9kV shutdown power review completed
 - Extensive walkdowns and reviews
 - No significant deficiencies or trends identified
 - Report will be issued by September 30, 1992

- **REMAINING**

- Vertical Slice Reviews of two mechanical systems (10/01/92 - 02/01-93)
- Oversight of operational readiness review program (05/01/93 - 12/01/93)

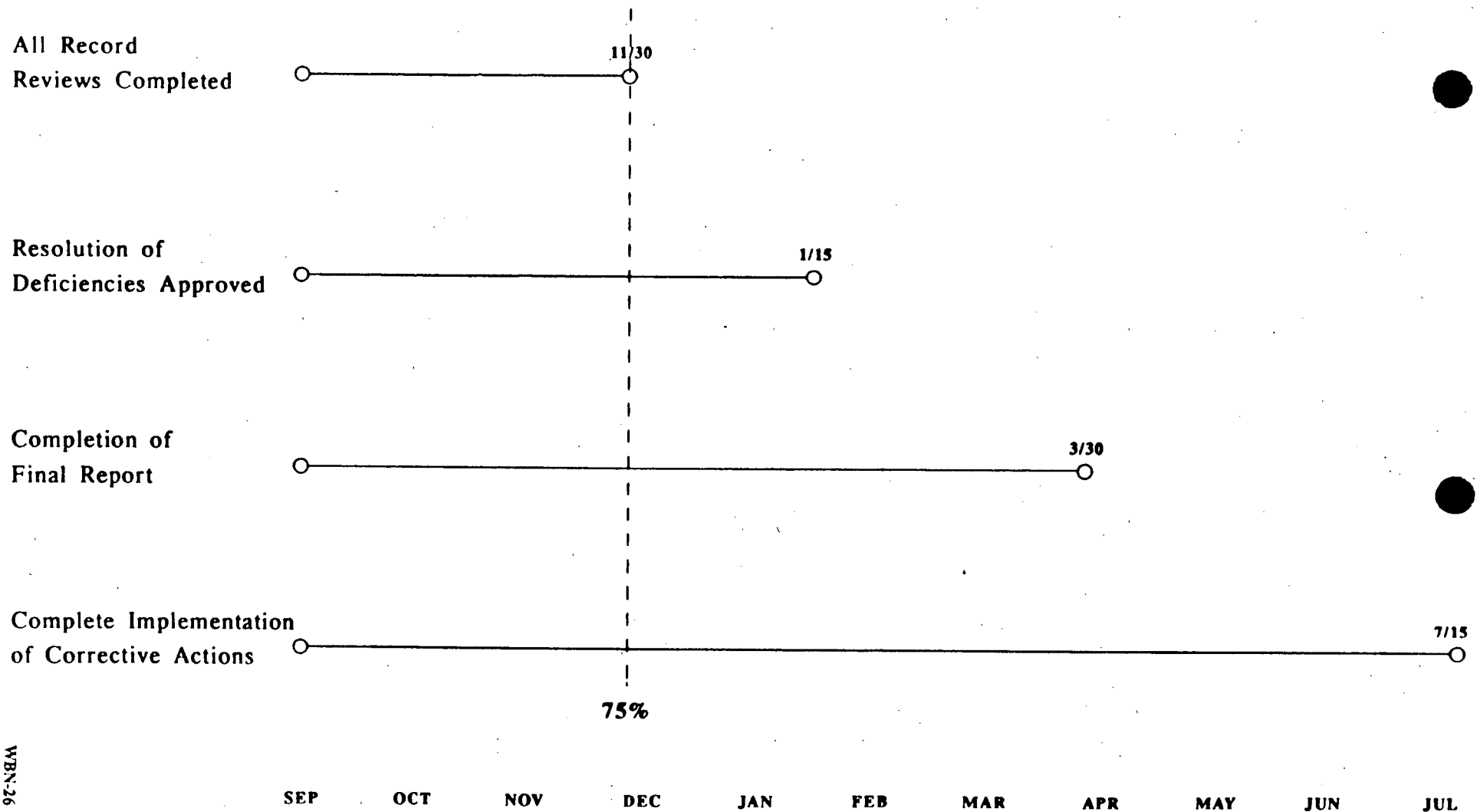
- **CONCLUSION**

- WBN design and construction positive

OVERALL PAC/AQ ACTIVITIES - 65% COMPLETED
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QA RECORDS STATUS

QA Records CAP Project Status/Completion



QA RECORDS CAP

STATUS

- **COMPLETED**
 - Record quality problem resolution
 - 60 of 198 record quality closure packages completed
 - 24 of 36 record plans are completed

- **IN PROCESS**
 - Record technical content review
 - Record technical problem resolution

- **REMAINING**
 - Integrated assessment
 - Preparation of final report
 - Implementation of corrective action and recurrence control

- **CONCLUSION**
 - Hardware deficiencies are enveloped by CAPs/SPs with few exceptions
 - CAPs/SPs provide supplemental/alternate records to original records
 - Essential records defined by record plans

CLOSING REMARKS