

MAY 13 1992

Official copy

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

See rpt.

Tennessee Valley Authority
ATTN: Mr. M. O. Medford
Vice President, Nuclear Assurance,
Licensing and Fuels
38B 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 your request at the Watts Bar site on May 8, 1992. The purpose was to brief the NRC on Watts Bar activities. A list of attendees and a copy of TVA's handout are enclosed.

It is our opinion that this meeting was beneficial and provided a better understanding of TVA's activities and plans for Watts Bar.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

Should you have any questions concerning this matter, please contact us.

Sincerely,

(Original signed by L. Reyes)

Luis A. Reyes, Director
Division of Reactor Projects

Enclosures:

1. List of Attendees
2. Presentation Summary

cc w/encls: (See page 2)

9206020186 920513
PDR ADDCK 05000390
P PDR

MA 2

11-IE 01

Tennessee Valley Authority

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cc w/encls:

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

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

Mr. D. E. Nunn, Vice President
3B Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

The Honorable Robert Aikman
County Judge
Rhea County Courthouse
Dayton, TN 37381

Mr. W. J. Museler, Site Vice President
Watts Bar Nuclear Plant
Tennessee Valley Authority
P. O. Box 800
Spring City, TN 37381

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

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

State of Tennessee

bcc w/encls: (See page 3)

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

TVA Representative
Tennessee Valley Authority
11921 Rockville Pike
Suite 402
Rockville, MD 20852

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

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Tennessee Valley Authority

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bcc w/encls:

S. D. Ebnetter, RII

L. A. Reyes, DRP/RII

J. R. Johnson, DRP/RII

K. P. Barr, DRP/RII

B. Bordenick, OGC

M. S. Callahan, GPA/CA

H. H. Livermore, DRP/RII

P. S. Tam, NRR

J. B. Brady, DRP/RII

R. D. Gibbs, DRP/RII

F. J. Hebdon, NRR

Document Control Desk

NRC Resident Inspector

U. S. Nuclear Regulatory Commission

Route 2, Box 700

Spring City, TN 37381

RII:DRP

KB
KBarr:vyg

05/13/92

RII:DRP

BW
BWilson

05/13/92

50-390

WATTS BAR 1

TVA

Meeting Summary Conducted on May 8, 1992

Rec'd w/ltr dtd 5/13/92...9206020186

-NOTICE-

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-NOTICE-

ENCLOSURE 1

LIST OF ATTENDEES

TVA STAFF

<u>Name</u>	<u>Title</u>
O. D. Kingsley	President, Generating Group
M. O. Medford	Vice President, Nuclear Assurance, Licensing & Fuels
D. E. Nunn	Vice President, Nuclear Projects
N. C. Kazanas	Vice President, Completion Assurance
M. J. Burzynski	Nuclear Licensing and Regulatory Affairs Manager
M. J. Museler	Site Vice President, Watts Bar
G. L. Pannell	Site Licensing Manager
H. H. Weber	Engineering and Modifications Manager
R. M. Bellamy	Startup and Test Manager
J. D. Christensen	Site Quality Manager
R. W. Huston	TVA Licensing Rockville Office
D. E. Moody	Plant Manager
J. Vorees	Regulatory Licensing Manager
W. L. Elliott	Engineering Manager
T. D. Cosby	Manager, Employee Concern Program
R. W. Johnson	Modifications and Facilities Manager

NRC STAFF

<u>Name</u>	<u>Title</u>
S. D. Ebnetter	Regional Administrator, Region II (RII)
J. G. Partlow	Associate Director for Projects, Office of Nuclear Reactor Regulation, (NRR)
L. A. Reyes	Director, Division of Reactor Projects, (DRP), RII
F. J. Hebdon	Director, Project Directorate IV, NRR
K. P. Barr	Section Chief, DRP, RII
P. S. Tam	Senior Project Manager, NRR
G. A. Walton	Senior Resident Inspector, Watts Bar, RII
J. Spraul	License Reviewer, NRR
P. G. Humphrey	Resident Inspector, Watts Bar, RII
K. P. Ivey	Resident Inspector, Watts Bar, RII
J. F. Lara	Resident Inspector, Watts Bar, RII

ENCLOSURE 2

**NRC/TVA MANAGEMENT MEETING
WATTS BAR NUCLEAR PLANT
MAY 8, 1992**

- | | |
|---|-----------------------------|
| I. INTRODUCTION | NUNN |
| II. EVALUATION OF CONSTRUCTION | |
| A. LINE MANAGEMENT | WEBER |
| B. QUALITY ASSURANCE | CHRISTENSEN |
| III. MODIFICATIONS/ECI ORGANIZATION CHANGES | WEBER |
| IV. WATTS BAR PROJECT SCHEDULE | WEBER |
| V. NRC'S IMPLEMENTATION PLAN FOR TEAM INSPECTIONS AT WATTS BAR | PANNELL |
| VI. STARTUP PROGRAM ACTIVITIES STATUS | BELLAMY |
| VII. ACTION ITEMS FROM LAST MEETING | PANNELL/
KAZANAS |
| VIII. OVERALL CONCLUSIONS | NUNN |

I. INTRODUCTION

- ORGANIZATIONAL CHANGES HAVE BEEN MADE WHICH STRENGTHEN AND IMPROVE THE TEAM EFFORT TO COMPLETE WATTS BAR

- THE QUALITY OF WORK BEING PERFORMED AT WATTS BAR IS MEETING PERFORMANCE EXPECTATIONS

- A SUBSTANTIAL AMOUNT OF CONSTRUCTION WORK HAS BEEN COMPLETED

- OUR MONITORING TRENDS INDICATE THAT WE MAY BE ABLE TO REDUCE MONITORING IN CERTAIN AREAS AFTER MANAGEMENT REVIEW AND CONCURRENCE

- REACHED AGREEMENT WITH NRC ON STATISTICAL APPROACH TO QA RECORDS

- SCHEDULE

II. EVALUATION OF CONSTRUCTION

EVALUATION OF CONSTRUCTION -- LINE MANAGEMENT

OVERVIEW

- **MAINTAINED HIGH LEVEL OF QUALITY THROUGH RAMP-UP TO DATE**
- **ABLE TO ESTABLISH LARGE BACKLOG OF WORK AVAILABLE TO MODIFICATIONS**
- **HAVE STEADILY INCREASED WORK PRODUCTION IN FIELD WHILE MAINTAINING AVAILABLE WORK LOAD**
- **MATERIALS ISSUES HAVE BEEN ADDRESSED, INCLUDING IMPLEMENTATION OF CORRECTIVE ACTIONS AND ENHANCEMENTS**

CONCLUSION

- **TVA IS READY FOR NRC REVIEW FOR UNRESTRICTED RELEASE OF CONSTRUCTION**
- **BASED ON POSITIVE RESULTS TO DATE, ROLLBACK OF REDUNDANT MONITORING**
- **ALSO RECOMMEND DISCONTINUATION OF LICENSING CHECKLIST PROCESS**

ENGINEERING

STATUS

DESCRIPTION	TO GO 5/8	PRODUCTION SINCE RESTART
ESSENTIAL CALCS	1292	2555
CALCS W/UNVERIFIED ASSUMPTIONS	182	583
DESIGN CHANGE NOTICES	751	493

QUALITY

- ACCEPTABLE
- AGGRESSIVELY PURSUING PROBLEMS

AREAS OF CONCENTRATION

- SUPPORT OF SYSTEM COMPLETION VS PROJECT APPROACH
- DOCUMENTATION OF CLOSURES
- COMPLETION OF CIVIL-SEISMIC
- PRODUCTION OF MECHANICAL/NUCLEAR CALCS
- COMPLETION OF DESIGN FOR ELECTRICAL/CABLE ISSUES

CONCLUSION

- ENGINEERING WORK PROGRESSING WELL AND BEGINNING PROCESS OF RAMPDOWN

CONSTRUCTION MANAGEMENT EVALUATION OF WORK QUALITY

Overall Summary Report for Second Party / Peer Oversight Work Attribute Checklists

QUALITY & NON-QUALITY ATTRIBUTES

Period — 11/22/91 — 05/07/92

SUMMARY OF ALL AREAS

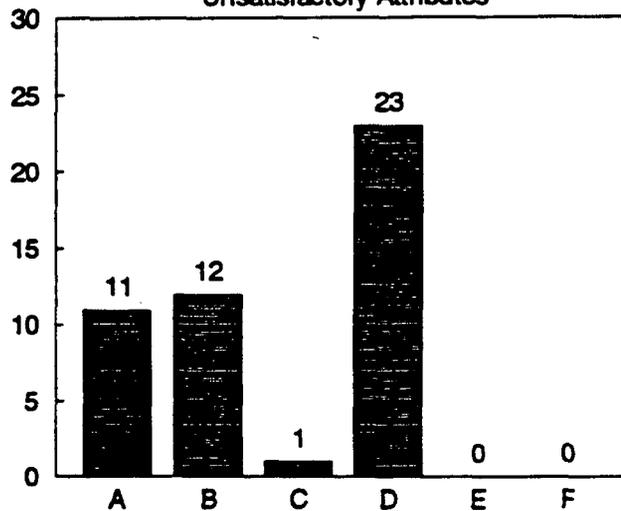
OVERALL SUMMARY

	ELECTRICAL	MECHANICAL	TOTAL
CHECKLIST RECEIVED	323	424	747
ATTRIBUTES REVIEWED	7,838	11,110	18,948
UNSAT ATTRIBUTES	22	25	47
ACCEPTANCE RATE	99.7%	99.8%	99.8%

AREA SUMMARY

AREAS	ELECTRICAL	MECHANICAL	TOTAL
WORK DOCUMENTS	8	3	11
PRE-JOB CONFERENCE	7	5	12
WORK AREA ASSESSMENT	0	1	1
WORK IMPLEMENTATION	7	16	23
POST JOB WALKDOWN	0	0	0
CLOSURE	0	0	0
TOTALS	22	25	47

Unsatisfactory Attributes



Legend :

- A — Work Document Reviews
- B — Pre-Job Conference
- C — Work Area Assessment
- D — Work Implementation
- E — Post Job Walkdown
- F — Closure

ANALYSIS / CRITIQUE :

- Have maintained a high quality level since restart.
- Monitoring program continues to work well.
- Rejections to date have been mainly administrative with minimal hardware deficiencies being identified.

CONCLUSION :

- Construction ready for unrestricted release.

SLOW MONITORED STATUS
AS OF 5/07/92

WORK STATUS

WORKPLANS	ELECTRICAL	MECHANICAL	TOTAL
TOTAL ESTIMATED	2,111	2,916	5,027
IN VAULT	128	39	167
COMPLETED	78	44	122
WORKING	164	92	256
AVAILABLE	231	130	361
AVAILABLE W/RESTRAINT	258	150	408
TOTAL TO GO	1,252	2,461	3,713

WR / WG	ELECTRICAL	MECHANICAL	TOTAL
TOTAL ESTIMATED	3,582	3,052	6,634
IN VAULT	103	116	219
COMPLETED	96	92	188
WORKING	65	60	125
AVAILABLE	75	70	145
AVAILABLE W/RESTRAINT	130	118	248
TOTAL TO GO	3,113	2,596	5,709

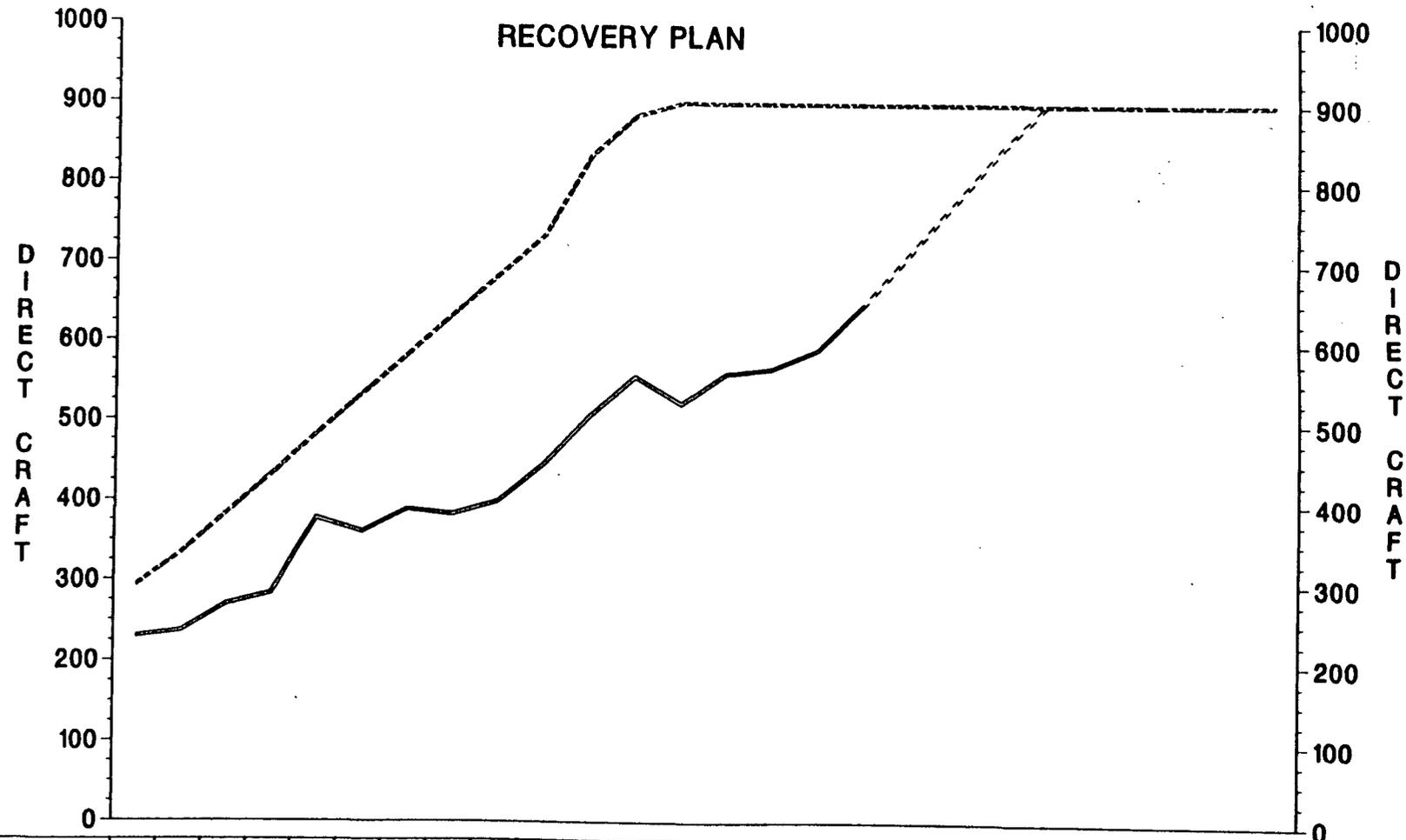
COMMODITY INSTALLATIONS
11/25/91 TO PRESENT

TASK DESCRIPTION	TASK CODE	UNIT OF MEASURE	QUANTITY	MANHOURS
P & C CABLE PULLING	CC	LF	28,688	7,868
CABLE TERMINATIONS	CT	EA	1,840	2,088
DETERMINATIONS	CTR	EA	1,302	1,119
ELECT. BOARD WORK (BREAKER HANDLES)	EB	EA	1,784	6,155
CONDUIT	EC	LF	2,787	5,271
CONDUIT REMOVAL	ECR	LF	1,721	524
LARGE HANGER MODS	HRM	EA	133	35,165
LARGE HANGER MAINT	HRX	EA	88	1,432
CONDUIT SUPPORTS	HS	EA	345	9,985
INSULATION REMOVAL	ISR	LF	14,876	29,081
JUNCTION BOXES	JB	EA	14	372
PROTECTIVE COATINGS	PP	SF	52,001	22,956
TAGS AND LABELS	TG	EA	8,021	11,740
SMALL BORE PIPE	2U	LF	499	1,787
EARTH BACKFILL	BA	CY	1,253	1,613

HTL MANHOUR SUMMARY
GENERATED TO DATE

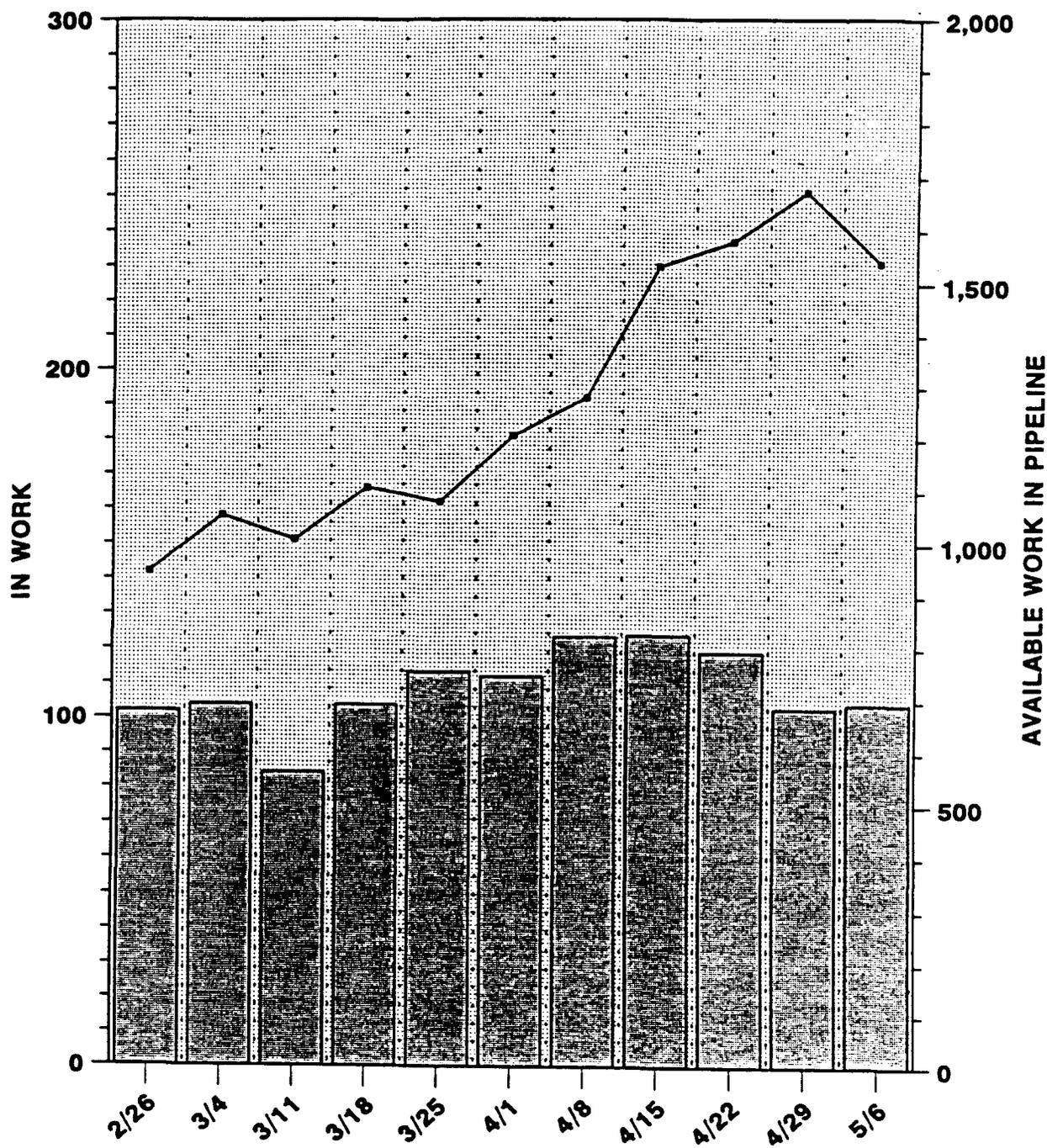
	* WORKPLANS *		* MRs / WRs *		** TOTAL **
	NUMBER APPROVED	HTL MANHOURS	NUMBER APPROVED	HTL MANHOURS	HTL MANHOURS
ELECTRICAL	728	206,031	447	20,600	226,631
MECHANICAL	639	296,264	423	203,545	499,809
TOTAL	1,367	502,295	870	224,145	726,440
IN-WORK	256	95,616	125	32,954	128,570
COMPLETE	289	80,442	407	101,299	181,741
TO GO	822	326,237	338	89,892	416,129

SLOW MONITORED RESTART MODIFICATIONS DIRECT CRAFT MANLOADING PROJECTION WBN - MODIFICATIONS



PLANNED RECOVERY	294	334	384	434	484	534	584	634	684	734	834	884	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
ACTUAL	230	237	270	284	378	361	390	384	400	447	507	556	522	561	567	591	648	713	778	843	900	900	900	900	900	900	900
WEEK ENDING	1/17	1/24	1/31	2/7	2/14	2/21	2/28	3/6	3/13	3/20	3/27	4/3	4/10	4/17	4/24	5/1	5/10	5/17	5/22	5/29	6/5	6/12	6/19	6/26	7/3	7/10	

UNRESTRAINED CONSTRUCTION WORK DOCUMENTS



IN WORK —	142	158	151	166	162	181	192	230	237	251	231
PIPELINE ■	680	693	561	692	755	746	823	826	793	686	694

BACKLOG OF WORK IN PLANNING

- **1200 DCNs**
- **2400 WORKPLANS**
- **7200 WORK REQUESTS AVAILABLE FOR PLANNING**

MATERIALS IMPROVEMENT PROJECT

- **RESPONSE TO INSPECTION REPORT 92-03 SUBMITTED APRIL 29, 1992**

- **MATERIALS VIOLATION 390/92-03 -- QAI-10.03 PROBLEM**
 - **RESPONSIBLE ORGANIZATION COMPLETED CHECKLIST**
 - **NO INTENT TO CHANGE PROCESS**
 - **QAI-10.03 CHANGE WAS UNCLEAR**
 - **CHECKLIST REFLECTED INTENT**

- **CONCLUSIONS:**
 - **NO SIGNIFICANT CHANGE IN CONSTRUCTION PROCESS WITHOUT NRC NOTIFICATION**
 - **NO PROGRAMMATIC BREAKDOWN IN OVERALL MATERIALS PROGRAM**
 - **REVIEWS TO DATE RESULTED IN NEED FOR ONLY ONE HARDWARE CORRECTION**
 - **OVERALL MIP PROGRAM EFFECTIVE IN PREVENTING MATERIAL OF UNKNOWN QUALITY FROM BEING INSTALLED IN SAFETY-RELATED APPLICATIONS**
 - **THE ACCOMPLISHMENT OF A NUMBER OF RESOURCE INTENSIVE ACTIONS AS PART OF MIP HAS GREATLY IMPROVED THE MATERIALS PROCESS**

INTERIM NRC REVIEW REQUIREMENTS CHECKLIST

- NRC LETTER DATED NOVEMBER 26, 1991

" . . .THERE WILL BE NO UNILATERAL CHANGES TO [PROCESSES, PROCEDURES, ORGANIZATIONS, AND CONTROLS IN PLACE UPON CONCURRENCE OF WORK RESUMPTION]. "

- TVA/NRC RESIDENT/REGION II CHECKLIST DEVELOPED

- APPROXIMATE NUMBER OF CHANGES TO DATE
(PROCESSES, PROCEDURES, ORGANIZATIONS, CONTROLS)

TOTAL	756
CHANGES REQUIRING NRC DISCUSSION	80
SIGNIFICANT CHANGES	3

- SIGNIFICANT CHANGES

- SAFETY NET REVIEW - EXCLUDED MAINTENANCE REQUEST REVIEW
- QC INSPECTION - EXCLUDED BOP WORKPLANS
- QC INSPECTION REPORTS - METHOD OF CLOSURE

INTERIM NRC REVIEW REQUIREMENTS CHECKLIST (CONTINUED)

◦ TVA WBN PROPOSAL FOR DISCONTINUING CHECKLIST

- ALL RESPONSIBLE ORGANIZATION MANAGERS DIRECTED TO CONTINUE THE SCREENING PROCESS**

- CHECKLIST CRITERIA WILL PROVIDE GUIDANCE**

- SIGNIFICANT CHANGES WILL BE DISCUSSED WITH RESIDENT INSPECTOR**

- PERFORMANCE FEEDBACK WILL BE PROVIDED PERIODICALLY TO THE RESIDENT INSPECTOR**

- SITE QUALITY MANAGER WILL PERFORM PERIODIC OVERVIEWS**

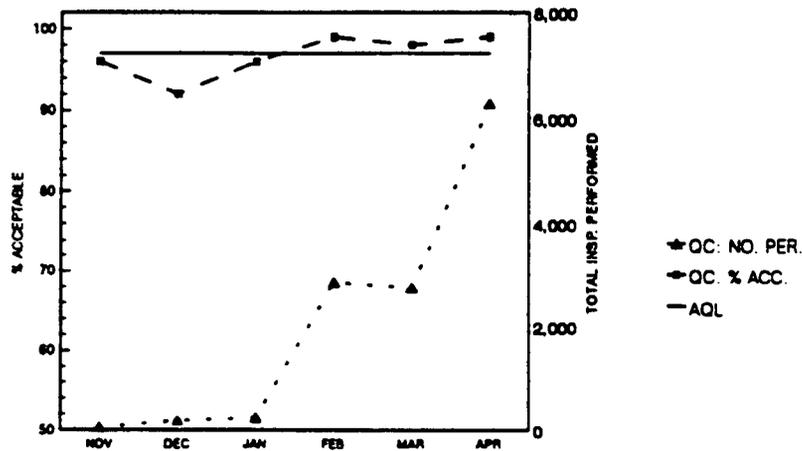
QA EVALUATION OF WORK QUALITY

- **QC INSPECTION RESULTS**
- **WORK PLANNING PROCESS**
- **QA MONITORING AND AUDIT RESULTS**
- **OPPORTUNITIES FOR IMPROVEMENT**

CONSTRUCTION/QUALITY STATUS

- A HIGH LEVEL OF ACCEPTANCE HAS BEEN ACHIEVED FOR WORK PRESENTED TO QC FOR INSPECTION
- ACCEPTANCE RATE CONSISTENTLY ABOVE 98 PERCENT
 - INSPECTIONS INCLUDE SUBSTANTIAL AMOUNT OF ALL TYPES OF WORK ACTIVITIES (EXCEPT FIRE BARRIERS/SEALS)
 - HIGH LEVELS OF ACCEPTANCE RATES CONTINUE TO BE ACHIEVED AS WORK INCREASES

INSPECTIONS



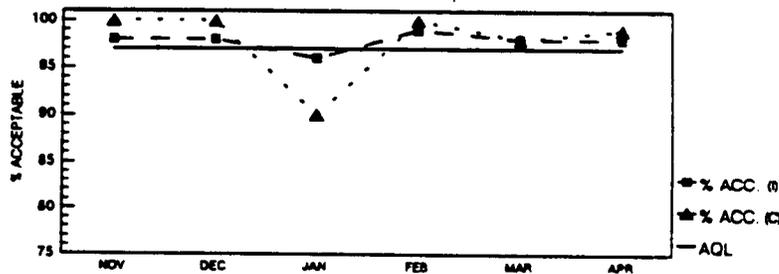
QC: NO. PER.	51	182	242	2,860	2,750	6,262
QC: NO. ACC.	49	168	233	2,821	2,691	6,221
QC: % ACC.	96	92	96	99	98	99
AQL	97	97	97	97	97	97

CONSTRUCTION/QUALITY STATUS (CONTINUED)

WORK PLANNING PROCESS HAS BEEN ACHIEVING ACCEPTABLE LEVELS OF QUALITY

- REVIEW RESULTS OF WORKPLANS AND WORK ORDERS CONSISTENTLY ABOVE AQL
- RESULTS OF VERTICAL SLICE ASSESSMENT OF 23 COMPLETED NEW WORKPLANS INDICATE THE OVERALL PROCESS IS SATISFACTORY
- RESULTS OF ASSESSMENT OF 18 VAULTED OLD WORKPLANS (AFTER SAFETY NET REVIEWS) WERE SATISFACTORY
- AUDIT AND ASSESSMENT RESULTS INDICATE ENGINEERING ACTIVITIES ARE ADEQUATE TO SUPPORT WORK ACTIVITIES

WORK INSTRUCTION REVIEWS



I N I T I A T I O N	W O R K P L A N S	REV	NOV	DEC	JAN	FEB	MAR	APR
		ACC	110	84	83	142	188	184
C L O S U R E	W O R K P L A N S	REV	35	93	86	147	167	109
		ACC	35	90	86	147	167	109
	W O R K O R D E R S	REV	35	90	86	147	167	109
		% ACC	98	98	96	99	98	98
C L O S U R E	W O R K P L A N S	REV	0	4	14	15	16	57
		ACC	0	4	10	15	16	56
	W O R K O R D E R S	REV	0	0	26	20	46	90
		ACC	0	0	28	20	45	89
	W O R K O R D E R S	% ACC	100	100	90	100	98	99
AQL		97	97	97	97	97	97	

CONSTRUCTION/QUALITY STATUS (CONTINUED)

- **RESULTS OF QA MONITORING HAVE BEEN ACCEPTABLE**
 - **OF 2712 LOOKS DURING QA MONITORING, 2600 (95.9%) HAVE BEEN ACCEPTABLE**
 - **NO SIGNIFICANT HARDWARE PROBLEMS ARE BEING IDENTIFIED**
 - **QUALITY OF WORK IN FIELD IS SATISFACTORY**

- **RESULTS OF QA AUDITS INDICATE CAREFULLY MONITORED RESTART ACTIVITIES ARE BEING PROPERLY PERFORMED**
 - **CAREFULLY MONITORED RESTART AUDITS IDENTIFIED NO SIGNIFICANT PROBLEMS**
 - **ASME AUDIT IDENTIFIED NO SIGNIFICANT PROBLEMS**

CONSTRUCTION/QUALITY STATUS (CONTINUED)

• **OVERALL RESULTS INDICATE:**

- **LINE MANAGEMENT HAS ESTABLISHED EFFECTIVE INTERNAL CONTROLS TO ACHIEVE HIGH LEVELS OF QUALITY**

- **LINE MANAGEMENT HAS BEEN RESPONSIVE TO QUALITY CONCERNS**

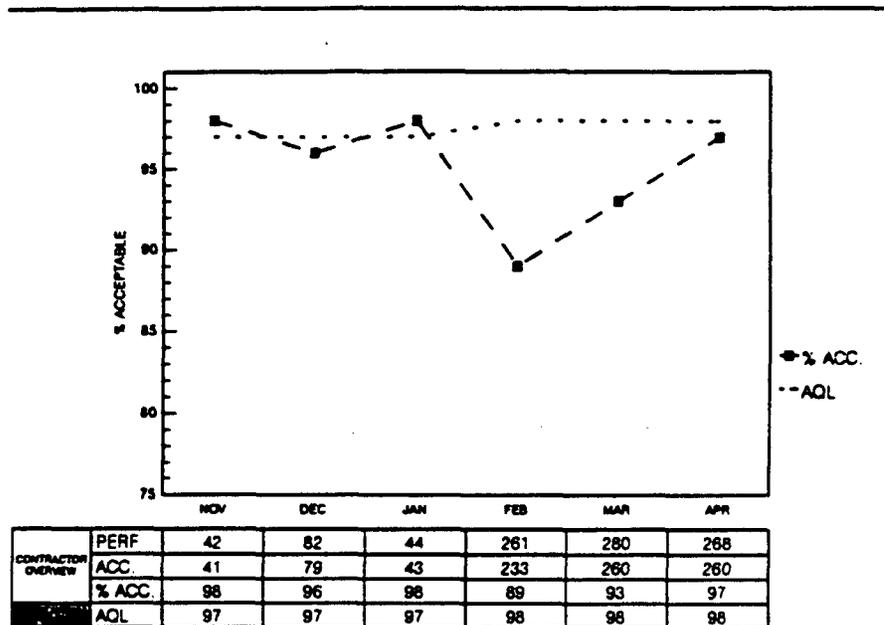
- **SOME OPPORTUNITIES FOR IMPROVEMENT REMAIN**

CONSTRUCTION/QUALITY STATUS (CONTINUED)

OPPORTUNITIES FOR IMPROVEMENT

- OVERVIEW INSPECTIONS OF QC HAVE BEEN BELOW THE AQL, PRIMARILY BECAUSE OF PROBLEMS IN MECHANICAL AREA

QC INSPECTION OVERVIEWS



		NOV	DEC	JAN	FEB	MAR	APR
CONTRACTOR OVERVIEW	PERF	42	82	44	261	280	268
	ACC	41	79	43	233	260	260
	% ACC	98	96	98	89	93	97
	AQL	97	97	97	98	98	98

- CRAFT PERFORMANCE IN MECHANICAL AREA HAS BEEN BELOW THAT ACHIEVED IN ELECTRICAL AND CIVIL AREAS
- HAVE IDENTIFIED SOME REPETITIVE PROBLEMS DURING INSPECTIONS THAT ARE RECEIVING ADDITIONAL ATTENTION BY MODS AND QA

CONSTRUCTION/QUALITY STATUS (CONTINUED)

OPPORTUNITIES FOR IMPROVEMENT (CONTINUED)

- **MINOR ADMINISTRATIVE ERRORS WITH NO QUALITY SIGNIFICANCE EXIST IN OLD VAULTED WORKPLANS AFTER COMPLETION OF SAFETY NET REVIEWS. ADDITIONAL CONFIRMATORY REVIEWS WILL BE DONE**
- **PROBLEMS WITH TIMELY COMPLETION OF REQUIRED READING LISTS CONTINUE TO BE IDENTIFIED IN AREA OF TRAINING**

OTHER IMPROVEMENTS ACCOMPLISHED/UNDERWAY

- **REDUCING QA INSPECTION DOCUMENTATION BY COMBINING FORMS**
- **USE OF RADIOGRAPH REVIEW RESULTS TO IDENTIFY PROBLEM WELDERS**
- **USE OF INSPECTION RESULTS TO IDENTIFY REPETITIVE PROBLEMS FOR PROCESS IMPROVEMENT (STRUCTURAL WELDING, ANCHOR BOLTS)**
- **IMPROVED TRENDING PROGRAM**

OVERALL CONCLUSION IS THAT QUALITY IS ACCEPTABLE AND PERFORMANCE MEETS OR EXCEEDS ESTABLISHED GOALS

III. MODIFICATIONS/ECI ORGANIZATION CHANGES

SUMMARY -- ORGANIZATION CHANGES

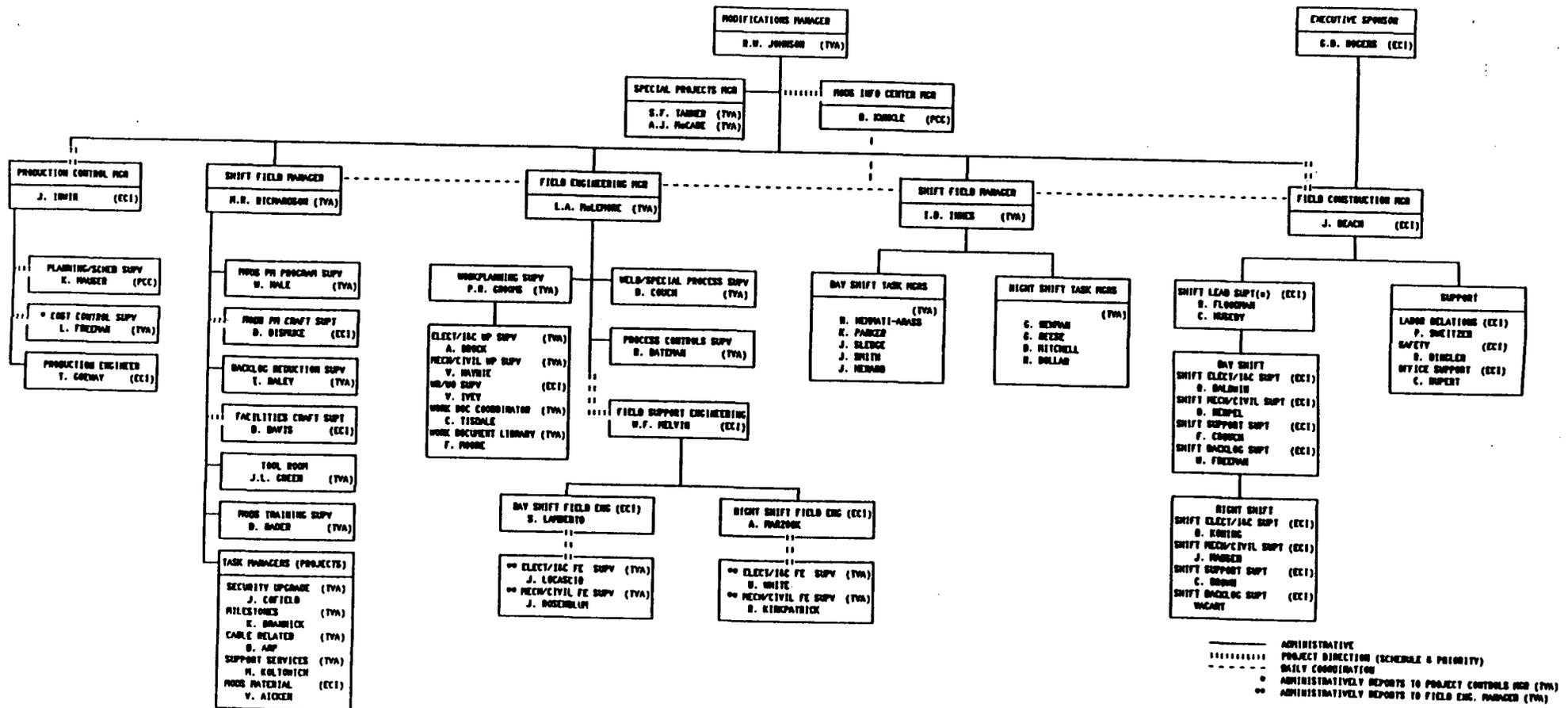
° NEED FOR CHANGES - MAIN PROBLEMS

- INTERFACE ISSUES**
- LACK OF TEAMWORK**
- RESTRICTIVE WORK ENVIRONMENT DUE TO SLOW MONITORED RESTART**
- MATERIALS-RELATED CONCERNS**

° RESOLUTION

- MODIFICATION/ECI ORGANIZATION REORGANIZED**
- TEAM BUILDING IMPLEMENTED**
- PRODUCTIVITY AND ADMINISTRATIVE IMPROVEMENTS INITIATED**

TVA/ECI WORK CONTROL INTERFACE DIAGRAM



THIS IS NOT AN ORGANIZATION CHART
FOR ADMINISTRATIVE REPORTING SEE OFFICIAL ORGANIZATION CHARTS

MAY 7, 1992

IV. WATTS BAR PROJECT SCHEDULE

WATTS BAR PROJECT SCHEDULE

◦ SCHEDULE EFFORTS TO DATE

- REBUILT START UP LOGICS
- INCORPORATED ENGINEERING, MODIFICATIONS, AND PLANT LOGICS
- TIED IN LICENSING ACTIVITIES
- DEVELOPED CAQ LOGICS
- REVALIDATED RESOURCE LOADING
- ADJUSTED FOR CONSTRUCTION RAMP UP
- DEVELOPED FIRST MAJOR MILESTONE LOGIC AND SCHEDULE
- MEASURED PERFORMANCE/PROGRESS ON FIRST MILESTONE TO VALIDATE OVERALL SCHEDULE

◦ CURRENT ACTIVITIES

- PLAN FOR ISSUANCE OF FUEL LOAD SCHEDULE
- FIRST MILESTONE SCHEDULE AND PRELIMINARY FUEL LOAD CRITICAL PATH

ACTIVITY DESCRIPTION

April

May

6

13

20

27

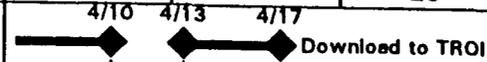
4

11

18

25

CAQ review and work-off curves



Quarterly schedule reflow for forecast



Eliminate unnecessary activities and move punchlist items to MTS



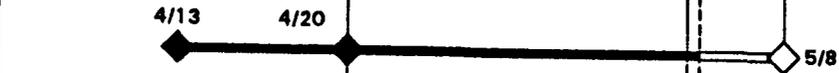
PM scrubs and data input



Reconcile licensing schedule



Review NCO Logic



STARTUP SCHEDULE SCRUB

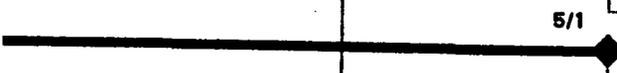
- Add Westinghouse startup logic



- Review BOP startup logic



- Review component testing durations



Preliminary reflow and manpower curves



Review schedule and curves with organizations and Ebasco



Revise schedule and run new curves



Sr. Management Review and Sign-off



Issue schedule and curves



WRN-26

WATTS BAR CLEAR PLANT

VOLTAGE DISTRIBUTION SYSTEM (LEVEL 0)

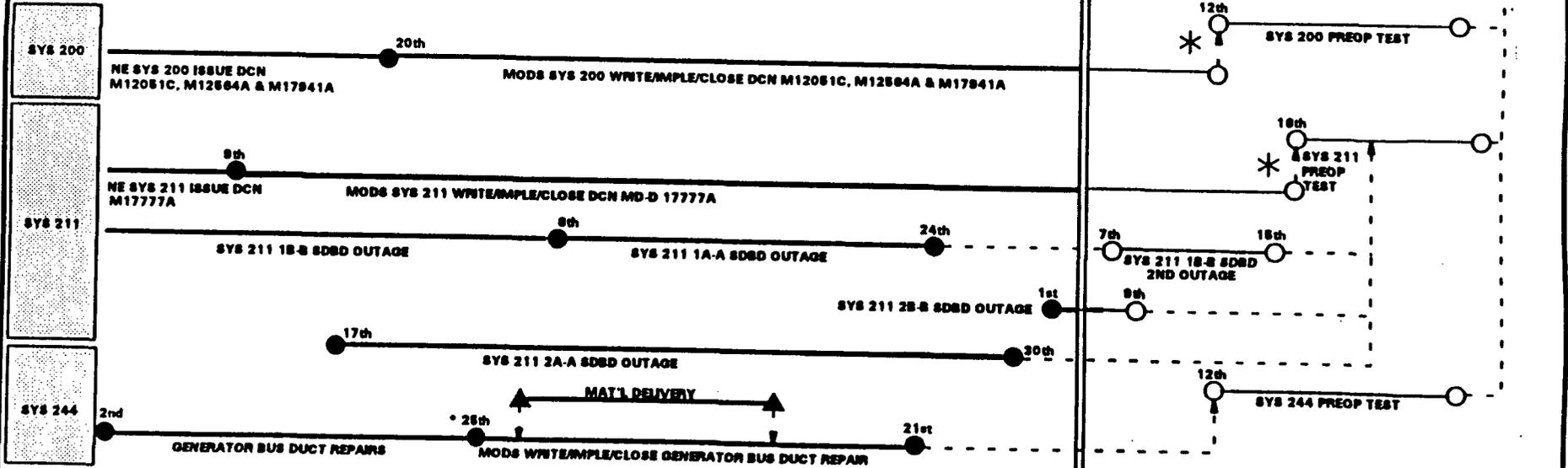
MAR '92

APR '92

MAY '92

DATA DATE: 05/04/92

* POTENTIAL IMPACTS DUE TO SCOPE & MATERIAL DELAYS AND PREOP TEST APPROVAL DELAYS.

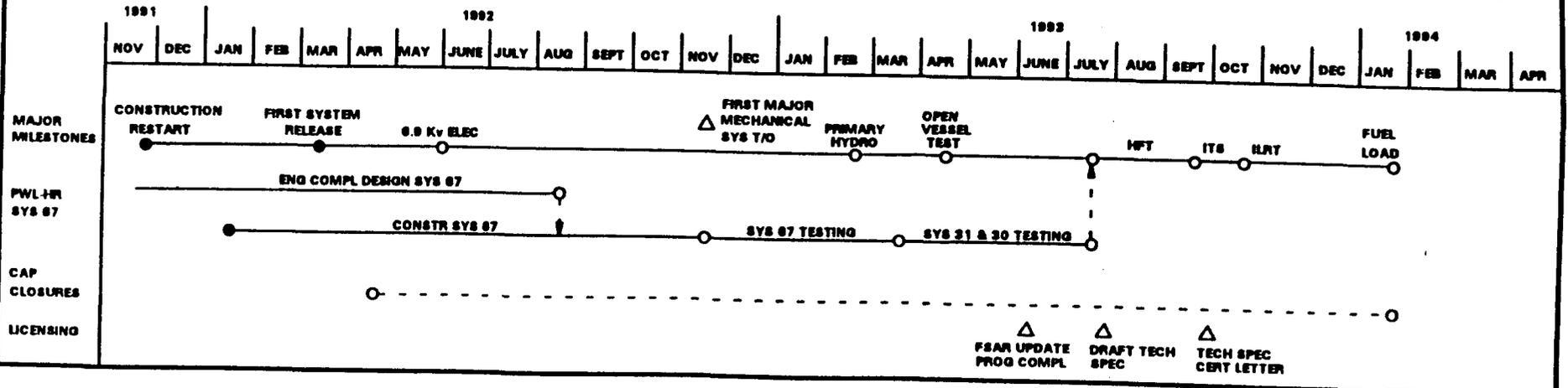


N. CRITICAL PATH ANALYSIS

CRITICAL PATH (LEVEL 0)

POTENTIAL IMPACTS: LARGE BORE SUPPORTS

PRELIMINARY



WBN-27

**V. NRC'S IMPLEMENTATION PLAN FOR TEAM
INSPECTIONS AT WATTS BAR**

NRC INSPECTION SCHEDULE

- **BASED ON WATTS BAR SCHEDULE, AN NRC INSPECTION SCHEDULE IS REQUIRED**
- **NRC INSPECTION SCHEDULE WILL NOT BE USED AS A GAUGE TO JUDGE PROXIMITY TO A LICENSE, BUT WILL BE USED TO MANAGE TVA RESOURCES AND TO ENSURE EFFICIENT USE OF NRC RESOURCES**
- **TVA SCHEDULE WILL BE ISSUED APPROXIMATELY THE END OF THE MONTH**
- **ANTICIPATE A SERIES OF DISCUSSIONS WITH NRC TO DEVELOP AN NRC INSPECTION SCHEDULE**

VI. STARTUP PROGRAM ACTIVITIES STATUS

STARTUP PROGRAM ACTIVITIES STATUS

- **STARTUP PROGRAM DESCRIPTION**
- **CURRENT MILESTONE DESCRIPTION**
- **CURRENT MILESTONE STATUS**
- **PREOPERATIONAL TEST PREREQUISITES**
- **PUNCHLIST CLOSURE PROCESS**

STARTUP TEST PROGRAM

- **STARTUP MANUAL REVISION STATUS**

- **LESSONS LEARNED DURING PREPARATION AND TESTING ACTIVITIES**
- **COMMENTS FROM NRC**
- **RESPONSES TO PROBLEMS IDENTIFIED**

- **APPROVED REVISED PROCEDURES WILL BE ISSUED BY 5/15**

UNRESOLVED NRC ISSUES

- **PUNCHLIST COMPLETION, AREA TURNOVER ELEMENTS, AND MULTI-SYSTEM PROGRAMMATIC ISSUE RESOLUTION REMAIN AS CONCERN AREAS**

- **WE WILL CONTINUE TO WORK WITH NRC TO RESOLVE THESE CONCERNS**

STARTUP TEST PROGRAM

- WBN PERFORMING A COMPLETE INITIAL TEST PROGRAM TO THE REQUIREMENTS OF REGULATORY GUIDE 1.68, REVISION 2

- FSAR CHAPTER 14 HAS BEEN SUBMITTED (AMENDMENT 69, 1/21/92) TO THE COMMISSION PROVIDING DETAILS ON THE PROGRAM ELEMENTS

- CURRENTLY TESTING SYSTEM COMPONENTS ASSOCIATED WITH THE ELECTRICAL DISTRIBUTION MILESTONE
 - 200 161/6.9KV COMMON POWER
 - 201 6.9KV UNIT POWER
 - 202 6.9KV RCP POWER
 - 211 6.9KV SHUTDOWN POWER
 - 244 24KV POWER (MAIN TRANSFORMER)
 - 245 500KV SWITCHYARD EQUIPMENT AND CABLE TUNNEL CABLE TRAYS

CURRENT COMPLETION STATUS

PUNCHLIST ITEMS:

SYSTEM	TOTAL MTS ITEMS	CLOSED TO DATE	OPEN
200	259	144	115
201	145	111	34
202	98	69	29
211	692	430	262
244	384	341	43
245	25	18	7
TOTAL	1603	1113	490

TOTAL OPEN PUNCHLIST ITEMS 490

WILL BE CLOSED OR PARTIALLY CLOSED
PRIOR TO PREOP START 400

REMAINING ITEMS 90

40 - STILL IN MANAGEMENT EVALUATION

35 - NOT IN THIS TEST SCOPE; WILL BE REASSIGNED
TO CORRECT TEST SCOPE

15 - REQUIRE PREOP TEST ACTIVITIES TO CLOSE

CURRENT COMPLETION STATUS

FIELD WORK STATUS

- THE 423 TO GO OPEN ITEMS CAN BE CATEGORIZED AS FOLLOWS:

- 182 - LOOSE, MISSING, DAMAGED, CLEANUP, PAINT, FDCNs OR TEST WOs
- 102 - PAPERWORK CLOSURES OR PARTIAL CLOSURES
- 139 - MODIFICATION RELATED PUNCHLIST ITEMS

THE 139 MODIFICATION RELATED PUNCHLIST ITEMS RELATE TO 29 DCNs AND IMPLEMENTING WORKPLANS

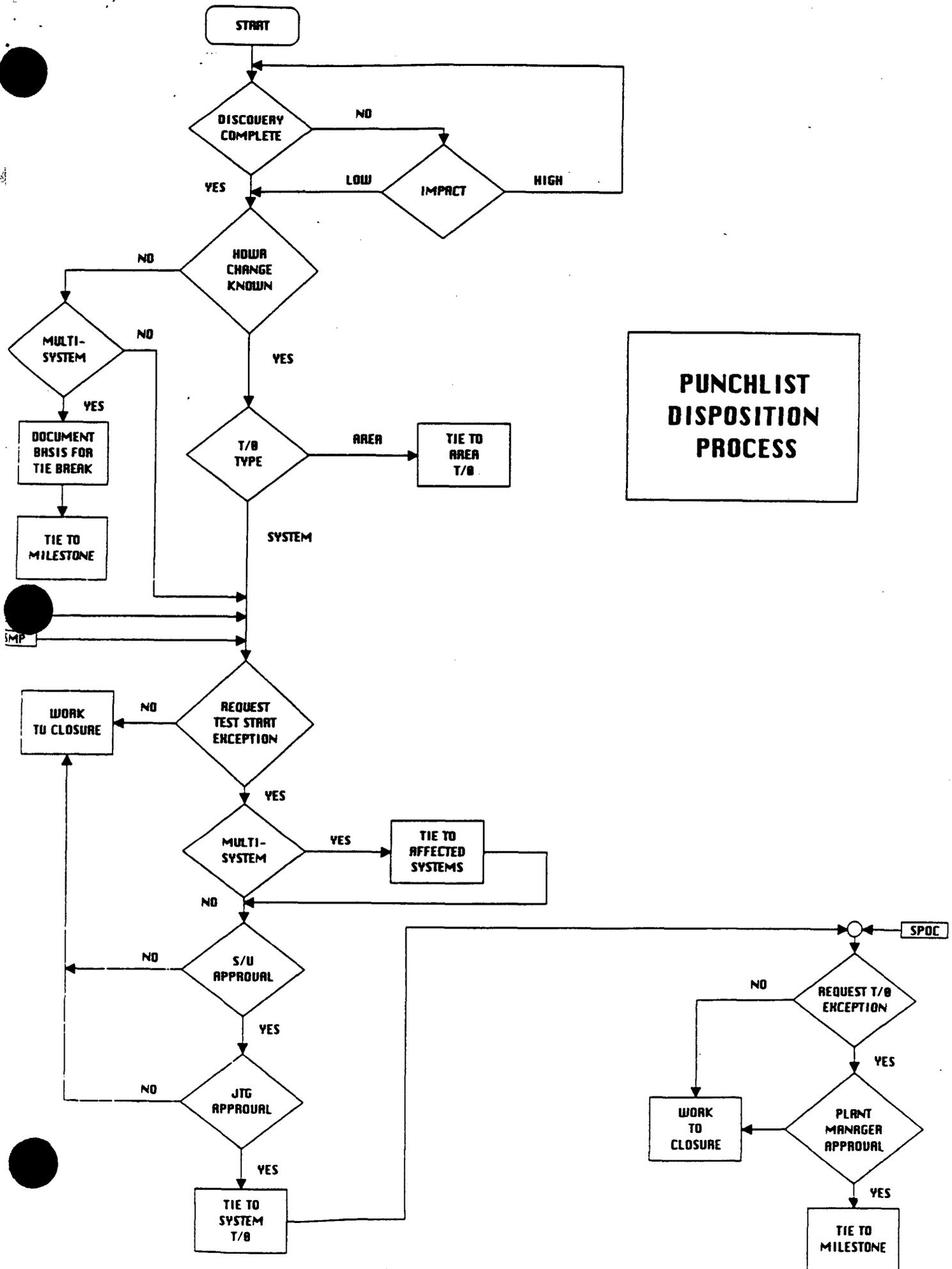
22 OF THE 29 DCNs ARE IN THE CLOSURE CYCLE. THE FIELD WORK COMPLETION STATUS IS SHOWN BELOW FOR THE 7 REMAINING DCNs

DCN No.	DESCRIPTION	%FWC
12051	P&R SOURCE TRANSFORMERS C&D	85%
17696	BLOWN FUSE INDICATORS	75%
13688	PNEUMATIC RELAY REPLACEMENT	75%
15931	LOSS OF VOLTAGE RELAY ADDITION	75%
17777	APPENDIX 'R' CABLE REPLACEMENT	80%
18013	CALIBRATE PNEUMATIC RELAYS	50%
18300	ADDITION OF DOOR STIFFENER	75%

CONSTRUCTION (COMPONENT OR GENERIC) TESTS

STATUS OF COMPONENT TESTING

SYSTEM	TESTS SCHEDULED	TESTS COMPLETED (FWC)
200	700	340
201	644	3
202	252	252
211	698	150
244	50	12
245	0	0



**PUNCHLIST
DISPOSITION
PROCESS**

VII. ACTION ITEMS FROM LAST MEETING

MARCH 24, 1992 MEETING ACTION ITEMS

- STATION BLACKOUT
 - TVA SUBMITTAL ON APPROACH COMPLETE
 - NRC REVIEW OF APPROACH COMPLETE
- TVA TO SHARE SCHEDULE INFORMATION
 - CAP/SP SCHEDULING MEETING ONGOING
- CIVIL IDI DECISION
 - NRR VISIT CONCLUDED COMPLETE
 - SEPARATE IDI APPROPRIATE COMPLETE
- EAGLE 21
 - TVA TO PROVIDE DIFFERENCE BETWEEN SEQUOYAH AND WBN PENDING 06/15/92
 - FSAR CHANGES PENDING TBD
- EQ – NRC TO REVIEW PROGRAM
 - RAI ISSUED COMPLETE
- QA RECORDS
 - NRC ISSUED POSITION COMPLETE
 - TVA TO RESPOND (PROGRAM CHANGES) PENDING 05/15/92

QA RECORDS

ADDITIONAL SYSTEMATIC RECORDS REVIEW (ASRR) CURRENT ISSUES

- **NRC CONCERNS ABOUT THE STATISTICAL SAMPLING METHODOLOGY USED BY THE ASRR HAVE BEEN RESOLVED**
- **NRC HAS AGREED THAT REVISED METHODOLOGY PERMITS ACCEPTANCE OF THE APPROACH FOR SER PREPARATION**
- **QA RECORDS CAP REVISION INCLUDING DESCRIPTION OF NEW SAMPLING APPROACH TO BE SUBMITTED TO NRC ON MAY 15**
- **NRC AGREED TO PERFORM EXPEDITIOUS REVIEW TO FACILITATE SER PREPARATION BY END OF MAY**
- **NRC COMPLETED FIRST INSPECTION OF THE ASRR THIS WEEK. THE INSPECTION RESULTED IN ONE UNRESOLVED ITEM REGARDING THE DEFINITION OF THE POPULATION FOR REVIEW OF RECEIPT INSPECTIONS**