

*Official*

APR 0 3 1991

Docket Nos. 50-390, 50-391  
License Nos. CPPR-91, CPPR-92  
EA 91-19

Tennessee Valley Authority  
ATTN: Mr. D. A. Nauman  
Senior Vice President  
Nuclear Power  
6N 38A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

Gentlemen:

SUBJECT: SUMMARY OF MARCH 12, 1991, TVA/NRC MEETING ON CORRECTIVE ACTIONS  
FOR WORK CONTROL AND WORK QUALITY ISSUES

This refers to the meeting conducted at our request in the Region II Office on March 12, 1991. The purpose of the meeting was to discuss the status of ongoing and planned activities related to the stop work order, including the conditions necessary for resumption of work. A list of attendees, a narrative summary of the meeting, and a copy of your handout are enclosed.

It is our opinion that this meeting was beneficial in that it provided an understanding of the actions you have taken with respect to the work control problems at Watts Bar, your plans to perform certain cable testing activities prior to lifting the stop work order and your plans to gradually resume work under increased management controls.

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  
**BRUCE A. WILSON**

Bruce A. Wilson, Chief  
TVA Projects

9105290167 910403  
PDR ADOCK 05000390  
A PDR

- Enclosures:
1. List of Attendees
  2. Meeting Summary
  3. Handout

cc w/encls: (See page 2)

*F/A-3 sent*

*1/1 Teo/*

APR 03 1991

Mr. D. A. Nauman

2

cc w/encls:

M. Runyon, Chairman  
Tennessee Valley Authority  
ET 12A 7A  
400 West Summit Hill Drive  
Knoxville, TN 37902

J. B. Waters, Director  
Tennessee Valley Authority  
ET 12A 9A  
400 West Summit Hill Drive  
Knoxville, TN 37902

W. F. Willis  
Chief Operating Officer  
ET 12B 16B  
400 West Summit Hill Drive  
Knoxville, TN 37902

D. Nunn, Vice President  
Nuclear Projects  
Tennessee Valley Authority  
1101 Market Street  
6A Lookout Place  
Chattanooga, TN 37402-2801

R. F. Wilson  
Vice President, New Projects  
Tennessee Valley Authority  
6N 38A Lookout Place  
Chattanooga, TN 37402-2801

Dr. M. O. Medford  
Vice President, Nuclear Assurance  
Licensing and Fuels  
Tennessee Valley Authority  
6N 38A Lookout Place  
Chattanooga, TN 37402-2801

Honorable Robert Aikman  
County Judge  
Rhea County Courthouse  
Dayton, TN 37321

Mr. Oliver D. Kingsley, Jr.  
President, Generating Group  
Tennessee Valley Authority  
6N 38A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

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

E. G. Wallace, Manager  
Nuclear Licensing and  
Regulatory Affairs  
Tennessee Valley Authority  
5N 157B Lookout Place  
Chattanooga, TN 37402-2801

E. G. Wallace  
Acting Site Licensing Manager  
Watts Bar Nuclear Plant  
Tennessee Valley Authority  
P. O. Box 800  
Spring City, TN 37381

TVA Representative  
Rockville Office  
11921 Rockville Pike  
Suite 402  
Rockville, MD 20852

General Counsel  
Tennessee Valley Authority  
400 West Summit Hill Drive  
ET 11B 33H  
Knoxville, TN 37902

Michael H. Mobley, Director  
Division of Radiological Health  
T.E.R.R.A. Building, 6th Floor  
150 -9th Avenue North  
Nashville, TN 37247-3201

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

State of Tennessee

bcc w/encls: (See page 3)

APR 03 1991

Mr. D. A. Nauman

3

bcc w/encls:

S. D. Ebnetter, RII  
J. L. Milhoan, ROO  
B. A. Wilson, TVAP/RII  
S. C. Black, NRR  
G. C. Lainas, NRR  
F. J. Hebdon, NRR  
K. P. Barr, TVAP/RII  
B. Bordenick, OGC  
M. S. Callahan, GPA/CA  
H. H. Livermore, TVAP/RII  
A. R. Long, TVAP/RII  
P. S. Tam, NRR  
Document Control Desk

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

TVA/RII  
arl  
ALong:vyg  
04/2/91

TVA/RII  
*[Signature]*  
KBarr  
03/3/91  
4

ENCLOSURE 1

LIST OF ATTENDEES

TVA/NRC MEETING ON WATTS BAR WORK CONTROL

MARCH 12, 1991

Nuclear Regulatory Commission:

S. D. Ebnetter, Regional Administrator, Region II  
J. L. Milhoan, Deputy Regional Administrator, Region II  
A. F. Gibson, Director, Division of Reactor Safety  
B. A. Wilson, Chief, TVA Projects  
K. P. Barr, Section Chief, Watts Bar  
G. A. Walton, Senior Resident Inspector, Construction  
H. H. Livermore, Senior Project Engineer  
A. R. Long, Project Engineer

Tennessee Valley Authority:

D. E. Nunn, Vice President, Nuclear Projects  
J. H. Garrity, Vice President, Watts Bar Site  
M. O. Medford, Vice President, Nuclear Assurance, Licensing and  
Fuels  
M. Bellamy, Projects Manager, Watts Bar  
J. A. Scalice, Plant Manager, Watts Bar  
E. G. Wallace, Acting Watts Bar Site Licensing Manager  
S. W. Crowe, Watts Bar Site Quality Manager  
R. L. George, Engineering and Modifications Manager

ENCLOSURE 2

MEETING SUMMARY

TVA/NRC MEETING ON WATTS BAR WORK CONTROL

MARCH 12, 1991

A management meeting between the NRC and Tennessee Valley Authority was held in the NRC's Region II Office on March 12, 1991, to discuss the status and plans for activities associated with the December 1990 Watts Bar Nuclear Plant Stop Work Order. The objectives of the meeting included discussions of the status of activities, conditions necessary for lifting the stop work order and resuming normal work activities, and TVA's plans for conducting limited work activities under controlled conditions prior to lifting the order. The enclosed handout provides the detailed technical information which was presented at the meeting.

The NRC Regional Administrator, Mr. Stewart Ebner, opened the meeting by briefly summarizing the NRC concerns. The Watts Bar Site Vice President, Mr. John Garrity, then introduced TVA's formal presentation with an outline of the objectives to be covered during the meeting, and stated that permission would be requested to undertake limited cable testing activities under the control of the Operations organization rather than Construction.

Following the opening remarks by Mr. Garrity, Mr. Dwight Nunn, TVA's Vice President of Nuclear Projects, provided an overview of the causes of the work control problems at Watts Bar. The identified causes included a loss of accountability, and complex and unworkable work procedures which placed an undue burden at the foreman level without providing effective support from management or interfacing organizations. Mr. Nunn stated that the goals of TVA's corrective action plans included streamlining the work control process, and providing the craft with adequate technical support and proper procedures. He indicated that major management changes would be made in order to improve performance.

Mr. Nunn also addressed the sizeable backlog of open issues at Watts Bar, which includes both incomplete corrective actions and a number of unassessed quality concerns. Numerous open items exist in the construction area. Mr. Nunn stated that the schedule for resuming construction is uncertain, but TVA anticipates the stop work order will not be lifted until at least August 1991. TVA plans to resume construction at a low level, and monitor activities closely for quality.

An overview of recent actions, and management objectives prior to restart, were presented by Mr. John Garrity. Mr. Garrity stated that TVA would demonstrate that they understand issues from the past, and will show that they won't recur. Principle corrective action objectives included having improved workplans and procedures in place, having approximately 36 training modules written and pilot tested by one training class, more management involvement at the work site and with QA and QC on a regular basis with feedback to improve performance, and resolution of the backlog of problems bearing on construction

quality or records. Mr. Garrity stated that there would be a number of organizational changes to clarify responsibilities for quality-related activities. A matrix will be developed to ensure that all quality-related responsibilities have been appropriately assigned and reflected in plant procedures.

Mr. Garrity stated that the Watts Bar self-assessment had been expanded from the work areas originally addressed in the stop work order, to include all areas of work on the site, and would also go back to the Nuclear Performance Plan, Employee Concerns Program special reports, Condition Adverse to Quality Reports, Corrective Action Tracking Documents, and other sources of previously identified problems to assure all issues are adequately addressed.

Mr. Garrity noted that recent TVA efforts had produced a definite decrease in the backlog of open issues. When reviewing documentation processed under various previous corrective action programs, for rollover into the new program, TVA personnel evaluated the quality of the closure and the work itself. He stated that open item closures are now receiving a higher level of management overview than they have in the past.

Mr. Michael Bellamy, the Watts Bar Projects Manager, presented the licensee's shutdown and root cause assessments, and corrective action status. The self-assessment included a study of pre-indicators of problems with work control, and evaluations of all hardware and significant documentation deficiencies. A trend analysis showed that a significant percentage of findings from NRC inspections and various licensee programs have been in the work control area.

Root causes identified by the licensee were divided into four major components, as described in the meeting handouts. For each of the root cause categories, Mr. Bellamy discussed the types of problems in the category, the causative factors, and the anticipated corrective actions. Watts Bar managers have been charged with ensuring that work quality is acceptable, that workers are properly trained, that procedures are adequate, and that data sheets are correct.

The Engineering Modifications Manager, Mr. Ronald George, and the Plant Manager, Mr. John Scalice, presented information on near term discovery work items being conducted while the construction stop work order remains in effect. The first type included walkdowns which involve no craft support, and have been conducted with appropriate approved procedures, and with adequate coordination to assure the quality of the data. Mr. George stated that independent Quality Control inspections of the work had yielded favorable results. The second type of near term discovery work included visual inspection walkdowns involving craft support for insulation, scaffolding, or operation of equipment. TVA emphasized that walkdowns do not involve altering hardware, although the results of the walkdowns can be used to determine if hardware conditions are acceptable.

The NRC Senior Resident Inspector for Construction, Mr. Glenn Walton, stated that based on recent NRC findings, it was unclear whether or not outdated Construction Process Instructions (CPIs) had been used for work under

Maintenance Requests after the CPI update process was put on hold as a result of the stop work order. There was also some question whether work may have been performed outside of the scope of Maintenance Request instructions. TVA was aware of these issues but additional information was needed before any final conclusion could be reached.

TVA requested NRC approval to conduct hi-pot testing of spare and abandoned cables as part of their continuing discovery work. They stated that they were not asking for approval for other types of work at this time. The planned testing activities will include a minimum of wet testing, and work quality is to be ensured through pre-job briefings, extra in-process management checks, enhanced technical support of testing, coordination, immediate review of completed packages with ongoing feedback to management, management participation in closeout and resolution of issues, and quality control at higher levels of management. Procedures used for this testing will be up-to-date, self-contained, and supported by completed and approved engineering evaluations. If a cable fails the hi-pot testing, it will be removed and sent for laboratory analysis, but will not be reinstalled without NRC approval. NRC agreed to the hi-pot testing of the spare and abandoned cable and to removal of cables which fail the testing, with the understanding that NRC would have the opportunity to review the work controls prior to commencement of testing.

The NRC Regional Administrator reiterated that TVA would be expected to demonstrate design and construction adequacy before obtaining an operating license for Watts Bar, and closed the meeting by thanking TVA for the presentation.

In addition to the planned action items described in the meeting handout, and the previously described commitments concerning the conduct of cable testing, the licensee agreed to the following specific actions prior to lifting the stop work order and resuming construction activities:

- The licensee will construct and implement a matrix of quality responsibilities, which will be provided to the NRC for review.
- For each of the near term work activities conducted with the stop work order in effect, TVA will demonstrate how quality was ensured and that all work was performed in accordance with up-to-date procedures and current requirements.
- As part of a continuing self-assessment, TVA will reevaluate the use of Maintenance Requests and ensure that up-to-date standards are used.
- Before resuming construction work, TVA will demonstrate that each Corrective Action Tracking Document (CATD) is either closed or will not affect quality. Specifically, CATD 11 200-09 will be closed.
- TVA will review all CPIs and ensure that they are acceptable before plant activities will resume.

ENCLOSURE 3

**TVA - NRC MEETING  
WATTS BAR NUCLEAR PLANT  
STOP WORK**

**MARCH 12, 1991**

# TVA - NRC MEETING WATTS BAR NUCLEAR PLANT STOP WORK

MARCH 12, 1991

## AGENDA

- |       |   |                             |
|-------|---|-----------------------------|
| I.    | INTRODUCTION                              | DWIGHT NUNN                 |
| II.   | MANAGEMENT OBJECTIVES<br>PRIOR TO RESTART | JOHN GARRITY                |
| III.  | OVERVIEW OF RECENT ACTIONS                |                             |
| IV.   | SHUTDOWN ASSESSMENTS                      | MIKE BELLAMY                |
| V.    | ROOT CAUSES                               |                             |
| VI.   | CORRECTIVE ACTION STATUS                  |                             |
| VII.  | NEAR TERM WORK ITEMS                      | RON GEORGE/<br>JOHN SCALICE |
| VIII. | SUMMARY                                   | DWIGHT NUNN                 |

## MEETING OBJECTIVES

- BRIEFLY DISCUSS THE STATUS OF ONGOING AND PLANNED ACTIVITIES RESULTING FROM THE STOP WORK ORDER
- BRIEFLY DISCUSS THE CONDITIONS NECESSARY FOR RESUMPTION OF QUALITY WORK UNDER ENHANCED MANAGEMENT CONTROLS
- INFORM NRC OF THE LIMITED WORK ACTIVITIES WHICH ARE ONGOING OR WILL BE INITIATED AND THE STRICT CONTROLS GOVERNING THEM PRIOR TO THE LIFTING OF THE STOP WORK ORDER

**MANAGEMENT OBJECTIVES**  
**RESTART OF CONSTRUCTION**

NEW WORKPLAN FORMAT & PROCEDURES, RELATED PROCEDURES  
SIMPLIFIED & COMBINED

TRAINING

QUALITY MONITORING PIPELINE & QUALITY PERFORMANCE INDICATORS  
IN PLACE

BACKLOGGED PROBLEMS ADDRESSED

OTHER PROCESS IMPROVEMENTS

ORGANIZATION CHANGES

ENGINEERING AHEAD OF CONSTRUCTION

ASSURANCE THAT HISTORICAL PROBLEMS ARE UNDERSTOOD & WILL  
NOT REPEAT

PLANS FOR CAREFULLY MONITORED, SLOW RESTART

## OVERVIEW OF RECENT ACTIONS

Stop Work 12/21/91

Self Assessment

- Work control
- Other work areas
- Past issues

Root Cause Analysis of Work Control &  
Corrective Action Programs

- Corrective Action for Work Control Process
  - Workplan Format & Scope
  - Procedures
  - Training
  - Quality Monitoring
  - Performance Monitoring & Assessments

- Corrective Actions for Corrective Action Process
  - New Procedures and Training
  - Management Review Committee
  - Senior Management Committee
  - Backlog Team for CAQR Closure

Self Assessment Follow-up

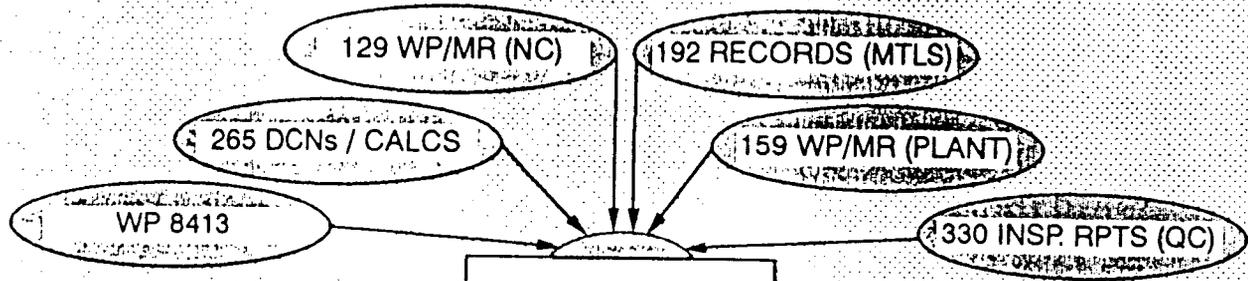
Interim Schedule

- Logic for Restart
- Merge with Master Project Schedule

Management Involvement

- CAQR Backlog, New Procedure Implementation,
- Daily Review of Incoming Problems
- Root Cause Analysis/KT
- Daily Schedule Status Meetings
- Performance Indicator Specification & Monitoring

# ASSESSMENT PLAN



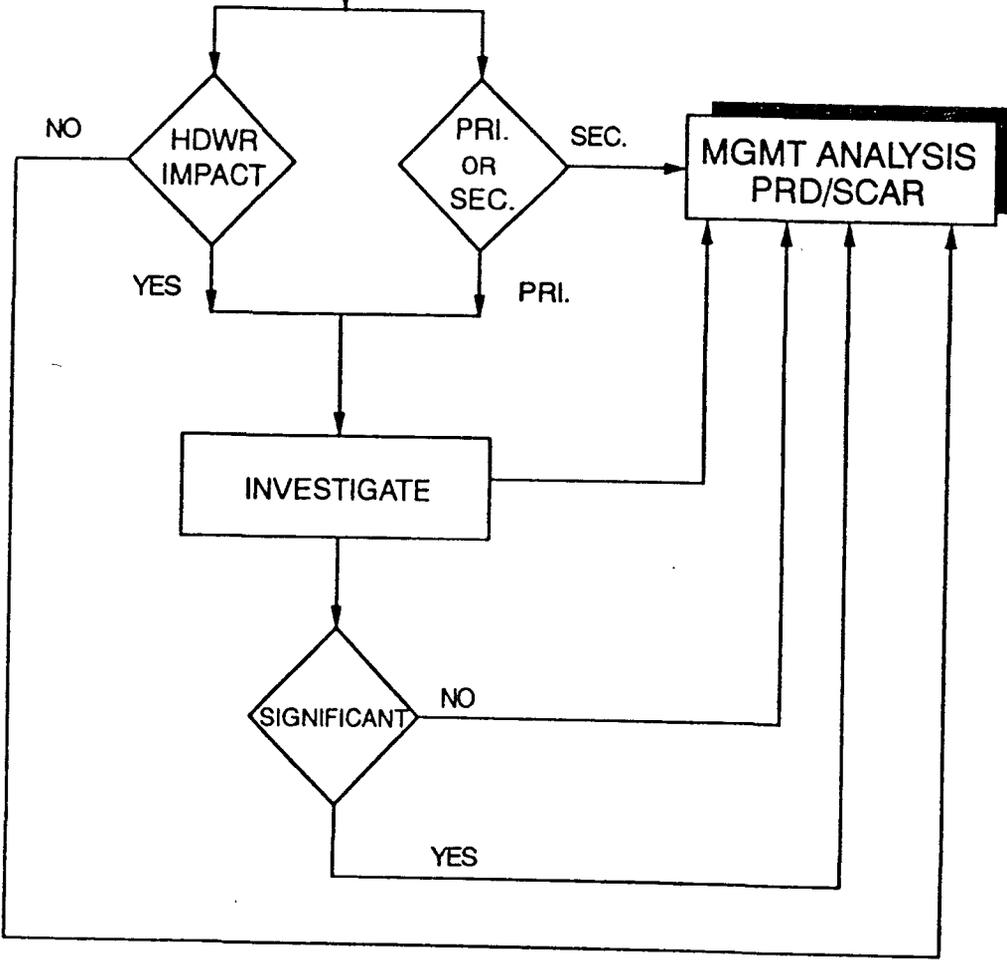
REVIEW

ONE OR MORE  
ADDITIONAL REVIEWS

DOCUMENTS

PROBLEMS

COMPILATION /  
RESOLUTION



## TREND ANALYSIS

DOCUMENTS WERE REVIEWED TO IDENTIFY WORK CONTROL RELATED FINDINGS.

	NUMBER REVIEWED	WORK CONTROL RELATED	PERCENTAGE WC RELATED
1990 CAQRS	607	203	30%
ALL CATDS	566	69	12%
NRC VIOLATIONS	74	43	58%
NRC IFI'S	163	30	18%
NRC URI'S	147	35	24%
QA AUDITS	15	8	53%
QA SURVEILLANCES	21	7	33%
EMPLOYEE CONCERNS	486	88	18%
TOTAL	2079	483	23%

**WORK CONTROL  
ROOT CAUSE STATEMENT**

**GENERAL PERFORMANCE COMPONENT**

INATTENTION TO DETAIL, SUPERVISORY INEFFECTIVENESS, PROCEDURAL COMPLEXITY/LACK OF CLARITY, AND PROCEDURAL NON-COMPLIANCE HAVE RESULTED IN NUMEROUS DOCUMENTATION PROBLEMS (MOSTLY MINOR) AND SOME HARDWARE DEFICIENCIES.

**MANAGEMENT PERFORMANCE COMPONENT**

FAILURE TO IMPLEMENT RESPONSIBILITIES, INEFFECTIVE FOLLOW THROUGH OF CORRECTIVE ACTIONS, AND INATTENTION TO DETAIL HAVE RESULTED IN CONTINUATION OF PREVIOUSLY IDENTIFIED UNACCEPTABLE WORK CONTROL PERFORMANCE.

**ENVIRONMENTAL COMPONENT**

ORGANIZATIONAL STRUCTURE AND CHANGING ENVIRONMENTS OF LEADERSHIP, FOCUS, AND PRIORITIES HAVE LED TO INEFFECTIVENESS IN RESOLVING THESE WORK CONTROL ISSUES.

**INDIVIDUAL PERFORMANCE COMPONENT**

PREVIOUSLY HELD, MISTAKEN AND ANTIQUATED BELIEFS OF QUALITY RESPONSIBILITIES AND "INSPECTING IN QUALITY" HAVE CONTRIBUTED TO EXTENT OF THE PROBLEMS.

**WORK CONTROL  
PROBLEM MATRIX  
GENERAL PERFORMANCE COMPONENT**

PROBLEM CATEGORY	CAUSATIVE FACTOR	CORRECTIVE ACTIONS
<ul style="list-style-type: none"> <li>-MANY MINOR RECORD ERRORS</li> <li>-DATA MISSING</li> <li>-HARDWARE DAMAGE</li> <li>-HARDWARE DEFICIENCIES</li> </ul> <hr/> <ul style="list-style-type: none"> <li>-MANY MINOR RECORD ERRORS</li> <li>-MISSING SIGNATURES</li> <li>-EARLY HOLD ORDER RELEASE</li> <li>-MISSING INSPECTIONS</li> <li>-DATA MISSING</li> <li>-POOR QUALITY REVIEWS</li> <li>-HARDWARE DAMAGE</li> <li>-HARDWARE DEFICIENCIES</li> </ul>	<ul style="list-style-type: none"> <li>-PROCEDURE COMPLEXITY</li> <li>-PROCEDURE CLARITY</li> </ul> <hr/> <ul style="list-style-type: none"> <li>-PROCEDURE NON-COMPLIANCE</li> <li>-INATTENTION TO DETAIL</li> </ul>	<ul style="list-style-type: none"> <li>-ENGINEERING CHANGE NOTICE CLEANUP</li> <li>-NEW WORKPLANS/SAFETY NET</li> <li>-PROCEDURE/PROCESS IMPROVEMENTS</li> <li>-WORK CONTROL CENTER</li> </ul> <hr/> <ul style="list-style-type: none"> <li>-PERSONNEL ASSESSMENTS</li> <li>-ACCOUNTABILITY/DISCIPLINE</li> <li>-QUALITY TRAINING EMPHASIS</li> <li>-NEW TRAINING MODULES</li> <li>-PIPELINE REVIEWS/REPORTS</li> <li>-CERTIFICATION PROGRAM</li> </ul>

**WORK CONTROL  
PROBLEM MATRIX  
MANAGEMENT PERFORMANCE COMPONENT**

<b>PROBLEM CATEGORY</b>	<b>CAUSATIVE FACTOR</b>	<b>CORRECTIVE ACTIONS</b>
<ul style="list-style-type: none"> <li>-MANY OLD CAQR'S/NOV'S,ETC</li> <li>-PREVIOUS FAILED RESOLUTIONS</li> <li>-BACKLOG TOLERANCE</li> </ul> <hr/> <ul style="list-style-type: none"> <li>-WRONG QA LEVEL MATERIALS</li> <li>-ENGINEERING INTERFACE</li> <li>-WESTINGHOUSE DESIGN INTERFACE</li> </ul>	<ul style="list-style-type: none"> <li>-FAILURE TO IMPLEMENT RESP</li> <li>-INADEQUATE FOLLOW THROUGH</li> </ul> <hr/> <ul style="list-style-type: none"> <li>-INATTENTION TO DETAIL</li> </ul>	<ul style="list-style-type: none"> <li>-ORGANIZATION/MGMT CHANGES</li> <li>-BETTER TRENDING REPORTS</li> <li>-MANAGEMENT REVIEW OF SCAR'S</li> <li>-IMPROVED CORRECTIVE ACTION PROGRAM</li> <li>-DEDICATION TO BACKLOG</li> </ul> <hr/> <ul style="list-style-type: none"> <li>-MATERIAL FILES REVIEW (100%)</li> <li>-WEST./TVA INTERFACE CHECK</li> <li>-INTERNAL ENGINEERING INTERFACE REVIEW</li> <li>-QUALITY REPORT CARD PROGRAM</li> <li>-DAILY SCHEDULE MEETING</li> </ul>

**WORK CONTROL  
PROBLEM MATRIX  
ENVIRONMENTAL COMPONENT**

<b>PROBLEM CATEGORY</b>	<b>CAUSATIVE FACTOR</b>	<b>CORRECTIVE ACTIONS</b>
<ul style="list-style-type: none"><li>-INADEQUATE RESOURCES</li><li>-SCHEDULE FOCUS OFF PROB.</li><li>-DISTRACTIONS FROM ISSUES</li></ul>	<ul style="list-style-type: none"><li>-ORGANIZATION STRUCTURE</li><li>-CHANGING ENVIRONMENT</li></ul>	<ul style="list-style-type: none"><li>-RESPONSIBILITY MATRIX</li><li>-POSITION DESCRIPTIONS</li><li>-NEW CONSTRUCTION ORGANIZATION</li><li>-PERSONNEL CHANGES</li><li>-NEW SCHEDULE CONTROLS</li></ul>

**WORK CONTROL  
PROBLEM MATRIX  
INDIVIDUAL PERFORMANCE COMPONENT**

<b>PROBLEM CATEGORY</b>	<b>CAUSATIVE FACTOR</b>	<b>CORRECTIVE ACTIONS</b>
<b>-RELUCTANCE TO CHANGE -NARROW FOCUS ON PROBLEMS</b>	<b>-OLD QUALITY BELIEFS</b>	<b>-PERSONNEL ASSESSMENTS -ORGANIZATION/PERSONNEL CHANGES -ACCOUNTABILITY/DISCIPLINE</b>

## HARDWARE DEFICIENCIES

HARDWARE	PROBLEM	RESOLUTION
HANGER	MISSING CLAMP	REPLACE
INSTRUMENT TUBING	INCORRECT SPAN	REWORK
HANGER	SHORT WEDGE BOLT	USE AS IS
PIPE SUPPORT	GROUT MISSING	REWORK
CABLE SPLICE	INCORRECT SHIM SIZE	REWORK
CABLE CONDUCTOR	DAMAGE (3) MILD ENV.	REPAIR
PIPE (6 INCHES)	INCORRECT QA LEVEL	REPLACE
FLEXIBLE CONDUIT	LOOSE FITTINGS	REWORK
AFW FLOW CONTROLLER	WRONG SETPOINT	REWORK
AFW VALVE MOTORS	NOT INCLUDED IN EQ PROGRAM	REPLACE
HEX NUTS (6)	WRONG QA LEVEL	REPLACE

## CURRENT AND PLANNED WALKDOWNS INVOLVING NO CRAFT SUPPORT

- VENDOR MANUALS
- PLANT CONDITION ASSESSMENT
- TAGGING
- PLATFORMS
- MASONRY
- CONCRETE
- EQUIPMENT ANCHORAGE

# CURRENT AND PLANNED WALKDOWNS INVOLVING CRAFT SUPPORT

PROGRAM	INSULATION REMOVAL	SCAFFOLDING	OPEN/CLOSE EQUIPMENT
<u>CIVIL/STRUCTURAL</u>			
EMBEDDED PLATES			
ESQ			
CONDUIT & SUPPORTS			
CABLE TRAY SUPPORTS			
CABLE TRAY SEGMENTS			
HVAC & SUPPORTS			
TORNADO DAMPERS			NEEDS REMOVAL OF SECURITY BARRIERS BY PLANT PERSONNEL.
LARGE BORE PIPING			
SMALL BORE PIPING			
BOX ANCHORS			
INTEGRATED INTERACTION			
CABLE BEND RADIUS INSPECTION			
SPLICE & TERMINATION INSP			
DBVP WALKDOWN			
VERIFICATION OF EQ ATTRIBUTES			
CONDUIT TO TRAY ENTRY			
TRAY COVER WALKDOWNS			
INSTRUMENT LINE WALKDOWN			
SEPARATION WALKDOWN			
ASME SECTION III VALIDATION			

## PLANNED ACTIVITIES REQUIRING PHYSICAL WORK

PROGRAM	WHY	CONTROLS	WHEN	ORG.	PHYSICAL WORK
Spare and Abandoned Cable Testing	NRC commitment to resolve concern regarding cable pullby damage (PWL-EA, CABLE CAP)	Plant MR DCN TI 43	4-6 Week Duration	Plant Elect. Maint. Nuclear Engineering QC	Scaffolding erection, lifting leads, hold orders, damming and flooding conduits, opening junction boxes, signal tracing cable runs, high potential testing of cables, & possible cutting conduit, removing cable & PMT
Master Fuse List	Commitment to NRC to resolve open item on Master Fuse List project SER	Site Walkdown Procedure	3-4 Week Duration	Operations and Instrument Maintenance	Possible removal from fuse holder
Paint and Insulate Piping/ Chilled Water & Glycol	NRC Violation 390/90-15-03 (Near Min-Wall)	Plant MR	60 Man-Months	Plant maintenance	Switch operational trains, clean remaining pipe and paint, reinstall insulation, erect scaffolding as required
Cable Specimen for EQ Test (60 - 90 degrees C)	To support EQ test	MR with NE witness	Approximately one wk to remove and ship to Central Labs	Nuclear Engineering Plant Maintenance	Remove & ship cable
Plant Walkdown of Unjacketed Cable	WBP910092 E.O.C. of Unjacketed Cable Installation (WBP 9100925SCA)	Plant MR	ASAP - Approximately 2 weeks to complete the walkdown	Nuclear Engineering Electrical Maintenance	Panels, cabinets, and JB's will have to be opened; wire ties removed and replaced