



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

May 14, 2013

EA-13-009

Mr. Joseph W. Shea
Vice President, Nuclear Licensing
Tennessee Valley Authority
1101 Market Street, LP 3D-C
Chattanooga, TN 37402-2801

SUBJECT: PUBLIC MEETING SUMMARY – CATEGORY I - PREDECISIONAL
ENFORCEMENT CONFERENCE WATTS BAR 2 NUCLEAR PLANT – DOCKET
NO. 50-391

Dear Mr. Shea:

This letter refers to the meeting conducted at your request at the NRC Region II office in Atlanta, GA on May 7, 2013. The purpose of this meeting was to provide an opportunity for you to present your perspective on the facts and assumptions the NRC will use to assess the significance of the three apparent violations documented in Inspection Report No. 05000391/2013611 (ML13085A258). Enclosed are a list of attendees and the presentation handouts.

Topics discussed included the NRC's restating of the three apparent violations related to the commercial grade dedication program, TVA's positions on the violations, and corrective actions taken and planned by TVA. TVA intends to complete testing of commercially dedicated items procured and installed and issue a final report per 10 CFR 50.55(e).

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room (PDR) or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this meeting, please contact me at 404-997-4603.

Sincerely,

/RA/

Randall A. Musser, Chief
Construction Inspection Branch 3
Division of Construction Inspection

Enclosures:

1. List of Attendees
2. Handout - TVA Nuclear Construction Watts Bar
Nuclear Plant Unit 2 Commercial Grade Dedication

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☒ PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE ☒ NON-SENSITIVE
 ADAMS: ☒ Yes ACCESSION NUMBER: ML13134A398 ☒ SUNSI REVIEW COMPLETE ☒ FORM 665 ATTACHED

OFFICE	RII:DCI	RII:DCI					
SIGNATURE	ECM2	RXM1					
NAME	E. Michel	R. Musser					
DATE	5/14/2013	5/14/2013					
E-MAIL COPY	YES NO	YES NO	YES NO				

OFFICIAL RECORD COPY DOCUMENT NAME: G:\CC\DCI\CIB3\PUBLIC MEETING
SUMMARY.DOCX

ROOM 1486 (1 of 1)

ATTENDANCE LIST

DATE: 5/7/2013 ORGANIZATION: NAL R2

PURPOSE: WB2 CGD PREDECISIONAL ENFORCEMENT CONFERENCE

LICENSEE

Jim O'Dell
Dennis D. Myers
Gordon P. Arent
Richter E. Wiaggall
Raymond A. Hruby, Jr.
Douglas F. Helms
Edward J. Vigliucci
Rickey Stockton
Lenny Peterson
CRYSTAL COOVERT
MARTY RYAN

Guest

Lewis Johnson - Conger +
Eliisa

NRC

Jory Ledford
David Failla
Jamie Heisserer
Bob HAAG
Carlynn F. Evans
Scott Freeman
Fred Brown
Jim: Yavokim
ERIC MICHEL
Victor Hall
Scott Shaeffer
JAMES BAPTIST
MARK MILLER
RANDALL MUSSER
ROBERT FRETZ
SCOTT SPARKS



TVA Nuclear Construction Watts Bar Nuclear Plant, Unit 2 Commercial Grade Dedication

NRC Region II Regulatory Conference

May 7, 2013



TVA Agenda

	Ray Hruby	
Opening Remarks.....	General Manager, Technical Services, WBN Unit 2.....	3
- Introduction/Purpose		
	Ric Wiggall	
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	Gordon Arent	
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Opening Remarks

Ray Hruby, General Manager, Technical Services, WBN Unit 2



Background/Timeline

Ric Wiggall, Engineering Manager, WBN Unit 2

IWA Background

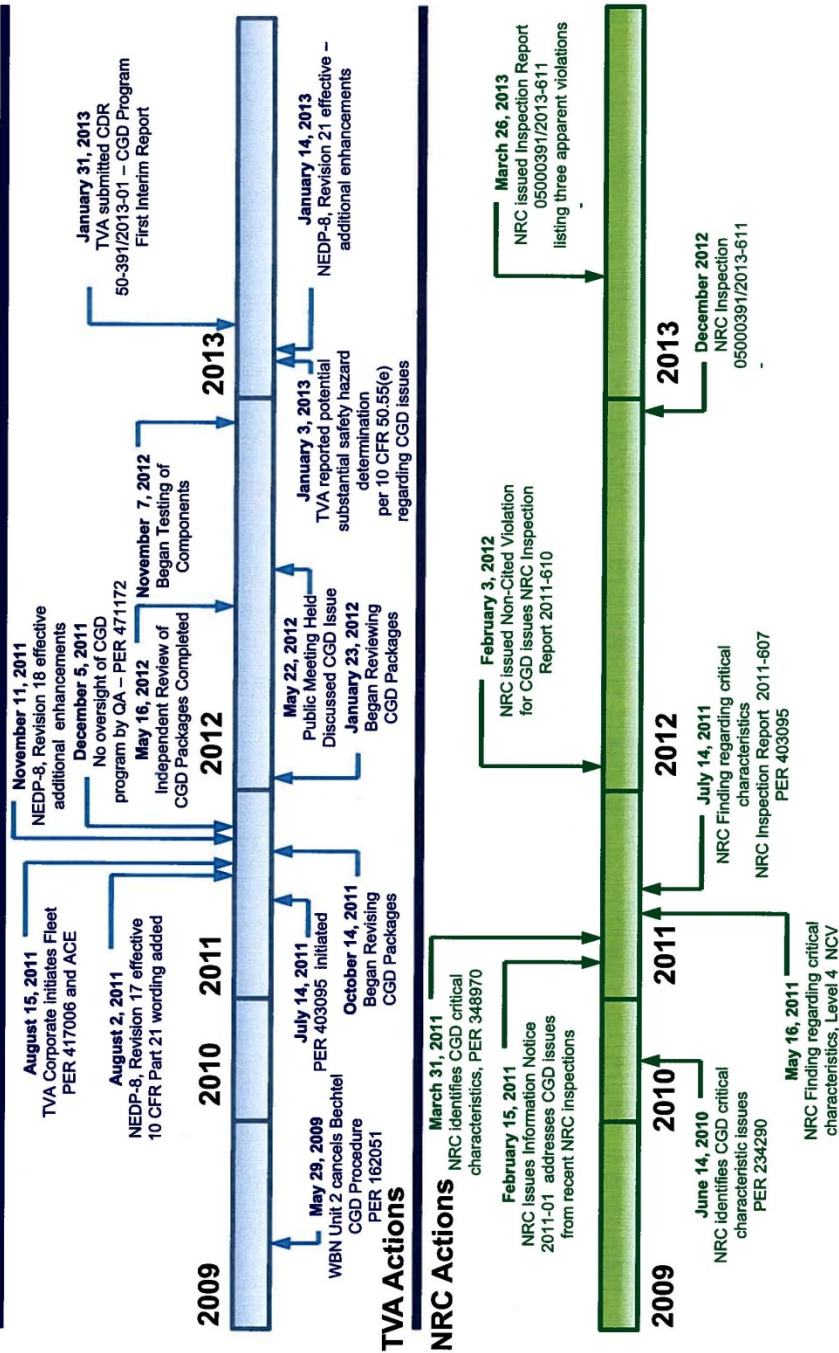
- Definition - Commercial grade dedication (CGD) is the process by which Engineering evaluates a commercially available component to ensure it can perform a design safety function prior to approving the component for use
- WBN met GL 91-05 requirements – Confirmed by Inspection Report 390/95-50
- Program implementation weaknesses were identified post-GL 91-05 in specifying failure modes, safety functions, and critical characteristics when performing commercial grade dedications
- Methods used by Unit 2 to perform commercial grade dedications were not consistent with current industry guidance and regulatory standards for specified critical characteristics

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Timeline of Commercial Grade Dedication Events



Wiggall

Apparent Violations

Gordon Arent, Senior Licensing Manager, WBN Unit 2

Breakdown of QA Program – Commercial Grade Dedication 

TVA Root Cause Analysis (RCA) Summary

Apparent Violation:	Failure to provide adequate measures for the selection and review for suitability of basic components dedication through the commercial grade dedication (CGD) program
Problem Statement:	TVA's procedural guidance for CGD did not align verbatim with requirements found in 10 CFR Part 21. This contributed to the failure to specify failure modes, safety functions, and critical characteristics when performing some CGDs.
RC-01:	TVA CGD program has not been maintained consistent with industry and regulatory standards
RC-02:	Cancelling the Bechtel CGD process procedure removed the CGD Bechtel engineering process from the scope of QA audits and assessments
CC-01:	Procurement Engineering Group (PEG) personnel were not trained to perform CGD packages per current industry standards



Extent of Condition/Cause

Extent of Condition – From PER 403095

- 536 Commercial Grade Dedication Packages (Procurement Data Sheets) were reviewed
 - WBN U2 prepared items
 - NPG previously prepared packages used in support of WBN U2
- Extent of Condition QA Oversight
 - An extent of condition review was performed by Bechtel QA to identify other TVA procedures implemented directly by the Bechtel WBN Unit 2 project and required but did not receive Bechtel QA oversight
 - No exceptions were identified

Extent of Cause – From PER 668744

- Implementation of CGD is performed in accordance with NEDP-8, "Technical Evaluation of Procurement of Materials and Services," by both TVA and contractor personnel
- Other PEG functions (beyond CGD) have not experienced shortfalls or inadequacies in implementation
- Evaluations of PEG process interfaces were performed. No new issues or shortfalls were discovered that were NOT a direct result of the problems associated with this event.

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TVA Completed Corrective Actions

- Reviewed Bechtel QA Project Procedure Oversight coverage
- Revised CGD packages (initial four) that needed technical revision
 - Subsequently revised the remaining CGD packages
- Independently reviewed TVA and Bechtel CGD packages for commercially dedicated materials purchased or installed for the WBN Unit 2 completion project by an experienced team of technical personnel
- Reviewed Replacement Items Program (RIP) Corrective Action Program Plan (CAP) – No commercially dedicated material within the scope of the RIP CAP was identified
- Issued QA surveillance/audit schedule for the project CGD package process

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TVA Status of Remaining Corrective Actions

- Complete testing to confirm no safety significance – Targeted for 6/28/2013
- Perform program self assessment to determine effectiveness of recurrence control measures – Targeted for 9/1/2013
- No safety significant issues identified to date

TVA Completed Recurrence Control Actions

- Trained PEG and QA personnel to Electrical Power Research Institute (EPRI) CGD standards
- Revised NEDP-8 to add Part 21 definition of critical characteristics and provided additional guidance on performing commercial grade dedications
- Created and staffed a NPG Corporate Program Manager, PEG – Engineering Design
- Issued Bechtel engineering procedure, “Commercial Grade Dedication,” to ensure the CGD process is audited or assessed
- Revised Bechtel Engineering Training Requirement Matrix to require EPRI CGD training for Bechtel PEG personnel who prepare or review CGD packages

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Failure to Report Breakdown of QA Program

TVA Problem Evaluation Summary

Apparent Violation:	Failure to report a significant breakdown in the quality assurance program
Problem Statement:	TVA failed to report the significant breakdown in QA Program when it was determined in May 2012 that a re-evaluation of CGD packages used on WBN U2 would need to be performed
Cause 01:	PP-13, R0, "Reporting Requirements," based on early to mid 1990s WBN U1 reporting procedure
Cause 02:	Procedure interpreted significant programmatic breakdown not reportable unless a confirmed example of a substantial safety hazard existed

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TVA Extent of Condition/Cause

Extent of Condition

- Reviewed “A” and “B” level PERs since start of U2 Completion project for additional evaluation of potential significant programmatic breakdown
- Reviewed “C” Level trend and extent of condition PERs since start of U2 Completion project for additional evaluation of potential significant programmatic breakdown

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TVA Completed Corrective Actions

- Revised Procedure PP-13, "Reporting Requirements" that clarified reporting requirements
- Reported CGD issue via Event Notification No. 48646 on January 3, 2013, followed by Construction Deficiency Report 50-391/2013-01 on January 31, 2013, as updated on May 6, 2013
- Reviewed "A" and "B" level PERs since start of U2 Completion project for additional evaluation of potential significant programmatic breakdown
- Reviewed "C" Level trend and extent of condition PERs since start of U2 Completion project for additional evaluation of potential significant programmatic breakdown

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TVA Summary

- Other Considerations
 - Scope of actions unchanged from July 2011 non-cited violation (NCV)
 - TVA communicated CGD issues in May 2012 Public Meeting
 - TVA publishes status of corrective actions in daily Plan of Day Meeting
 - NRC Staff maintained cognizance of issues through inspection process

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Failure to Identify Significant Condition Adverse to Quality

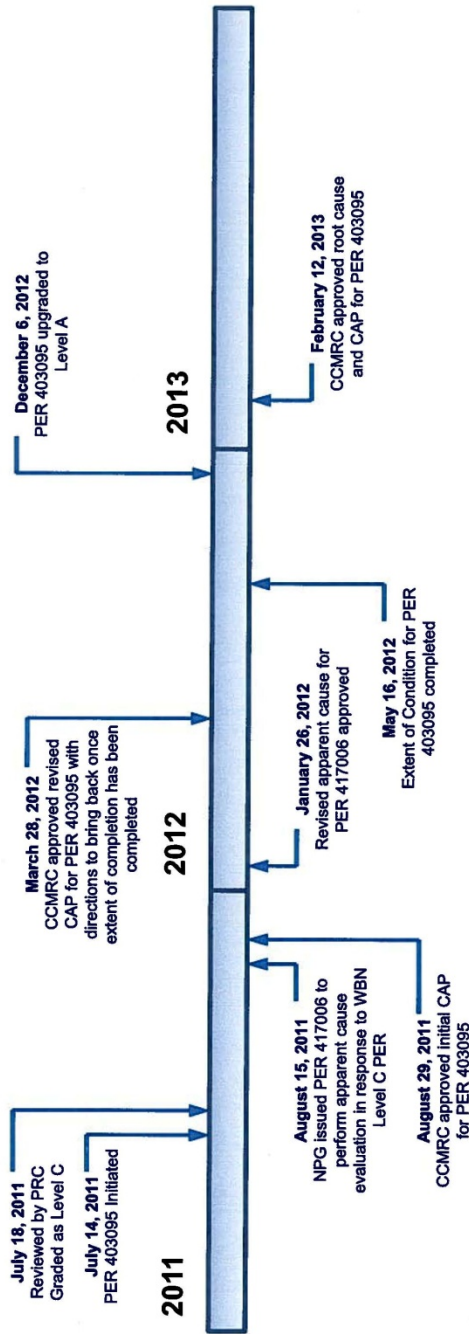
TVA Problem Evaluation Summary

Apparent Violation:	Failure to identify a significant condition adverse to quality
Problem Statement:	TVA failed to upgrade a PER from a condition adverse to quality to a significant condition adverse to quality once the independent CGD package review determined package re-evaluation was required
Cause 01:	PER action to return to Construction Completion Management Review Committee (CCMRC) for further screening if extent of condition revealed more significant issue. Action was not completed when EOC review indicated more significant issue.

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TVA Timeline



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TVA Background

Problem Evaluation Report (PER) 403095

- Screened initially as Level "C" in July 2011
- Consistent with NC-PP-3, "Watts Bar 2 Corrective Action Program," Rev. 15, for a condition adverse to quality and appropriate for "routine problems or adverse conditions that require documentation of corrective actions"
- Contained action to bring back for further screening and classification evaluation if extent of condition revealed more significant issue
- When extent of condition review was completed indicating more significant issue, action was not performed for classification upgrade and re-screening
- PER upgraded to Level "A" on December 6, 2012, after review of extent of condition

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TVA Level A PER Requirement

- PP-3, "Watts Bar Unit 2 Corrective Action Program"
- Root Cause/Apparent Cause
- Extent of Condition
- Corrective Action Plan
- Management Review
- Effectiveness Review

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Actions Taken versus SCAQ Requirement

Actions Taken	Consistent with SCAQ requirement?
<ul style="list-style-type: none">• Root Cause/Apparent Cause	No (Apparent Cause initially performed under PER 417006; Root Cause later by PER 403095)
<ul style="list-style-type: none">• PER Actions Taken<ul style="list-style-type: none">– Testing performed when component qualification was questioned – conservative measure – Near Completion– Packages revised where appropriate to clarify component qualification – Complete	Yes
<ul style="list-style-type: none">• Extent of condition<ul style="list-style-type: none">– 100% adequacy review of Unit 2 CGD packages by 3rd party - Complete	Yes
<ul style="list-style-type: none">• Recurrence Control<ul style="list-style-type: none">– Changed procedures to reflect industry standards - Complete– Provided training to individuals – Complete	Yes Yes
<ul style="list-style-type: none">• Effectiveness Review	No

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TVA Summary

- TVA agrees that corrective action program procedure was not followed
- Actions taken in response to findings were prudent, comprehensive and consistent with corrective action program requirements
- No new cause or corrective action plan was required
- No significant programmatic difference between actions taken and actions required for a more significant level PER (i.e., Level "C" versus "A" and "B")
- No safety significance identified to date

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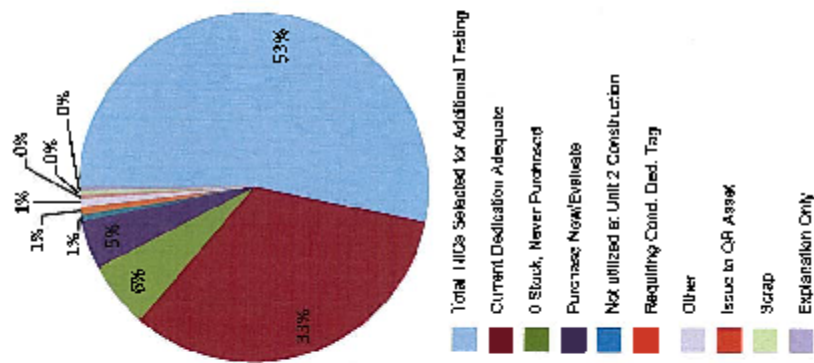


Significance Determination Considerations

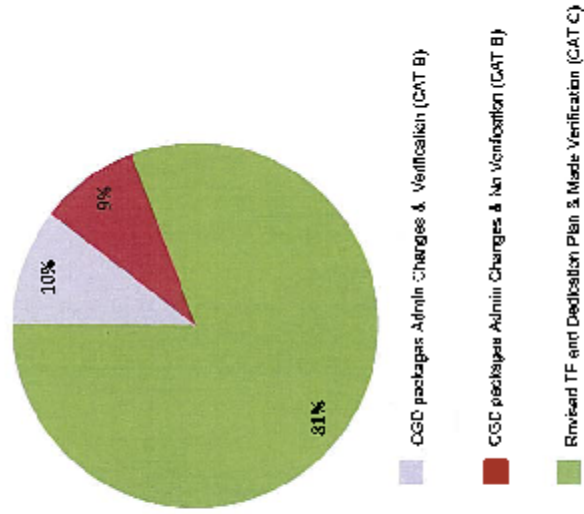
Ric Wiggall, Engineering Manager, WBN Unit 2

TVA Significance Determination Considerations

Commercial Grade Dedication Project



Independent Team Review



IWA Significance Determination Considerations

- Evaluation of Issue
 - 536 evaluations were performed
 - 433 evaluations/testing are complete (80%)
 - 103 awaiting tests results
- Conclusions
 - Program results to date have not identified any components/systems that are unable to perform their intended safety function; therefore, they are acceptable for use as is
 - No safety significance identified to date

Wiggall

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TVA Summary

- Reviewed 100% of commercial grade dedication packages
- Evaluation/Testing Results to date have confirmed that components or systems would have been able to perform their safety function(s), and equipment tested to date shows acceptability for use as is
- No safety significance has been identified to date for these CGD issues
- We do not anticipate any safety significant issues once the evaluations and testing have been completed



Closing Remarks

Ray Hruby, General Manager, Technical Services, WBN Unit 2

