



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II**

245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

June 3, 2016

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 FOR WATTS BAR NUCLEAR PLANT, DOCKET
NO. 50-390 and 50-391**

Dear Mr. Shea:

This refers to the meeting conducted at the Nuclear Regulatory Commission Region II Office on May 24, 2016. The purpose of the meeting was to brief the NRC staff on the current status and progress of the actions taken to improve the chilled work environment in the Operations Department at the Watts Bar Nuclear Plant (WBN).

As of March 23, 2016, the NRC issued a Chilled Work Environment Letter (CEL) to Watts Bar Nuclear Plant in an effort to ensure a clear understanding of the scope of concerns related to the chilled work environment in the Operations Department. According to TVA, the work environment in the WBN Operations Department was inconsistent with TVA core values. Therefore, TVA has taken immediate actions following receipt of the CEL which included Chief Nuclear Officer communication to the TVA fleet acknowledging ownership of the issue; Watts Bar Site Vice President met with the site staff to reinforce safety culture, ownership and the roles and responsibilities of the licensed reactor operators; conducted independent observations of the Watts Bar Control Room and Outage Control Center; and began a Root Cause Analysis. Based on the Causal Analysis performed, the following root causes have been determined: 1) Senior leaders failed to recognize potential impacts on the work environment associated with initiatives to drive improvements in overall station performance; and 2) A failure by management to communicate the rationale and bases for some personnel actions that were taken which led to an atmosphere of fear by some workers.

TVA's corrective actions include, but are not limited to, perform periodic safety conscious work environment (SCWE) observations and trends; establish and communicate a vision for a strong and healthy SCWE, implement a Watts Bar Shift Manager mentoring program; revise the adverse employment action procedure, including establishment of an executive review board. TVA reemphasized their commitment to core values and behaviors emphasizing safety over competing goals, employees feeling free to raise nuclear safety concerns without fear of retaliation, and ensuring management will respond in a timely and effective manner. Corrective actions have been taken to prevent recurrence, and actions taken to address the safety conscious work environment at WBN will continue to be monitored for effectiveness by TVA.

In closing the NRC acknowledged the management ownership of the Operations Department SCWE issue, the importance of completing CEL actions, and sustained improving work environment. The NRC noted the importance for all TVA employees to continue using the corrective action program, the Employee's Concerns Program, and other available avenues to raise concerns. The NRC also noted that no serious safety violations or instances involving significant plant safety issues associated with the work environment were identified; however, the NRC will continue to assess TVA's actions to improve the Operations Department SCWE.

A list of attendees and a copy of the presentation handout are enclosed.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC Public Document Room 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) 997-4415.

Sincerely,

/RA/

Alan Blamey, Chief Reactor Projects
Branch 6
Division of Reactor Projects

Docket No.: 50-390, 50-391
License No.: NPF-90, NPG-96

Enclosures: 1. List of Attendees
2. TVA Meeting Slides

cc: distribution via ListServ

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☐ SENSITIVE

☒ NON-SENSITIVE

ADAMS: ☒ Yes

ACCESSION NUMBER:

ML16155A159

☒ SUNSI REVIEW COMPLETE ☒ FORM 665 ATTACHED

OFFICE	RII:DRP	RII:DRP					
SIGNATURE	CRS2	AJB3					
NAME	C. Smith-Standberry	A. Blamey					
DATE	6/3/2016	6/3/2016	6/ /2016	6/ /2016	6/ /2016	6/ /2016	6/ /2016
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\DRPI\RPB6\WATTS BAR\MEETINGS\2016 WATTS BAR PUBLIC MEETING SUMMARY_5-24-16 DRAFT_2.DOCX

Letter to Joseph W. Shea from Alan Blamey dated June 3, 2016

SUBJECT: PUBLIC MEETING SUMMARY FOR WATTS BAR NUCLEAR PLANT,
DOCKET NO. 50-390 and 50-391

Distribution:

S. Price, RII

L. Gibson, RII

OE Mail

RIDSNRRDIRS

PUBLIC

RidsNrrPMWattsBar Resource

NRC ATTENDEES

C. Haney, Regional Administrator, Region II
L. Wert, Deputy Regional Administrator, Region II
L. Dudes, Deputy Regional Administrator, Region II
L. Jarriel, Agency Allegations Advisor, NRC Headquarters
M. Frankie, Acting Deputy Division Director, DRP, RII
A. Blamey, Chief, Reactor Projects Branch 6, DRP, RII
J. Nadel, Senior Resident Inspector, Watts Bar Unit 1, DRP, RII
M. Franovich, Division Director, DRP, RII
C. Kontz, Senior Project Engineer, Branch 6, DRP, RII
J. Baptist, Acting Chief, Reactor Projects Branch 8, DRP, RII
N. Coovert, Senior Construction Inspector, Construction Inspection, Branch 3, DCI, RII
A. Echavarria, Senior Investigator, OI, RII
M. Checkle, Senior Allegations Coordinator, EICS, RII
S. Mendez, Allegations Coordinator, EICS, RII
C. Smith-Standberry, Project Engineer, Branch 6, DRP, RII
S. Rose, Chief, Reactor Projects Branch 5, DRP, RII
J. Ledford, Public Affairs Officer, PA, RII
E. Michel, RII
E. Lea, Regional Governmental Liason Officer, RII
S. Morrow, RES

TVA ATTENDEES

M. Balduzzi, Senior Vice President Operations, TVA
P. Simmons, Site Vice President, Watts Bar
J. Shea, Vice President Regulatory Affairs, TVA
S. Connors, Plant Manager, Watts Bar
E. Henderson, TVA
B. Dungan, Rotational Development, Watts Bar
I. Hagins-Dyer, Senior Manager, Employee Concerns Program, TVA
G. Arent, Director, Watts Bar Licensing
C. Edmondson, TVA
J. Calle, TVA
S. Fiedler, TVA
C. Chandler, TVA

OTHER ATTENDEES

S. Barczak, Southern Alliance for Clean Energy
D. Lochbaum, Union of Concerned Scientists
D. Flessner, Chattanooga Times-Free Press
D. Shurberg, Human Performance Analysis Corp.

**List of Attendees
TVA Category 1 Public Meeting
May 24, 2016**

Name (Please Print)	Title/Affiliation	Contact Information (Email/Cell)
Leslie Franks	Auditor, TVA Office of Inspector General	865-633-7330
Joe Hansen	Lead Project Manager, Enercon	770-792-6966
✓ Dr. Deborah Shurberg	Human Performance Analysis Corp.	860-567-4404
✓ Sara Barczak	Southern Alliance for Clean Energy	912-201-0354
Sheryl Sweet	Member of the Public	
Sheliah Baker	Member of the Public	
Sandy Dalton	Member of the Public	
Sandy Kurtz	Member of the Public	
✓ Dave Flesher	Chattanooga Times Free Press Reporter	
Erin Henderson	TVA	
Inza Hawkins	TVA	
MIKE GALBUZZI	TVA	
Chad Edmundson	TVA	
Brian Dugan	TVA	
JOE CALLE	TVA	
PAUL Simmons	TVA	
SEAN COWNS	TVA	
Scott Fiedler	TVA	
Gordon P. Arent	TVA	

**List of Attendees
TVA Category 1 Public Meeting
May 24, 2016**

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Watts Bar Nuclear Plant Chilled Work Environment Response

May 24, 2016



Agenda

- **Opening Remarks**
- **Chilled Work Environment Letter**
- **Response**
- **Causal Analysis**
- **Corrective Actions**
- **Summary**



Opening Remarks

Michael Balduzzi, Senior Vice President Nuclear Operations

Chilled Work Environment Letter

- **Nuclear Regulatory Commission (NRC) issues Chilled Work Environment Letter (CWEL) to Watts Bar (WBN) on March 23, 2016**
- **Key points in CWEL**
 - A chilled work environment exists in Operations Department
 - No serious safety violations or significant plant safety issues were identified
 - Concerns existed regarding impact of chilled work environment on plant operations
- **NRC issued CWEL to ensure clear understanding of the scope of concerns**

TVA Response

- **TVA is committed to:**
 - Core values and behaviors that emphasize safety over competing goals
 - Ensuring that employees feel free to raise nuclear safety concerns without fear of retaliation
 - Ensuring management will respond in a timely and effective manner
- **TVA acknowledged that the WBN Operations Department work environment was inconsistent with TVA core values**

TVA Response

- **Evaluations performed by TVA prior to receipt of CWEL**
 - Employee Concerns Investigation Reports, NEC-16-00127
 - Watts Bar Special Review Team Report, Revision 1
- **Comprehensive action plan initiated prior to receipt of CWEL**
 - Senior Vice President of Nuclear Operations met with senior reactor operators and above
 - Site Vice President met with first-line supervisors and above
 - Roles and responsibilities reinforced for Main Control Room (MCR) and Outage Control Center (OCC)
 - Key organizational changes implemented
 - Site plan implemented to improve and focus site communications

TVA Response

- **Immediate actions following receipt of the CWEL**
 - TVA's Chief Nuclear Officer communicated to the nuclear fleet regarding:
 - Issuance of CWEL
 - TVA ownership of chilled work environment causes
 - TVA implemented independent observations of the MCR and OCC
 - WBN initiated a Root Cause Analysis
 - Site Vice President conducted all-hands meetings that reinforced:
 - Safety is paramount
 - Senior leadership team's ownership of chilled work environment causes and commitment to resolve
 - Roles and responsibilities of licensed operators



CWEL Required Actions

- **Conduct an assessment of Watts Bar climate**
- **Address the root causes of the chilled work environment**
- **Take steps to ensure WBN staff members are willing to openly participate in the process**

CWEL Focus Areas Assessed

- **A chilled work environment exists within the WBN Operations Department due to perceptions of retaliation**
- **A perception of:**
 - An emphasis of production over safety
 - An undue influence by management on MCR operators
- **Management oversight and effectiveness of the corrective action and employee concerns programs**

Causal Analysis Overview

- **Independent team established**
- **Root causes determined**
 - Senior leaders failed to recognize potential impacts on the work environment associated with initiatives to drive improvements in overall station performance
 - A failure by management to communicate the rationale and bases for some personnel actions taken led to an atmosphere of fear by some workers

Causal Analysis Contributing Causes

- Weaknesses in Operations management for setting and consistently reinforcing high standards of performance
- Weaknesses in senior leadership behaviors associated with managing a healthy interface between the OCC and the MCR
- Inconsistent implementation of the Adverse Employment Action procedure
- Established processes for oversight and monitoring of station nuclear safety culture were less than effective
- Lack of confidence in the Corrective Action Program (CAP) by some Operations Department personnel

Causal Analysis Extent

- **Extent of Condition**
 - Chilled work environment confined to Operations Department
 - Indications of work environment challenges in other departments
- **Extent of Cause**
 - Extended to WBN station as a whole

Causal Analysis ECP Effectiveness

- **Employee Concerns Program (ECP) Effectiveness**
 - Effective in achieving the goals outlined RIS-2005-18, “Guidance For Establishing And Maintaining a Safety Conscious Work Environment”
 - Procedures provide an effective path for individuals to feel free to raise issues
 - Reporting of the ECP staff is independent of the line organization and management
 - Key elements of the ECP have been evaluated and found effective
 - Browns Ferry Confirmatory Order response effective with 2 gaps identified
- **Industry Self Assessment of ECP Program Effectiveness**
 - August 2016

Causal Analysis CAP Effectiveness

- **Corrective Action Program (CAP) Effectiveness**
 - Lack of confidence in the CAP by some Operations Department personnel has contributed to a reluctance by some Operators to document issues and concerns
 - Causal Analysis
 - Lack of feedback provided to the Operations CAP initiators
- **Perform Self-Assessment to determine CAP Effectiveness and Confidence in CAP**
 - December 2016

Key Actions to Prevent Recurrence

- Establish and communicate a vision for a strong and healthy safety conscious work environment, focusing on results of the root cause and initiatives
- Define roles and responsibilities for key influencers
- Perform safety conscious work environment observations and trend monthly
- Conduct periodic reviews of CWEL response and effectiveness of root cause actions

Additional Corrective Actions

- Implement a WBN and independent oversight observation plan focused on shift manager and unit supervisor leadership behaviors
- Implement WBN Operations Shift Manager Mentoring Program
- Implement an OCC pre-job briefing sheet for inclusion in the Outage Oversight Plan and in unplanned/forced outage oversight governance
- Revise the adverse employment action procedure, including establishing an Executive Review Board (ERB)
- Revise Nuclear Safety Review Board guidance to include interviews of Nuclear Safety Culture Monitoring Panel (NSCMP)

Additional Corrective Actions

- **Revise NSCMP procedure to ensure departmental representatives provide specific safety conscious work environment insights**
- **Revise the Employee Concern Program (ECP) procedure to ensure additional oversight and pulsing surveys during periods of high organizational stress**
- **Provide a method for the Shift Manager to communicate the status of CAP to MCR operators on a per shift basis**

Effectiveness Measures

- **Achieve and sustain a healthy safety conscious work environment**
 - Open forums with site leadership to receive feedback
 - NSCMP meetings
 - ECP intakes and pulse surveys
 - Employee surveys
 - Anonymous Condition Reports
 - MCR and OCC observations
 - NRC allegations
- **Oversight by Corporate and WBN senior leadership to ensure a healthy safety conscious work environment exists**
 - Conduct observations that changes are visible and effective
 - Ensure actions taken in 30-day response and root cause are successfully completed

Summary

- **The work environment in the WBN Operations Department was inconsistent with TVA core values.**
- **TVA is committed to:**
 - Core values and behaviors emphasize safety over competing goals
 - Employees feeling free to raise nuclear safety concerns without fear of retaliation
 - Ensuring management will respond in a timely and effective manner
- **The WBN senior leadership team owns the chilled work environment causes and is actively working to resolve.**
- **Actions taken to address the safety conscious work environment at WBN will be monitored for effectiveness.**



Closing Remarks

Michael Balduzzi, Senior Vice President Nuclear Operations



Questions?

