



# WBN Dual Unit Fire Protection Report Page Revision Review

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TVA-NRC Public Meeting - August 26, 2015

## Introduction

- Fire Protection Recovery Project:
  - Background and Context
  - Analysis and Products
  - As-Constructed Fire Protection Report – June 24, 2015
- Regulatory Engagement:
  - NRR FPR review ongoing
  - Region II Triennial and Operational Readiness inspections ongoing
- Brief Structure:
  - Overview of TVA-NRC audit discussions by category
  - TVA intended change with view of changed FPR pages

## Manual Actions

- Feasibility and Reliability (F & R)-
  - Acceptance criteria relative to Actions “Required” and “Important” to Fire Safe Shutdown (FSSD)
  - Related feasibility and reliability evaluations
  - Environmental factors
- Managing Unit 1 OMAs-
  - Evaluation of new U1 OMAs
  - F&R of existing U1 OMAs

## Manual Actions

- Main Control Room Abandonment
  - Action acceptance criteria for both Units
  - Appendix R, III.L performance goal evaluation
- Cold Shutdown Repair Procedures
- Emergency lighting after 8 hours

## Manual Actions

Discussion Item	TVA change intention	Affected Pages
OMA required vs. important FSSD F&R criteria	Clarified FSSD F&R criteria for required and important FSSD OMAs	Part V (full revision): 4-7
AFW flow OMA F&R evaluation	Updated wording to reflect calc update and required vs. important action aspects	Part VII: 268-270
U2 VCT room action time	Action performance travel time corrected	Part V (full revision): 4 Part VII: 306
New and existing U1 OMA evaluations	Clarified criteria and management of new U1 OMAs	Part V (full revision): 2

## Manual Actions, cont.

Discussion Item	TVA change intention	Affected Pages
MCR abandonment action acceptance criteria	Clarified MCR abandonment action criteria	Part V (full revision): 6
Environmental factors	Clarified F&R acceptance criteria with environmental factor discussion	Part V (full revision): 6-7
MCR abandonment actions evaluations	Provided updated engineering evaluations with defense in depth in meeting goals	Part V (full revision): 11-16
Cold shutdown repair documentation	Provided additional detail	Part V (full revision): 16 Part II: 8

## Manual Actions, cont.

Discussion Item	TVA change intention	Affected Pages
Emergency lighting for manual actions after 8 hours	Clarified use of installed and portable emergency lights	Part V (full revision): 18

## Specific Technical Topics

- Safety Injection (SI)-
  - Definition of “spurious” versus “inadvertent”
- Deviation Evaluations-
  - Appendix R
  - BTP 9.5-1, Appendix A
- Fire Detection Monitoring Panel upgrade-
  - Modification chosen design code
  - Conformance with appropriate industry standards and testing
- Fire Brigade member responsibilities-
  - Other essential functions



## Specific Technical Topics, cont.

- Reactor Building Equipment Hatch room-
  - Surveillance frequency relaxation
  - Applicability of alternate compensatory actions
- Mechanical Pipe Penetration Seals-
  - “F” and “T” rating
- Steam Generator (SG) Power Operated Relief Valve (PORV) OMA-
  - Allowed time revision
  - F&R evaluation

## Specific Technical Topics

Discussion Item	TVA change intention	Affected Pages
Defining “spurious” vs. “inadvertent” SI	Provided clarification for terms used in FPR	Part III: 5-6 Part IV: 2
Appendix R deviation justifications (combustible loading, equipment location)	Clarified deviation justifications with additional detail	Part VII: 7, 8
Fire Detection Monitoring Panel design code and standards	U1: Submitted License Cond. U2: Submitting License Cond. Update NFPA code alternative	U1: LAR U2: Submittal Part X: 53, 55
Other Fire Brigade member responsibilities	Also medical responders, fire brigade will initially stabilize injured and then firefight	Part II: 25

## Specific Technical Topics, cont.

Discussion Item	TVA change intention	Affected Pages
RB hatch room surveillance frequency and comp actions	Provided more detailed justification	Part II: 100 Part VI: 632, 1301 Part VII: 137-138
Pipe penetration seal F and T rating	Provided more detailed technical basis	Part II: 44-45
BTP Deviation for 1.5 hour dampers in 3 hour fire barriers	Deviation justification documented following FPR engineering validation and Corrective Action Program evaluation	Part I: 11, 19, 20, 22 Part VI: 357-358, 935-937, 968-969, 1135 Part VII: 135, 136 Part VIII: 23, 62, 67 Part X: 5

## Specific Technical Topics, cont.

Discussion Item	TVA change intention	Affected Pages
SG PORV OMA calculated allowed time revision; F&R evaluation	Leverage increased calc margin for OMA after firefighting effects; provide firefighting efforts impacts defense in depth options	Part VI: 504, 508, 515, 519, 526, 530, 537, 541, 548, 552, 683, 684, 690, 691, 697, 698, 704, 705, 711, 712 Part VII: 203-207, 218-222, 230-235, 241-246, 297-298, 303-304

## FPR Consistency

- Intra-document consistency-
  - Appendix R deviation component list shorter in evaluation
- Cold Shutdown Repairs-
  - Required rooms table inconsistent with source section
- Consistency with calculation
  - Actions common to all fires and function performed wording one revision behind
  - Note table truncated
  - Primary RCS depressurization strategy update

## FPR Consistency

Discussion Item	TVA change intention	Affected Pages
Fourth component missing in Appendix R deviation evaluation	Consistently list four components in deviation component list and evaluation	Part VII: 26, 52, 76
Cold Shutdown repairs required rooms missing in Table I-1	Restore consistency within document	Part I: Table I-1, 6-25
Table 6-1 revision consistency	Table updated to current FPR and calc revision; consistency validated	Part VI: Table 6-1, 1383-1386

## Wording Clarifications

- Referencing prior or future NRC reviews in evaluations and justifications
- Preferred wording
- Unit applicability reference errors
- Clerical or redundant wording errors

## Wording Clarifications

Discussion Item	TVA change intention	Affected Pages
Referencing prior or future NRC reviews	Removed prior NRC review references	Part I: 4 Part II: 4 Part VII: 133
Preferred or more accurate wording	Updated wording with no change in intent	Part II: 96
Clerical or redundant, non-substantive editorials errors	Corrected errors with no change in intent	Part VII: 6, 112, 113 Part VII: 9 Part IX: 6, 18



## Wording Clarifications, cont.

Discussion Item	TVA change intention	Affected Pages
Unit applicability, non-substantive editorial reference errors	Verified and corrected unit applicability errors with no change in intent	Part VII: 128 Part VIII: 60

## Way Ahead

- Updated FPR Pages Submittal:
  - Provides docketed submittal of viewed FPR change pages
  - Submittal includes Unit 2 Fire Detection Monitoring Panel License Condition
  - Anticipate submittal this week
- Regulatory Engagement:
  - Continue to support NRR audit and FPR review toward SSER
  - Anticipate Region II Triennial and Operational Readiness inspections into September
  - Above supports ongoing Unit 2 Operating License technical and readiness review efforts

# Questions?

