

## FAQ 16-02, Watts Bar 2 Baseline Planned UA and CCF (Final)

Plant: Watts Bar Nuclear Plant, Unit 2 (WBN 2)

Date of Event: TBD 2016 (Forecast Commercial Operation)

Submittal Date: Introduced via ROP WG Call 06/15/2016

Engineer/Licensee Contact: Clinton Woolson/Peter Wilson Tel/email: 423-365-8848/423-751-3275

NRC Contact: \_\_\_\_\_ Tel/email: \_\_\_\_\_

### **Performance Indicator:**

MS06 WBNU2 Mitigating System Performance Index (Emergency AC Power Systems)

MS07 WBNU2 Mitigating System Performance Index (High Pressure Injection Systems)

MS08 WBNU2 Mitigating System Performance Index (Heat Removal Systems)

MS09 WBNU2 Mitigating System Performance Index (Residual Heat Removal Systems)

MS10 WBNU2 Mitigating System Performance Index (Cooling Water Systems)

**Site-Specific FAQ (Appendix D)?** Yes

**FAQ requested to become effective:** when approved.

### **Question Section:**

1. How should the Plant Specific Baseline Planned Unavailability be determined for Watts Bar Unit 2?
2. What should be the Generic Common Cause Factor (CCF) adjustment values for Watts Bar Unit 2?

### **NEI 99-02 Guidance needing interpretation (include page and line citation):**

1. Section F 1.2.2, (Page F-9), Plant-Specific Baseline Planned Unavailability:  
There is no guidance in this section to develop baseline unavailability for a new plant. Watts Bar Unit 2 has no operating history.
2. Appendix F, Table 7 (Page F-39 and 40), Generic CCF Adjustment Values:  
Watts Bar Unit 2 is not included in this table since it was only recently licensed.

**Event or circumstances requiring guidance interpretation:** Startup of new plant.

**If licensee and NRC resident/region do not agree on the facts and circumstances explain:**

Not applicable.

**Potentially relevant existing FAQ numbers:** FAQ 10-04, which added the Browns Ferry U1 CCF Adjustment Values to Table 7 of NEI 99-02.

### **Response Section:**

#### **Proposed Resolution of FAQ:**

Watts Bar Unit 2 design is a four-loop Westinghouse PWR with high head safety injection system and Ice Condenser Containment. The design is the same as Watts Bar Unit 1 (which went into commercial operation August 15, 1996). Units 1 and 2 share some common MSPI systems.

#### Question 1 (Plant-Specific Baseline Planned Unavailability) Resolution:

The guidance summarized in NEI-99-02 for Baseline Planned Unavailability is to develop the initial baseline based upon actual plant-specific data from the period 2002-2004 and adjust it based upon plant maintenance philosophy changes and evaluation of effects on PRA model. Because Unit 2 has not

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operated yet and does not have actual plant-specific values for the period 2002-2004, Watts Bar Unit 2 cannot use this method to develop initial baseline.

TVA proposes to develop a 12-quarter Baseline Planned Unavailability value for Unit 2 specific systems and include the results in the MSPI Basis Document. The common Emergency AC and portions of the cooling water indicator have baseline data from Unit 1 for 2002-2004 that will be used for Unit 2. These Unit 2-specific system values will be based upon Unit 1 history and Unit 2 forecast and evaluated against the test and maintenance parameters in the PRA model. This would generally follow the guidelines in NEI 99-02 and be documented in the basis document. This is justified by the fact that Unit 2 maintenance is being performed by the same organization, for the same equipment type, and with the same preventative maintenance basis as Unit 1. Also, the PRA data for test and maintenance parameters for Unit 2 was developed using Unit 1 data.

### Item 2 (CCF Adjustment Values) Proposed Resolution:

In NEI 99-02, Table 7 lists generic CCF Adjustment Values for each US unit. Watts Bar Unit 2 is not listed. TVA recommends Unit 2 be added to the Unit 1 line since system design and components are same as Unit 1.

### ***If appropriate, provide proposed rewording of guidance for inclusion in next revision:***

Recommendation 1:

Add the following sentence on Page F-9, section F 1.2.2, starting after the period on line 42:

**“For new plants, baseline values can be estimated based upon expected maintenance practice and documented in Basis Document.”**

Recommendation 2:

The following is proposed to be added to Appendix F, Table 7:

	EDG	MDP Running or Alternating <sup>+</sup>	MDP Standby	MDP Standby	TDP **	MDP Standby
Watts Bar 1 & 2	1.25	1.25	1.25	1.25	1	1.5

***PRA update required to implement this FAQ?*** No

***MSPI Basis Document update required to implement this FAQ?*** Yes, in the form of issuing the initial version of the Watts Bar Unit 2 MSPI Basis Document.

### **NRC Response**

The NRC agrees with the licensee’s recommendations. As for all plants, the licensee has the ability to adjust their baseline unavailability per the guidance in NEI 99-02 Appendix F should these assumptions turn out to not reflect actual unavailability.