

WBN2Public Resource

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Sent: Wednesday, March 16, 2011 6:15 AM
To: Epperson, Dan; Poole, Justin; Raghavan, Rags; Milano, Patrick; Campbell, Stephen
Cc: Crouch, William D; Boyd, Desiree L; Hamill, Carol L; Stockton, Rickey A
Subject: TVA letter to NRC_03-15-11_WBN U2 FSAR A103
Attachments: 03-15-11_WBN U2 FSAR A103_Final.pdf

Please see attached TVA letter that was sent to the NRC today.

Thank You,

~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*~*

Desirée L. Boyd

WBN 2 Licensing Support

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Hearing Identifier: Watts_Bar_2_Operating_LA_Public
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Mail Envelope Properties (7AB41F650F76BD44B5BCAB7C0CCABFAF1C935921)

Subject: TVA letter to NRC_03-15-11_WBN U2 FSAR A103
Sent Date: 3/16/2011 6:14:34 AM
Received Date: 3/16/2011 6:15:42 AM
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Files	Size	Date & Time
MESSAGE	326	3/16/2011 6:15:42 AM
03-15-11_WBN U2 FSAR A103_Final.pdf		285086

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Attachment 1 to be withheld from Public Disclosure Under 10 CFR 2.390. When separated from this Enclosure, this letter is decontrolled.



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

March 15, 2011

10 CFR 50.4(b)(6)
10 CFR 50.34(b)
10 CFR 2.390(d)(1)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Watts Bar Nuclear Plant, Unit 2
Docket No. 50-391

Subject: WATTS BAR NUCLEAR PLANT (WBN) – UNIT 2 – FINAL SAFETY ANALYSIS REPORT (FSAR), AMENDMENT 103

- References:
1. TVA letter to the NRC dated December 17, 2010, “Watts Bar Nuclear Plant (WBN) - Unit 2 - Final Safety Analysis Report Amendment 102”
 2. TVA letter to NRC dated December 21, 2010, “Watts Bar Nuclear Plant (WBN) – Unit 2 – Final Safety Analysis Report (FSAR), Section 9.1, “Fuel Storage and Handling”
 3. TVA letter to NRC dated January 24, 2011, “Watts Bar Nuclear Plant (WBN) – Unit 2 – Final Safety Analysis Report (FSAR), Section 2.4, “Hydrologic Engineering”
 4. TVA letter to NRC dated February 25, 2011, “Watts Bar Nuclear Plant (WBN) Unit 2 - Final Safety Analysis Report (FSAR) - Response To Chapters 11 And 12 Request For Additional Information”

This letter transmits WBN Unit 2 FSAR Amendment 103 (A103), which reflects changes made since the issuance of Amendment 102 on December 17, 2010 (Reference 1). This amendment includes changes to Sections 9.1 and 2.4 previously provided via References 2 and 3. In Reference 4, TVA committed to provide Chapter 11 updates in response to NRC’s request for additional information. However, since that time, additional Chapter 11 questions have been received from the staff. Therefore, A103 does not contain any Chapter 11 updates but remains unchanged. Instead, TVA will provide an advance version of Chapter 11 along with answers to the remaining RAI questions in separate correspondence. If found acceptable by the staff, final Chapter 11 updates will be provided in A104.

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Enclosure 1 contains a summary listing of FSAR sections and corresponding Unit 2 change package numbers associated with the A103 FSAR changes. Most of these changes were the result of resolutions to Requests for Additional Information.

FSAR A103 is contained on the enclosed Optical Storage Media (OSM #1) (Attachment 1). The FSAR contains security-related information identified by the designation "Security-Related Information - Withhold Under 10 CFR 2.390." TVA hereby requests this information be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390. A redacted version of the FSAR is contained on OSM #2 (Attachment 2), which is suitable for public disclosure. Enclosure 2 contains a listing of the FSAR pages that have been redacted. Enclosure 3 lists the files and file sizes on the security-related OSM (OSM #1), and Enclosure 4 lists the files and file sizes on the publicly available OSM (OSM #2). Enclosure 5 provides the new commitments contained in this letter.

This letter does not close any "Generic Communications." If you have any questions, please contact Bill Crouch at (423) 365-2004.

I declare under the penalty of perjury that the foregoing is true and correct. Executed on March 15, 2011.

Respectfully,



David Stinson
Watts Bar Unit 2 Vice President

Enclosures:

1. WBN Unit 2 FSAR A103, "Summary Listing of A103 FSAR Changes"
2. WBN Unit 2 FSAR A103, "Summary of Redacted Pages"
3. WBN Unit 2 FSAR A103, "List of files and file sizes on the security-related OSM (OSM #1)"
4. WBN Unit 2 FSAR A103, "List of files and file sizes on the publicly available OSM (OSM #2)"
5. WBN Unit 2 FSAR A103, "List of commitments"

Attachments:

1. OSM #1: WBN Unit 2 FSAR Amendment 103 - Security-Related Information - Withhold Under 10 CFR 2.390
2. OSM #2: WBN Unit 2 FSAR Amendment 103 - Publicly Available Version

cc: See Page 3

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ENCLOSURE 1

WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
1.	Section 9.1.3.1.1 Section 9.1.3.3.3 Table 9.1-1	<p>1. Within FSAR Section 9.1.3.1.1 on page 9.1-5 (A101), replace the 3rd, 4th, and 5th sentences with Insert A below:</p> <p>Insert A - “Under design basis Ultimate Heat Sink (UHS) temperatures and heat exchanger fouling conditions, the heat load in the spent fuel pool is limited to 28.1E+06 BTU/hr during refueling outages. Under more favorable conditions, up to 50.2E+06 BTU/hr may be accommodated. Cycle specific calculations may be performed prior to the start of a refueling outage to determine the exact heat removal capability of the SFPCCS using recent heat exchanger performance testing and anticipated UHS temperatures; otherwise, 28.1E+06 BTU/hr may not be exceeded. The rate of fuel transfer from the reactor to the SFP is controlled such that, with one (1) train of SFPCCS in service, the SFP temperature will remain below 151.2 °F.”</p> <p>2. On page 9.1-10 (A101), replace the last sentence of the first paragraph with Insert B below:</p> <p>Insert B - “Following unit shutdown, a decay time of approximately 33 days prior to the completion of core offload is required to maintain the total SFP decay heat below 28.1E+06 BTU/hr design basis limit.”</p> <p>3. On page 9.1-10 (A101), replace the first sentence of the second paragraph with Insert C below:</p> <p>Insert C - “For full core offload following a normal refueling outage (Emergency Offload), it is assumed that a unit is required to shutdown 36 days after a refueling outage on the opposite unit. Following shutdown, it is assumed that core offload will be completed after a 60 day decay time. Under these conditions, the maximum SFP decay heat will be less than 25.61E+06 BTU/hr, which is less than the normal refueling case.</p> <p>4. On page 9.1-10 (A101), replace “less” with “better” in the second sentence of the second paragraph.</p> <p>5. Replace Table 9.1-1 with new table.</p>	2-103-01
2.	Table 9.1-1	Replace Table 9.1-1	2-103-02

ENCLOSURE 1

WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
3.	Section 2.4	Revise Section 2.4.3, 2.4.10, and 2.4.14 due to new analyses.	2-103-03
4.	Section 3.10 Table 3.11-2 Section 7.1.2 Table 7.1-1 Section 7.7 Section 8.1	<ol style="list-style-type: none"> 1. In Section 3.10, <ul style="list-style-type: none"> • add “Seismic qualification testing of the safety related radiation monitors is documented in References [33] through [37].” to the end of section 3.10.1. • add references 33 through 37 to page 3.10-12 • in the references, change “Week” to “Weed” 2. In Table 3.11-2, for Regulatory Guides 1.40, 1.63 and 1.73, change the FSAR cross reference to 8.1.5.3 3. For Section 7.1.2 and Table 7.1-1: <ul style="list-style-type: none"> • add revision levels and update cross reference information. • delete Item 27, Reg. Guide 1.97 from the listing • move the separate entry for IEEE Standard 344-175 to the end of the previous entry. • change RG 1.29 from revision 0 to Revision 3 • change Reg. Guide 1.80 to 1.68.3 • spell out “Revision” • delete chapter 7 references to discussion for compliance to Reg. Guide 1.75 and replace with Note 8. • change Revision for RG 1.89 from Revision 0 to Revision 1. 4. For Section 7.7, Delete the last sentence of the first paragraph of “Unit Operation with an Inoperable RPIS Indicator:” 5. “The primary purpose for this option is to prevent unnecessary wear on the incore detectors due to repeated use over an extended period.” 6. For Section 8.1, change RG 1.29 from revision 0 to Revision 3 	2-103-04
5.	Table 6.2.4-1	On FSAR Table 6.2.4-1, revise the sketch for containment penetration X-15 to clearly show the penetration configuration including the addition of a drain valve and pipe cap by EDCR 53421, Work Scope 5.	2-103-05

ENCLOSURE 1

WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
6.	Section 6.2.4 Table 6.2.4-1	<ol style="list-style-type: none"> 1. On FSAR Table 6.2.4-1, Page 60 of 69, revise the sketch for containment penetrations X-108 and X-109 as follows: <ol style="list-style-type: none"> a. Revise the sketches for penetrations X-108 and X-109 to show the blind flange is located in the Additional Equipment Building (AEB) and not the Auxiliary Building (AB). b. Revise the sketches for penetrations X-108 and X-109 to show the blind flange as having a test connection to allow testing of the double O-ring. c. Revise the possible leak paths column for penetrations X-108 and X-109 to remove Type D (through-line leakage from the Containment to the Auxiliary Building) and add Type E (leak path from the containment that bypasses the annulus and leaks directly past a cleanup system). 2. On FSAR Table 6.2.4-1, Page 66 of 69, add the abbreviation for the Additional Equipment Building (AEB) to the list of abbreviations for Building Structures. 3. In FSAR Section 6.2.4.3.1, add method 5 to Type E Leakage Path to indicate for penetrations X-108 and X-109, a blind flange with a double O-ring design that is not opened during power operation and that has a zero leakage acceptance criteria is relied upon to prevent bypass leakage. 	2-103-06
7.	Section 6.2.4.2.3 Section 6.2.4.3.1	<ol style="list-style-type: none"> 1. Revise the discussion in FSAR Section 6.2.4.2.3 under Penetration Type XVII by deleting the third, fourth and fifth sentences and replacing them with the following: The containment penetration, illustrated in Figure 6.2.4-15, has a blind flange with double O-rings and a leak rate test connector installed inside the annulus. The shield building penetration utilizes a raised face blind flange with a single gasket installed outside the shield building. 2. Revise the discussion in FSAR Section 6.2.4.3.1 under Type C - Leakage Path by deleting the words "double O-ring" under Item 1. 	2-103-07
8.	Section 14.2.7	Change Revision No. of 14.2.7(2) for RG-1.41, Revision 2 to RG-1.41, Revision 0	2-103-08

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WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
9.	Table 9.2-2	<p>For Table 9.2-2, make the following changes:</p> <ol style="list-style-type: none"> 1. Renumber the pages from 1 of 75 through 75 of 75 to 1 of 77 through 77 of 77. 2. For Item 1, in the "Component" column, move ERCW pump A-A to align with the other ERCW pumps. 3. For Item 2, change the status light identified under "Method of Detection" from 1-HS-67-432a to 1-HS-67-431 A. 4. For Item 4, under the "Method of Detection" column, delete the words "and low pressure alarm in MCR" and add the words "Low flow and low pressure alarms in MCR" aligned with the fails to close failure mode. 5. For Item 5, in the "Effect on System" column, remove the hyphen from the word "requirements." 6. For Items 6,7,8, and 9, remove valves 1-FCV-67-68, 2-FCV-67-68, 1-FCV-67-65 and 2-FCV-67-65 from the "Component" column, respectively. Also revise the Functions, Failure Modes, Method of Detections, Effect on System and Effect on Plant for these items, as shown on the attached FSAR markup, to identify the appropriate functionality and failure modes as a result of changing the normal position of valves 1-FCV-67-66, 2-FCV-67-66, 1-FCV-67-67 and 2-FCV-67-67 from normally locked open with power removed to normally closed with power restored. 7. For Item 10, add an asterisk to the Item number and include a remark associated with the asterisk that indicates the ADG is not operable but the item is retained in the table for historical purposes. Also make the following editorial changes: A) Under "Component," add a "-S" to valve number 1-FCV-67-72 and 2-FCV-67-73; B) Under "Failure Mode", insert the word "fully" in front of the word "open"; and C) Under "Effect on System," insert the word "None" in front of the current statement and change the word "capacity" to "capability." 	2-103-09

ENCLOSURE 1

WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
9. (Cont.)	Table 9.2-2	<p>8. For Item 11, revise the "Effect on System" for both failure modes for valve 1-67513A.</p> <p>9. Also change the formatting and wording of the information included under Item 11, as shown on the attached FSAR markup, to improve readability and make it consistent with the current wording found in calculation EPMIVS011 092.</p> <p>10. For Item 12, add the evaluation for check valve 2-67-513A (new pages 13 and 14). Also change the formatting and wording of the information included under Item 12, as shown on the attached FSAR markup, to improve readability and make it consistent with the current wording found in calculation EPMIVS011 092.</p> <p>11. For Item 13, revise the "Effect on System" for both failure modes for valve 1-675138. Also change the formatting and wording of the information included under Item 13, as shown on the attached FSAR markup, to improve readability and make it consistent with the current wording found in calculation EPMIVS011 092.</p> <p>12. For Item 14, revise the "Effect on System" for both failure modes for valve 1-675138. Also change the formatting and wording of the information included under Item 14, as shown on the attached FSAR markup, to improve readability and make it consistent with the current wording found in calculation EPMIVS011 092.</p> <p>13. For Item 15, under "Effect on System" for the fails to close failure mode, change the listing of valves from "508, 513" to "508 and 513."</p> <p>14. For Item 17, move the fails to close "Failure Mode" and the associated "Potential Cause" to align with the second "Method of Detection".</p> <p>15. For Item 27, restore remark to indicate valves 1-FCV-67-223 and 2-FCV-67-223 are administratively locked open with breaker removed. Also, correct the "Method of Detection" from 2-FI-67-222 to high temperature alarm from 0-M-278. Additionally, revise the wording of the "Failure Mode" and "Effect on Plant", as shown on the attached FSAR markup, to make it consistent with the current wording found in calculation EPMIVS011 092.</p>	2-103-09

ENCLOSURE 1

WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
9. (Cont.)	Table 9.2-2	<p>16. For Item 28, correct the "Method of Detection" from 2-FI-67-222 to high temperature alarm from 0-M-278. Additionally, revise the wording of the "Effect on System" and "Effect on Plant," as shown on the attached FSAR markup, to make it consistent with the current wording found in calculation EPMIVS011 092.</p> <p>17. For Item 30, remove the remark in the "Remarks" column. Also, revise the function to indicate the valves remain closed, or open to control ERCW flow through the Heat Exchanger.</p> <p>18. For Item 31, correct the identification of the flow indicator specified under the "Method of Detection."</p> <p>19. For Item 32, revise the Function for valves 0-FCV-67-152, 0-FCV-67-151 and 0-FCV-67-144, revise the "Failure Mode", "Potential Cause" and "Method of Detection" for valves 0-FCV-67-152 and 0-FCV-67-144 and revise the "Effect on System" for 0-FCV-67-144" as shown on the attached FSAR markup. Also, delete the remark in the "Remarks" column for valve 0-FCV-67-144 and revise the remark for valve 0-FCV-67-151 to indicate the valve is locked closed with the breaker removed. Also make formatting changes, as shown on the attached FSAR markup, to correct formatting errors and to keep Item 32 on one page.</p> <p>20. For Item 33, correct the "Failure Mode" by inserting the words "(for the affected unit)." Also correct the "Effect on Plant" by inserting the words "(each unit)".</p> <p>21. For Item 34, correct the "Effect on Plant" by inserting the words "(each unit)."</p> <p>22. For Item 38, add Unit 2 valves 2-TCV-67-115 and 2-TCV-67-118.</p> <p>23. For Item 40, add the Function (inadvertently left out) and add the Item # to the "Item" column for the continuation on the next page.</p> <p>24. For Item 41, correct the "Failure Mode" by inserting the words "(for the affected unit)." Also, delete the "9" inadvertently included after valve number 2-67-580B. Also, add the Item # to the "Item" column for the continuation on the next page.</p>	2-103-09

ENCLOSURE 1

WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
9. (Cont.)	Table 9.2-2	<p>25. For Items 42, 44, 45, 54 and 56, add the Item # to the "Item" column for the continuation on the next page.</p> <p>26. For Item 43, under the "Function," remove the hyphens from the words provide and containment. Also, add the Item # to the "Item" column for the continuation on the next page.</p> <p>27. For Item 46, correct the penetration numbers for the Unit 2 valves to include the "X-". Also, add the Item # to the "Item" column for the continuation on the next page.</p> <p>28. For Item 59, correct the "Failure Mode" by inserting the words "(for the affected unit)."</p> <p>29. For Item 67, in the "Component" description, add Pipe Chase Coolers 2A and 2B.</p> <p>30. For Item 71, revise the "Function" to indicate valve 1-FCV-67-458-A will remain closed, change the "Failure Mode" from fails closed to fails open and the "Effect on System" is that it interrupts flow to both CCS Heat Exchangers A and B.</p> <p>31. For Item 72, correct to identify the "Effect on System" as a loss of Train A or B.</p> <p>32. Add Item 73a to address electrical failure of ERCW Train 1B and 2B.</p> <p>33. For Item 75, correct the abbreviation HVAC under "Effect on System" Also delete duplicated words under remark 1 under "Remarks."</p> <p>34. For Item 77, correct the "Method of Detection" for failed closed by inserting information that was inadvertently left out.</p> <p>35. For Item 78, correct the spelling of the word jackets under "Function."</p> <p>36. For Item 79, correct the spelling of the word due under "Effect on System."</p>	2-103-09

ENCLOSURE 1

WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
10.	Section 9.2.8	<p>1. For Section 9.2.8, insert the following sentence to the end of the paragraph:</p> <p>“A diver protection barrier is installed in the pump bay to facilitate the inspection of the RCW pumps.”</p>	2-103-10
11.	Section 3.8.5 Table 3.8.4-7 Table 3.8.4-8	<p>1. For Section 3.8.4.1.6 (A102 - page 3.8.4-15), change “elevation 737.5” to “738.8, change 2-foot, 6-inch to 5'-0”, and delete phrase, “above elevation 705.0” from the third paragraph from top of page.</p> <p>2. For Section 3.8.5, replace “1.53” with “1.52” in the last sentence of the second paragraph under the Auxiliary-Control Building.</p> <p>3. For Table 3.8.4-7 perform the following:</p> <ul style="list-style-type: none"> a. Sheet 1 of 7 - revise item VI⁶ by changing elevation from “738.6” to “738.8”. b. Sheet 2 of 7 - insert door “A78” into Item 6. c. Sheet 3 of 7 - revise item VI⁶ by changing elevation from “738.6” to “738.8”. d. Sheet 4 of 7 - insert door “A78” into Item 6. <p>4. For Table 3.8.4-7a insert door “A78 into the list of doors.</p> <p>5. For Table 3.8.4-8, revise item VII by changing elevation from 740.1 to 742.2 (738.8 PMF + 3.4 ft. wave runup), revise the two values in the adjacent columns from “1.58” to “1.519” and from “4.68” to “4.378.”</p>	2-103-11
12.	Section 10.4.9	<p>FSAR Section 10.4.9, paragraph 10.4.9.2 entitled "System Description" is revised to add the following:</p> <p>"The two CSTs are normally isolated from each other, with one CST dedicated to each unit. The AFW safety analyses take no credit for the ability to cross-tie the CSTs."</p>	2-103-12

ENCLOSURE 1

WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
13.	Not Used	Not Used	2-103-13
14.	Section 15.2	Replace Figures 15.2-8, 15.2-9, 15.2-10, and 15.2-11 previously provided by RAI Response submittal dated 11-09-2010.	2-103-14
15.	Section 8.2 Section 8.3.1.1	<ol style="list-style-type: none"> 1. For Section 8.2.2, replace the first paragraph with the following: “Each 161 kV circuit and CSSTs C and D have sufficient capacity and adequate voltage to supply the essential safety auxiliaries of a unit under loss-of-coolant accident (LOCA) conditions and the other unit in concurrent orderly shutdown with a simultaneous worst-case single transmission system contingency.” as previously provided in RAI response letter dated December 6, 2010. 2. For Section 8.3.1.1, revise the Equipment Capacities portion of Section 8.3.1.1 to match the information in Tables 8.3-4 through 8.3-7. 	2-103-15
16.	Table 11.2-5	In the footnote added to Table 11.2-5 by Amendment 102, the term “F/H1D” in the formulation of Column 5 and “Mobile” in the definition of “D” should be, “F/H/D” and “Mobile”, respectively.	2-103-16
17.	Section 14.2 Table 14.2-2	<ol style="list-style-type: none"> 1. For Section 14.2.10.1, page 14.2-31, make the following changes: <ol style="list-style-type: none"> a) delete the phrase, “and at least one temporary channel” from the second line in the first paragraph at the top of page b) Replace “strip chart” with “MCR” in the last line of the first paragraph at the top of page. c) Replace the phrase, “at least two channels (one permanent and one temporary, or” with “in front of each source range detector” in the second paragraph of this page. d) Delete “)” from after the word, “channels” e) Delete the sentence that reads, “The temporary detector will be monitored, as required, to ensure that at least two channels are responding” from the second paragraph of this page. f) Delete the phrase, “and that the extrapolated inverse count rate ratio is not decreasing for unexplained reasons” from the fourth paragraph of this page. 	2-103-17

ENCLOSURE 1

WBN Unit 2 FSAR A103

"Summary Listing of A103 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
17 (cont.)	Section 14.2 Table 14.2-2	2. For Table 14.2-2 (Sheet 3 of 39), make the following changes. <ul style="list-style-type: none"> a) Replace the phrase, "the stat of fuel loading with the phrase, "unlatching the first fuel assembly," in Prerequisite No. 2. b) Relocate the phrase, "using the source fuel assembly as the source prior to being unlatched or by using a portable neutron source," to after the word, "checked" in the previous sentence. c) Delete the remaining phrase, "The response check may be performed by," resulting from the relocation of the phrase in Item b above. d) In the test method section, replace the phrase "plots of inverse count rate ratio," with the phrase, "the installed source range instrumentation." 	2-103-17
18	6.2.2 6.3.2 9.2.7	1. Page 6.2.2-4, Under "Net Positive Suction Head (NPSH)" Paragraph, delete the phrase, "or height of water in the containment sump." 2. Page 6.3-22, Section 6.3.2.14, item 1, delete "No credit is taken for water level above the lower containment floor elevation, and," and start sentence with "No." 3. Page 6.3-22, Section 6.3.2.14, item 2, delete "No credit is taken for RWST water level above the floor plate." 4. Page 9.2-36, on top of this page, revise the table as indicated by mark-up for the listed Pumps, Elevation, Minimum RWST Water, and Level Used in NPSH Analysis.	2-103-18

ENCLOSURE 1

WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
18 (cont.)	6.2.2 6.3.2 9.2.7	<p>5. Page 9.2-36, Fifth Paragraph, revise item (4) to read: "minimum sump water level."</p> <p>6. Page 9.2-36, revise the Note in the bottom of this page to say "The minimum sump water level is 5.78 ft, which is above the strainers. The total head loss through the strainer (2.218 ft) was used in the NPSH analysis."</p> <p>7. Page 9.2-37, delete the first paragraph at the top of the page which reads, "due to debris laden strainer is much less than 6 feet. Therefore, retaining the original NPSH calculation is conservative."</p> <p>8. Page 9.2-118, revise Table 9.2-3 as indicated by mark-up.</p>	2-103-18
19	5.5.3	<p>Insert the following discussion into Section 5.5.3.3.1, "Material Corrosion/Erosion Evaluation," just prior to Section 5.5.3.3.2 heading.</p> <p>"Pressurizer and reactor vessel nozzle dissimilar metal (i.e., Inconel Alloy 82/182) are susceptible to stress corrosion cracking. Under sustained tensile stresses, dissimilar metal (DM) nozzle buttering and nozzle to safe end butt welds can develop cracks through corrosive action of the primary water. However, stress corrosion cracking does not occur in materials that are in a compressive state of stress. Therefore, TVA has committed to industry guidance document, Nuclear Energy Institute, (NEI) 03-08, "Guideline for the Management of Materials Issues," to address these materials issues. NEI 03-08 endorses MRP-139, Revision 1, "Material Reliability Program: Primary System Piping Butt Weld Inspection and Evaluation Guideline."</p>	2-103-19

ENCLOSURE 1

WBN Unit 2 FSAR A103

“Summary Listing of A103 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
19 (cont.)	5.5.3	<p>Under this program, TVA has used Mechanical Stress Improvement Process (MSIP®), a proprietary mechanical process, which mitigates and prevents the initiation of stress corrosion cracking at dissimilar metal (DM) weld locations in components and piping. The process works by generating beneficial compressive residual stress patterns from the pipe inside surface to about halfway through the wall thickness in both axial and circumferential directions. The resulting compressive residual stresses prevent crack initiation and arrest existing shallow cracks. The process is accomplished by a one-time application of compressive force and mechanically controlled permanent radial contraction to the outside surface of the nozzle safe end and/or piping. A split clamp ring is placed around the nozzle safe end and/or the attached pipe or elbow at a specified distance from the DM butt weld centerline. The gaps between the clamp ring halves are shimmed and then the clamp ring is contracted by box presses (i.e., framed hydraulic cylinders) to circumferentially compress/yield the piping within the specified range. The MSIP® box presses and clamp ring are then removed from the piping.</p> <p>MSIP® was applied to prevent stress corrosion cracking of the nozzle buttering and nozzle to safe-end butt welds on the six pressurizer nozzles, the four reactor vessel cold leg nozzles and the four reactor vessel hot leg nozzle locations. The Unit 2 pressurizer spray, safety and relief nozzles and the Unit 2 pressurizer surge nozzle had the MSIP® clamp ring placed directly on the nozzle safe ends. For the Unit 2 reactor vessel nozzles the MSIP® clamp rings were placed on the hot leg pipes and the cold leg elbows.</p> <p>MSIP® was applied as a special process under ASME Section III for Unit 2. QA requirements for “Control of Processes” are defined in ASME NQA-1, “Quality Assurance Requirements for Nuclear Facility Applications.” ASME NQA-1 is invoked by both ASME III and ASME XI. The ASME NQA-1 requirements were met by the Westinghouse and Unit 2 certificate holder PCI Energy Services NPT/NA ASME QA Programs.</p> <p>Addenda to the pressurizer and reactor vessel component and piping stress reports of record were prepared by Westinghouse and TVA to present results of the re-analyses and reconciliations performed to evaluate the effects of MSIP® and to demonstrate that the stress reports of record remain valid. These addenda confirm that the deformed geometries of the component nozzles and piping including elongation do not have any adverse impact on the existing ASME Section III stress qualifications of record.”</p>	2-103-19

ENCLOSURE 1

WBN Unit 2 FSAR A103

"Summary Listing of A103 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
20	Section 3.12	Add Section 3.12, "Control of Heavy Loads," that is substantially similar to the current Unit 1 program. The new Section 3.12 is materially equivalent to the current Unit 1 UFSAR. Add reference in the Table of Contents.	2-103-20
21	Section 9.4 Figure 7A-3	1. Corrected the misspelling of "designed" and redundancy" on Page 9.4-37. 2. Corrected legibility of three symbols in Figure 7A-3.	2-103-21

ENCLOSURE 2

**WBN Unit 2 FSAR A103
“Summary of Redacted Pages”**

Chapter	Page(S)	Section No.	Figure No.	Basis For Redaction
1	1.2-15	1.2	1.2-1	Security Related, 10CFR2.390(d)(1)
1	1.2-16	1.2	1.2-2	Security Related, 10CFR2.390(d)(1)
1	1.2-17	1.2	1.2-3	Security Related, 10CFR2.390(d)(1)
1	1.2-18	1.2	1.2-4	Security Related, 10CFR2.390(d)(1)
1	1.2-19	1.2	1.2-5	Security Related, 10CFR2.390(d)(1)
1	1.2-20	1.2	1.2-6	Security Related, 10CFR2.390(d)(1)
1	1.2-21	1.2	1.2-7	Security Related, 10CFR2.390(d)(1)
1	1.2-22	1.2	1.2-8	Security Related, 10CFR2.390(d)(1)
1	1.2-23	1.2	1.2-9	Security Related, 10CFR2.390(d)(1)
1	1.2-24	1.2	1.2-10	Security Related, 10CFR2.390(d)(1)
1	1.2-25	1.2	1.2-11	Security Related, 10CFR2.390(d)(1)
1	1.2-26	1.2	1.2-12	Security Related, 10CFR2.390(d)(1)
1	1.2-27	1.2	1.2-13	Security Related, 10CFR2.390(d)(1)
1	1.2-28	1.2	1.2-14	Security Related, 10CFR2.390(d)(1)
1	1.2-29	1.2	1.2-15	Security Related, 10CFR2.390(d)(1)
2	2.2-7	2.2	2.2-1	Security Related, 10CFR2.390(d)(1)
2	2.2-8	2.2	2.2-2	Security Related, 10CFR2.390(d)(1)
2	2.4-89	2.4	2.4-2	Security Related, 10CFR2.390(d)(1)
2	2.4-159	2.4	2.4-24	Security Related, 10CFR2.390(d)(1)
2	2.4-162	2.4	2.4-27	Security Related, 10CFR2.390(d)(1)
2	2.4-163	2.4	2.4-28	Security Related, 10CFR2.390(d)(1)
2	2.4-168	2.4	2.4-40a Sheet 1	Security Related, 10CFR2.390(d)(1)
2	2.4-171	2.4	2.4-40b	Security Related, 10CFR2.390(d)(1)
2	2.4-172	2.4	2.4-40c	Security Related, 10CFR2.390(d)(1)
2	2.4-173	2.4	2.4-40d Sheet 1	Security Related, 10CFR2.390(d)(1)
2	2.4-178	2.4	2.4-40f Sheet 1	Security Related, 10CFR2.390(d)(1)
2	2.4-181	2.4	2.4-40g Sheet 1	Security Related, 10CFR2.390(d)(1)
2	2.4-206	2.4	2.4-76	Security Related, 10CFR2.390(d)(1)
2	2.4-209	2.4	2.4-79	Security Related, 10CFR2.390(d)(1)
2	2.4-212	2.4	2.4-82	Security Related, 10CFR2.390(d)(1)
2	2.4-213	2.4	2.4-83	Security Related, 10CFR2.390(d)(1)
2	2.4-218	2.4	2.4-88	Security Related, 10CFR2.390(d)(1)
2	2.4-219	2.4	2.4-89	Security Related, 10CFR2.390(d)(1)
2	2.4-220	2.4	2.4-90	Security Related, 10CFR2.390(d)(1)
2	2.5-471	2.5	2.5-185	Security Related, 10CFR2.390(d)(1)
2	2.5-472	2.5	2.5-185a	Security Related, 10CFR2.390(d)(1)
2	2.5-513	2.5	2.5-225	Security Related, 10CFR2.390(d)(1)
2	2.5-514	2.5	2.5-226	Security Related, 10CFR2.390(d)(1)
2	2.5-515	2.5	2.5-226a	Security Related, 10CFR2.390(d)(1)
2	2.5-575	2.5	2.5-273	Security Related, 10CFR2.390(d)(1)
2	2.5-690	2.5	2.5-358	Security Related, 10CFR2.390(d)(1)
2	2.5-934	2.5	2.5-592	Security Related, 10CFR2.390(d)(1)

ENCLOSURE 2

**WBN Unit 2 FSAR A103
“Summary of Redacted Pages”**

Chapter	Page(S)	Section No.	Figure No.	Basis For Redaction
3	3.5-53	3.5	3.5-3	Security Related, 10CFR2.390(d)(1)
3	3.5-54	3.5	3.5-4	Security Related, 10CFR2.390(d)(1)
3	3.6-73	3.6	3.6-21	Security Related, 10CFR2.390(d)(1)
3	3.6-74	3.6	3.6-22	Security Related, 10CFR2.390(d)(1)
3	3.6-75	3.6	3.6-23	Security Related, 10CFR2.390(d)(1)
3	3.6-76	3.6	3.6-24	Security Related, 10CFR2.390(d)(1)
3	3.7-217	3.7	3.7-39	Security Related, 10CFR2.390(d)(1)
3	3.7-218	3.7	3.7-40	Security Related, 10CFR2.390(d)(1)
3	3.7-219	3.7	3.7-41	Security Related, 10CFR2.390(d)(1)
3	3.7-222	3.7	3.7-44	Security Related, 10CFR2.390(d)(1)
3	3.8.3-60	3.8.3	3.8.3-6	Security Related, 10CFR2.390(d)(1)
3	3.8.3-61	3.8.3	3.8.3-7	Security Related, 10CFR2.390(d)(1)
3	3.8.4-94	3.8.4	3.8.4-2	Security Related, 10CFR2.390(d)(1)
3	3.8.4-95	3.8.4	3.8.4-3	Security Related, 10CFR2.390(d)(1)
3	3.8.4-96	3.8.4	3.8.4-4	Security Related, 10CFR2.390(d)(1)
3	3.8.4-97	3.8.4	3.8.4-5	Security Related, 10CFR2.390(d)(1)
3	3.8.4-98	3.8.4	3.8.4-6	Security Related, 10CFR2.390(d)(1)
3	3.8.4-101	3.8.4	3.8.4-9	Security Related, 10CFR2.390(d)(1)
3	3.8.4-109	3.8.4	3.8.4-17	Security Related, 10CFR2.390(d)(1)
3	3.8.4-110	3.8.4	3.8.4-18	Security Related, 10CFR2.390(d)(1)
3	3.8.4-111	3.8.4	3.8.4-19	Security Related, 10CFR2.390(d)(1)
3	3.8.4-112	3.8.4	3.8.4-20	Security Related, 10CFR2.390(d)(1)
3	3.8.4-116	3.8.4	3.8.4-24	Security Related, 10CFR2.390(d)(1)
3	3.8.4-120	3.8.4	3.8.4-28	Security Related, 10CFR2.390(d)(1)
3	3.8.4-127	3.8.4	3.8.4-35	Security Related, 10CFR2.390(d)(1)
3	3.8.4-128	3.8.4	3.8.4-36	Security Related, 10CFR2.390(d)(1)
3	3.8.4-129	3.8.4	3.8.4-36a	Security Related, 10CFR2.390(d)(1)
3	3.8.4-132	3.8.4	3.8.4-37	Security Related, 10CFR2.390(d)(1)
3	3.8.4-149	3.8.4	3.8.4-50	Security Related, 10CFR2.390(d)(1)
3	3.8.4-150	3.8.4	3.8.4-51	Security Related, 10CFR2.390(d)(1)
3	3.8.6-19	3.8.6	3.8.6-7	Security Related, 10CFR2.390(d)(1)
6	6.2.2-24	6.2.2	6.2.2-4	Security Related, 10CFR2.390(d)(1)
6	6.2.3-76	6.2.3	6.2.3-4	Security Related, 10CFR2.390(d)(1)
6	6.2.3-77	6.2.3	6.2.3-5	Security Related, 10CFR2.390(d)(1)
6	6.2.3-78	6.2.3	6.2.3-6	Security Related, 10CFR2.390(d)(1)
6	6.2.3-79	6.2.3	6.2.3-7	Security Related, 10CFR2.390(d)(1)
6	6.2.3-80	6.2.3	6.2.3-8	Security Related, 10CFR2.390(d)(1)
6	6.2.3-81	6.2.3	6.2.3-9	Security Related, 10CFR2.390(d)(1)
6	6.2.3-82	6.2.3	6.2.3-10	Security Related, 10CFR2.390(d)(1)
6	6.2.3-92	6.2.3	6.2.3-18	Security Related, 10CFR2.390(d)(1)
6	6.2.3-93	6.2.3	6.2.3-19	Security Related, 10CFR2.390(d)(1)
8	8.1-21	8.1	8.1-1	Security Related, 10CFR2.390(d)(1)
8	8.2-14	8.2	Text only	Security Related, 10CFR2.390(d)(1)
8	8.2-15	8.2	Text only	Security Related, 10CFR2.390(d)(1)
8	8.2-30	8.2	8.2-3	Security Related, 10CFR2.390(d)(1)

ENCLOSURE 2

**WBN Unit 2 FSAR A103
“Summary of Redacted Pages”**

Chapter	Page(S)	Section No.	Figure No.	Basis For Redaction
8	8.2-31	8.2	8.2-4	Security Related, 10CFR2.390(d)(1)
8	8.2-44	8.2	8.2-11	Security Related, 10CFR2.390(d)(1)
8	8.3-97	8.3	8.3-1	Security Related, 10CFR2.390(d)(1)
8	8.3-99	8.3	8.3-2	Security Related, 10CFR2.390(d)(1)
8	8.3-100	8.3	8.3-3	Security Related, 10CFR2.390(d)(1)
8	8.3-102	8.3	8.3-4b	Security Related, 10CFR2.390(d)(1)
8	8.3-205	8.3	8.3-46	Security Related, 10CFR2.390(d)(1)
8	8.3-218	8.3	8.3-59	Security Related, 10CFR2.390(d)(1)
9	9.2-208	9.2	9.2-40	Security Related, 10CFR2.390(d)(1)
9	9.4-276	9.4	9.4-21	Security Related, 10CFR2.390(d)(1)
9	9.4-280	9.4	9.4-22c	Security Related, 10CFR2.390(d)(1)
9	9.4-281	9.4	9.4-23	Security Related, 10CFR2.390(d)(1)
9	9.4-282	9.4	9.4-24	Security Related, 10CFR2.390(d)(1)
12	12.3-39	12.3	12.3-1	Security Related, 10CFR2.390(d)(1)
12	12.3-40	12.3	12.3-2	Security Related, 10CFR2.390(d)(1)
12	12.3-41	12.3	12.3-3	Security Related, 10CFR2.390(d)(1)
12	12.3-42	12.3	12.3-4	Security Related, 10CFR2.390(d)(1)
12	12.3-43	12.3	12.3-5	Security Related, 10CFR2.390(d)(1)
12	12.3-44	12.3	12.3-6	Security Related, 10CFR2.390(d)(1)
12	12.3-45	12.3	12.3-7	Security Related, 10CFR2.390(d)(1)
12	12.3-46	12.3	12.3-8	Security Related, 10CFR2.390(d)(1)
12	12.3-47	12.3	12.3-9	Security Related, 10CFR2.390(d)(1)
12	12.3-48	12.3	12.3-10	Security Related, 10CFR2.390(d)(1)
12	12.3-49	12.3	12.3-11	Security Related, 10CFR2.390(d)(1)
12	12.3-50	12.3	12.3-12	Security Related, 10CFR2.390(d)(1)
12	12.3-51	12.3	12.3-13	Security Related, 10CFR2.390(d)(1)
12	12.3-52	12.3	12.3-14	Security Related, 10CFR2.390(d)(1)
12	12.3-53	12.3	12.3-15	Security Related, 10CFR2.390(d)(1)
12	12.3-54	12.3	12.3-16	Security Related, 10CFR2.390(d)(1)
12	12.3-55	12.3	12.3-17	Security Related, 10CFR2.390(d)(1)
12	12.4-5	12.4	12.4-1	Security Related, 10CFR2.390(d)(1)

ENCLOSURE 3

**WBN Unit 2 FSAR A103
“List Of Files And File Sizes
On The Security-Related OSM (OSM #1)”**

ENCLOSURE 3
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 103 - List of Files on *Security-Related OSM*

File Name	File Size - Bytes
TVA_WBN-2_FSAR_Files	
001_TVA_WB_FSAR_TOC.pdf	374,048
002_TVA_WB_FSAR_LRP.pdf	96,066
003_TVA_WB_FSAR_Section_1.pdf	4,641,501
004_TVA_WB_FSAR_Section_2_A.pdf	10,519,430
005_TVA_WB_FSAR_Section_2_B_Part_1_of_2.pdf	40,453,797
005_TVA_WB_FSAR_Section_2_B_Part_2_of_2.pdf	35,192,574
006_TVA_WB_FSAR_Section_2_C.pdf	2,107,384
007_TVA_WB_FSAR_Section_2_D.pdf	31,232,851
008_TVA_WB_FSAR_Section_2_E.pdf	47,312,434
009_TVA_WB_FSAR_Section_3_A.pdf	2,623,270
010_TVA_WB_FSAR_Section_3_B.pdf	7,063,096
011_TVA_WB_FSAR_Section_3_C.pdf	30,266,986
012_TVA_WB_FSAR_Section_3_D.pdf	6,165,866
013_TVA_WB_FSAR_Section_4.pdf	12,552,942
014_TVA_WB_FSAR_Section_5.pdf	10,083,479
015_TVA_WB_FSAR_Section_6_A.pdf	22,847,137
016_TVA_WB_FSAR_Section_6_B.pdf	8,311,175
017_TVA_WB_FSAR_Section_7.pdf	14,089,947
018_TVA_WB_FSAR_Section_8.pdf	29,924,497
019_TVA_WB_FSAR_Section_9_A.pdf	24,971,314
020_TVA_WB_FSAR_Section_9_B.pdf	16,538,766
021_TVA_WB_FSAR_Section_10.pdf	14,217,129
022_TVA_WB_FSAR_Section_11.pdf	4,045,573
023_TVA_WB_FSAR_Section_12.pdf	5,972,870
024_TVA_WB_FSAR_Section_13.pdf	3,238,388
025_TVA_WB_FSAR_Section_14.pdf	1,329,547

ENCLOSURE 3
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 103 - List of Files on *Security-Related OSM*

File Name	File Size - Bytes
026_TVA_WB_FSAR_Section_15.pdf	41,624,366
027_TVA_WB_FSAR_Section_16.pdf	148,067
028_TVA_WB_FSAR_Section_17.pdf	144,976
Total	428,089,476
TVA_WBN-2_Oversized_FSAR_Figures	
001_TVA_WB_FSAR_Figure_2.5_3.pdf	1,757,743
002_TVA_WB_FSAR_Figure_2.5_11.pdf	1,689,538
003_TVA_WB_FSAR_Figure_2.5_71.pdf	2,263,087
004_TVA_WB_FSAR_Figure_2.5_222.pdf	909,429
005_TVA_WB_FSAR_Figure_2.5_281_1.pdf	2,155,627
006_TVA_WB_FSAR_Figure_2.5_281_2.pdf	2,117,562
007_TVA_WB_FSAR_Figure_2.5_549_1.pdf	3,600,807
008_TVA_WB_FSAR_Figure_2.5_549_2.pdf	3,989,180
009_TVA_WB_FSAR_Figure_2.5_549_3.pdf	2,863,719
010_TVA_WB_FSAR_Figure_2.5_549_4.pdf	2,809,599
011_TVA_WB_FSAR_Figure_2.5_550.pdf	1,803,985
012_TVA_WB_FSAR_Figure_2.5_551.pdf	1,996,869
013_TVA_WB_FSAR_Figure_2.5_554_1.pdf	3,081,060
014_TVA_WB_FSAR_Figure_2.5_554_2.pdf	1,996,707
015_TVA_WB_FSAR_Figure_2.5_555.pdf	1,993,312
016_TVA_WB_FSAR_Figure_2.5_556.pdf	2,998,087
017_TVA_WB_FSAR_Figure_2.5_571_1.pdf	844,484
018_TVA_WB_FSAR_Figure_2.5_571_2.pdf	3,128,329
019_TVA_WB_FSAR_Figure_2.5_571_3.pdf	3,284,555
020_TVA_WB_FSAR_Figure_2.5_571_4.pdf	2,142,316
021_TVA_WB_FSAR_Figure_2.5_572.pdf	2,196,945

ENCLOSURE 3
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 103 - List of Files on *Security-Related OSM*

File Name	File Size - Bytes
022_TVA_WB_FSAR_Figure_2.5_573.pdf	2,013,286
023_TVA_WB_FSAR_Figure_2.5_576_1.pdf	3,238,525
024_TVA_WB_FSAR_Figure_2.5_576_2.pdf	2,151,750
025_TVA_WB_FSAR_Figure_2.5_577.pdf	2,207,622
026_TVA_WB_FSAR_Figure_2.5_578.pdf	2,080,032
027_TVA_WB_FSAR_Figure_2.5_579.pdf	2,308,985
028_TVA_WB_FSAR_Figure_2.5_583.pdf	2,487,346
029_TVA_WB_FSAR_Figure_2.5_588.pdf	2,528,515
030_TVA_WB_FSAR_Figure_2.5_589.pdf	2,480,438
031_TVA_WB_FSAR_Figure_2.5_594.pdf	13,054,127
032_TVA_WB_FSAR_Figure_2.5_595.pdf	2,323,267
033_TVA_WB_FSAR_Figure_2.5_596.pdf	5,732,107
034_TVA_WB_FSAR_Figure_2.5_597.pdf	1,287,336
035_TVA_WB_FSAR_Figure_2.5_602.pdf	5,549,537
036_TVA_WB_FSAR_Figure_2.5_603.pdf	4,830,835
037_TVA_WB_FSAR_Figure_2.5_604.pdf	6,392,279
038_TVA_WB_FSAR_Figure_2.5_605.pdf	20,823,108
Total	131,112,035
TVA_WBN-2_Oversized_FSAR_Table	
001_TVA_WB_FSAR_Table_6.2.4-1.pdf	1,215,577
Total	1,215,577

ENCLOSURE 4

**WBN Unit 2 FSAR A103
“List Of Files And File Sizes
On The Publicly Available OSM (OSM #2)”**

ENCLOSURE 4
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 103 List of Files on *Publicly Available OSM*

File Name	File Size - Bytes
TVA_WBN-2_FSAR_Files	
001_TVA_WB_FSAR_TOC.pdf	374,048
002_TVA_WB_FSAR_LRP.pdf	96,066
003_TVA_WB_FSAR_Section_1.pdf	<i>834,922</i>
004_TVA_WB_FSAR_Section_2_A.pdf	<i>10,182,886</i>
005_TVA_WB_FSAR_Section_2_B_Part_1_of_2.pdf	<i>31,762,378</i>
005_TVA_WB_FSAR_Section_2_B_Part_2_of_2.pdf	<i>30,933,164</i>
006_TVA_WB_FSAR_Section_2_C.pdf	2,107,384
007_TVA_WB_FSAR_Section_2_D.pdf	31,232,851
008_TVA_WB_FSAR_Section_2_E.pdf	<i>45,933,046</i>
009_TVA_WB_FSAR_Section_3_A.pdf	<i>2,331,845</i>
010_TVA_WB_FSAR_Section_3_B.pdf	<i>5,661,339</i>
011_TVA_WB_FSAR_Section_3_C.pdf	<i>25,434,513</i>
012_TVA_WB_FSAR_Section_3_D.pdf	<i>5,897,180</i>
013_TVA_WB_FSAR_Section_4.pdf	12,552,942
014_TVA_WB_FSAR_Section_5.pdf	10,083,479
015_TVA_WB_FSAR_Section_6_A.pdf	<i>19,966,685</i>
016_TVA_WB_FSAR_Section_6_B.pdf	8,311,175
017_TVA_WB_FSAR_Section_7.pdf	14,089,947
018_TVA_WB_FSAR_Section_8.pdf	<i>26,964,257</i>
019_TVA_WB_FSAR_Section_9_A.pdf	<i>24,710,262</i>
020_TVA_WB_FSAR_Section_9_B.pdf	<i>15,324,260</i>
021_TVA_WB_FSAR_Section_10.pdf	14,217,129
022_TVA_WB_FSAR_Section_11.pdf	4,045,573
023_TVA_WB_FSAR_Section_12.pdf	<i>1,704,760</i>
024_TVA_WB_FSAR_Section_13.pdf	3,238,388
025_TVA_WB_FSAR_Section_14.pdf	1,329,547

ENCLOSURE 4
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 103 List of Files on *Publicly Available OSM*

File Name	File Size - Bytes
026_TVA_WB_FSAR_Section_15.pdf	41,624,366
027_TVA_WB_FSAR_Section_16.pdf	148,067
028_TVA_WB_FSAR_Section_17.pdf	144,976
Total	391,237,435
TVA_WBN-2_Oversized_FSAR_Figures	
001_TVA_WB_FSAR_Figure_2.5_3.pdf	1,757,743
002_TVA_WB_FSAR_Figure_2.5_11.pdf	1,689,538
003_TVA_WB_FSAR_Figure_2.5_71.pdf	2,263,087
004_TVA_WB_FSAR_Figure_2.5_222.pdf	909,429
005_TVA_WB_FSAR_Figure_2.5_281_1.pdf	2,155,627
006_TVA_WB_FSAR_Figure_2.5_281_2.pdf	2,117,562
007_TVA_WB_FSAR_Figure_2.5_549_1.pdf	3,600,807
008_TVA_WB_FSAR_Figure_2.5_549_2.pdf	3,989,180
009_TVA_WB_FSAR_Figure_2.5_549_3.pdf	2,863,719
010_TVA_WB_FSAR_Figure_2.5_549_4.pdf	2,809,599
011_TVA_WB_FSAR_Figure_2.5_550.pdf	1,803,985
012_TVA_WB_FSAR_Figure_2.5_551.pdf	1,996,869
013_TVA_WB_FSAR_Figure_2.5_554_1.pdf	3,081,060
014_TVA_WB_FSAR_Figure_2.5_554_2.pdf	1,996,707
015_TVA_WB_FSAR_Figure_2.5_555.pdf	1,993,312
016_TVA_WB_FSAR_Figure_2.5_556.pdf	2,998,087
017_TVA_WB_FSAR_Figure_2.5_571_1.pdf	844,484
018_TVA_WB_FSAR_Figure_2.5_571_2.pdf	3,128,329
019_TVA_WB_FSAR_Figure_2.5_571_3.pdf	3,284,555
020_TVA_WB_FSAR_Figure_2.5_571_4.pdf	2,142,316
021_TVA_WB_FSAR_Figure_2.5_572.pdf	2,196,945

ENCLOSURE 4
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 103 List of Files on *Publicly Available OSM*

File Name	File Size - Bytes
022_TVA_WB_FSAR_Figure_2.5_573.pdf	2,013,286
023_TVA_WB_FSAR_Figure_2.5_576_1.pdf	3,238,525
024_TVA_WB_FSAR_Figure_2.5_576_2.pdf	2,151,750
025_TVA_WB_FSAR_Figure_2.5_577.pdf	2,207,622
026_TVA_WB_FSAR_Figure_2.5_578.pdf	2,080,032
027_TVA_WB_FSAR_Figure_2.5_579.pdf	2,308,985
028_TVA_WB_FSAR_Figure_2.5_583.pdf	2,487,346
029_TVA_WB_FSAR_Figure_2.5_588.pdf	2,528,515
030_TVA_WB_FSAR_Figure_2.5_589.pdf	2,480,438
031_TVA_WB_FSAR_Figure_2.5_594.pdf	13,054,127
032_TVA_WB_FSAR_Figure_2.5_595.pdf	2,323,267
033_TVA_WB_FSAR_Figure_2.5_596.pdf	5,732,107
034_TVA_WB_FSAR_Figure_2.5_597.pdf	1,287,336
035_TVA_WB_FSAR_Figure_2.5_602.pdf	5,549,537
036_TVA_WB_FSAR_Figure_2.5_603.pdf	4,830,835
037_TVA_WB_FSAR_Figure_2.5_604.pdf	6,392,279
038_TVA_WB_FSAR_Figure_2.5_605.pdf	20,823,108
Total	131,112,035
TVA_WBN-2_Oversized_FSAR_Table	
001_TVA_WB_FSAR_Table_6.2.4-1.pdf	1,215,577
Total	1,215,577

ENCLOSURE 5

WBN Unit 2 FSAR A103 List of Commitments

1. TVA will provide an advance version of Chapter 11 along with answers to the remaining RAI questions in separate correspondence. If found acceptable by the staff, final Chapter 11 updates will be provided in A104.