



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

October 29, 2010

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 101

- References:
1. TVA letter to the NRC dated September 1, 2010, "Watts Bar Nuclear Plant (WBN) - Unit 2 - Final Safety Analysis Report Amendment 100"
 2. TVA letter to the NRC dated October 21, 2010, "Watts Bar Nuclear Plant (WBN) - Unit 2 - Final Safety Analysis Report (FSAR) Section 2.3"

This letter transmits WBN Unit 2 FSAR Amendment 101 (A101), which reflects changes made since the issuance of Amendment 100 on September 1, 2010 (Reference 1).

Enclosure 1 contains a summary listing of FSAR sections and corresponding Unit 2 change package numbers associated with the A101 FSAR changes. Most of these changes were the result of resolutions to Requests for Additional Information. Section 2.3 was provided in advance via Reference 2. However, some additional changes to this section were discussed in a telecon with the NRC on October 28, 2010. These changes have been incorporated and are being provided in FSAR A101.

FSAR A101 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). There are no new commitments contained in this letter.

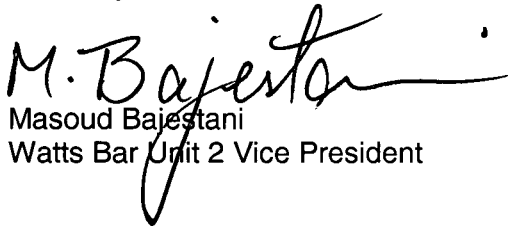
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This letter does not close any "Generic Communications." If you have any questions, please contact Bill Crouch at (423) 365-2004.

I declare under the penalty of perjury that the foregoing is true and correct. Executed on October 29, 2010.

Sincerely,


Masoud Bajestani
Watts Bar Unit 2 Vice President

Enclosures:

1. WBN Unit 2 FSAR A101, "Summary Listing of A101 FSAR Changes"
2. WBN Unit 2 FSAR A101, "Summary of Redacted Pages"
3. WBN Unit 2 FSAR A101, "List of files and file sizes on the security-related OSM (OSM #1)"
4. WBN Unit 2 FSAR A101, "List of files and file sizes on the publicly available OSM (OSM #2)"

Attachments:

1. OSM #1: WBN Unit 2 FSAR Amendment 101 - Security-Related Information - Withhold Under 10 CFR 2.390
2. OSM #2: WBN Unit 2 FSAR Amendment 101 - Publicly Available Version

cc: See Page 3

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cc (Enclosures)

U. S. Nuclear Regulatory Commission
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Marquis One Tower
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NRC Resident Inspector Unit 2
Watts Bar Nuclear Plant
1260 Nuclear Plant Road
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ENCLOSURE 1

WBN Unit 2 FSAR A101

“Summary Listing of A101 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
1.	Section 4.2.1	<ol style="list-style-type: none"> 1. Delete references 25 and 26 in Section 4.2 of the U2 FSAR on pages 4.2-12 and 4.2-57. 2. Delete references 25 and 26 in Section 4.2 of the U2 FSAR on page 4.2-3 and add references 31, 32, 33 and 35. 	2-101-01
2.	Section 4.3.3	<ol style="list-style-type: none"> 1. In U2 FSAR Section 4.3.3.2 (pg 4.3-39), change "PHOENIX-P employs a 42 energy group library derived mainly from the ENDF/B-VI files." to "PHOENIX-P employs a multi-group library derived mainly from the ENDF/B-VI files⁽⁵⁷⁾." 2. In U2 FSAR references, add "(57) Rose, P.F., "ENDF-201 ENDF/B-VI Summary Documentation,"BNL-NC8-17541 [ENDF-201] 4th Edition [ENDF-B-VI], October 1999 and Supplements."" 	2-101-02
3.	Section 6.2.3 Section 9.4.2 Section 9.4.3 Section 9.4.5 Section 9.4.6 Table 7.3-2	<ol style="list-style-type: none"> 1. Insert the following phrase at one location on pages 6.2.3-6, 6.2.3-10, 9.4-10, and 9.4-14 "Likewise, a Loss of Coolant Accident (LOCA)/Safety Injection (SI) signal from the operating unit or high temperature in the Unit 1 or Unit 2 Auxiliary Building air intake will cause a CVI signal in the refueling unit." 2. Delete last sentence of first paragraph on page 6.2.3-6. 3. Insert the following phrase at one location on pages 6.2.3-11 and 9.4-11 "from either the operating unit or refueling unit". 4. For Table 7.3-2, insert "****" after High in Item 4b and add the phrase: ", SI signal from the operation unit or high temperature from the Unit 1 or Unit 2 Auxiliary Building air intake," after the word, "Monitors" in the triple asterisk note at the bottom of table 7.3-2. 5. Insert the phrase, "operating or refueling unit" at one location on page 9.4-11. 6. Insert the phrase, "from the operating or the refueling unit," at one location on pages 9.4-13, 9.4-35, and 9.4-39. 7. Insert the phrase, "or CVI signal from the operating unit" at one location on page 9.4-42. 	2-101-03

ENCLOSURE 1

WBN Unit 2 FSAR A101

"Summary Listing of A101 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
8.	Section 2.3	<ol style="list-style-type: none"> 1. For List of Tables, revise titles in list to agree with tables titles. 2. Revise Section 2.3.1.3 for following changes: <ol style="list-style-type: none"> a. In the paragraph that begins with "For z=2.8209," revise second sentence to correct the annual expectation of tornadoes with winds exceeding 113 mph from "<u>2.69 x 10⁻⁴</u>" per square mile to "<u>3.77 x 10⁻⁴</u>" per square mile and add the phrase "<u>(t=0.52, based on 28 tornadoes F2 and above for 54 years)</u>" to the end of the same sentence. b. Add wind record information for Chattanooga and Knoxville, to paragraph that begins with "Windstorms are relatively infrequent...". c. Add additional information regarding hail to paragraph beginning with "During 1950-2009...". d. Add additional information regarding lightning strike densities to paragraph beginning with "Annual lightning strike...". e. Expand/clarify information regarding snowfall records in paragraph beginning with "Snowfall records for Chattanooga...". 3. Revise Section 2.3.2.1, to add city of "Decatur" and to delete the last sentence of the first paragraph that begins with "Data for Decatur...". 4. Revise Section 2.3.2.2 for the following changes: <ol style="list-style-type: none"> a. Change "for" to "from" and delete second "for" and revise Reference "11" to "dd" in the first sentence of paragraph. b. Modify first paragraph of section to clarify temperature data statements. c. Modify second paragraph of section to clarify precipitation data statements. d. In the seventh paragraph of section beginning with "Wind direction...", revise Reference from "<u>12</u>" to "<u>ee</u>". 5. For Section 2.3.3.3, change "December 1988" to "December 1993" in two places in the first paragraph of section. 6. Revise the list of references for the following changes: <ol style="list-style-type: none"> a. For Reference ff, delete "Accessed May 12, 2010" at the end of the item. b. For Reference 13 replace "Dayton 2, SE, TN" with "Tennessee." 7. Insert new Table 2.3-1A (2 pages), "Extreme Wind Speeds." 8. Insert new Table 2.3-1B, "Storm Events for Rhea and Surrounding Counties" 9. Expand Table 2.3-2, to restore previous information regarding temperature data for Dayton and Decatur removed by a previous amendment. 10. Revise Table 2.3-3 to clarify mean temperature information. 11. Revised Table 2.3-4 to provide both Watts Bar Dam and Watts Bar Nuclear Plant meteorological tower information. 12. Revise Table 2.3-5 to add dates of snowfall events to table. 13. Revise Table 2.3-6 to change first column heading from "Monthly Average" to "Normal." 14. Revise Table 2.3-9 to change format to offset seasonal information from the monthly data. 15. Revise Table 2.3-10 to divide table into two pages such that data from the July 1, 1973 to June 20, 1975 time period can be included. In addition, modify the equation format. 16. Revise Table 2.3-11 to divide table into two pages such that data from the July 1, 1973 to June 20, 1975 time period can be included. In addition, modify the equation format and footnotes. 17. Revise Table 2.3-13 to expand data to include the time frame January 1, 1974 - December 31, 1993 	2-101-04

ENCLOSURE 1

WBN Unit 2 FSAR A101

“Summary Listing of A101 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
9.	Section 4.3 Section 7.2 Section 7.7 Section 12.3 Table 7.3-2 Table 7.5-2	<p>For Section 4.3, change 118% power to 121% power in two places.</p> <p>For Table of Contents, Page 7.2-22, change the title of Section 7.7.1.11 from "Deleted" to "Distributed Control System"</p> <p>For Section 7.2, revise the discussion of elbow tap flow methodology to read:</p> <p>"Nominal full power flow is established at the beginning of each fuel cycle by either elbow tap methodology or performance of the RCS calorimetric flow measurement. The results are used to normalize the RCS flow indicators and provide a reference point for the low flow reactor trip setpoint."</p> <p>For Section 7.7.1.1.2, Page 7.7-3, change equation variable (1+t_s) to read (1+t_{2s}) and (1+ts) to read (1+t_{1s})</p> <p>For Section 7.7.1.11, Page 7.7-21, change title from "Deleted" to read "Distributed control system" and add system description.</p> <p>For Section 7.7.1.12, Page 7.7-21, change "two pressure transmitters measuring first stage turbine pressure" to read "two pressure transmitters measuring turbine impulse pressure"</p> <p>For Section 12.3.4.1.3, Page 12.3-19, Revise the text to read as follows:</p> <p>"With the exception of the Reactor Building upper and lower compartment post accident monitors, periodic testing of each area monitor includes a channel calibration performed at least once per 22.5 months (18 months plus 25%), and a channel operational test (COT) performed periodically. Monitor testing is performed in accordance with licensing or TVA program requirements (Technical Specifications, Offsite Dose Calculation Manual (ODCM), or the TVA calibration program). Testing of the Reactor Building upper and lower compartment post accident monitors is performed in accordance with the Technical Specifications."</p> <p>For Table 7.3-2, page 1, Add "****" reference to note to line item 4b for Containment Purge Air Exhaust Gas Monitor Radioactivity High</p> <p>For Table 7.5-2, Deviation 2, page 7.5-36, change variable reference from 15 to 19.</p> <p>For Table 7.5-2, Deviation 10, Page 7.5-42, change SC in last line of Justification to SG.</p>	2-101-05
10.	Table 6.2.3-2	Corrects typographical and unit designation for valve FCV-65-09 and FCV-65-29 in Table 6.2.3-2	2-101-06
11.	Table 5.2-8	Revise Table 5.2-8, page 3 to delete "and -2" under Branch Nozzles Material Specifications. Change sentence to read "SA182 GR 304N or GR 316 (Code Case 1423-1)."	2-101-07

ENCLOSURE 1

WBN Unit 2 FSAR A101

“Summary Listing of A101 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
12.	Table 2.3-10 Table 2.3-11 Section 2.4 Section 10.4	<ol style="list-style-type: none"> 1. Add term “(T_d)” after the word dewpoint in the line beginning with “Relative Humidity (RH)” below Table 2.3-10 to as indicated in the attached markup. 2. Revise Table 2.3-10 to add at the bottom of the table the units used in the equations: units: RH = percent (%) T, T_d = degrees celsius (°C) e, e_s = millibars (mb) 3. Revise Table 2.3-11 to add at the bottom of the table the units used in the equations: units: AH = grams/cubic meter (g/m³) T = degrees kelvin (°K) P_w = millibars (mb) 4. Delete Figures 2.4-40a, sheets 2 and 3 and the sentence found on page 2.4-8, that reads, “Figures 2.4-40a (sheets 2 & 3) show paved and unpaved areas.” 5. In Section 10.4.4.3, correct the misspelling of the words “conditions” and “high” on page 10.4-9. 	2-101-08
13.	Section 3.1.2.6	<p>Replace existing text under the compliance subheading of Criterion 63 - Monitoring Fuel and Waste Storage with the following text:</p> <p>Failure in the spent fuel cooling system will result in control room annunciation and local temperature indication.</p> <p>High radiation in the spent fuel storage (refuel floor) area will produce the following alarms:</p> <ol style="list-style-type: none"> 1. Main Control Room alarm from the spent fuel pool area accident monitors. 2. Local and Main Control Room alarms from the refuel floor area monitor. 3. Local alarm from a portable continuous air monitor located on the refuel floor. 4. Main Control Room alarm from the Auxiliary Building Ventilation Radiation Monitor for high airborne radiation in the spent fuel storage area. <p>High radiation in the waste packaging area will result in the following alarms:</p> <ol style="list-style-type: none"> 1. Main Control Room and local alarms from the waste packaging area monitor. 2. Local alarms from a portable continuous air monitor located in the area. 3. Main Control Room alarm from the Auxiliary Building Ventilation Radiation Monitor for high airborne radiation in the waste packaging area. 	2-101-09

ENCLOSURE 1

WBN Unit 2 FSAR A101

“Summary Listing of A101 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
14.	Section 11.2.6.5 Table 11.2-5c Table 11.2-5d	<p>1. Replace existing text contained in Section 11.2.6.5 with the following:</p> <p>“The potential releases have been evaluated as indicated in the above sections. The expected liquid releases from Watts Bar are well below the limit of 5 Curies (Ci) per year as prescribed in 10 CFR 50, Appendix I as shown by the values given in column 4 and 5 of Table 11.2-5. Column 6 (no CD processing) indicates a yearly release of 30.03 Ci with no Condensate Demineralizer (CD) processing of waste and no limitations on steam generator blow down concentrations. This operational mode is not normally used since long term use results in exceeding the 5 Ci/yr limit in 10 CFR 50, Appendix I. Column 7 of Table 11.2-5 indicates that the total release, including untreated steam generator blow down, is significantly below the 10 CFR 50, Appendix I limit of 5 Ci/yr if the steam generator blow down concentration is restricted to the Lower Limit of Detection (LLD) of 5E-7 uCi/cc gross gamma during the release and no other Condensate Demineralizer waste is processed during the release. However, column 7 does include other releases from waste holdup tanks which are treated using the Mobile Demineralizers. Column 8 of Table 11.2-5 indicates steam generator blow down can be released untreated and remain within the 10 CFR 50, Appendix I limit of 5 Ci/yr if the Steam Generator Blow down concentration is restricted to a maximum concentration of 3.65E-5 uCi/cc gross gamma during the release and no other Condensate Demineralizer waste is processed during the release. However, column 8 does include other releases from waste holdup tanks which are treated using the Mobile Demineralizers.</p> <p>Tables 11.2-5a, 11.2-5b, 11.2-5c, and 11.2-5d describe liquid releases for 1% failed fuel for both treated and untreated waste relative to the requirements of 10 CFR 20.1302(b). The sum over all isotopes of the concentrations/ECL (C/ECL) value from the Table 11.2-5a is greater than unity for the case where all isotopes are at design values and the released liquid is not processed by the Mobile Demineralizers. This mode of operation is not normally used since the C/ECL value exceeds the requirements of 10 CFR 20.1302(b). The bulk of the release is due to the untreated condensate resin regeneration waste. In order to prevent exceeding the 10 CFR 20.1302(b) limits, the condensate regeneration waste is rerouted through the Mobile Demineralizers if the long term releases from the condensate regeneration waste is greater than the 10 CFR 20 concentration limits. With Mobile Demineralizer processing of condensate regeneration waste, the release concentrations are shown in Table 11.2-5b and are less than the limits specified in 10 CFR 20.1302(b). Table 11.2-5c shows releases remain within the 10CFR 20 limits if the steam generator blow down concentration is restricted to the Lower Limit of Detection (LLD) of 5E-7 uCi/cc gross gamma during the release and no other Condensate Demineralizer waste is processed during the release. However, these releases do include other releases from waste holdup tanks which are treated using the Mobile Demineralizers. Table 11.2-5d shows releases remain within the 10CFR 20 limits if the steam generator blow down concentration is restricted to a maximum concentration of 3.65E-5 uCi/cc gross gamma during the release and no other Condensate Demineralizer waste is processed during the release. However, these releases do include other releases from waste holdup tanks which are treated using the Mobile Demineralizers.”</p> <p>2. Add new Tables 11.2-5c and 11.2-5d</p>	2-101-10

ENCLOSURE 1

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“Summary Listing of A101 FSAR Changes”

Item No.	Change Area	Change Description	Change Package Number
15.	Table 3.2-2	<p>Changes to Table 3.2-2:</p> <ol style="list-style-type: none"> 1 (Page 9 of 17) ""Upper Containment, CRDM, & Instrument Room Cooling" is one equipment location/category heading. Consequently, the "CRDM & Instrument Room Cooling" entry is combined with the "Upper Compartment" entry. The corresponding columns will be retained for this line item, except that reference to Note 11 is deleted since it is not applicable to this equipment. The intent of retaining the corresponding columns is to show the scope of supply, location, seismic category, etc of the equipment making up this HVAC equipment. 2 (Page 11 of 17) Column (6) "Rad Source" to be completed with the appropriate "dash" for "Main Steam Relief and Safety Valves." 3 (Page 12 of 17) Column (2) "TVA/ANS Safety Class" to be completed with the appropriate "G" for the "Spent fuel Purification Pumps." 4 (Page 16 of 17) Column (7) "Seismic" to be completed with the appropriate "I(L)" for the "Valves (Discharge Header Air Release & Piping)." 	2-101-11
16.	Section 2.3.2.2 Table 2.3-2	<ol style="list-style-type: none"> 1. For Section 2.3.2.2, first paragraph, change temperature ranges as follows: <ol style="list-style-type: none"> a) Normal daily maximum temperature range from 45.9-48.8°F to 45.9-49.9°F in winter b) Normal daily maximum temperature range from 87.7-89.8°F to 87.7-89.6°F in summer c) Normal daily minimum temperature range from 25.6-29.9°F to 26.5-31.1°F in winter d) Normal daily minimum temperature range from 66.1-69.4°F to 66.1-69.0°F in summer e) Revise the maximum rainfall in 24 hours date from January 17, 1994 to September 17, 1994. 2. Table 2.3-2 - Add a superscript "a" to the end of table title as follows: Table 2.3-2, "Temperature Data, Dayton and Decatur, Tennessee Cooperative Observer Data^a 	2-101-12

ENCLOSURE 2

**WBN Unit 2 FSAR A101
"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 A101
"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 A101
"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 A101
“List Of Files And File Sizes
On The Security-Related OSM (OSM #1)”**

ENCLOSURE 3
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 101 - List of Files on *Security-Related OSM*

File Name	File Size - Bytes
TVA_WBN-2_FSAR_Files	
001_TVA_WB_FSAR_TOC.pdf	358,525
002_TVA_WB_FSAR_LEP.pdf	87,238
003_TVA_WB_FSAR_Section_1.pdf	4,642,070
004_TVA_WB_FSAR_Section_2_A.pdf	11,465,728
005_TVA_WB_FSAR_Section_2_B_Part_1_of_2.pdf	40,497,006
005_TVA_WB_FSAR_Section_2_B_Part_2_of_2.pdf	11,274,012
006_TVA_WB_FSAR_Section_2_C.pdf	2,107,744
007_TVA_WB_FSAR_Section_2_D.pdf	31,324,130
008_TVA_WB_FSAR_Section_2_E.pdf	45,933,140
009_TVA_WB_FSAR_Section_3_A.pdf	3,051,594
010_TVA_WB_FSAR_Section_3_B.pdf	7,063,207
011_TVA_WB_FSAR_Section_3_C.pdf	30,016,810
012_TVA_WB_FSAR_Section_3_D.pdf	6,016,719
013_TVA_WB_FSAR_Section_4.pdf	12,748,298
014_TVA_WB_FSAR_Section_5.pdf	10,114,631
015_TVA_WB_FSAR_Section_6_A.pdf	20,535,860
016_TVA_WB_FSAR_Section_6_B.pdf	8,064,404
017_TVA_WB_FSAR_Section_7.pdf	9,407,644
018_TVA_WB_FSAR_Section_8.pdf	26,807,484
019_TVA_WB_FSAR_Section_9_A.pdf	24,502,556
020_TVA_WB_FSAR_Section_9_B.pdf	17,656,580
021_TVA_WB_FSAR_Section_10.pdf	14,162,212
022_TVA_WB_FSAR_Section_11.pdf	4,199,916
023_TVA_WB_FSAR_Section_12.pdf	6,105,780
024_TVA_WB_FSAR_Section_13.pdf	3,238,828
025_TVA_WB_FSAR_Section_14.pdf	1,168,561

ENCLOSURE 3
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 101 - List of Files on *Security-Related OSM*

File Name	File Size - Bytes
026_TVA_WB_FSAR_Section_15.pdf	35,474,284
027_TVA_WB_FSAR_Section_16.pdf	148,218
028_TVA_WB_FSAR_Section_17.pdf	144,828
Total	388,318,007
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 101 - 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	1,208,010
Total	1,208,010

ENCLOSURE 4

**WBN Unit 2 FSAR A101
"List Of Files And File Sizes
On The Publicly Available OSM (OSM #2)"**

ENCLOSURE 4
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 101 List of Files on *Publicly Available OSM*

File Name	File Size - Bytes
TVA_WBN-2_FSAR_Files	
001_TVA_WB_FSAR_TOC.pdf	358,528
002_TVA_WB_FSAR_LEP.pdf	87,238
003_TVA_WB_FSAR_Section_1.pdf	835,469
004_TVA_WB_FSAR_Section_2_A.pdf	11,129,167
005_TVA_WB_FSAR_Section_2_B_Part_1_of_2.pdf	31,807,586
005_TVA_WB_FSAR_Section_2_B_Part_2_of_2.pdf	8,775,454
006_TVA_WB_FSAR_Section_2_C.pdf	2,107,744
007_TVA_WB_FSAR_Section_2_D.pdf	31,324,130
008_TVA_WB_FSAR_Section_2_E.pdf	45,933,140
009_TVA_WB_FSAR_Section_3_A.pdf	2,760,149
010_TVA_WB_FSAR_Section_3_B.pdf	5,661,489
011_TVA_WB_FSAR_Section_3_C.pdf	25,184,334
012_TVA_WB_FSAR_Section_3_D.pdf	5,748,065
013_TVA_WB_FSAR_Section_4.pdf	12,748,298
014_TVA_WB_FSAR_Section_5.pdf	10,115,631
015_TVA_WB_FSAR_Section_6_A.pdf	17,655,922
016_TVA_WB_FSAR_Section_6_B.pdf	8,064,404
017_TVA_WB_FSAR_Section_7.pdf	9,407,644
018_TVA_WB_FSAR_Section_8.pdf	26,807,484
019_TVA_WB_FSAR_Section_9_A.pdf	24,241,396
020_TVA_WB_FSAR_Section_9_B.pdf	16,442,057
021_TVA_WB_FSAR_Section_10.pdf	14,162,212
022_TVA_WB_FSAR_Section_11.pdf	4,199,916
023_TVA_WB_FSAR_Section_12.pdf	1,837,756
024_TVA_WB_FSAR_Section_13.pdf	3,238,828
025_TVA_WB_FSAR_Section_14.pdf	1,168,561
026_TVA_WB_FSAR_Section_15.pdf	35,474,284

Note: Byte amounts in italics are redacted files.

ENCLOSURE 4
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 101 List of Files on *Publicly Available OSM*

File Name	File Size - Bytes
027_TVA_WB_FSAR_Section_16.pdf	148,218
028_TVA_WB_FSAR_Section_17.pdf	144,828
Total	357,569,932
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
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

ENCLOSURE 4
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 101 List of Files on *Publicly Available OSM*

File Name	File Size - Bytes
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	1,208,010
Total	1,208,010