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

August 14, 2013

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 110

Reference: 1. TVA letter to NRC dated August 23, 2012, "Watts Bar Nuclear Plant (WBN) - Unit 2 - Final Safety Analysis Report (FSAR), Amendment 109"

This letter transmits WBN Unit 2 FSAR Amendment 110 (A110), which reflects changes made since the issuance of Amendment 109 on August 23, 2012 (Reference 1).

Enclosure 1 contains a summary listing of FSAR sections and corresponding Unit 2 change package numbers associated with the A110 FSAR changes.

FSAR A110 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 made in this letter. This letter does not close any "Generic Communications." If you have any questions, please contact Gordon Arent at (423) 365-2004.

A053
NRR

I declare under the penalty of perjury that the foregoing is true and correct. Executed on the 14th day of August, 2013.

Respectfully,

R. A. Hruby, Jr.

Raymond A. Hruby, Jr.
General Manager, Technical Services
Watts Bar Unit 2

Enclosures:

1. WBN Unit 2 FSAR A110, "Summary Listing of A109 FSAR Changes"
2. WBN Unit 2 FSAR A110, "Summary of Redacted Pages"
3. WBN Unit 2 FSAR A110, "List of files and file sizes on the security-related OSM (OSM #1)"
4. WBN Unit 2 FSAR A110, "List of files and file sizes on the publicly available OSM (OSM #2)"

Attachments:

1. OSM #1: WBN Unit 2 FSAR Amendment 110 - Security-Related Information - Withhold Under 10 CFR 2.390
2. OSM #2: WBN Unit 2 FSAR Amendment 110 - Publicly Available Version

cc: See Page 3

cc (Enclosures):

U. S. Nuclear Regulatory Commission
Region II
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245 Peachtree Center Ave., NE Suite 1200
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NRC Resident Inspector Unit 2
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1260 Nuclear Plant Road
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ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
1.	Table 6.2.3-2	1. On FSAR Table 6.2.3-2, page 12 of 17, provide the ΔP for Unit 2 in the "Failure Mode," "Method of Failure Detection" and "Effect on System" columns for the Item 14 modulating dampers 2. On FSAR Table 6.2.3-2, page 12 of 17, provide the cfm for Unit 2 in the "Effect on Plant" column for the Item 14 modulating dampers. 3. On FSAR Table 6.2.3-2, page 12 of 17, revise the "Remarks" column for the Item 14 modulating dampers.	2-110-01
2.	Section 9.2.1.3	1. In FSAR Section 9.2.1.3, change the heat load value included in the last paragraph on page 9.2-6 from 235,000 kBTU/hr to 238,800 kBTU/hr. 2. In FSAR Section 9.2.1.3, change the heat load value included in the first paragraph on page 9.2-7 from 469,000 kBTU/hr to 473,400 kBTU/hr. 3. In FSAR Section 9.2.1.3, change the flow requirement included in the second paragraph on page 9.2-7 from 21,300 gpm to 19,700 gpm. 4. In FSAR Section 9.2.1.3, change the highest heat load case included in the second paragraph on page 9.2-7 from "one unit in cold shutdown and the other in LOCA Recirculation" to "one unit in refueling and the other unit in LOCA Recirculation." 5. In FSAR Section 9.2.1.3, change the heat load value included in the second paragraph on page 9.2-7 from 305,000 kBTU/hr to 292,900 kBTU/hr. 6. In FSAR Section 9.2.1.3, change the highest flow demand case included in the third paragraph on page 9.2-7 from "one unit in cold shutdown and the other in LOCA Recirculation" to "one unit in either cold shutdown or refueling and the other unit in LOCA Recirculation." 7. In FSAR Section 9.2.1.3, change the flow requirement included in the third paragraph on page 9.2-7 from 21,400 gpm to 20,600 gpm. 8. In FSAR Section 9.2.1.3, change the heat load value included in the third paragraph on page 9.2-7 from 309,000 kBTU/hr to 296,700 kBTU/hr.	2-110-02

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
3.	Table 6.2.4-1 Table 6.2.6-4	1. On FSAR Table 6.2.4-1, page 14 of 69, change the "A" in the "App J Test" column for valve 2-CKV-68-559 in penetration X-24 from "A" to "-". 2. On FSAR Table 6.2.6-4, page 2 of 8, change the "Status" column for penetration X-24 from "Normal Lineup" to "Vented".	2-110-03
4.	Table 3.9-25 Table 6.2.4-1	1. On FSAR Table 3.9-25, Sheet 11 of 23, change the "Actuation" column for valves FCV-43-2, FCV-43-11, FCV-43-22 and FCV-43-34 from "Solenoid" to "Air". 2. On FSAR Table 6.2.4-1, Page 15 of 69, for penetration X-25A, change the "Actuator" column for valve 43-11 from "SO" to "AO". Also revise the sketch for penetration X-25A to depict valve 43-11 as an air operated valve. 3. On FSAR Table 6.2.4-1, Page 16 of 69, for penetration X-25D, change the "Actuator" column for valve 43-2 from "SO" to "AO". Also revise the sketch for penetration X-25D to depict valve 43-2 as an air operated valve. 4. On FSAR Table 6.2.4-1, Page 27 of 69, for penetration X-44, change the "Valve Type" column for valve 62-63 from "CA" to "GA". 5. On FSAR Table 6.2.4-1, Page 47 of 69, for penetration X-85B, change the "Actuator" column for valve 43-22 from "SO" to "AO". Also revise the sketch for penetration X-85B to depict valve 43-22 as an air operated valve. 6. On FSAR Table 6.2.4-1, Page 53 of 69, for penetration X-93, change the "Actuator" column for valve 43-34 from "SO" to "AO". Also revise the sketch for penetration X-93 to depict valve 43-34 as an air operated valve.	2-110-04
5.	Table 3.2-2 Table 9.3-2	1. On FSAR Table 3.2-2, remove the entry for the Flash Tank Pumps. 2. On FSAR Table 9.3-2, revise the first "Sample Location" for the Steam Generator Blowdown system from "Steam Gen No. Blowdown Pumps" to "Downstream of Steam Gen Blowdown Flash Tank".	2-110-05
6.	Section 10.4.8.2	In FSAR Section 10.4.8.2, delete the phrase "or to the condenser hotwell".	2-110-06

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
7.	Section 9.2.2.4	1. In FSAR Section 9.2.2.4, change the flow requirement included in the first example from 24,200 gpm to 22,900 gpm. 2. In FSAR Section 9.2.2.4, change the heat load value included in the first example from 188,000 kBTU/hr to 192,100 kBTU/hr. 3. In FSAR Section 9.2.2.4, change the flow requirement included in the second example from 22,900 gpm to 21,600 gpm. 4. In FSAR Section 9.2.2.4, change the heat load value included in the second example from 150,000 kBTU/hr to 154,500 kBTU/hr. 5. In FSAR Section 9.2.2.4, change the heat load value included in the third example from 129,000 kBTU/hr to 128,700 kBTU/hr. 6. In FSAR Section 9.2.2.4, change the heat load value included in the fourth example from 149,000 kBTU/hr to 153,600 kBTU/hr.	2-110-07
8.	Section 5.2.1.10.9 5.2.8.7 Table 5.2-21 Figure 5.2-12	1. Replace FSAR Section 5.2.1.10.9 with the revised FSAR Section 5.2.1.10.9 included on Insert A. 2. Add Reference 16 to the lists of references included after FSAR Section 5.2.8.7. 3. Replace the content of FSAR Table 5.2-21 with the revised table. 4. Delete FSAR Figure 5.2-12 and insert a Page to indicate the figure has been deleted by Amendment 110. 5. Revise the List of Figures to identity FSAR Figure 5.2-12 as deleted by Amendment 110.	2-110-08
9.	Table 3.2.2 Table 3.2.2a Section 9.4.7.3	1. Replace entry for "Motor Air Coolers" on FSAR Table 3.2-2 page 3 of 17. 2. For Table 3.2-2, Page 9 of 17, perform the following: a. Add a comma after the word "Compartment" in FSAR Table 3.2-2 entry. b. Delete the entries for Upper Compartment, CRDM & Instrument. c. Delete "Coil Units" from the entry "Fans Coil Units" under the Component heading along with "See Note 12" from the Seismic heading. d. Insert new entries for Upper Compartment Coolers, CRDM Coolers, and Instrument Room A/C Water Chiller. 3. Revise FSAR Table 3.2-2 "Coils" entry on page 10 of 17. 4. On FSAR page 3.2-26, revise note 7 and replace note 12.	2-110-09

Item No.	Change Area	Change Description	Change Package Number
9. (cont.)	Section 9.4.7.3 Table 3.2.2 Table 3.2.2a	5. For FSAR Table 3.2-2a page 3 of 9 perform the following: a. Delete "(see Note 3)" at the end of entry "HVAC equipment not required for plant safety" under heading System Subsection. b. Replace "1(L)" with "(See Note 3)" under the Seismic Category heading for "HVAC equipment not required for plant safety". 6. Replace Note 3 in FSAR Table 3.2-2a page 8 of 9 with the following: "The following HVAC cooling coils perform no safety related cooling function but they are seismically designed or qualified as indicated to provide ERCW pressure boundary integrity to ensure the ERCW can perform its primary safety functions: • Unit 1 and 2 Lower Compartment Cooler cooling coils Seismic Class I • Unit 1 CRDM Cooler cooling coils Seismic Class I(L)A • Unit 1 Incore Instrument Room Chiller coils Seismic Class I(L)A • Unit 2 RCP Motor Air Coolers Seismic Class I(L)A The Unit 2 CRDM Cooler coils, Unit 2 Incore Instrument Room Chiller coils and Unit 1 RCP motor air coolers remaining are not required for plant safety and are designed to Seismic Class I(L)B. The differences in Seismic Classification for the HVAC equipment supplied by ERCW are considered in the analyses that demonstrate the acceptable capability of the ERCW system." 7. Add "To ensure the ERCW system can perform its safety functions, those coolers that are relied upon for pressure boundary integrity are designed to Seismic Category I(L)A or Seismic Category I requirements." after the third paragraph in FSAR Section 9.4.7.3 and delete "(excluding cooling coils)" from the third paragraph in FSAR Section 9.4.7.3.	2-110-09

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
10.	Section 9.2.2.2	In FSAR Section 9.2.2.2 on page 9.2-14 (A109), replace the paragraph after item "(iii)" with the following: "CCS is a supporting system to other safe shutdown systems. Two redundant trains per unit are available. For each unit, Train A consists of two available CCS pumps and the associated valves, piping, instrumentation and heat exchanger (Heat Exchanger A for Unit 1 and Heat Exchanger B for Unit 2). Train B is common for both units and consists of one CCS pump and the associated valves, piping, instrumentation and heat exchanger (Heat Exchanger C). Each unit has a CCS pump (1A-A for Unit 1 and 2A-A for Unit 2) which is aligned to that unit's Train A header and which receives electrical power from Train A. Each unit has another CCS pump (1B-B for Unit 1 and 2B-B for Unit 2) which can be aligned to that unit's Train A header but which receives electrical power from Train B. These pumps (1B-B and 2B-B) are normally aligned to the Train A piping system for that unit but can be aligned to the common Train B piping system. The C-S pump, which normally receives Train B electrical power while serving as the common Train B CCS pump, is capable of being powered from a Train A power source. During normal full power operation, with all CCS equipment available, CCS pumps 1A-A and 1B-B and Heat Exchanger A are aligned with Unit 1, Train 1A ESF and miscellaneous equipment. CCS pumps 2A-A and 2B-B and Heat Exchanger B are aligned with Unit 2 Train 2A ESF and miscellaneous equipment. CCS pump C-S and Heat Exchanger C are aligned with both Unit 1, Train 1B and Unit 2, Train 2B. CCS pump 1B-B can be used as additional capacity for Train 1A, as required, or as a replacement for CCS pumps 1A-A or C-S, if one should be out of service. CCS pump 2B-B can be used as additional capacity for Train 2A as required or as a replacement for CCS pumps 2A-A or C-S, if one should be out of service."	2-110-10
11.	Section 8.3-2	On FSAR Table 8.3-2, revise Note 1 to indicate that each Unit 1 CRDM has two motors and each Unit 2 CRDM has one motor.	2-110-11
12.	Section 5.5	1. For Section 5.5.7.2.2 on Page 5.5-29, delete "[Ref. 8] adjacent to subheading "Reduced Inventory and Mid-Loop Operation" 2. For the Reference Section on page 5.5-46 (A109) delete the verbiage associated with Reference 8 and insert "Not Used" as a place keeper for Reference 8.	2-110-12

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
13.	Table 6.2.3-3	1. On FSAR Table 6.2.3-3, add an asterisk to the entry included in the "Effect on System" column for the spuriously starts "Failure Mode" of Item 1. Also include the asterisked note on the bottom of FSAR Table 6.2.3-3, page 1 of 27 as follows: "Interim U1 configuration: As a result of the change made by DCN 56414, a spurious ABI signal would also result in a Containment Vent Isolation (CVI) signal. Dual Unit configuration: EDCR 55801 provides for a functional cross-tie between the two units which would cause a refueling unit CVI upon spurious ABI signal." 2. On FSAR Table 6.2.3-3, add an asterisk to the entry included in the "Effect on System" column for the spuriously starts "Failure Mode" of Item 2. Also include the asterisked note on the bottom of FSAR Table 6.2.3-3, page 2 of 27, as follows: "Interim U1 configuration: As a result of the change made by DCN 56414, a spurious ABI signal would also result in a Containment Vent Isolation (CVI) signal. Dual Unit configuration: EDCR 55801 provides for a functional cross-tie between the two units which would cause a refueling unit CVI upon spurious ABI signal." 3. On FSAR Table 6.2.3-3, revise the entries included in the "Remarks" column for Items 21, 22, 23, 24, 25, 26, 27 and 28 by replacing the phrase, "non-safety control air and both dampers fail closed on loss of control air," with the phrase, "non-safety control air. Loss of the non-safety related control air does not prevent the damper from closing."	2-110-13
14.	Section 3.8.6.1.8 Section 3.8.6.2.8	1. In FSAR Section 3.8.6.1.8, delete two sentences with the first sentence beginning, "Each hoist is also provided..." and the following sentence beginning with, "The main hoist is also..." in the partial paragraph at the top of page 3.8.6-4 (A108) describing the Polar Crane hoists load sensing systems, and the main hoist audible alarm. 2. In FSAR Section 3.8.6.2.8, delete two sentences with the first sentence beginning, "The main hoist..." and the second sentence beginning with, "The main hoist is also..." in the last paragraph on page 3.8.6-7 (A108) and part on top of page 3.8.6-8 (A108) describing the Auxiliary Building Crane hoist load sensing system, and the main hoist audible alarm.	2-110-14

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
15.	Section 11.4	1. For Section 11.4.2.2.4, replace the word, "setpoints," with "capability" in the fourth line at top of page 11.4-6 (A109) and delete, "for 6 months" at the end of the same sentence. 2. For Section 11.4.2.2.7, replace the word "pressure" with the word "power" in the sixth line under heading "Main Steamline Radiation Monitors" on page 11,4-8 (A109) 3. For Section 11.4.4, correct typographical error in the third line of the third paragraph under the "Calibration and Maintenance" heading by replacing "instructions as appropriate" with "instruction, as appropriate." 4. For Table 11.4-2 (2 of 4), replace values in the scale column for monitors 2-RE-90-255 and 1-RE-90-256 from "10-10(7) cpm" and "10-10(7) cpm" with "10(-1) - 10(4) mR/hr" and "10(2) - 10(7) mR/hr," respectively. 5. For Table 11.4-2 (3 of 4), add exponent of "(7)" inadvertently left off of "10-10" in the scale column for monitors 1-RE-90-130, and -131 and 2-RE-90-130 and -131. 6. For Table 11.4-2 (3 of 4), add "$10\text{-}10^{7}$ mr/hr" to the scale column for monitors 2-RE-90-421 through -424. 7. For Table 11.4-3, Replace "2-M-30" with "ICS" in the Recorder column of Page 1 of 2 for the "Condenser Vacuum Vent Post-Accident" entry. 8, For Table 11.4-5, delete the number "2" from the asterisk note at the bottom of the table for "2-RE-90-119 monitor".	2-110-15

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
16.	Table 14.2-1 Sheets 47-49 of 89	1. Delete - Objective "To collect grid, 6900, and 480 volt Class 1E bus operating data under no-load, steady state, and transient conditions for comparison to engineering voltage calculations." on Table 14.2-1 (Sheet 47 of 89). 2. Delete - Test Method 1 "Verify that failure/faults in one of the offsite power sources will isolate the affected source but does not lead to the failure/isolation of both sources" on Table 14.2-1 (Sheet 47 of 89). 3. Delete - Test Method 7 "Select the Class 1E train having the lowest analyzed voltage and record grid, 6900 and 480 volt bus parameters at no-load, steady state (minimum 30% of worst case load), and transient conditions. Induce the transient by the start of a Class 1E motor. NOTE: Vital 120 volt AC power voltage surveys will be performed in conjunction with this test." on Table 14.2-1 (Sheet 48 of 89). 4. Delete - Acceptance Criteria 5 "Steady state and transient voltages should not be lower than 3% of analyzed values" on Table 14.2-1 (Sheet 49 of 89).	2-110-16

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
17.	Table 14.2-1 Sheet 54 of 89	On Table 14.2-1 (Sheet 54 of 89) Integrated Computer System (ICS) Test Summary (Amendment 109 page 14.2-91), delete Prerequisite 2.	2-110-17
18.	Section 14.2.7 Subsection 4A1b - 1.g.2	For Section 14.2.7, revise the content of (4) (A) (1) (b) Appendix A, subparagraph 1.g.2, to read: "Unit 2 only emergency loads will not be tested with minimum and maximum design voltage available. Unit 2 only emergency loads will be tested to demonstrate satisfactory starting and operating characteristics with the power supply voltage within the design operating range. Transformer taps were adjusted and tested in the Unit 1 Startup Program to obtain optimum voltage levels from no-load to full load conditions. No further testing is needed by Unit 2. The validation of the engineering voltage calculations was performed during the Unit 1 Startup Program. The data recorded included the operating parameters of the offsite grid, Class 1E 6.9 kV, 480 volt, and 120 volt vital power busses under no-load, steady state load, and transient conditions. Data was obtained for the Class 1E train having the lowest analyzed voltage, and the result was satisfactory. No further testing is needed by Unit 2."	2-110-18
19.	Table 14.2-1 Sheet 55 of 89	Revise the header of "Table 14.2-1 (Sheet 55 of 89) EMERGENCY LIGHTING SYSTEM TEST SUMMARY" to read "Table 14.2-1 (Sheet 55 of 89) Deleted by Amendment 110". Delete the remaining content (Objectives, Prerequisites, Test Method, and Acceptance Criteria) of page 14.2-92 of Amendment 109.	2-110-19
20.	Table 14.2-1 Sheet 17 of 89	On Table 14.2-1 (Sheet 17 of 89) "RESIDUAL HEAT REMOVAL SYSTEM TEST SUMMARY," 1. Revise Test Method 5 to read "5. Demonstrate RHR operation during plant cooldown following hot functional testing." 2. Revise Test Method 6 to read "6. Demonstrate RHR mid-loop operation." 3. Add a new Test Method 7 to read "7. Verify proper operation of alarms, controls, and interlocks."	2-110-20

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
21.	Section 14.2.2.5	For Section 14.2.2.5, perform the following: 1. In the last sentence, page 14.27, replace "The Chairman of the JTG reports to the Preoperational Startup Manager." with "The Normal Chairman of the JTG is the Preoperational Startup Manager; the Alternate Chairman of the JTG reports to the Preoperational Startup Manager." 2 In the last paragraph, last sentence of 14.2.2.5.1, page 14.2-8, revise "Manage.. " to read "Manager". 3. On pages 14.2-12 and 14.2-13, revise all instances of "Shift Operations Supervisor"/ "Shift Operations Supervisors" to read "Shift Manager" / "Shift Managers".	2-110-21
22.	Table 14.2-1 Sheet 45 of 89	On "Table 14.2-1 (Sheet 45 of 89) DIESEL GENERATORS TEST SUMMARY," change Test Method "3" to "4".	2-110-22
23.	Section 6.2.4 Section 6.2.6 Table 6.2.4-1	1. On FSAR Table 6.2.4-1, Sheet 11 of 69, change the "RM" included in the "Isolation Signal" column for valve 63-158 in penetration X-17 from "RM" to "-". 2. On FSAR Table 6.2.4-1, Sheet 13 of 69, change the "56" included in the "Gen Des Criterion" column for penetration X-21 from "56" to "55". 3. On FSAR Table 6.2.4-1, Sheet 20 of 69, revise the sketch for penetration X-30 to add a second normally closed valve to the test connection (TC) located in the auxiliary building. 4. On FSAR Table 6.2.4-1, Sheet 20 of 69, revise the sketch for penetration X-31 to move the test vent (TV) from inside containment to inside the shield building. 5. On FSAR Table 6.2.4-1, Sheet 22 of 69, change the drawing number included in the "Dwg Number" column for penetration X-36 from "72-4333-310" to "72-4334-310". 6. On FSAR Table 6.2.4-1, Sheet 42 of 69, revise the sketch for penetration X-76 to move the test vent (TV) from inside the shield building to inside the auxiliary building between the shield wall and valve 33-732. 7. On FSAR Table 6.2.4-1, Sheet 43 of 69, revise the sketch for penetration X-78 to change the elevation shown for the penetration from 798'-9" to 708'-9".	2-110-23

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
23 (cont.)	Section 6.2.4 Section 6.2.6 Table 6.2.4-1	8. On FSAR Table 6.2.4-1, Sheet 60 of 69, revise the sketch for penetration X-107 to add a test vent (TV) with two normally closed valves inside containment between relief valve 74-505 and 63-185. 9. On FSAR Table 6.2.4-1, Sheet 60 of 69, change the system numbers included in the "System Number and Penetration Description" column for penetration X-107 from "74.63" to "74,63". 10. In FSAR Section 6.2.4.2.2, add the criteria to be utilized for test connections, vents and drains located within the containment boundary of penetrations subject to 10CFR50, Appendix J, Type C testing. Also, change the word "an" to "as" in the fifth paragraph. 11 In FSAR Section 6.2.4.2.3, revise the edition of ANSI N18.2 included in the list of codes, standards and guides applied in the design of the containment isolation system from "1973" to "August 1970 draft". 12. In FSAR Section 6.2.6.2, revise Exemption 2 for CVCS Normal Charging Line penetration X-16, to indicate valves FCV-62-90 and FCV-62-91 receive a safety injection signal to close. 13. On FSAR Table 6.2.6-2, page 2 of 6, add penetration X-29 and containment isolation valves 70-89, 70-92 and 70-698 along with a reference to Note 2. 14. On FSAR Table 6.2.6-2, page 2 of 6, change the valve number identified for penetration X-41 from "77-2874" to "77-2875".	2-110-23
24.	Section 3.8.3.6.1	In FSAR Section 3.8.3.6.1, insert the words "or E603A" into the last sentence of the subsection for "Seals Between Upper and Lower Compartments" into the partial paragraph at the top of page 3.8.3-35.	2-110-24
25.	Section 1.6 Section 7.1 Section 7.2 Section 7.3 Section 15.1	1. For Section 1.6 (A109), Page 1.6-9, Section 7.1 (A109), Pages 7.1-10 and 7.1-16, Section 7.2 (A109), Page 7.2-37, Section 7.3 (A109), Page 7.3-19, and Section 15.1 (A109), Page 15.1-15, update WCAP-17044 reference to Revision 1. 2. For Section 1.6-9 (A109), page 1.6-9, revise Section column for WCAP-17044. 3. For Section 7.1, on Page 7.1-9 (A109), correct format.	2-110-25

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
26.	Section 9.3.8	For Section 9.3.8 (A109), revise item (e) under the list of systems that use heat tracing to specify Unit 1 Only for the Sampling and Water Quality System (system 043).	2-110-266
27.	Section 6.2.5	For Section 6.2.5, include mention of the fan control hand switch installed in the main control room as part of the Hydrogen Analyzer System (HAS).	2-110-27
28.	Tables 3.2-2 3.2-2a	1. On FSAR Table 3.2-2, replace Note 12 with Insert "A". This change supersedes the revised Note 12 added to FSAR Table 3.2-2 by FSAR Change Package 2-110-09. 2. On FSAR Table 3.2-2a, replace Note 3 with Insert "A". This change supersedes the revised Note 3 added to FSAR Table 3.2-2a by FSAR Change Package 2-110-09.	2-110-28
29.	Table 14.2-1	For Table 14.2-1, (Sheet 47 of 89), change the Test Method statement that reads from "Confirm that loss of either redundant safety-related load group will not impair the ability of the remaining system to supply power to the required safety-related loads" to read as follows: "Confirm that all Unit 2 Train A and Train B ESF controlled equipment (valves, pumps, fans, etc.) operate correctly upon initiation of ESFAS signal and after reset with a loss of trained offsite power."	2-110-29
30.	Section 15.4	1. On Page 15.4-4 (A109), revise the fifth complete paragraph that begins with, "The methods used..." by inserting the following sentence at the beginning of the paragraph: "The Watts Bar 2 ASTRUM LBLOCA uses a plant-specific adaptation of the ASTRUM methodology that includes explicit modeling of fuel thermal conductivity degradation (TCD), as well as a larger sampling range for rod internal pressure (RIP) uncertainty." 2. On Page 15.4-4 (A109), revise the fifth complete paragraph by deleting the last sentence that reads: "WCOBRA/TRAC MOD7A was used for the execution of ASTRUM for Watts Bar Unit 2 (WCAP-16009-P-A [49])."	2-110-30

Item No.	Change Area	Change Description	Change Package Number
30. (contd.)	Section 15.4	3. On Page 15.4-4 (A109), insert new verbiage between the fifth complete paragraph and the beginning of sixth partial paragraph at the bottom of the page. The new verbiage is as follows: "WCAP-16009-P-A [49] states that the ASTRUM methodology is based on the frozen code version WCOBRA/TRAC MOD7A, Revision 6. WCOBRA/TRAC MOD7A, Revision 8-T2 was used for the execution of ASTRUM Uncertainty Studies for Watts Bar Unit 2. The confirmatory analysis (paragraph "2) Determination of Plant Operating Conditions") were executed with WCOBRA/TRAC MOD7A Revision 7. The Nuclear Regulatory Commission (NRC) approved Westinghouse Best-Estimate Loss-of-Coolant Accident (BELOCA) ASTRUM methodology [49] is based on the PAD 4.0 fuel performance code [51]. PAD 4.0 was licensed without explicitly considering fuel thermal conductivity degradation (TCD) with burnup. Explicit modeling of TCD in the fuel performance code leads directly to increased fuel temperatures (pellet radial average temperature) as well as other fuel performance related effects beyond beginning of-life. Since PAD provides input to the large-break LOCA analysis, this will tend to increase the stored energy at the beginning of the simulated large-break LOCA event. This in turn leads to an increase in Peak Cladding Temperature (PCT) if there is no provision to credit off-setting effects. In addition, a different fuel thermal conductivity model in WCOBRA/TRAC and HOTSPOT was used to more accurately model the fuel temperature profile when accounting for TCD. In order to mitigate the impact of the increasing effect of pellet TCD with burnup, the large-break LOCA evaluation of second/third Cycle fuel utilized reduced peaking factors from those shown directly in FSAR Table 15.4-19. The reduced peaking factors are limited to the following application: Burndown credit for the hot rod and hot assembly is taken for higher burnup fuel in the second/third cycle of operation. The Watts Bar Unit 2 peaking factor values utilized in this analysis are shown in Table 15.4-24. Note that the beginning to middle of life values are retained at their direct Table 15.4-19 values. It should be noted that evaluation of fuel in its second/third cycle of irradiation is beyond the first cycle considered in the approved ASTRUM Evaluation Model (EM), but was considered in the analysis when explicitly modeling TCD to demonstrate that conformance to the acceptance criteria is met for the second/third cycle fuel.	2-110-30

Item No.	Change Area	Change Description	Change Package Number
30. (contd.)	Section 15.4	In addition to the standard uncertainty calculations, the Watts Bar 2 LBLOCA analysis sampled a larger rod internal pressure (RIP) uncertainty than originally included in the ASTRUM methodology [49]. It was discovered that the as-approved sampling range did not bound the plant-specific rod internal pressure uncertainties for Watts Bar 2. Therefore, the approved sampling range was expanded to bound the Watts Bar 2 plant-specific data." 4. On Page 15.4-7 (A109), insert new verbiage after the partial paragraph at the top of page just prior to Item No. 3, "Assessment of Uncertainty" as follows: "The confirmatory configuration analysis was performed previous to the ASTRUM uncertainty calculations prior to the identification of the TCD issue and associated PAD data. However, as no Attachment 1 to LTR-LIS-13-375 miscellaneous plant configuration changes were introduced and the effects of TCD are minimal for the confirmatory analysis, the limiting plant configuration (Referred to as the Reference Transient) was judged to remain the same." 5. On Page 15.4-7 (A109), insert new verbiage after the first paragraph of Section 15.4.1.1.3, "Containment Analysis," as follows: "The Table 15.4-16 mass and energy releases are taken from the 'Reference Transient' case of Section 15.4.1.1.2, which did not include the fuel TCD modeling. The conservatively low containment backpressure from this LOTIC-2 study is bounding since the core stored energy increases when explicitly modeling fuel TCD, which would tend to increase energy released through the break and hence increase the containment pressure." 6. On Page 15.4-8 (A109), replace part of the first sentence of the first paragraph of Section 15.4.1.1.4 that reads, "PCT/MLO/CWO - limiting transient is a cold leg split break (effective break area = 1.8.1.3.8," with the following: "PCT and MLO/CWO transients are double ended cold leg guillotine breaks with an effective break area of 1.911, and 2.0968 respectively (note that the limiting MLO and CWO arise from the same case)."	2-110-30

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Item No.	Change Area	Change Description	Change Package Number
30. (contd.)	Section 15.4	7. On Page 15.4.8 (A109), insert the acronym "PCT" prior to the word, "case" in the next to last line of the second paragraph of Section 15.4.1.1.4. 8. On Page 15.4.8 (A109), replace "Figures 15.4.41a and 15.4.41b" with "Figure 15.4.41". 9. On Page 15.4-9 (A109), delete "s" from Figures and delete "15.4.49". 10. On Page 15.4.9 (A109), insert "(Figure 15.4-49)" between the words "water" and "aids" of the 13th line of Item No. 5, "Early Reflood Phase." 11. On Page 15.4-9 (A109), delete the duplicate "and" in the second line of Item No. 6, "Late Reflood Phase". 12. On Page 15.4-10 (A109), insert the phrase, "(Figure 15.4-41, HOTSPOT result) after the last line of the paragraph immediately preceding Section 15.4.1.1.5. 13. On Page 15.4-10 (A109), insert the following prior to the first paragraph of Section 15.4.1.1.5: "An evaluation of IFBA fuel including the effects of pellet TCD was performed, and shows that IFBA fuel is limiting for MLO but not for PCT. The AOR PCT and MLO results in Tables 15.4-18a and 15.4-18b reflect the higher results of IFBA/non-IFBA." 14. On Page 15.4-10 (A109), delete "s" from the word "Tables" in the next to last line of the first paragraph of Section 15.4.1.1.5. 15. On Page 15.4-10 (A109), delete "a" from the word "Figure 15.4-41a" in the second line of Item (b)(1) in Section 15.4.1.1.6. 16. On Page 15.4-10 (A109), insert the phrase, "and the WCOBRA/TRAC PCT transient, both" between the words, "location" and "for" in the third line of Item (b)(1) in Section 15.4.1.1.6.	2-110-30

Item No.	Change Area	Change Description	Change Package Number
30. (contd.)	Section 15.4	17. On Page 15.4-10 (A109), delete the sentence and part of another as follows, "Figure 15.4.41b presents the WCOBRA/TRAC PCT transient predicted for the limiting PCT case." After deleting the fourth sentence and part of the fifth, combine the third sentence and the remaining part of the fifth by inserting the following phrase: ", whereas the WCOBRA/TRAC PCT plot". 18. On Page 15.4-11 (A109), replace the temperature of "1552°F" with "1766°F" in the second sentence of the partial paragraph at the top of page. 19. On Page 15.4-11 (A109), replace the percent value of "1.04" with "1.99" in the third line of the Item (b)(2) paragraph. 20. On Page 15.4-11 (A109), replace the percent value of "0.0" with "0.08" in the third and ninth lines of the Item (b)(3) paragraph. 21. On Page 15.4-46 (A109), delete "(c)" from the "Section 50.46" in the second line of Reference No. 35. 22. On Page 15.4-47 (A109), insert new Reference 52 entitled, "(51) "Westinghouse Improved Performance Analysis and Design Model (PAD 4.0)," WCAP-15063-P-A, Revision 1 with Errata (Proprietary), July 2000." 23. On Page 15.4-68, Table 15.4-17 (A109), revise values for Safety Injection Signal, Accumulator Injection Begins, End of Blowdown, Bottom of Core Recovery, Accumulator Empty(1), Safety Injection Begins, PCT Occurs from 5.5, 12.0, 24.5, 40.0, 50.8, 60.5, 209.5 to 5, 10, 11, 36, 43, 60, 190, respectively. 24. On Page 15.4-69, Table 15.4-18a (A109), revise temperature values for "PCT for Analysis for Record (AOR)" and "BE LBLOCA PCT for Comparison to 10 CFR 50.46 Requirements" from "1552°F" to "1766°F." 25. On Page 15.4-69, Table 15.4-18b (A109), revise column heading title from "Value" to "AOR Value" and values for "95/95 PCT", "95/95 MLO" "95/95 CWO" from 1552°F, 104%, 0.0% to 1766, 1.99, and 0.08, respectively.	2-110-30

Item No.	Change Area	Change Description	Change Package Number
30. (contd.)	Section 15.4	26. On Page 15.4-70, Table 15.4-19, (Page 1 of 2) (A109), add note reading, "See Table 15.4-24." to the "As-Analyzed Value or Range," column for Items 2.1b, 2.1c, 2.1d, and 2.1e, and 2.1l. 27. On Page 15.4-70, Table 15.4-19, (Page 1 of 2) (A109), revise value from "75.000" to "62,000" and delete footnote from "lead rod." for Item 2.1h, "Hot assembly burnup" in the As-Analyzed Value or Range," column. 28. On Page 15.4-70, Table 15.4-19, (Page 2 of 2) (A109), replace Note 3 with "not used" caption. 29. Insert new Table 15.4-24, "Summary of Peaking Factor Burndown Analyzed by the Best-Estimate Large-Break LOCA Analysis for Watts Bar Unit 2". 30. For Figure 15.4-41a, change figure title to "Figure 15.4-41 Watts Bar Unit 2 Limiting PCT HOTSPOT PCT At The Limiting Elevation and WC/T PCT," and update with revised figure. 31. Delete Figure 15.4-41b. 32. For Figure 15.4-42, update with revised figure. 33. For Figure 15.4-43, update with revised figure and correct typographical errors in title. 34. For Figure 15.4-44, update with revised figure. 35. For Figure 15.4-45, update with revised figure. 36. For Figure 15.4-46, update with revised figure. 37. For Figure 15.4-47, update with revised figure. 38. For Figure 15.4-48, update with revised figure. 39. For Figure 15.4-49, update with revised figure. 40. For Figure 15.4-50, update with revised figure. 41. For Figure 15.4-51, update with revised figure. 42. For Figure 15.4-52, update with revised figure. 43. For Figure 15.4-53, update with revised figure. 44. For Figure 15.4-54, update with revised figure. 45. For Figure 15.4-55, update with revised figure.	2-110-30

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Item No.	Change Area	Change Description	Change Package Number
31	6.1.2	In FSAR Section 6.1.2, delete sentence "There is no wood or asphalt inside the containment". Replace with: "There is no exposed wood inside containment. There is wood inside the Ice Condenser equipment access sliding door and the equipment access personnel door. These doors are closed during normal operation. This wood will remain encapsulated during a LOCA by the steel frame and is not within the zone of influence. There is no asphalt inside containment."	2-110-31
32.	14.2	1. For Section 14.2.2, in the third paragraph on page 14.2-3 (A109), change "Senior Vice President for Operations" to "Senior Vice President Nuclear Operations." 2. For Section 14.2.2.2.3, in the first paragraph on Page 14.2-6, change "Managers" to "Manager". 3. For Section 14.2.2.2.6.1, in the first paragraph on Page 14.2-8, change "Design Engineering" to "Site Engineering." 4. For Section 14.2.3.5, in paragraph (2)(a), change "Shift Operations Supervisor" to "Shift Manager." 5. For Section 14.2.10.1, in the fourth paragraph on Page 14.2-31, change "The fuel assemblies with inserted core components will be inserted into the reactor vessel and submerged in reactor grade water containing adequate dissolved boric acid." to "The fuel assemblies with inserted core components will be moved through the filled transfer canal and inserted into the reactor vessel containing reactor grade water with adequate dissolved boric acid." 6. For Section 14.2.10.1 in the sixth paragraph on Page 14.2-31, change: "A response check of nuclear instruments shall be performed within 8 hours prior to loading of the core, or resumption of loading, if delay is for more than 8 hours. The response check may be performed by using the source fuel assembly as the source prior to being unlatched or by using a portable neutron source. Alternatively, a statistical analysis of the detectors may be made as a means of response checking the responding detectors." to "A response check of nuclear instruments shall be performed within 8 hours prior to loading of the core with the first source bearing fuel assembly. If a delay in fuel loading greater than 8 hours occurs the nuclear instrumentation will be evaluated to determine acceptability of the detectors for continuation of fuel loading." 7. For Table 14.2-2, Sheet 2 of 39, on Page 14.2-128 change Title of sheet 25 from: "Rod And Boron Worth Measurements" to: "Rod Worth And Boron Measurements". 8, For Table 14.2-2, Sheet 3 of 39, PREREQUISITIES 2 on Page 14.2-129, delete: "or by using a portable neutron source within eight hours prior to unlatching the first fuel assembly."	2-110-32

Item No.	Change Area	Change Description	Change Package Number
32. (cont.)	14.2	9. For Table 14.2-2, Sheet 3 of 39, TEST METHOD: on Page 14.2-129, change "For any delay of 8 or more hours in fuel loading, the source range channels will be response checked before fuel loading resumes. The response check will be performed either by moving a temporary source or a source bearing assembly and observing the source range response or by a statistical evaluation which demonstrates a sufficient reliability factor," to: "If a delay in fuel loading greater than 8 hours occurs the nuclear instrumentation will be evaluated to determine acceptability of the detectors for continuation of fuel loading." 10. For Table 14.2-2, Sheet 12 of 39, OBJECTIVE: on Page 14.2-138, change: "To demonstrate operability of the Incore Instrumentation system equipment, controls, and interlocks." to: "To demonstrate operability of the Incore Instrumentation system." 11. For Table 14.2-2, Sheet 12 of 39, TEST METHOD: on Page 14.2-138, change: "IITAs" to: "Incore Instrument Thimble Assemblies (IITAs)" 12. For Table 14.2-2, Sheet 14 of 39, PREREQUISITIES 3 on Page 14.2-140, delete "Prerequisites item number 3." 13. For Table 14.2-2, Sheet 22 of 39, TEST METHOD, on Page 14.2-148, change: "slightly critical" to "critical". 14. For Table 14.2-2, Sheet 25 of 39, on Page 14.2-151, change Title: "ROD AND BORON WORTH MEASUREMENTS TEST" to: "ROD WORTH AND BORON MEASUREMENTS TEST". 15. For Table 14.2-2, Sheet 27 of 39, on Page 14.2-153, PREREQUISITIES 2., change "measuremet" to "measurement". 16. For Table 14.2-2, Sheet 39 of 39, on Page 14.2-165, PREREQUISITIES 4., change: "IITAs" to: "Incore Instrument Thimble Assemblies (IITAs)".	2-110-32

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"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
33.	Section 5.5	Number not used Change package was found to be a duplicate of Item No. 12	2-110-33
34.	Table 1.7.1 Section 2.3 Table 2.3-3 Table 3.8.3.-3 Section 9.2 Table 9.2-2 Section 13.1 Section 14.2	1. For Table 1.7-1 (Page 6 of 15) on Page 1.7-7(A109), correct Drawings Numbers from "2-45W610-27-2" and "2-45W711-27-1" to "2-47W610-27-2" and "2-47W611-27-1," respectively. 2. On Page 2.3-17(A109), correct units in the second line in the first partial paragraph at the top of the page from "sec m^{3}" to "sec/m^{3}." 3. For Table 2.3-3, on Page 2.3-29 (A109), center the data contained within columns of the table. 4. For Table 3.8.3-3, correct the typographical from "born injection" to "boron injection" associated with the item "2-inch check valve." 5. On page 9.2-3 (A109), delete "r" from between the "water" and "chillers" in the fifth line of Item No. (4) and add space between "1A" and "and" at the beginning of the sixth line of Item No (4). 6. For Table 9.2-2, page 4 of 79 (A109), correct typographical error by replacing "Inablility" with "Inability" in Item No. 6 in the "Effect on System" column. 7. For Section 13.1.1 (A109), Insert "Group" between the words, "Power" and "Organization" in the second line of the paragraph. 8. For Page 14.2-31 (A109), delete the letter "a" from the last line of the third paragraph. 9. For Table 14.2-1, Page 14.2-97 (A109) (Sheet 60 of 89), correct the indentation for this paragraph. In addition, remove the underline between the words "respond" and "properly" in Item No. 3 of the Acceptance Criteria. 10. For Table 14.2-1, Page 14.2-111 (A109) (Sheet 74 of 89), delete the underline between the words, "handling" and "equipment" in the first sentence under the Objective" section. 11. For Table 14.2-1, Page 14.2-112 (A109) (Sheet 75 of 89), delete the extra returns with Items 4 and 5 under the "Acceptance Criteria" heading.	2-110-34

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WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
35.	Section 4.3 Figure 4.3-46 Figure 4.3-47	1. On Page 4.3-30, delete Item No. 1 under the heading, "Analytical Technique and Results." 2. On Page 4.3-30, renumber Item No. 2 as Item No 1 due to the deletion above. 3. On Page 4.3-30, in the new item No. 1 perform the following: a. delete the phrase, "greater than 3.8 wt% U-235 and" b. add "U-235" between "wt%" and "(4.95" c. add "wt% U-235" between "0.05" and ")" d. insert "any" between the words "in" and "one" 4. On Page 4.3-30, in Item 1(A), replace the phrase, "without further restrictions," with "in an all cell arrangement." 5. Replace Figures 4.3-46 and 4.3-47 with new figures and revise Figure 4.3-47 title.	2-110-35
36.	Section 1.1 Section 1.2 Section 1.3 Section 1.7 Section 7.1 Section 8.2 Section 8.3 Table 9.4-4 Table 9.4-7 Section 9.5.1	1. On FSAR page 1.1-2, (A109) Section 1.1.2 revise the line item "Fire Projection Report" to replace 10CFR 50.54(a)(3) with "10 CFR 50.48, Appendix R, Appendix A of Branch Technical Position APCSB9.5-1" and change "No" to "Yes" in the "Incorporated by Reference in FSAR." 2. On FSAR page 1.2-9, (A109) Section 1.2.2.13 change typo "Co2" to "CO_2" in both paragraphs of the section. 3. On FSAR page 1.2-11, (A109) Section 1.2.2.16.subsection (e) change "High Pressure Fire Protection Pumps" from "4" to "5". 4. On FSAR Table 1.3-3 (A109) clarification made to "C02 fire protection" line item to reflect HPFP suppression and added diesel driven fire pump. 5. On FSAR Table 1.7-1 (page 6 of 15) (A109), add drawing 47W610-26-11 to the Control column of the High Pressure Fire Protection item. 6. On FSAR page 7.1-11 (A109), Section 7.1.2.2.1, revise by adding section 9.5.1 to read "Section 8.3.1 and 9.5.1 at the end of the sentence. 7. On FSAR page 8.2-7 (A109), Section 8.2.1.5, replace the phrase "sprinkler system to prevent or extinguish any possible" with "suppression system to limit damage from or extinguish a transformer" in the last sentence of the partial paragraph at the top of the page.	2-110-36

Item No.	Change Area	Change Description	Change Package Number
36. (cont.)	Section 1.1 Section 1.2 Section 1.3 Section 1.7 Section 7.1 Section 8.2 Section 8.3 Table 9.4-4 Table 9.4-7 Section 9.5.1	8. On FSAR page 8.2-7 (A109), Section 8.2.1.5, replace the phrase, "protection sprinkler" with "Suppression system" in the third line of item 4. 9. On FSAR, page 8.3-2 (A109), Section 8.3.1.1, under the title "Diesel Generators" change "all" to "associated" and "the" in the first and second sentences, respectively. 10. On FSAR page 8.3-15 (A109), Section 8.3.1.1, under the heading "General Design Criteria 5" replace "not shared" with "adequately separated, physically and electrically" in the last sentence of the paragraph. 11. On FSAR page 8.3-48 (A109), Section 8.3.1.4.3, replace "electrical penetration fire stops" to read "fire rated penetration seals" in the twelfth line of the first paragraph. 12. On FSAR Table 9.4-4, page 9.4-81 (A109), replace "Fire Barrier between Air Intake Room and the Diesel Gen Room" with "Isolate Air Intake Room from Diesel Gen Room" in the "Function" column of Item No. 1 of the Table. 13. On FSAR Table 9.4-4, page 9.4-86 (A109), replace "Fire Barrier between Diesel Gen Room and Air Intake Room" with "Isolate Diesel Gen Room from Air Exhaust Room" in the "Function" column of Item No. 3 of the Table. 14. On FSAR Table 9.4-4, page 9.4-90 (A109), replace "Fire Barrier between Elec. BD Room & outside" with "Isolate Elec. BD Room from outside" in the "Function" column of Item No. 6 of the Table. 15. On FSAR Table 9.4-4, page 9.4-91 (A109), replace "Fire Barrier between Elec. BD Room & Air Exh Rooms" with "Isolate Elec. BD Room from Air Exh Rooms" in the "Function" column of Item No. 7 of the Table. 16. On FSAR Table 9.4-7, page 9.4-163 (A109), replace "Maintain fire barrier between Control Bldg roof and Main Control Room in case of fire on the roof at the east emergency air intake" with "Isolate Control Bldg. roof from Main Control Room in case of fire on the roof of the east emergency air intake." in the "Function" column of Item No. 13 of the Table. 17. On FSAR Table 9.4-7, page 9.4-169 (A109), replace "Fire barrier at the Control Bldg. Emerg. Air Cleanup Unit (ACU) Fan A-A discharge. (Prevents fire spreading downstream of the Fan A-A" with "Prevents fire spreading downstream of the Control Bldg. Emerg. Air Cleanup Unit (ACU) Fan A-A discharge." in the "Function" column of Item No. 22A of the Table.	2-110-36

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"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
36. (cont.)	Section 1.1 Section 1.2 Section 1.3 Section 1.7 Section 7.1 Section 8.2 Section 8.3 Table 9.4-4 Table 9.4-7 Section 9.5.1	18. On FSAR Table 9.4-7, page 9.4-169 (A109), replace "Fire barrier at the Control Bldg. Emerg. Air Cleanup Unit (ACU) Fan B-B discharge. (Prevents fire spreading downstream of the Fan B-B" with "Prevents fire spreading downstream of the Control Bldg. Emerg. Air Cleanup Unit (ACU) Fan B-B discharge." in the "Function" column of Item No. 22B of the Table. 19. On FSAR Table 9.4-7, page 9.4-192 (A109), replace "Fire barrier between 250V Battery Board Room #1 and 250V Battery Board Room #2" with "Isolate 250V Battery Board Room #1 from 250V Battery Board #2" in the "Function" column of Item No. 58 of the Table. 20. On FSAR Table 9.4-7, page 9.4-194, replace "Fire barrier 24Vand 48V Battery Board and Charge Room and Control Alarm Station Room" with "Isolate 24V and 48V Battery Board from Charge Room and Secondary Alarm Station Room" in the "Function" column of Item No. 62 of the Table. 21. On FSAR Table 9.4-7, page 9.4-195 (A109), replace "Rooms" with "Room" in the "Function" column of Item No. 66 of the Table. 22. On FSAR Table 9.4-7, page 9.4-201 (A109), replace "Fire barrier between Battery Board Rooms and Corridor" with "Isolate Battery Board Rooms from Corridor" in the "Function" column of Item No. 62 of the Table. 23. On FSAR Table 9.4-7, page 9.4-202 (A109), replace "Fire barrier between 250V Battery Board Room #2 and 250 V Battery Board room #1" with "Isolate 250V Battery Board Room #2 from 250V Battery Board Room #1" in the "Function" column of Item No. 79 of the Table. 24. On FSAR Table 9.4-7, page 9.4-205 (A109), replace "Fire Barrier between Spreading Room and MCRHZ" with "Isolate Spreading Room from MCRHZ" in the "Function" column of Item No. 87 of the Table. 25. On Page 9.5-1 (A109), replace the statement in Section 9.5.1, "Fire Protection System," that reads, "The WBN Fire Protection Program is describe in the WBN Fire Protection Report. [2][3][4][5] with "The basis for NRC's approval of the WBN Fire Protection Program and Fire Protection Report are defined in the Fire Protection license conditions contained in the Unit 1 and Unit 2 Operating Licenses. Interface with the Auxiliary Feedwater System is discussed in Section 10.4.9, "Auxiliary Feedwater System."	2-110-36

Item No.	Change Area	Change Description	Change Package Number
36. (cont.)	Section 1.1 Section 1.2 Section 1.3 Section 1.7 Section 7.1 Section 8.2 Section 8.3 Table 9.4-4 Table 9.4-7 Section 9.5.1	26. On Page 9.5-8 (A109), replace item 2 at the end of the fourth paragraph of Section 9.5.3.1 with the following words: "an individual eight-hour battery pack network, which is used to supplement the 125V dc emergency lighting to provide emergency lighting. Details regarding compliance with 10CFR50, Appendix R, III.J are provided in the Fire Protection Report[1]. Other battery pack units are provided for building egress for personnel safety purposes." 27. On Page 9.5-22 (A109), replace reference No. 4 with the number "2" associated with "Halitsky" in the second line of the second paragraph of Section 9.5.8.3. 28. On page 9.5-22 (A109), under the reference section, add new reference entitled as follows: "(1) Section 2.7, "Portable Lanterns for Containment, Post Fire Areas and Yard and DG Backed Lighting in Turbine Building" of the Fire Protection Report." 29. On page 9.5-22 (A109), under the reference section, renumber existing Reference 1 as Reference 2. 30. On Pages 9.5-22 and -23 (A109), delete existing references 2 through 5. 31. On Page 10.4-37 (A109), in the second full paragraph, delete the first sentence beginning with "During certain..." 32. On Page 10.4-37 (A109), in the second full paragraph, delete the phrases, "both the" and "and Appendix R fire." from the fourth and fifth lines. 33. On Page 10.4-37 (A109), in the second full paragraph, replace "For Unit 1, valves" with "The valve." 34. On Page 10.4-37 (A109), in the third and fourth full paragraphs, replace the phrase, "For Unit 2 a" with simply "A" at the beginning of each paragraph. 35. On Page10.4-37 (A109), correct typographical error of "LeV" which should be "LCV."	2-110-36

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Item No.	Change Area	Change Description	Change Package Number
37.	Section 4.2	1. For Section 4.2, Page 4.2-36, 6th paragraph - Replace the first sentence that reads: "The primary and secondary source rods both utilize the same cladding material as the absorber rods." with "The primary and secondary source rods both utilize stainless steel as the cladding material." 2. For Figure 4.2-20, Primary Source Assembly (Typical), Replace bubble 01 with just the words, "Wet Annular Burnable Absorber" and delete the label that reads, "142.00 Pyrex Absorber" from the middle of the main figure, and replace the word, "Pyrex" with "Wet Annular" below the 151.553 dimension.	2-110-37
38.	Section 6.3	1. FSAR Section 6.3.2 page 6.3-12, insert "and 6.3-6A" at the end of the fourth full paragraph after Figure 6.3-6. 2. FSAR Section 6.3.2.2, page 6.3-12, insert the following prior to the heading, "External Recirculation Loop": **NRC Generic Letter 2004-02** The ECCS containment sump design addresses the potential post-LOCA ECCS performance issues provided in NRC Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors." The containment sump design has been tested and analyzed based on guidance provided in NEI-04-07, "Pressurized Water Reactor Sump Performance Evaluation Methodology", as supplemented by the NRC in the "Safety Evaluation by the Office of Nuclear Reactor Regulation Related to NRC GL 2004-07." Downstream effects were evaluated in accordance with Topical Report WCAP-16406-P, "Evaluation of Downstream Sump Debris Effects in Support of GSI-191." Chemical effects were evaluated based on testing, WCAP-16530-NP, "Evaluation of Post-Accident Chemical Effects in Containment Sump Fluids to Support GSI-191", and WCAP-16793-NP, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid." The tests and evaluations confirm that the required safety functions of the containment sump and ECCS system will be met during design basis accidents considering the effects of debris.	2-110-38

ENCLOSURE 1

WBN Unit 2 FSAR A110

"Summary Listing of A110 FSAR Changes"

Item No.	Change Area	Change Description	Change Package Number
38. (cont.)	Section 6.3	3. On Page 6.3-32, insert new References as follows: "1. NEI-04-07 Pressurized Water Reactor Sump Performance Evaluation Methodology 2. WCAP-16406-P, "Evaluation of Downstream Sump Debris Effects in Support of GSI-191" 3. WCAP-16530-NP, "Evaluation of Post-Accident Chemical Effects in Containment Sump Fluids to Support GSI-191" 4. WCAP-16793-NP, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid."" 4. Figure 6.3-6; replace current figure with attached Figures 6.3-6 and 6.3-6A.	2-110-38

ENCLOSURE 2

WBN Unit 2 FSAR A110
"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)

ENCLOSURE 2

WBN Unit 2 FSAR A110
"Summary of Redacted Pages"

Chapter	Page(S)	Section No.	Figure No.	Basis For Redaction
2	2.5-934	2.5	2.5-592	Security Related, 10CFR2.390(d)(1)
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	8.2-15	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 A110
"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	9.2-211	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	12.4-7	12.4	12.4-1	Security Related, 10CFR2.390(d)(1)

ENCLOSURE 3

WBN Unit 2 FSAR A110
"List Of Files And File Sizes
On The Security-Related OSM (OSM #1)"

ENCLOSURE 3
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 110 - List of Files on *Security-Related OSM*

File Name	File Size - Bytes
TVA_WBN-2_FSAR_Files	
001_TVA_WB_FSAR_TOC.pdf	362,420
002_TVA_WB_FSAR_LRP.pdf	101,540
003_TVA_WB_FSAR_Section_1.pdf	4,363,839
004_TVA_WB_FSAR_Section_2_A.pdf	19,883,618
005_TVA_WB_FSAR_Section_2_B_Part_1_of_2.pdf	44,205,140
005_TVA_WB_FSAR_Section_2_B_Part_2_of_2.pdf	42,591,098
006_TVA_WB_FSAR_Section_2_C.pdf	2,044,544
007_TVA_WB_FSAR_Section_2_D.pdf	31,324,233
008_TVA_WB_FSAR_Section_2_E.pdf	47,314,073
009_TVA_WB_FSAR_Section_3_A.pdf	2,647,236
010_TVA_WB_FSAR_Section_3_B.pdf	7,063,279
011_TVA_WB_FSAR_Section_3_C.pdf	30,016,209
012_TVA_WB_FSAR_Section_3_D.pdf	11,736,940
013_TVA_WB_FSAR_Section_4.pdf	25,722,755
014_TVA_WB_FSAR_Section_5.pdf	9,888,255
015_TVA_WB_FSAR_Section_6_A.pdf	26,016,176
016_TVA_WB_FSAR_Section_6_B.pdf	10,458,575
017_TVA_WB_FSAR_Section_7.pdf	13,998,780
018_TVA_WB_FSAR_Section_8.pdf	29,716,381
019_TVA_WB_FSAR_Section_9_A.pdf	24,524,147
020_TVA_WB_FSAR_Section_9_B.pdf	16,494,023
021_TVA_WB_FSAR_Section_10.pdf	14,151,451
022_TVA_WB_FSAR_Section_11.pdf	3,984,029
023_TVA_WB_FSAR_Section_12.pdf	5,990,282
024_TVA_WB_FSAR_Section_13.pdf	3,237,209
025_TVA_WB_FSAR_Section_14.pdf	1,170,032

ENCLOSURE 3
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 110 - List of Files on *Security-Related OSM*

File Name	File Size - Bytes
026_TVA_WB_FSAR_Section_15A.pdf	36,585,323
026_TVA_WB_FSAR_Section_15B.pdf	36,359,506
027_TVA_WB_FSAR_Section_16.pdf	157,680
028_TVA_WB_FSAR_Section_17.pdf	156,421
Total	**502,265,194**
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

ENCLOSURE 3
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 110 - List of Files on *Security-Related OSM*

File Name	File Size - Bytes
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
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	1,207,513
Total	**1,207,513**

ENCLOSURE 4

WBN Unit 2 FSAR A110
"List Of Files And File Sizes
On The Publicly Available OSM (OSM #2)"

ENCLOSURE 4
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 110 List of Files on *Publicly Available OSM*

File Name	File Size - Bytes
TVA_WBN-2_FSAR_Files	
001_TVA_WB_FSAR_TOC.pdf	362,420
002_TVA_WB_FSAR_LRP.pdf	101,540
003_TVA_WB_FSAR_Section_1.pdf	830,261
004_TVA_WB_FSAR_Section_2_A.pdf	19,547,070
005_TVA_WB_FSAR_Section_2_B_Part_1_of_2.pdf	33,957,747
005_TVA_WB_FSAR_Section_2_B_Part_2_of_2.pdf	36,332,979
006_TVA_WB_FSAR_Section_2_C.pdf	2,044,544
007_TVA_WB_FSAR_Section_2_D.pdf	31,324,233
008_TVA_WB_FSAR_Section_2_E.pdf	45,934,737
009_TVA_WB_FSAR_Section_3_A.pdf	2,355,792
010_TVA_WB_FSAR_Section_3_B.pdf	5,661,525
011_TVA_WB_FSAR_Section_3_C.pdf	25,183,792
012_TVA_WB_FSAR_Section_3_D.pdf	11,495,256
013_TVA_WB_FSAR_Section_4.pdf	25,722,755
014_TVA_WB_FSAR_Section_5.pdf	9,888,255
015_TVA_WB_FSAR_Section_6_A.pdf	23,135,641
016_TVA_WB_FSAR_Section_6_B.pdf	10,458,575
017_TVA_WB_FSAR_Section_7.pdf	13,998,780
018_TVA_WB_FSAR_Section_8.pdf	26,756,214
019_TVA_WB_FSAR_Section_9_A.pdf	24,263,097
020_TVA_WB_FSAR_Section_9_B.pdf	15,279,478
021_TVA_WB_FSAR_Section_10.pdf	14,151,451
022_TVA_WB_FSAR_Section_11.pdf	3,984,029
023_TVA_WB_FSAR_Section_12.pdf	1,722,255
024_TVA_WB_FSAR_Section_13.pdf	3,237,209
025_TVA_WB_FSAR_Section_14.pdf	1,170,032

Note: Byte amounts in italics are redacted files.

ENCLOSURE 4
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 110 List of Files on *Publicly Available OSM*

File Name	File Size - Bytes
026_TVA_WB_FSAR_Section_15A.pdf	36,585,323
026_TVA_WB_FSAR_Section_15B.pdf	36,359,506
027_TVA_WB_FSAR_Section_16.pdf	157,680
028_TVA_WB_FSAR_Section_17.pdf	15,421
Total	**462,017,597**
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

Note: Byte amounts in italics are redacted files.

ENCLOSURE 4
TVA Watts Bar Nuclear Plant Unit 2
FSAR Amendment 110 List of Files on *Publicly Available OSM*

File Name	File Size - Bytes
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
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	1,207,513
Total	

Note: Byte amounts in italics are redacted files.