

April 4, 2006

10 CFR 54

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop: OWFN P1-35  
Washington, D.C. 20555-0001

Gentlemen:

In the Matter of	)	Docket Nos. 50-259
Tennessee Valley Authority	)	50-260
		50-296

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 1, 2, AND 3 -  
LICENSE RENEWAL APPLICATION (LRA) - UNIT 1 LOWER DRYWELL  
LINER INSPECTIONS, UNIT 1 PERIODIC INSPECTION PROGRAM, AND  
RESIDUAL HEAT REMOVAL SERVICE WATER PIPING INSPECTIONS  
(TAC NOS. MC1704, MC1705, AND MC1706)**

By letter dated December 31, 2003, TVA submitted an application, pursuant to 10 CFR 54, to renew the operating licenses for BFN Units 1, 2, and 3. On March 9, 2006, TVA met with the Advisory Committee on Reactor Safeguards (ACRS) and the NRC staff regarding TVA's LRA for BFN. This letter documents information discussed during the meeting and the revised commitments.

Enclosure 1 to this letter discusses the results of the inspections of the Unit 1 lower drywell liner plate, additional lower drywell liner plate inspections on Units 1, 2 and 3, provides a revised schedule for the development and implementation of the Unit 1 Periodic Inspection Program, and describes the additional inspections that will be performed on Residual Heat Removal Service Water piping.

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Enclosure 2 provides updated License Renewal Commitment Tables that supersede those transmitted via TVA letter to NRC dated February 14, 2006 (ADAMS Accession No. ML060450582).

TVA has reviewed Reference 1 and offers the following correction. The words "refueling seals" in the first full paragraph on page 4 of Reference 1 should read "drywell flange". As discussed in Reference 2, the standing water was located between the outside of the Drywell Shell and the Outer Bellows (refueling seal) above the Drywell Seal Support Flange. This area below the drywell flange is routinely flooded for shielding and contamination control during refueling operations.

If you have any questions regarding this information, please contact Ken Brune, Browns Ferry License Renewal Project Manager, at (423) 751-8421.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 4<sup>th</sup> day of April, 2006.

Sincerely,

Original signed by:

William D. Crouch  
Manager of Licensing  
and Industry Affairs

Enclosure:

cc: See page 3

References:

1. NRC letter, Graham B. Wallis to NRC Chairman Diaz, "Report on the Safety Aspects of the License Renewal Application for the Browns Ferry Nuclear Plant Units 1, 2 and 3" dated March 23, 2006
2. TVA letter, Brian O'Grady to NRC, "Browns Ferry Nuclear Plant (BFN) - Units 1, 2 and 3 - License Renewal Application (LRA) - Supplemental Information for Open Item 2.4-3" dated March 7, 2006

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Enclosure

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s://Licensing/Lic/Submit/Subs/BFN LR - Info On Unit 1 Inspections for ACRS.doc

## ENCLOSURE 1

**TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNITS 1, 2, AND 3  
LICENSE RENEWAL APPLICATION (LRA)**

**UNIT 1 LOWER DRYWELL LINER INSPECTIONS,  
UNIT 1 PERIODIC INSPECTION PROGRAM, AND RESIDUAL HEAT REMOVAL  
SERVICE WATER PIPING INSPECTIONS**

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### **BACKGROUND**

By letter dated December 31, 2003, TVA submitted an application, pursuant to 10 CFR 54, to renew the operating licenses for BFN Units 1, 2, and 3. On March 9, 2006, TVA met with the Advisory Committee on Reactor Safeguards (ACRS) and the NRC staff regarding TVA's LRA for BFN. This enclosure documents information discussed during the meeting and the revised commitments.

### **A. UNIT 1 DRYWELL SHELL INSPECTION RESULTS**

Inspections of the Unit 1 drywell liner plate in the area of the sand bed region were performed in 1987, 1997, 1999, 2002, and 2004. Six areas of the drywell liner plate were ultrasonically (UT) inspected for each of the noted years. Each of the areas is 7" long circumferentially and 5" wide vertically. Each area starts immediately above the concrete floor at elevation 549.92'. Each area is divided into a 6" long by 4" rectangle divided into 1" by 1" grid squares and identified physically using low stress stamps by the letters "A" thru "X" (144 total locations). An inclusion was initially detected at Area #2 grid "I", in the 1999 inspection. An inclusion is particles of nonmetallic material usually oxides, sulphides, silicates, and such which are entrapped mechanically or are formed during solidification or by subsequent reaction within the solid metal. The following table provides the minimum and maximum thickness measured ultrasonically at the Area #2 grid "I" for each inspection:

Year	Maximum (inch)	Minimum (inch)
1987	1.146	1.080
1997	1.126	1.106
1999	1.136	1.110
2002	1.142	1.113
2004	1.146	1.114

[Note: Inspection results are available on site for review.]

The nominal wall thickness is 1.125" for this area of the drywell liner plate. The ASME Code derived tolerance is 10% of nominal wall thickness which yields a minimum of 1.0125". Any readings below 1.0125" require documenting per the site corrective program and an engineering evaluation. As can be seen, all of the measurements are above the minimum criteria and indicate no trend in wall loss.

In performing the ultrasonic inspection of this area, the inclusion was noted at a depth of 0.766". There was minimum loss of back wall signal with an associated signal at 0.766" depth and no appreciable length (one half of a transducer diameter; transducer diameter is 3/8"), confirming the inclusion is small and sub-surface. Subsequent inspections revealed no measurable difference in the depth / size of the inclusion and no change in the thickness in the liner in this area. The inspection results were reviewed by a Level 3 inspector and found to be non-recordable in accordance with ASME/ASTM Specification SA 516. The inclusion was noted in the inspection results as an aid to inspectors performing future inspections of the area. The presence of the inclusion does not affect the strength of the drywell containment shell, and since it does not connect to the surface of the liner plate, it does not represent a site for future corrosion. No additional component, material, environment, or program was brought into scope as a result of this inclusion.

## **B. DRYWELL SHELL INSPECTIONS**

As discussed in the ACRS letter dated March 23, 2006, the ACRS recommended that either the drywell refueling seals should be included within the scope of license renewal and be subjected to periodic inspections or the drywell shells should be subjected to periodic volumetric inspections to detect external corrosion. The drywell refueling seals were addressed in Followup to RAI 2.4-3 in TVA's letter to the NRC dated May 31, 2005 [ADAMS L051520084]. TVA's response to Followup RAI 2.4-3 concluded that the Browns Ferry refueling seals are not in the scope of license renewal. To address ACRS's recommendations, BFN has chosen to perform periodic ultrasonic inspections of the drywell liner plate in the area of the sand bed region. The sand bed region was chosen for inspection since it is the terminus for the drainage pathway for water which may enter the inaccessible area. By being a drainage pathway, it could be subjected to wetting and drying in the lower areas near the sand bed region which could result in corrosion of the liner.

As discussed at the ACRS meeting, BFN will perform an ultrasonic inspection of the Units 1, 2, and 3 drywell liner plate in the area of the sand bed region. This UT thickness measurement will be performed as an enhancement to the ASME Section XI Subsection IWE License Renewal Aging Management Program. BFN will perform the first inspection on each unit prior to the period of extended operation. Subsequent periodic inspections will be performed on each unit at a period not to exceed 10 years. The results of these inspections will be reviewed to ensure that the acceptance criteria of ASME Section XI Subsection IWE-3000 are met. The criteria for evaluation of inspection results is provided below in the section entitled "Element 6 Acceptance Criteria". These periodic inspections are in addition to the one time inspections performed on the upper drywell shell as discussed in Enclosure 1 of TVA letter to the NRC dated November 16, 2005.

These additional periodic inspections in the sand bed region require changes to the ASME Section XI Subsection IWE Program described in LRA Sections A.1.29 and B.2.1.32.



The following is to be added to the end of LRA Section A.1.29:

The ASME Section XI Subsection IWE Program will be enhanced to require ultrasonic inspections of the Units 1, 2, and 3 drywell liner plate near the sand bed region. The first inspection on each unit will be performed prior to the period of extended operation. Subsequent periodic inspections will be performed on each unit at a period not to exceed 10 years. The results of these inspections will be reviewed to ensure that the acceptance criteria of ASME Section XI Subsection IWE-3000 are met.

The following is to be added to the LRA Section B.2.1.32 Enhancements (Note that all program elements were reviewed and only those affected by this enhancement are included in the following additions to Section B.2.1.32):

The ASME Section XI Subsection IWE Program will be enhanced to require ultrasonic inspections of the Units 1, 2, and 3 drywell liner plate near the sand bed region. The first inspection on each unit will be performed prior to the period of extended operation. Subsequent periodic inspections will be performed on each unit at a period not to exceed 10 years. The results of these inspections will be reviewed to ensure that the acceptance criteria of ASME Section XI Subsection IWE-3000 are met.

Program Elements Affected:

Element 4 - Detection of Aging Effects

The frequency and scope of examination specified in 10 CFR 50.55a and Subsection IWE ensure that aging effects would be detected before they would compromise the design-basis requirements. As indicated in IWE-2400, inservice examinations and pressure tests are performed in accordance with one of two inspection programs, A or B, on a specified schedule. Under Inspection Program A, there are four inspection intervals (at 3, 10, 23, and 40 years) for which 100% of the required examinations must be completed. Within each interval, there are various inspection periods for which a certain percentage of the examinations are to be performed to reach 100% at the end of that interval. In addition, a general visual examination is performed once each inspection period. After 40 years of

operation, any future examinations will be performed in accordance with Inspection Program B. Under Inspection Program B, starting with the time the plant is placed into service, there is an initial inspection interval of 10 years and successive inspection intervals of 10 years each, during which 100% of the required examinations are to be completed. An expedited examination of containment is required by 10 CFR 50.55a in which an inservice (baseline) examination specified for the first period of the first inspection interval for containment is to be performed by September 9, 2001. Thereafter, subsequent examinations are performed every 10 years from the baseline examination. Regarding the extent of examination, all accessible surfaces receive a visual examination such as General Visual, VT-1, or VT-3 (see table in item 3 above). IWE-1240 requires augmented examinations (Examination Category E-C) of containment surface areas subject to degradation. A VT-1 visual examination is performed for areas accessible from both sides, and volumetric (ultrasonic thickness measurement) examination is performed for areas accessible from only one side.

#### BFN Evaluation

Element 4 states "The frequency and scope of examination specified in 10 CFR 50.55a and Subsection IWE ensure that aging effects would be detected before they would compromise the design-basis requirements." The inspections associated with this enhancement are of the inaccessible area of the drywell shell liner plate and are in addition to the current BFN ASME Section XI, Subsection IWE procedural requirements. These inspections will provide additional assurance that there is no loss of intended function of the drywell shell.

#### Element 5 - Monitoring and Trending

"With the exception of inaccessible areas, all surfaces are monitored by virtue of the examination requirements on a scheduled basis. When component examination results require evaluation of flaws, evaluation of areas of degradation, or repairs, and the component is found to be acceptable for

continued service, the areas containing such flaws, degradation, or repairs shall be reexamined during the next inspection period, in accordance with Examination Category E-C. When these reexaminations reveal that the flaws, areas of degradation, or repairs remain essentially unchanged for three consecutive inspection periods, these areas no longer require augmented examination in accordance with Examination Category E-C."

#### BFN Evaluation

Element 5 states "With the exception of inaccessible areas, all surfaces are monitored by virtue of the examination requirements on a scheduled basis." The inspections associated with this enhancement are of the inaccessible area of the drywell shell liner plate and are in addition to the current BFN ASME Section XI, Subsection IWE procedural requirements. These inspections will provide additional assurance that there is no loss of intended function of the drywell shell.

#### Element 6 - Acceptance Criteria

"IWE-3000 provides acceptance standards for components of steel containments and liners of concrete containments. Table IWE-3410-1 presents criteria to evaluate the acceptability of the containment components for service following the preservice examination and each inservice examination. This table specifies the acceptance standard for each examination category. Most of the acceptance standards rely on visual examinations. Areas that are suspect require an engineering evaluation or require correction by repair or replacement. For some examinations, such as augmented examinations, numerical values are specified for the acceptance standards. For the containment steel shell or liner, material loss exceeding 10% of the nominal containment wall thickness, or material loss that is projected to exceed 10% of the nominal containment wall thickness before the next examination, are documented. Such areas are to be accepted by engineering evaluation or corrected by repair or replacement in accordance with IWE-3122."

## BFN Evaluation

Element 6 states "For the containment steel shell or liner, material loss exceeding 10% of the nominal containment wall thickness, or material loss that is projected to exceed 10% of the nominal containment wall thickness before the next examination, are documented. Such areas are to be accepted by engineering evaluation or corrected by repair or replacement in accordance with IWE-3122." The acceptance criteria for the inspections associated with this enhancement will provide additional assurance that the design minimum wall thickness is being maintained. If during the License Renewal examinations local areas of degradation are found, IWE-3122 provides the acceptance criteria. If either the thickness of the base metal in local areas is reduced by no more than 10% of the nominal plate thickness or the reduced thickness can be shown by engineering analysis to satisfy the requirements of the BFN Design Criteria, the component is acceptable by engineering evaluation. Additionally, the noted degradation condition would be subject to the site Corrective Action Program.

The inspections of the drywell liner plate near the sand bed region are in addition to the inspections discussed in Enclosure 1 of TVA letter to the NRC dated November 16, 2005. As discussed in this letter:

- For Unit 1, TVA will perform one time confirmatory ultrasonic thickness measurements on the vertical cylindrical area immediately below the drywell flange.
- For Units 2 and 3, TVA will perform one time confirmatory ultrasonic thickness measurements on a portion of the cylindrical section of the drywell in a region where liner plate is 0.75 inches thick.

Details of these inspections are provided in the November 16, 2005 letter.

### **C. UNIT 1 PERIODIC INSPECTION PROGRAM**

As discussed at the ACRS meeting, BFN will develop and implement the program prior to the restart of Unit 1.

As described in TVA letter to the NRC dated March 7, 2006, the Unit 1 Periodic Inspection Program performs inspections of the non-replaced piping/fittings that were not in service supporting operation of Units 2 and 3 following the extended Unit 1 outage. After additional review it was determined that Turbine Drains and Miscellaneous Piping System (008) and Containment Inerting System (076) did not contain any piping or fittings which should be included in the Unit 1 Periodic Inspection Program. Also, after additional review it was determined that Rector Recirculation System (068) did not contain any carbon steel piping or fittings which should be included in the Unit 1 Periodic Inspection Program. This results in the following changes to the information provided in the March 7, 2006 letter:

1. In Enclosure 2 (Page E2-3) and Enclosure 4 (Page E4-1), the following should be deleted from the systems listed:
  - Turbine Drains and Miscellaneous Piping System (008)
  - Containment Inerting System (076)
2. In Enclosure 4 (Page E4-4), delete all line items and notes which were added to Table 3.4.2.5 for the Unit 1 Periodic Inspection Program.
3. In Enclosure 4 (Page E4-10), delete the two Carbon and Low Alloy Steel line items which were added to Table 3.1.2.4 for the Unit 1 Periodic Inspection Program.
4. In Enclosure 4 (Page E4-12), delete all line items and notes which were added to Table 3.2.2.6 for the Unit 1 Periodic Inspection Program.

### **D. RESIDUAL HEAT REMOVAL SERVICE WATER PIPING**

In Enclosure 4 of a TVA letter to the NRC dated November 16, 2005 (ADAMS Accession No. ML053320331), TVA committed to perform a confirmatory inspection of the RHRSW pump pit supply piping, sluice gate valves and seismic restraints in the RHRSW pump pit prior to the period of extended operation. As discussed with NRC staff on March 9, 2006, BFN will perform an additional inspection within ten years of entering the period of extended operation.

These additional inspections require changes to the Open-Cycle Cooling Water System Program described in LRA Sections A.1.16 and B.2.1.17.

The following is to be added to the end of LRA Section A.1.16:

In addition to the requirements of GL 89-13, the Open-Cycle Cooling Water System Program will be enhanced to perform inspections on the internal portion of one of the embedded RHRSW pipes that run between the CCW Pump Pits to the EECW / RHRSW Pump Pits, the RHRSW sluice gate valves located in the CCW Pump Pits, and the seismic restraints in the RHRSW Pump Pits. These inspections will be performed prior to the expiration of the current 40-year license, and will be conducted at least one additional time within ten years of entering the period of extended operation.

The following is to be added to the LRA Section B.2.1.17 Enhancements:

In addition to the requirements of GL 89-13, the Open-Cycle Cooling Water System Program will be enhanced to perform inspections on the internal portion of one of the embedded RHRSW pipes that run between the CCW Pump Pits to the EECW / RHRSW Pump Pits, the RHRSW sluice gate valves located in the CCW Pump Pits, and the seismic restraints in the RHRSW Pump Pits. These inspections will be performed prior to the expiration of the current 40-year license, and will be conducted at least one additional time within ten years of entering the period of extended operation.

Program Elements Affected:

Element 5 - Monitoring and Trending

"Inspection scope, method (e.g., visual or nondestructive examination [NDE]), and testing frequencies are in accordance with the utility commitments under NRC GL 89-13. Testing and inspections are done annually and during refueling outages. Inspections or nondestructive testing will determine the extent of biofouling, the condition of the surface coating, the magnitude of localized pitting, and the amount of MIC, if applicable. Heat transfer testing results are documented in plant test procedures and are trended and reviewed by the appropriate group."

## BFN Evaluation

Element 5 requires that inspection scope, method (e.g., visual or nondestructive examination [NDE]), and testing frequencies are in accordance with the utility commitments under NRC GL 89-13. The inspections associated with this enhancement are in addition to the BFN commitments under NRC GL 89-13. These inspections will provide additional assurance that there is no loss of intended function of the Open-Cycle Cooling Water System.

## ENCLOSURE 2

### TENNESSEE VALLEY AUTHORITY BROWNS FERRY NUCLEAR PLANT (BFN) UNITS 1, 2, AND 3 LICENSE RENEWAL APPLICATION (LRA)

#### REVISED COMMITMENT TABLES

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This enclosure provides updated License Renewal Commitment Tables that supersede those transmitted via TVA letter to NRC dated February 14, 2006 (ADAMS Accession No. ML060450582). The updated Commitment Tables reflect the changes delineated in Enclosure 1 of this letter. The following items are revised:

- Item 15 of Table 1,
- Item 28 of Table 1,
- Item 45 of Table 1,
- Item 48 of Table 1, and
- Item 49 of Table 2.

Also, Items 50 through 62 of Table 2 were revised to add TVA response dated March 2, 2006 as a source document.

Change bars indicate the areas that were changed.



**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAA'S  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
1. Accessible Non-Environmental Qualification Cables and Connections Inspection Program	Develop and implement new program.	A.1.1	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.1</li> </ul>
2. Electrical Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Used in Instrumentation Circuits Program	Revise implementing documents for LPRM cable system aging to reference existing Technical Specification requirements and license renewal reference(s).	A.1.2	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.2</li> <li>Response to follow-up to RAI 2.5-2 dated March 2, 2005</li> </ul>
	Develop and implement new program to manage IRM cable system aging.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.2</li> <li>Response to follow-up to RAI 2.5-2 dated March 2, 2005</li> </ul>
3. Inaccessible Medium Voltage Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program	Develop and implement new program to manage the medium-voltage cables to the Residual Heat Removal Service Water pumps.	A.1.3	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.3</li> <li>Response to RAI 3.6-3(a) dated December 9, 2004</li> <li>Response to follow-up RAI 3.6-3 dated January 18, 2005</li> </ul>
4. ASME Section XI Inservice Inspection Subsections IWB, IWC, and IWD Program	Revise implementing documents to include license renewal reference(s).	A.1.4	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.4</li> </ul>
5. Chemistry Control Program	Revise implementing documents to include license renewal reference(s).	A.1.5	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.5</li> </ul>

**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAs  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
6. Reactor Head Closure Studs Program	Revise implementing documents to include license renewal reference(s).	A.1.6	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.6</li> </ul>
7. Boiling Water Reactor Vessel Inside Diameter Attachment Welds Program	Revise implementing documents to include license renewal reference(s).	A.1.7	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.7</li> </ul>
8. Boiling Water Reactor Feedwater Nozzle Program	Revise implementing documents to include license renewal reference(s).	A.1.8	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.8</li> </ul>
9. Boiling Water Reactor Control Rod Drive Return Line Nozzle Program	Revise implementing documents to include license renewal reference(s).	A.1.9	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.9</li> </ul>
10. Boiling Water Reactor Stress Corrosion Cracking Program	Revise implementing documents to include license renewal reference(s).	A.1.10	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.10</li> </ul>
11. Boiling Water Reactor Penetrations Program	Revise implementing documents to include license renewal reference(s).	A.1.11	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.11</li> <li>Enclosure 1 of TVA letter dated September 14, 2005</li> </ul>
12. Boiling Water Reactor Vessel Internals Program	Revise implementing documents to include license renewal reference(s). Inspect the top guide beams	A.1.12	Prior to the period of extended operation Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.12</li> <li>Response to NRC Question (3) dated May 25, 2005</li> </ul>

**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAS  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
12. Boiling Water Reactor Vessel Internals Program (continued)	Establish an aging management program for the steam dryers.		Two years before the first BFN unit enters the period of extended operation	<ul style="list-style-type: none"> <li>Response to RAI 3.1-1 dated January 31, 2005</li> </ul>
	Enhance the Reactor Pressure Vessel Internals Inspection (RPVII) Units 1, 2, and 3 procedure to require visual inspection of the Access Hole Covers (AHCs) and inspection of the AHC welds.		Two years before the first BFN unit enters the period of extended operation	<ul style="list-style-type: none"> <li>Response to RAI B.2.1.12-1(C) dated January 31, 2005</li> <li>Response to NRC Question (7) dated May 25, 2005</li> </ul>
	Implement the inspection of weld TS-2 (BWRVIP-41).		When inspection technique for weld TS-2 being developed by the BWRVIP Inspection Committee is available.	<ul style="list-style-type: none"> <li>Response to Question (12) dated May 25, 2005</li> </ul>
13. Flow-Accelerated Corrosion Program	Revise implementing documents to include license renewal reference(s).	A.1.14	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.15</li> </ul>
14. Bolting Integrity Program	Revise implementing documents to include license renewal reference(s).	A.1.15	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.16</li> </ul>
15. Open-Cycle Cooling Water System Program	Revise implementing documents to include license renewal reference(s).	A.1.16	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.17</li> </ul>
	Enhance the Open-Cycle Cooling Water System Program to perform confirmatory inspections of the RHRSW pump pit supply piping, sluice gate valves and seismic restraints in the RHRSW pump pit		Once prior to the period of extended operation  Within ten years after entering the period of extended operation	<ul style="list-style-type: none"> <li>Enclosure 1 of TVA letter dated April 4, 2006</li> </ul>

**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAs  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
16. Closed-Cycle Cooling Water System Program	Revise implementing documents to include license renewal reference(s).	A.1.17	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.18</li> </ul>
17. Inspection of Overhead Heavy Load and Light Load Handling Systems Program	Revise implementing documents to include license renewal reference(s).	A.1.18	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.20</li> </ul>
18. Compressed Air Monitoring Program	Revise implementing documents to: <ul style="list-style-type: none"> <li>Include license renewal reference(s).</li> <li>Incorporate guidelines in ASME OM-S/G-2000, Part 17; ANSI/ISA-S7.0.01-1996; and EPRI TR 108147.</li> </ul>	A.1.19	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.21</li> </ul>
19. BWR Reactor Water Cleanup System Program	Revise implementing documents to include license renewal reference(s).	A.1.20	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.22</li> </ul>
20. Fire Protection Program	Revise implementing documents to include license renewal reference(s).	A.1.21	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.23</li> </ul>
21. Fire Water System Program	Revise implementing documents to: <ul style="list-style-type: none"> <li>Include license renewal reference(s).</li> <li>Perform flow tests or non-intrusive examinations to identify evidence of loss of material due to corrosion.</li> </ul>	A.1.22	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.24</li> </ul>
	Perform sprinkler head inspections to ensure signs of degradation, such as corrosion, are detected in a timely manner.			

**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAs  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
22. Aboveground Carbon Steel Tanks Program	Revise implementing documents to include license renewal reference(s).	A.1.23	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.26</li> </ul>
23. Fuel Oil Chemistry Program	Revise implementing documents to include license renewal reference(s).	A.1.24	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.27</li> <li>Enclosure 1 of TVA letter dated September 14, 2005</li> </ul>
24. Reactor Vessel Surveillance Program	Revise implementing documents to include license renewal reference(s).	A.1.25	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.28</li> </ul>
	Enhance the Integrated Surveillance Program (ISP) per proposed BWRVIP-116.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.28</li> </ul>
	If the ISP is not approved two years prior to the commencement of the license renewal period, a plant-specific surveillance program for each BFN unit will be submitted to the NRC.		Two years prior to the commencement of the license renewal period	<ul style="list-style-type: none"> <li>Response to RAI B.2.1.28-1(A) dated January 31, 2005</li> <li>Response to Question (9) dated May 25, 2005</li> </ul>
25. One-Time Inspection Program	Maintain Unit 1 and Unit 3 surveillance capsules (standby capsules) available to the ISP.	A.1.26	Unit 3 is Ongoing Unit 1 will commence at restart.	<ul style="list-style-type: none"> <li>Response to Question (10) dated May 25, 2005</li> </ul>
	Develop and implement new program.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.29</li> </ul>
	Develop and submit procedure for NRC review.		At least two years prior to the expiration of the current operating license	<ul style="list-style-type: none"> <li>Response to Proposed Unresolved Item 3.0-4 LP dated May 27, 2005</li> </ul>

**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAs  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
25. One-Time Inspection Program (continued)	Perform a one-time inspection of the ASME equivalent Class MC supports in a submerged environment of the Units 2 and 3 Torus.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>Response to RAI B.2.1.33-2 dated January 18, 2005</li> </ul>
	Perform a one-time inspection of the in-scope submerged concrete in one individual CCW pump bay of the Intake Pumping Station.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>Response to Question 359 dated October 8, 2004</li> <li>Response to RAI 3.5-16 dated April 5, 2005</li> </ul>
	Perform ultrasonic thickness measurements of tank bottoms for those tanks specified in the Fuel Oil Chemistry Program (B.2.1.27) and the Aboveground Carbon Steel Tanks Program (B.2.1.26).		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>Response to RAI 7.1.19-1 dated May 25, 2005</li> </ul>
26. Selective Leaching of Materials Program	Develop and implement program.	A.1.27	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.30</li> </ul>
27. Buried Piping and Tanks Inspection Program	Revise implementing documents to include license renewal reference(s).	A.1.28	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.31</li> </ul>
	Add a trigger to the excavation permit document to require notification of engineering to perform a piping inspection when piping is excavated.		Complete	<ul style="list-style-type: none"> <li>NRC Inspection Report dated January 27, 2005</li> </ul>
	Determine (via engineering evaluation) if sufficient inspections have been performed to draw conclusion regarding ability of underground coating to protect piping. If required, conduct a focused inspection to draw conclusion concerning the coating.		Within ten years after entering the period of extended operation	<ul style="list-style-type: none"> <li>Response to RAI 7.1.22-1 dated May 25, 2005</li> </ul>

**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAS  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
27. Buried Piping and Tanks Inspection Program (continued)	Revise implementing documents to inspect buried piping when it is excavated.		Complete	<ul style="list-style-type: none"> <li>Response to RAI 7.1.22-1 dated May 25, 2005</li> </ul>
28. ASME Section XI Subsection IWE Program	Revise implementing documents to include license renewal reference(s).	A.1.29	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.32</li> </ul>
29. ASME Section XI Subsection IWF Program	Enhance ASME Section XI, Subsection IWE Program to perform a UT inspection of the sand bed area of the drywell liner of Units 1, 2, and 3.		First inspection on each unit prior to the period of extended operation. Subsequent periodic inspections will be performed on each unit at a period not to exceed 10 years.	<ul style="list-style-type: none"> <li>Enclosure 1 of TVA letter dated April 4, 2006</li> </ul>
30. 10 CFR 50 Appendix J Program	Revise implementing documents to include license renewal reference(s). Enhance program to manage the aging effects of ASME equivalent Class MC supports.	A.1.30	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.33</li> </ul>
31. Masonry Wall Program	Revise implementing documents to include license renewal reference(s). Revise implementing procedures to clearly identify structures with masonry walls within scope and to clarify qualification requirements for personnel who perform masonry wall walkdowns.	A.1.31	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>Response to Follow-up RAI B.2.1.33-1 dated May 31, 2005</li> </ul>
		A.1.32	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.34</li> </ul>
			Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.35</li> </ul>
			Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.35</li> </ul>

**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAS  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
32. Structures Monitoring Program	Revise implementing documents to include license renewal reference(s).	A.1.33	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.36</li> </ul>
	Enhance procedures implementing the 10 CFR 50.65 Maintenance Rule Program to identify all structures and structural components within scope.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.36</li> <li>Response to GALL audit Question 173 dated October 8, 2004</li> <li>Response to GALL audit Question 357 dated October 8, 2004</li> </ul>
	Enhance procedures implementing the 10 CFR 50.65 Maintenance Rule program sampling approach to include examinations of below-grade concrete when excavated.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.36</li> <li>Response to GALL audit Question 285 dated October 8, 2004</li> </ul>
	Enhance procedures implementing the 10 CFR 50.65 Maintenance Rule program to include the guidance provided in ACI 349.3R-96 Chapter 7.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.36</li> </ul>
	Enhance LCEI-CI-C9, Attachment 1, "Buried Piping Inspection Checklist," to include "Mechanical Penetration" as an inspection attribute.		Prior to entering the period of extended operation	<ul style="list-style-type: none"> <li>Response to GALL audit Question 285 dated October 8, 2004</li> </ul>



**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAA'S  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
33. Inspection of Water-Control Structures Program	Revise implementing documents to include license renewal reference(s).	A.1.34	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.37</li> </ul>
	Revise implementing documents to identify required structures and structural components within the scope of license renewal.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.37</li> </ul>
	Revise implementing documents to include special inspections following the occurrence of large floods, earthquakes, tornadoes, and intense rainfall.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.37</li> </ul>
	Implement periodic monitoring of the raw service water in close proximity to the Intake Pumping Station for the requirements of an aggressive environment.		Prior to the period of extended operation	<ul style="list-style-type: none"> <li>Response to RAI 3.5-16 dated April 5, 2005</li> </ul>
34. Environmental Qualification Program	Revise implementing documents to include license renewal reference(s).	A.1.35	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.3.1</li> </ul>
35. Fatigue Monitoring Program	Implement enhanced Fatigue Monitoring Program using the EPRI-licensed FatiguePro® cycle counting and fatigue usage tracking computer program.	A.1.36	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.3.2</li> </ul>
36. Systems Monitoring Program	Revise implementing documents to include license renewal reference(s).	A.2.1	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.39</li> <li>Enclosure 1 of TVA letter dated September 14, 2005</li> </ul>
37. Bus Inspection Program	Develop and implement new program.	A.2.2	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.40</li> <li>Response to RAI 3.6-4 dated December 9, 2004</li> </ul>

**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAs  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
38. Diesel Starting Air Program	Revise implementing documents to include license renewal reference(s).	A.2.3	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.41</li> </ul>
39. Time-Limited Aging Analysis: Reactor Vessel Thermal Limit Analyses: Operating Pressure-Temperature Limits (P-T)	Develop and submit revised P-T limits to the NRC for approval.	A.3.1.5	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section A.3.1.5</li> <li>LRA Section 4.2.5</li> </ul>
40. Time-Limited Aging Analysis: Environmental Qualification of Electrical Equipment	Revise existing EQ program to cover the extended period of operation.	A.3.3	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section 4.4</li> <li>LRA Section A.3.3</li> </ul>
41. Time-Limited Aging Analysis: Other Plant Specific Time-Limited Aging Analysis: Emergency Equipment Cooling Water Weld Flow Evaluation	Implement an administrative tracking system to ensure limiting number of fatigue cycles will not be exceeded at the select EECW locations.	A.3.5.7	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section A.3.5.7</li> <li>Response to RAI 4.7.8 dated March 2, 2005</li> </ul>
42. RAI 2.1-2,A-3	Identify additional piping segments and supports/equivalent anchors to be placed in scope.	N/A	Complete	<ul style="list-style-type: none"> <li>Response to RAI 2.1-2,A-3 dated September 3, 2004</li> <li>TVA response dated February 28, 2005</li> </ul>

**TABLE 1: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAs  
(NON-UNIT SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
43. RAI 2.1-2,B	Implement Unit 1, 2, and 3 DCNs to qualify twelve temperature switches in the Turbine Building.	N/A	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>Response to RAI 2.1-2,B dated September 3, 2004</li> </ul>
44. RAI 2.1-2,C RHRWSW tunnel	Include 24-inch Raw Cooling Water discharge piping located in the RHRWSW tunnel in scope of license renewal.	N/A	Complete	<ul style="list-style-type: none"> <li>Response to RAI 2.1-2,C RHRWSW Tunnel dated September 3, 2004</li> <li>TVA response dated January 31, 2005</li> </ul>
45. RAI 2.1-2,C Intake Pumping Station	Revise 10 CFR 54.4(a)(2) Scoping Methodology document to address components located in the lower compartments of the Intake Pumping Station.	N/A	Complete	<ul style="list-style-type: none"> <li>Response to RAI 2.1-2,C Intake Pumping Station dated September 3, 2004</li> </ul>
46. Open Item OI 2.4-3	Perform one time confirmatory ultrasonic thickness (UT) measurements on a portion of the cylindrical section of the drywell on Units 2 and 3.	N/A	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>Enclosures 1 and 9 of TVA letter dated November 16, 2005</li> </ul>
47. Open Item OI 4.7.7	Perform a BFN plant-specific analysis consistent with BWRVIP-25 to demonstrate that the core plate hold-down bolts can withstand required loads, considering the effects of stress relaxation until the end of the period of extended operation. Take appropriate corrective action if the analysis does not satisfy the specified criteria. Submit the analysis or the corrective action taken to resolve the core plate hold-down bolt issue to the NRC for review.	N/A	2 years prior to the period of extended operation	<ul style="list-style-type: none"> <li>Enclosures 3 and 9 of TVA letter dated November 16, 2005</li> </ul>
48. Not Used				

**TABLE 2: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAS  
(UNIT 1 SPECIFIC)**

**NOTE:** This Table does not contain all of the same Item Numbers as contained in Table 1. While there is a one-to-one correlation of items with the same number, the same Item Numbers are not in both tables as explained below:

- For Item Numbers 1 through 47, only those Item Numbers that have a Unit 1 specific commitment are included in this table.
- Item Numbers 49 and 63 apply only to Unit 1.

<b>Item Number/Title</b>	<b>Commitment</b>	<b>LRA Appendix A (UFSAR)</b>	<b>Implementation Schedule</b>	<b>Source</b>
2. Electrical Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Used in Instrumentation Circuits Program	Include Unit 1 High-Range Radiation Monitoring cables in the Environmental Qualification (EQ) Program.	A.1.2	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• Response to GALL audit Question 169 dated October 8, 2004</li> </ul>
5. Chemistry Control Program	Include Unit 1 in the program.	A.1.5	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.5</li> </ul>
7. Boiling Water Reactor Vessel Inside Diameter Attachment Welds Program	Include Unit 1 in the program.	A.1.7	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.7</li> </ul>
8. Boiling Water Reactor Feedwater Nozzle Program	Upgrade Unit 1 operating procedures to decrease the magnitude and frequency of feedwater temperature fluctuations.	A.1.8	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.8</li> </ul>
10. Boiling Water Reactor Stress Corrosion Cracking Program	Include Unit 1 in the program.	A.1.10	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.10</li> <li>• Response to GALL audit Question 181 dated October 8, 2004</li> </ul>

**TABLE 2: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAS  
(UNIT 1 SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
11. Boiling Water Reactor Penetrations Program	Include Unit 1 in the program.	A.1.11	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.11</li> <li>• Response to GALL audit Question 194 dated October 8, 2004</li> </ul>
12. Boiling Water Reactor Vessel Internals Program	Include Unit 1 in the program.	A.1.12	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.12</li> <li>• Response to Question (4b) dated May 25, 2005</li> </ul>
13. Flow-Accelerated Corrosion Program	Include Unit 1 in the program.	A.1.14	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.15</li> <li>• Response to GALL audit Question 144 dated October 8, 2004</li> </ul>
15. Open-Cycle Cooling Water System Program	Include Unit 1 in the program.	A.1.16	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.17</li> <li>• Response to GALL audit Question 144 dated October 8, 2004</li> </ul>
16. Closed-Cycle Cooling Water System Program	Include Unit 1 in the program.	A.1.17	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.18</li> <li>• Response to GALL audit Question 144 dated October 8, 2004</li> </ul>
18. Compressed Air Monitoring Program	Include Unit 1 in the program.	A.1.19	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.21</li> </ul>
19. BWR Reactor Water Cleanup System Program	Include Unit 1 in the program.	A.1.20	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Section B.2.1.22</li> <li>• LRA Appendix F.13</li> </ul>

**TABLE 2: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAS  
(UNIT 1 SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
20. Fire Protection Program	Update the Fire Protection Report and to incorporate Unit 1 as an operating unit. Fully implement the program on Unit 1.	A.1.21	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>LRA Section B.2.1.23</li> </ul>
21. Fire Water System Program	Update the Fire Protection Report and procedures to incorporate Unit 1 as an operating unit. Fully implement the program on Unit 1.	A.1.22	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>LRA Section B.2.1.24</li> </ul>
24. Reactor Vessel Surveillance Program	Either include Unit 1 within the BWRVIP ISP, or submit for NRC approval a plant specific surveillance program that meets the requirements of 10 CFR 50 Appendix H for the period of extended operation.	A.1.25	Prior to the period of extended operation	<ul style="list-style-type: none"> <li>LRA Section B.2.1.28</li> </ul>
	Ensure BWRVIP-86-A and BWRVIP-116 are revised to incorporate Unit 1, and submit to the NRC a license amendment request to implement the ISP for site-specific use for Unit 1.			
25. One-Time Inspection Program	Perform a one-time inspection of the ASME equivalent Class MC supports in a submerged environment of the Unit 1 Torus.	A.1.26	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>Response to RAI B.2.1.33-2(b) dated January 18, 2005</li> </ul>
34. Environmental Qualification Program	Include Unit 1 in the program.	A.1.35	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>LRA Section B.3.1</li> </ul>
46. Open Item OI 2.4-3	Perform one time confirmatory UT measurements on the drywell vertical cylindrical area immediately below the drywell flange.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>Enclosures 1 and 9 of TVA letter dated November 16, 2005</li> </ul>

**TABLE 2: BFN COMMITMENT LIST ASSOCIATED WITH LRA APPENDIX A AGING MANAGEMENT PROGRAMS AND TLAAS  
(UNIT 1 SPECIFIC)**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
49. Unit 1 Periodic Inspection Program	Develop and implement new program.	A.2.4	Prior to restart of Unit 1	<ul style="list-style-type: none"> <li>• Response to Proposed Unresolved Items 3.0-2 LP (1 &amp; 2) and 3.0-3 LP dated May 27, 2005</li> <li>• Enclosure 1 of TVA letter dated September 14, 2005</li> <li>• Enclosure 1 of TVA letter dated April 4, 2006</li> </ul>
63. Response to NRC Questions Concerning RPV Internals	Develop and submit implementing procedure(s) for NRC review.		Prior to restart of Unit 1	<ul style="list-style-type: none"> <li>• Response to Proposed Unresolved Items 3.0-4 LP dated May 27, 2005</li> <li>• Enclosure 1 of TVA letter dated April 4, 2006</li> </ul>
63. Response to NRC Questions Concerning RPV Internals	Replace all BFN Unit 1 dry tubes.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• Response to Question (8) dated May 25, 2005</li> </ul>
	Perform MSIP for Unit 1 Control Rod Drive Return Line Cap.		Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• Response to Question (6) dated May 25, 2005</li> </ul>
	Change the Unit 1 AHCs to bolted design.		Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• Response to NRC Question (7) dated May 25, 2005</li> </ul>

**TABLE 3: BFN UNIT 1 RESTART COMMITMENTS THAT ARE DISCUSSED IN LRA APPENDIX F**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
50. Appendix F.1	Evaluate and modify, as required, main steam leakage path piping to ensure structural integrity.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>
51. Appendix F.2	Implement Containment Atmosphere Dilution System modification.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>
52. Appendix F.3	Revise Fire Protection Program to ensure compliance with 10 CFR 50 Appendix R. Revise Fire Protection Report per Unit 1 License Condition 2.C.13.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>
53. Appendix F.4	Implement Environmental Qualification Program.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>
54. Appendix F.5	Address GL 88-01, and make necessary plant modifications.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>



**TABLE 3: BFN UNIT 1 RESTART COMMITMENTS THAT ARE DISCUSSED IN LRA APPENDIX F**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
55. Appendix F.6	BWRVIP Programs used for Units 2 and 3 will be used for Unit 1.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>
56. Appendix F.7	Install ATWS features.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>
57. Appendix F.8	Remove Reactor Vessel Head Spray piping in drywell, and seal the primary containment penetrations.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>
58. Appendix F.9	Implement the Hardened Wetwell Vent modification.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>
59. Appendix F.10	Cap Service Air and Demineralized Water Primary Containment Penetrations.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>

**TABLE 3: BFN UNIT 1 RESTART COMMITMENTS THAT ARE DISCUSSED IN LRA APPENDIX F**

Item Number/Title	Commitment	LRA Appendix A (UFSAR)	Implementation Schedule	Source
60. Appendix F.11	Modify Auxiliary Decay Heat Removal System to serve Unit 1.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>
61. Appendix F.12	Fully implement the Maintenance Rule Unit 1's temporary exemption ceases to be effective.	N/A	Prior to Unit 1 restart	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>
62. Appendix F.13	Replace RWCU piping outside of primary containment with IGSCC resistant piping. Implement actions requested in GL 89-10 for RWCU.	N/A	Complete	<ul style="list-style-type: none"> <li>• LRA Appendix F</li> <li>• TVA response dated January 31, 2005</li> <li>• TVA response dated March 2, 2006</li> </ul>