

**BROWNS FERRY NUCLEAR PLANT LICENSE RENEWAL
APPLICATION**

APPENDIX F

**INTEGRATION OF BROWNS FERRY UNIT 1 RESTART AND
LICENSE RENEWAL ACTIVITIES**

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F.0 INTRODUCTION

History

In 1985, TVA shut down all three units at BFN to address management and technical issues. Upon successful resolution of these issues, Unit 2 was restarted in 1991. Unit 3 was restarted in 1995. TVA has stated that it will not restart Unit 1 without prior approval from the NRC. With the exception of Unit 1 systems and components that are required to be in-service to support the current defueled status of Unit 1 or to support the operation of Units 2 and 3, Unit 1 has remained shutdown with key systems and components placed in layup. TVA has initiated a restart plan to return Unit 1 to service. A regulatory framework for Unit 1 restart has been proposed by TVA as part of this plan.

Overview of the Unit 1 Restart Plan

The basic TVA principle for the Unit 1 Restart is that all three BFN units will be operationally identical upon completion of Unit 1 restart activities.

To meet this principle, TVA plans for the Unit 1 current licensing basis (CLB) at restart to be the same as the CLB of Units 2 and 3. The starting point for development of design and programmatic changes required for Unit 1 restart began with the changes required for the restart of Unit 3 and changes implemented or planned for Units 2 and 3 since their restarts. Technological improvements and regulatory changes since implementation of the Unit 3 restart have also been considered in the development of the Unit 1 restart plan.

The intent of the restart plan is to maximize the reliability of Unit 1 for the duration of a combined current and renewed operating license term. To that end, the restart plan incorporates extensive activities to replace, upgrade, and refurbish components and to implement lessons-learned from Units 2 and 3 operating experience.

The restart plan ensures compliance with TVA commitments made during the shutdown and with regulatory requirements that changed during the extended shutdown.

Relationship of the Restart Program to License Renewal

The Unit 1 restart program will result in three operationally identical BFN units, providing assurance that the Unit 1 CLB changes implemented prior to restart will result in the same aging management programs (AMPs) for each unit. The Unit 1 CLB differences described in this appendix will be resolved prior to Unit 1 restart.

BFN has a single Updated Final Safety Analysis Report (UFSAR). The License Renewal UFSAR Supplement, Appendix A, identifies and describes the AMPs that are required for all three units. No AMPs, unique to Unit 1, are required for Unit 1 during the period of extended operation.

The BFN procedures for AMPs are applicable site-wide. BFN procedures for new AMPs and existing AMP enhancements will be issued for all three units.

Description of Information Presented in Appendix F

This Appendix provides TVA's plans and schedules for Unit 1 restart activities affecting the LRA. Whenever text annotated with a bold border box appears in the LRA symbolizing a licensing or design basis that is only applicable to Units 2 and 3, a link is provided to the appropriate Appendix F section.

Appendix F summarizes the resolution of the difference as it pertains to Unit 1 and its impact on the application. For each difference, the following information is presented:

- Description – A description of the difference. Links are provided to source documents if they have been included on the electronic submittal.
- Difference Resolution – This includes an explanation of the methodologies and activities that TVA plans to use to disposition each licensing or design basis difference.
- LRA Impact – This summarizes changes that would be expected to the LRA, if the condition were resolved prior to issuance of the renewed licenses. Links are provided in the LRA related to the resolution activities.
- Schedule for completion – In general, this will be related to milestones rather than specific dates. The schedules reflect the current schedules in the Unit 1 Restart Plan and are subject to change as the plan is implemented. The following milestones are defined:
 - Prior to renewed license issuance – TVA expects the resolution activities to be complete prior to the expected issuance date of the renewed licenses (23 to 25 months from the submittal date)
 - Prior to restart – TVA will complete the resolution activities prior to Unit 1 restart.
 - Permanent – The difference is acceptable as-is for license renewal. No changes related to license renewal are necessary or are planned for the condition.
 - If a submittal is required, the submittal milestone will be stated.
- Systems/Structures/Components Impacted – The impacted systems, structures, or components are identified with links to the appropriate Chapter 2 sections and the appropriate Chapter 3 sections.
- AMPs/Time-Limited Aging Analyses (TLAAs) Impacted – The impacted AMP and TLAAs are identified with links to the appropriate Chapter 4 sections and the appropriate Appendix B sections.

F.1 MAIN STEAM ISOLATION VALVE ALTERNATE LEAKAGE TREATMENT

Description

The Unit 1 CLB for Main Steam Isolation Valve (MSIV) leakage does not incorporate an alternate leakage treatment pathway utilizing Main Steam System piping and the main condenser. The application of this methodology has been included in the Units 2 and 3 licensing basis as described in References 1 and 2.

Resolution

The Unit 1 main steam piping from the outermost isolation valve up to the turbine stop valve, the bypass/drain piping to the main condenser and the main condenser is being evaluated and modified as required to ensure the structural integrity is retained during and following a safe-shutdown earthquake (SSE). This will allow use of methodology that assumes plateout and holdup in the piping and condenser (in loss of coolant accident (LOCA) offsite and control room dose calculations) for radioactive leakage past the MSIVs.

This issue will be resolved by the approval of a Unit 1 Technical Specification Change.

Impact on LRA

This section and the sections referenced in the Unit 1 Systems/Structures Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled Completion
Submittal of Technical Specifications Change Request	Prior to restart
Physical Modification Completion	Prior to restart

Unit 1 Systems/Structures Impacted

System/Structure	Section
High Pressure Coolant Injection	2.3.2.3
Auxiliary Boiler	2.3.3.1
Sampling and Water Quality	2.3.3.14
Reactor Core Isolation Cooling	2.3.3.23
Main Steam	2.3.4.1 , Table 3.4.2.1
Condensate and Demineralized Water	2.3.4.2 , Table 3.4.2.2
Heater Drains and Vents	2.3.4.4 , 3.4.2.1.4 , Table 3.4.2.4
Turbine Drains and Miscellaneous Piping	2.3.4.5 , 3.4.2.1.5 , Table 3.4.2.5
Turbine Buildings	2.4.7.1

AMP/TLAA Impacts

None

F.2 CONTAINMENT ATMOSPHERE DILUTION SYSTEM MODIFICATIONS

Description

The Containment Atmosphere Dilution System must have the capability to supply pressurized nitrogen to operate the main steam relief valves when control air is not available to ensure the safe shutdown requirements of 10 CFR 50 Appendix R following fires and 10 CFR 50.63 during a station blackout. That capability has been installed on Units 2 and 3.

Resolution

The capability to supply pressurized nitrogen to operate the main steam relief valves when control air is not available to ensure the safe shutdown requirements of 10 CFR 50 Appendix R following fires and 10 CFR 50.63 during a station blackout will be installed on Unit 1.

Impact on the License Renewal Application

This section and the sections referenced in the Unit 1 Systems Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled completion
Physical Modification Completion	Prior to restart

Unit 1 Systems Impacted

System	Section
Containment	2.3.2.1
Containment Atmosphere Dilution	2.3.2.7
Control Air	2.3.3.10
Sampling and Water Quality	2.3.3.14
Reactor Building Closed Cooling Water	2.3.3.22
Radioactive Waste Treatment	2.3.3.25
Feedwater	2.3.4.3

AMP/TLAA Impacted

None

F.3 FIRE PROTECTION

Description

TVA is required by 10 CFR 50 Appendix R to have the capability to maintain safe shutdown during and after fires. The TVA Fire Protection Report Vol. 1 (incorporated by reference into UFSAR Chapter 10.11) states that the Appendix R requirements for operating units have been established and implemented for Units 2 and 3.

Resolution

The BFN Fire Protection Program to ensure the capability to maintain safe shutdown during and after fires will be revised on Unit 1 to ensure compliance with 10 CFR 50 Appendix R. The BFN Fire Protection Report will be revised in accordance with Unit 1 License Condition 2.C.13.

Impact on LRA

This section, the sections referenced in the Unit 1 Systems/Structures/Components Impacted table, and the sections referenced in the AMP/TLAA Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled Completion
Analyses	Prior to restart
Physical Modification Completion	Prior to restart

Unit 1 Systems/Structures/Components Impacted

System/Structure/Component	Section
Reactor Recirculation	2.3.1.4
Containment	2.3.2.1
High Pressure Coolant Injection	2.3.2.3
Residual Heat Removal	2.3.2.4
Containment Atmosphere Dilution	2.3.2.7
Residual Heat Removal Service Water	2.3.3.3
High Pressure Fire Protection	2.3.3.6
Control Air	2.3.3.10
Sampling and Water Quality	2.3.3.14
Emergency Equipment Cooling Water	2.3.3.20
Reactor Water Cleanup	2.3.3.21
Reactor Building Closed Cooling Water	2.3.3.22
Reactor Core Isolation Cooling	2.3.3.23
Radioactive Waste Treatment	2.3.3.25
Fuel Pool Cooling and Cleanup	2.3.3.26
Control Rod Drive	2.3.3.29
Main Steam	2.3.4.1
Condensate and Demineralized Water	2.3.4.2
Feedwater	2.3.4.3
Primary Containment Structure	2.4.1.1
Reactor Buildings	2.4.2.1
Turbine Buildings	2.4.7.1
Electrical and Instrumentation and Control Commodities	2.5.1

AMP/TLAA Impacted

AMP/TLAA	Section
Fire Protection Program	B.2.1.23
Fire Water System Program	B.2.1.24

F.4 ENVIRONMENTAL QUALIFICATION

Description

A site-wide Environmental Qualification (EQ) Program required by 10 CFR 50.49 has been developed for BFN, has been implemented on Units 2 and 3, and will be implemented on Unit 1.

Resolution

The BFN Environmental Qualification Program will be implemented on Unit 1 to ensure compliance with 10 CFR 50.49.

Impact on LRA

This section, the sections referenced in the Unit 1 Systems/Structures/Components Impacted table, and the sections referenced in the AMP/TLAA Impacted list are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled completion
Analyses	Prior to restart
Physical Modification Completion	Prior to restart

Unit 1 Systems/Structures/Components Impacted

System/Structure/Component	Section
Reactor Recirculation	2.3.1.4
Containment	2.3.2.1
High Pressure Coolant Injection	2.3.2.3
Residual Heat Removal	2.3.2.4
Core Spray	2.3.2.5
Containment Inerting	2.3.2.6
Containment Atmosphere Dilution	2.3.2.7
Control Air	2.3.3.10
Sampling and Water Quality	2.3.3.14
Emergency Equipment Cooling Water	2.3.3.20
Reactor Water Cleanup	2.3.3.21
Reactor Building Closed Cooling Water	2.3.3.22
Reactor Core Isolation Cooling	2.3.3.23
Radioactive Waste Treatment	2.3.3.25
Control Rod Drive	2.3.3.29
Radiation Monitoring	2.3.3.31
Main Steam	2.3.4.1
Feedwater	2.3.4.3

System/Structure/Component	Section
Primary Containment Structure	2.4.1.1
Reactor Buildings	2.4.2.1
Electrical and Instrumentation and Control Commodities	2.5.1 , Table 3.6.1 , Table 3.6.2.1

AMP/TLAA Impacted

AMP/TLAA	Section
Environmental Qualification Program	4.4 , B.3.1

F.5 INTERGRANULAR STAINLESS STEEL STRESS CORROSION CRACKING

Description

TVA has submitted and implemented plans for addressing intergranular stainless steel stress corrosion cracking (IGSCC) in accordance with GL 88-01 and Supplement 1 for Units 2 and 3. In accordance with the Unit 1 restart plan, GL 88-01 will be addressed for Unit 1.

Resolution

To comply with GL 88-01, TVA has committed to submit a plan to the NRC to resolve IGSCC on Unit 1. Following implementation of this plan, TVA has committed to submit a report to the NRC detailing the mitigation activities.

Impact on LRA

This section, the sections referenced in the Unit 1 Systems Impacted table, and the sections referenced in the AMP/TLAA Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled completion
Submittal	Prior to restart
Physical Modification Completion	Prior to restart

Unit 1 Systems Impacted

System	Section
Reactor Vessel	2.3.1.1
Reactor Recirculation	2.3.1.4
Residual Heat Removal	2.3.2.4
Core Spray	2.3.2.5, Table 3.2.2.5
Reactor Water Cleanup	2.3.3.21

AMP/TLAA Impacted

AMP/TLAA	Section
Boiling Water Reactor Stress Corrosion Cracking Program	B.2.1.10
BWR Reactor Water Cleanup System Program	B.2.1.22

F.6 BOILING WATER REACTOR VESSEL AND INTERNALS PROJECT INSPECTION AND FLAW EVALUATION GUIDELINES IMPLEMENTATION

Description

During Unit 1's extended outage, the Boiling Water Reactor Vessel Internals Project (BWRVIP) was initiated to develop inspection and flaw evaluation guidelines. These guidelines will be implemented on Unit 1 during its restart.

Resolution

The Unit 1 pre-service inspection program will utilize the following BWRVIP guidelines:

BWRVIP No.	Title
BWRVIP-03	Reactor Pressure Vessel and Internals Examination Guidelines
BWRVIP-05	BWR Reactor Pressure Vessel Shell Weld Inspection Recommendations
BWRVIP-06-A	Safety Assessment of BWR Reactor Internals
BWRVIP-15	Configurations of Safety-Related BWR Reactor Internals
BWRVIP-18	BWR Core Spray Internals Inspection and Flaw Evaluation Guidelines
BWRVIP-25	BWR Core Plate Inspection and Flaw Evaluation Guidelines
BWRVIP-26	BWR Top Guide Inspection and Flaw Evaluation Guidelines
BWRVIP-27-A	BWR Standby Liquid Control System/Core Plate Inspection and Flaw Evaluation Guidelines
BWRVIP-38	BWR Shroud Support Inspection and Flaw Evaluation Guidelines
BWRVIP-41	BWR Jet Pump Assembly Inspection and Flaw Evaluation Guidelines
BWRVIP-47	BWR Lower Plenum Inspection and Flaw Evaluation Guidelines
BWRVIP-48	Vessel ID Attachment Weld Inspection and Flaw Evaluation
BWRVIP-49-A	Instrument Penetration Inspection and Flaw Evaluation Guidelines
BWRVIP-74-A	BWR Reactor Pressure Vessel Inspection and Flaw Evaluation Guidelines
BWRVIP-75	Technical Basis for Revisions to Generic Letter 88-01 Inspection Schedules
BWRVIP-76	BWR Core Shroud Inspection and Flaw Evaluation Guidelines
BWRVIP-94	Program Implementation Guide
BWRVIP-104	Evaluation and Recommendations to Address Shroud Support Cracking in BWRs

Impact on the License Renewal Application

This section, the sections referenced in the Unit 1 Systems Impacted table, and the sections referenced in the AMP/TLAA Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled completion
Physical Activities Completion	Prior to restart

Unit 1 Systems Impacted

System	Section
Reactor Vessel	3.1.2.2.16
Reactor Vessel Internals	3.1.2.2.16

AMP/TLAA Impacted

AMP/TLAA	Section
Boiling Water Reactor Vessel Inside Diameter Attachment Welds Program	B.2.1.7
Boiling Water Reactor Penetrations Program	B.2.1.11
Boiling Water Reactor Vessel Internals Program	B.2.1.12

F.7 ANTICIPATED TRANSIENTS WITHOUT SCRAM

Description

10 CFR 50.62 requires licensees to reduce the risk from anticipated transients without scram (ATWS) events for light-water-cooled nuclear power plants. UFSAR Chapter 7.19 describes the BFN design features that are required to ensure compliance with 10 CFR 50.62 for all three units. Technical Specification 3.3.4.2 for Unit 1, Unit 2, and Unit 3 provides the requirements for the Anticipated Transient Without Scram Recirculation Pump Trip (ATWS-RPT) Instrumentation. Technical Specification 3.1.7, Standby Liquid Control (SLC) System, for Unit 1, Unit 2, and Unit 3 provides requirements for ATWS that satisfy 10 CFR 50.62.

The ATWS features have been installed on Units 2 and 3 and will be installed on Unit 1. The impacted Unit 1 systems are currently not in-scope for 10 CFR 54.4(a)(3) for ATWS.

Resolution

Design features described in UFSAR Chapter 7.19 will be installed on Unit 1.

Impact on the License Renewal Application

This section and the sections referenced in the Unit 1 Systems/Structures/Components Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled completion
Analyses	Prior to restart
Physical Modification Completion	Prior to restart

Unit 1 Systems/Structures/Components Impacted

System/Structure/Component	Section
Reactor Core Isolation Cooling	2.3.3.23
Control Rod Drive	2.3.3.29
Feedwater	2.3.4.3
Primary Containment Structure	2.4.1.1
Reactor Buildings	2.4.2.1
Electrical and Instrumentation and Control Commodities	2.5.1

AMP/TLAA Impacted

None

F.8 REACTOR VESSEL HEAD SPRAY

Description

The reactor vessel head spray piping within the drywell has been removed and the reactor vessel head penetration has a flanged cap installed on Units 2 and 3. The primary containment isolation valves have been removed and the primary containment penetration has been sealed on Units 2 and 3. Head spray piping has been removed and a permanent welded cap has been installed at the Residual Heat Removal (RHR) System interface with its head spray header on Units 2 and 3. On Unit 1, the head spray piping and valves associated with penetration X-17 are still installed.

Resolution

The reactor vessel head spray piping within the drywell will be removed and the reactor vessel head penetration will have a flange cap installed on Unit 1. The primary containment isolation valves will be removed and the primary containment penetration will be sealed on Unit 1. Head spray piping will be removed and a permanent welded cap will be installed at the RHR System interface with its head spray header on Unit 1.

Impact on the License Renewal Application

This section and the sections referenced in the Unit 1 Systems Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled completion
Physical Modification Completion	Prior to restart

Unit 1 Systems Impacted

System	Section
Reactor Vessel Internals	2.3.1.2
Residual Heat Removal	2.3.2.4

AMP/TLAA Impacted

None

F.9 HARDENED WETWELL VENT

Description

As described in UFSAR [5.2.7](#), the Hardened Wetwell Vent is only installed on Units 2 and 3.

Resolution

In accordance with BFN commitments to GL 89-16, the Hardened Wetwell Vent described in UFSAR [5.2.7](#) will be installed on Unit 1 prior to Unit 1 restart.

Impact on the License Renewal Application

This section and the sections referenced in the Unit 1 Systems/Structures Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled completion
Submittal	Prior to restart
Physical Modification Completion	Prior to restart

Unit 1 Systems/Structures Impacted

System/Structure	Section
Containment	2.3.2.1
Reinforced Concrete Chimney	2.4.6.1

AMP/TLAA Impacted

None

F.10 SERVICE AIR AND DEMINERALIZED WATER PRIMARY CONTAINMENT PENETRATIONS

Description

As described in UFSAR Table [5.2-2](#), primary containment penetrations X-20 and X-21 have a different configuration on Unit 1 than on Units 2 and 3. On Unit 1 the penetrations are piped to the Service Air and Demineralized Water Systems with primary containment isolation valves. On Units 2 and 3, they are capped and not assigned to a service system.

Resolution

The configuration of the Service Air and Demineralized Water Primary Containment Penetrations on Unit 1 will be modified to be identical to the configuration on Unit 2 and Unit 3.

Impact on the License Renewal Application

This section and the sections referenced in the Unit 1 Systems Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled completion
Physical Modification Completion	Prior to restart

Unit 1 Systems Impacted

System	Section
Service Air	2.3.3.11
Condensate and Demineralized Water	2.3.4.2

AMP/TLAA Impacted

None

F.11 AUXILIARY DECAY HEAT REMOVAL SYSTEM

Description

As described in UFSAR [10.22](#), the Auxiliary Decay Heat Removal (ADHR) System only serves Units 2 and 3. The only intended function for license renewal is to provide secondary containment integrity for the ADHR System's piping that transfers the fuel pool heat to the heat sink outside containment. There is currently only a single piping loop serving both Unit 2 and Unit 3 that penetrates the secondary containment.

Resolution

The configuration of the ADHR System will be modified to service Unit 1 as well as Unit 2 and Unit 3. When modified, there will continue to be only a single piping loop that penetrates the secondary containment. That loop and its secondary containment penetrations will serve all three units.

Impact on the License Renewal Application

This section and the sections referenced in the Unit 1 Systems Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled completion
Physical Modification Completion	Prior to restart

Unit 1 Systems Impacted

System	Section
Auxiliary Decay Heat Removal	2.3.3.24 , 3.3.2.1.24 , Table 3.3.2.24

AMP/TLAA Impacted

None

F.12 MAINTENANCE RULE

Description

By letter dated August 9, 1999 NRC issued a partial temporary exemption from the requirements of the Maintenance Rule, 10 CFR 50.65. The action exempts TVA from the specific scoping requirements of 10 CFR 50.65(b), and allows TVA to maintain the defueled and long-term layup status of Unit 1. The exemption does not impact Maintenance Rule scoping for equipment required to be functional to support Unit 1 in its defueled status or equipment required to support operation of Unit 2 or 3.

Resolution

The temporary exemption expires upon restart of Unit 1

Impact on the License Renewal Application

The scoping results for the affected SCCs will not be changed. No changes are expected for AMR results or TLAAs.

Schedule

Unit 1 Restart Activity	Scheduled completion
None	The temporary exemption expires upon restart of Unit 1.

Unit 1 Systems Impacted

Unit 1 SCCs not required to be functional during its current shutdown and defueled status are not included in the scope of the BFN Maintenance Rule Program.

AMP/TLAA Impacted

None

F.13 REACTOR WATER CLEANUP SYSTEM

Description

BFN has selected an option in the Reactor Water Cleanup System Program (Section [B.2.1.22](#)) that allows no testing on system piping outboard of the outboard primary containment isolation valve provided that the following actions described in NUREG-1801 Program XI.M25 are completed:

- The recommendations of GL 88-01 and NUREG-0313 will be implemented by replacing RWCU piping outside the outboard primary containment isolation valves with IGSCC resistant piping.
- The actions requested in NRC GL 89-10 will be satisfactorily completed.

These actions have been completed on Units 2 and 3.

In addition, the Reactor Water Cleanup System on Units 2 and 3 has been reconfigured so that the pumps are no longer exposed to a high temperature environment.

Resolution

TVA has committed to replace the four inch and larger, stainless steel, RWCU piping located outside the drywell prior to the restart of Unit 1. TVA has committed to develop and implement a comprehensive motor operated valve testing and surveillance program for Unit 1, satisfying the intent of GL 89-10.

At the time of its restart, the Unit 1 Reactor Water Cleanup System will have been reconfigured so that the pumps are no longer exposed to a high temperature environment.

Impact on the License Renewal Application

This section, the sections referenced in the Unit 1 Systems Impacted table, and the sections referenced in the AMP/TLAA Impacted table are affected by resolution of this item. Following resolution of this item, it is expected that the license renewal results annotated with a bold bordered box in the referenced sections are applicable to Unit 1.

Schedule

Unit 1 Restart Activity	Scheduled completion
Physical Modification Completion	Prior to restart

Unit 1 Systems Impacted

System	Section
Reactor Water Cleanup	2.3.3.21

AMP/TLAA Impacted

AMP/TLAA	Section
Reactor Water Cleanup System Program	B.2.1.22

F.14 REFERENCES

Section F.0

1. TVA letter to NRC (Accession No. ML023600026), "Browns Ferry Nuclear Plant (BFN), Unit 1, Regulatory Framework for Restart of Unit 1," dated December 13, 2002 supplemented and modified by:
 - TVA letter to NRC (Accession No. ML030700581), "Browns Ferry Nuclear Plant - Unit 1 - Regulatory Framework for Restart of Unit 1," dated February 28, 2003 and
 - TVA letter to NRC (Accession No. ML031630811), "Browns Ferry - Unit 1 - Response to Request for Supplemental Information on the Regulatory Framework for the Restart of Unit 1," dated June 11, 2003

Section F.1

1. UFSAR Section **14.6**, Analysis of Design Basis Accidents – Updated
2. NRC letter to TVA (Accession No. ML003693000) "Brown Ferry Nuclear Plant, Units 2 and 3 - Issuance Of Amendments Regarding Limits On Main Steam Isolation Valve Leakage", (TAC Nos. MA6405 And MA6406) dated March 14, 2000

Section F.2

None

Section F.3

1. UFSAR Section **10.11**, Fire Protection Systems
2. BFN Fire Protection Report, Volume 1
3. 10 CFR 50, Appendix R, Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979

Section F.4

1. 10 CFR 50.49, Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants

Section F.5

1. GL 88-01, NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping
2. TVA letter to NRC (Accession No. ML023600026), "Browns Ferry Nuclear Plant (BFN), Unit 1, Regulatory Framework for Restart of Unit 1," dated December 13, 2002 supplemented and modified by:
 - TVA letter to NRC (Accession No. ML030700581), "Browns Ferry Nuclear Plant - Unit 1 - Regulatory Framework for Restart of Unit 1," dated February 28, 2003 and
 - TVA letter to NRC (Accession No. ML031630811), "Browns Ferry - Unit 1 - Response to Request for Supplemental Information on the Regulatory Framework for the Restart of Unit 1," dated June 11, 2003

Section F.6

1. Unit 1 Technical Requirements Manual 3.4.3, Structural Integrity
2. UFSAR Section 4.12, Inservice Inspection and Testing

Section F.7

1. 10 CFR 50.62, Requirements for Reduction of Risk from Anticipated Transients without Scram (ATWS) Events for Light-Water-Cooled Nuclear Power Plants.
2. UFSAR Section 7.19, Anticipated Transient Without Scram

Section F.8

1. UFSAR Table 4.2-2, Reactor Vessel Data

Section F.9

1. UFSAR Section 5.2.7, Hardened Wetwell Vent
2. GL 89-16, Installation of a Hardened Wetwell Vent, dated September 1, 1989

Section F.10

1. UFSAR Table 5.2-2, Principle Primary Containment Penetrations and Associated Isolation Valves

Section F.11

1. UFSAR Section 10.22, Auxiliary Decay Heat Removal System (ADHR)

Section F.12

1. TVA letter to NRC (Accession No. 9902100360), "Browns Ferry Nuclear Plant - Unit 1 – Request for a Temporary Exemption from the Requirements of 10 CFR 50.65, Maintenance Rule," dated February 4, 1999.
2. NRC letter to TVA (Accession No. ML020040329), "Browns Ferry, Unit 1, Issuance of Temporary Partial Exemption From 10 CFR 50.65" dated August 9, 1999

Section F.13

1. GL 88-01, NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping
2. GL 89-10, Safety Related Motor Operated Valve Testing and Surveillance