November 15, 2006

TVA-BFN-TS-459

10 CFR 50.90

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

Gentlemen:

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

BROWNS FERRY NUCLEAR PLANT (BFN) - TVA BFN TECHNICAL SPECIFICATION (TS) NO. 459, REQUEST FOR AN APPENDIX R LICENSE AMENDMENT

Pursuant to 10 CFR 50.90, the Tennessee Valley Authority (TVA) is submitting a request for a change (TS-459) to licenses DPR-33, DPR-52, and DPR-68 for BFN Units 1, 2, and 3 respectively.

The proposed change revises the Fire Protection License Condition for Units 1, 2, and 3, condition number (13), (14), and (7), respectively, to accommodate operation of Units 1, 2, and 3.

By letter dated November 2, 1995 (Reference), NRC issued a Safety Evaluation (SE) approving a post-fire safe shutdown program for combined operation of Units 2 and 3. The referenced SE depicts Unit 1 as shutdown and defueled. The current license condition issued by the SE, reflects a Units 1, 2, and 3 Fire Protection Program and Units 2 and 3 Appendix R Safe Shutdown Program. Soon, Unit 1 will no longer be shutdown and defueled; therefore, TVA requests that NRC

revise the portion of the referenced safety evaluation discussing Unit 1 as shutdown and defueled. As such, TVA requests approval of a change to the BFN licenses that will allow BFN to implement an Appendix R Safe Shutdown Program in accordance with the guidance set forth in Generic Letters (GL) 86-10 and 88-12, "Implementation of Fire Protection Requirements" and "Removal of Fire Protection Requirements from Technical Specifications" for the combined operation of BFN Units 1, 2, and 3.

Enclosure 1 describes the proposed change and the reason for the change. Enclosure 2 provides a markup of the existing BFN licenses showing the proposed change.

TVA has determined that there are no significant hazards considerations associated with the proposed change and that the change qualifies for a categorical exclusion from environmental review pursuant to the provisions of 10 CFR 51.22(c)(10). The Plant Operations Review Committee and Nuclear Safety Review Board have reviewed the proposed change, and determined that operation of BFN Units 1, 2, and 3 in accordance with the proposed change will not endanger the health and safety of the public. Additionally, in accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter and the Enclosures to the Alabama State Department of Public Health

The combined Units 1, 2, and 3 Appendix R Safe Shutdown Program and its associated Safe Shutdown Instructions (SSIs) provide the actions necessary to achieve and maintain subcritical reactivity, achieve and maintain hot standby without core damage from loss of coolant due to boil off, and then to achieve and maintain cold shutdown during and following a postulated Appendix R fire. Table 1.1-1 in the BFN Unit 1 Technical Specifications defines Cold Shutdown as reactor mode switch in the "Shutdown" position and the average reactor coolant temperature ≤ 212 degrees Fahrenheit.

Unit 1 has been shutdown and defueled for an extended period of time and will remain in Cold Shutdown until placed in the Startup mode with the Reactor Mode switch in Startup. The SSIs do not become effective for three unit operations until Unit 1 enters the Startup Mode. Loading fuel into Unit 1 does not change the analysis basis for Safe Shutdown of Units 2 and 3. The normal low pressure Emergency Core Cooling systems will be operable per the Technical Specifications to manage the residual heat load in the Unit 1 Reactor during and following completion of fuel loading activities. The initial Unit 1 Core will consist of approximately 88 percent never exposed fuel and 12 percent exposed fuel with an average cool down period of 1.7 years resulting in a minimal residual heat load. Hence, there is adequate time to recover the residual heat removal function

following a postulated Appendix R event. The Unit 1 Reactor building is protected by a combination of suppression/detection systems and fire watches. These measures minimize the likelihood of a fire in Unit 1. Therefore, it is acceptable to load fuel into Unit 1 and delay full implementation of Appendix R fire protection separation requirements until startup of Unit 1. No change in the license condition is required to load fuel into the Unit 1 reactor.

In an October 25, 2006, telecom between TVA management and NRC Region II, TVA proposed a period to transition from the Units 1, 2, and 3 Fire Protection Report (FPR) and Units 2 and 3 Appendix R Safe Shutdown Program to a combined three unit Fire Protection Report (FPR) and Appendix R Safe Shutdown Program. In the call, TVA proposed that the combined three units FPR and Safe Shutdown Program SSIs be issued by December 31, 2006, but placed on administrative hold. The combined Units 1, 2, and 3 SSIs will be released from administrative hold prior to BFN Unit 1 entering Mode 2.

TVA requests that this change be approved by December 31, 2006. The commitment within this letter is contained in Enclosure 3. If you have any questions about this change, please telephone me at (256) 729-2636.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 15th day of November 2006.

Sincerely,

Original signed by:

William. D. Crouch
Manager, Site Licensing
and Industry Affairs

Reference:

NRC Letter to TVA dated November 2, 1995: Safety Evaluation of Post-Fire Safe Shutdown Capability and Issuance of Technical Specification Amendments for Browns Ferry Nuclear Plant Units 1, 2, and 3.

Enclosures:
1. TVA Evaluation of the Proposed Changes
2. Proposed Technical Specification Changes (mark-up)

cc: See page 5

Enclosures
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ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-459 REQUEST FOR AN APPENDIX R LICENSE AMENDMENT

TVA EVALUATION OF THE PROPOSED CHANGES

1. Description

TVA requests a change to BFN licenses DPR-33, DPR-52, and DPR-68 for BFN Units 1, 2, and 3, respectively, that will revise the Fire Protection License Condition for Units 1, 2, and 3 to accommodate the combined operation of three units.

2. Proposed Change

For Units 1, 2, and 3, license condition numbers (13), (14), and (7), respectively, presently read as follows:

> Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the safety evaluations dated December 8, 1988; March 6, 1991; March 31, 1993; November 2, 1995; and Supplement dated November 3, 1989; subject to the following provision:
>
> The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

The proposed change to the license condition for Units 1, 2, and 3 (13), (14), and (7), respectively, reads as follows:

> Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the safety evaluations dated December 8, 1988; March 6, 1991; March 31, 1993; November 2, 1995; (_____), and Supplement dated November 3, 1989; subject to the following provision:
>
> The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not

adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

3. Background

By letter dated November 2, 1995 (Reference 1), NRC issued a Safety Evaluation (SE) approving a post-fire safe shutdown program for combined operation of Units 2 and 3. The referenced SE depicts Unit 1 as shutdown and defueled. The current license condition, issued by the SE, reflects a Units 1, 2, and 3, Fire Protection Program and Units 2 and 3 Appendix R Safe Shutdown Program. Soon, Unit 1 will no longer be shutdown and defueled; therefore, TVA proposes that NRC revise the portion of the Reference 1 SE discussing Unit 1 as shutdown and defueled. As such, TVA requests approval of a change to the BFN licenses that will allow BFN to implement a three unit Appendix R Safe Shutdown Program in accordance with the guidance set forth in Generic Letters (GL) 86-10 and 88-12, "Implementation of Fire Protection Requirements" and "Removal of Fire Protection Requirements from Technical Specifications" for the combined operation of BFN Units 1, 2, and 3.

4. Technical Analysis

The BFN Fire Protection report is a consolidated document that contains the Fire Protection Plan, Fire Hazards Analysis, the Safe Shutdown Analysis and Appendix R Safe Shutdown Program. Developed in accordance with NRC GLs 86-10 and 88-12, the BFN Appendix R Safe Shutdown Program has two objectives. First, ensure the equipment relied upon for safe shutdown of any unit during or following a fire is available when required. Second, provide a mechanism to ensure safe shutdown equipment is available, or compensatory measures are taken if safe shutdown equipment is not available.

The combined Units 1, 2, and 3 Appendix R Safe Shutdown Program and its associated Safe Shutdown Instructions (SSIs) provide the actions necessary to achieve and maintain subcritical reactivity, achieve and maintain hot stand by without core damage from loss of coolant due to boil off, and then to achieve and maintain cold shutdown during and following a postulated Appendix R fire. Table 1.1-1 in the BFN Unit 1 Technical Specifications defines Cold Shutdown as reactor mode switch in the "Shutdown" position and the average reactor coolant temperature ≤ 212 degrees Fahrenheit.

Unit 1 has been shutdown and defueled for an extended period of time and will remain in Cold Shutdown until placed in the Startup mode with the Reactor Mode switch in Startup. The SSIs do not become effective for three unit operations until Unit 1 enters the Startup Mode. Loading fuel into Unit 1 does not change the analysis basis for Safe Shutdown of Units 2 and 3. The normal low pressure Emergency Core Cooling systems will be operable per the Technical Specifications to manage the residual heat load in the Unit 1 Reactor during and following

completion of fuel loading activities. The initial Unit 1 Core will consist of approximately 88 percent never exposed fuel and 12 percent exposed fuel with an average cool down period of 1.7 years resulting in a minimal residual heat load. Hence, there is adequate time to recover the residual heat removal function following a postulated Appendix R event. The Unit 1 Reactor building is protected by a combination of suppression/detection systems and fire watches. These measures minimize the likelihood of a fire in Unit 1. Therefore, it is acceptable to load fuel into Unit 1 and delay full implementation of Appendix R fire protection separation requirements until startup of Unit 1. No change in the license condition is required to load fuel into the Unit 1 reactor.

In an October 25, 2006, telecom between TVA management and NRC Region II, TVA proposed a period to transition from the Units 1, 2, and 3 Fire Protection Report (FPR) and Units 2 and 3 Appendix R Safe Shutdown Program to a combined three unit FPR and Appendix R Safe Shutdown Program. In the call, TVA proposed that the combined three units FPR and Appendix R Safe Shutdown Program SSIs be issued by December 31, 2006, but placed on administrative hold. The combined Units 1, 2, and 3 SSIs will be released from administrative hold prior to BFN Unit 1 entering Mode 2.

As part of the Unit 1 restart effort, TVA has taken the necessary steps to implement a 10 CFR 50 Appendix R Safe Shutdown Program that encompasses operation of all three units. To meet the objectives of the Safe Shutdown Program, TVA has performed several tasks. These include instituting a three unit Fire Hazards Analysis and Appendix R Safe Shutdown Program. The Unit 1 Safe Shutdown Program was modeled after Units 2 and 3.

The five exemptions approved by NRC's October 21, 1988 (Reference 2) letter continue to apply to Unit 1. These are:

1. Core uncovery to the extent that alternative shutdown capability is not able to maintain reactor coolant inventory above the core in a BWR as required by Section III.L of Appendix R.

2. The Main Control Room to the extent that a fixed suppression system is not provided throughout the area as required by Section III.G of Appendix R.

3. RHR Pump Rooms and Heat Exchanger Rooms to the extent that an automatic fire suppression system is not provided as required by Section III.G of Appendix R.

4. The Reactor Buildings to the extent that Section III.G of Appendix R requires that there be no intervening combustibles within a 20 foot separation space between redundant safe shutdown system components. For BFN, the areas are Zone 1 1/1-2, Zone 1-3/1-4, Zone 2-1/2-4, Zone 2-1/2-2, Zone 2-3/2-4, and Zone 3-1/3-2 (from Reference 4).

5. The Control Building to the extent that Section III.G.3 requires installation of fire detection and fixed fire suppression in the fire areas for which an alternative shutdown capability has been provided.

Prior to Unit 1 restart, Unit 1 is being treated as a single fire area. Unit 1 is being divided into six fire zones. TVA has made a number of plant modifications that ensure from a fire protection and Appendix R standpoint that Unit 1 is operationally similar to Units 2 and 3. The plant modifications include upgrades to the fire detection and suppression systems as well as cable reroutes, Thermo-Lag installations, circuit modifications and mechanical modifications to ensure the capability to achieve and maintain cold shutdown.

Fire protection systems required to satisfy Appendix R for Unit 1 are being upgraded to latest NFPA Code requirements. These modifications will be completed prior to Unit 1 entering Reactor Mode 2. The following is a listing of the Unit 1 fire protection system upgrades to achieve compliance. These upgrades reflect TVA commitments to the NRC discussed in Enclosure 3 of TVA's January 15, 1992 (Reference 3) letter.

- Reactor Building and High Pressure Coolant Injection (HPCI) Room Suppression Systems to NFPA 13 including water curtains.
- Reactor Building, Shutdown Board Rooms and HPCI Room Detection Systems to NFPA 72.
- Reactor Building fire dampers.
- Reactor Building doors.
- Reactor Building penetrations

Features that are common to all three units' system upgrades were performed under the Units 2 and 3 restart programs.

These modifications are discussed in some detain below:

Almost all of the Unit 1 fire suppression system (i.e., piping, sprinklers, flush connections, etc.) in these areas was replaced. Only a limited amount of original piping which was in good condition was retained. The entire Units 1, detection system was replaced and integrated into the control room alarm displays. The fire dampers in the duct work between fire zones have been replaced with NFPA compliant dampers. Openings between zones such as equipment hatches and stairs were equipped with water curtains. Doors between fire zones are Underwriters Laboratories approved. Floor and wall penetrations are sealed with fire resistant material. Common system upgrades included Detection and suppression upgrades in the Units 1 and 2 and Unit 3 Diesel Generator Buildings, the Intake Pumping Station and the Control Building. These were made as part of the Units 2 and 3 recovery efforts. These Unit 1 fire protection modifications provide defense in depth by restricting the size of a fire, quickly detecting its presence and act automatically to extinguish the fire prior to extensive plant damage.

The fire pumps, hose stations and old suppression piping (now removed and replaced) as described in the existing Fire Protection Report for Unit 1 have been in service to support Units 2 and 3 operations. The system is supplied raw water by three each motor-driven vertical turbine fire pumps rated at 2,250 gpm at 300 foot total head and located in the Intake Pumping Station, and by one diesel-engine-driven vertical turbine fire pump rated at 2,250 gpm at 300 foot total head and located in a building adjacent to Gate Structure number two on the Condenser Circulating Water system cold water channel. The diesel-engine pump starts only after the three electric-motor-driven pumps fail to supply adequate system pressure. Strainers are provided on the discharge of these pumps to increase reliability of system operation.

The BFN design (e.g., fire rated assemblies and penetration sealing devices) is such that a postulated fire will be confined and will not spread to adjacent areas of the plant. As such, BFN is only required to extinguish a postulated fire in one area during and following an Appendix R Event. Hence, only one pump is necessary to supply the water requirements for a fire in one of the safety related areas. Two pumps are required to handle the maximum fire, a switchyard fire. All of the pumps discharge into a yard main which loops the powerhouse. Branch lines from the yard main distribute water to all plant buildings and supply automatic water spray systems for the main and station service transformers located in the switch yard and the hydrogen trailer port. Hydrants are appropriately located throughout the plant yard area. Standpipes and hose connections with hose racks are strategically located throughout the plant buildings. Hose connections are compatible with equipment used by the local fire department. Unit 1 restart has no adverse impact on the water supply system or its demands as discussed below.

Where required to support Units 2 and 3 operations, fire rated assemblies and penetration sealing devices would have confined a postulated fire and; therefore, the Unit 1 suppression systems are adequate to support the current two unit operation. The Unit 1 hose stations were operable to support Units 2 and 3 operations and no upgrades were required to support three unit operation. Unit 1 had an operable preaction sprinkler and fixed water spray systems; however, the preaction system was replaced and fixed water spray systems were removed as part of the Unit 1 restart effort. In accordance with commitments to the NRC, the preaction sprinkler system was upgraded to NFPA 13 code requirements and the coverage area extended. The evaluation of the water supply for the upgraded preaction sprinkler system was based on actual surveillance data and a hydraulic analysis using a fire protection computer code to demonstrate sufficient flow is available to the highest demand area for the upgraded system. Therefore, there is sufficient capability in the fire suppression system to extinguish a postulated fire in any area of the plant.

TVA reviewed Fire Brigade and Operations staffing requirements needed to support the addition of Unit 1 operation. For three unit operation, the fire response organization is staffed and equipped for fire fighting activities in accordance with Branch Technical Position CMEB 9.5-1 Section C.3. A motorized fire apparatus is

maintained on site. Additional support is provided through a contract with a local fire department. A site fire brigade of at least an Incident Commander and five members (i.e., fire brigade leader and four members) is maintained onsite at all times. This level of staffing exists today to support Units 2 and 3 operations and no additional fire brigade staffing is required to support the addition of Unit 1 operation.

The Code of Federal Regulations, 10 CFR50.48 and 10 CFR50 Appendix R, require that plant equipment which is necessary for safe shutdown be adequately protected from a fire event in any plant location. The safe shutdown evaluations demonstrate compliance can be achieved by defining a set of minimum safe shutdown systems and optimal operator action times required for safe shutdown. This analysis was originally developed and implemented on Units 2 and 3 and has been expanded to address Unit 1 operation. The following is a description of the Unit 1 Appendix R Program to achieve compliance.

Methodology (Same as Unit 3)

- Identify required equipment to achieve safe shutdown (SSD).
- Identify cable routing.
- Perform computer analysis to ensure availability of required SSD equipment for each area.
- Identify failures.
- Perform modifications to make require SSD equipment available.
- Prepare manual action calculation to support development of Safe Shutdown Instructions.
- Install required emergency lighting.

This approach results in a three unit Appendix R Safe Shutdown Analysis and the implementation of the three unit SSIs.

Successful performance of the manual operator actions required within the first two hours on an Appendix R event is demonstrated via timed walkdowns. Unit 1 will utilize the same types of manual operator action as current used for Units 2 and 3.

Industry issue Regulatory Issue Summary 2006-10, "Regulatory Expectations with Appendix R Paragraph III.G.2 Post-Fire Manual Actions," is being tracked to resolution by the TVA Corrective Action Program. TVA BFN will be in compliance with Appendix R except for the issue of manual actions in III.G.2 areas where TVA has implemented NRC policy to track manual actions in the corrective action program for long term resolution. Also, TVA has pending an exemption request on intervening combustibles (Reference 4).

TVA evaluated the current post-fire manual actions outside the control room in the 10 CFR 50 Appendix R III.G.2 areas. The evaluation was performed in accordance with Inspection Procedure 71111.05.T, "Fire Protection (Triennial)," as discussed in the Federal Register (71 FR 11171). In doing so, TVA identified the post-fire manual

actions outside the control room in 10 CFR 50 Appendix R III.G.2 areas. The Fire Protection Significance Determination Process (SDP) (Inspection Manual 0609, Appendix F) was used to determine the risk associated with 10 CFR 50 Appendix R III.G.2 areas post-fire manual actions. TVA's evaluation determined that the 10 CFR 50 Appendix R III.G.2 manual actions for safe shutdown of Units 1, 2, and 3 are not risk significant (i.e., not Greater than Green). These manual actions are considered compensatory measures to satisfy the regulatory requirements related to fire-induced circuit failures.

Operations staffing to support the Appendix R Safe Shutdown analysis and the implementation of the three unit Safe Shutdown Instructions (SSIs) have also been evaluated. Additional staffing to support combined Units 1, 2, and 3 SSIs includes an additional Unit Supervisor (US) Reactor Operator (RO), and two Auxiliary Unit Operators (AUOs) with a total staffing level one Shift Manager, four USs, six ROs, eight AUOs, and one Shift Technical Advisor as listed in TVA Department Procedure OPDP-1, "Conduct of Operations." The combined Units 1, 2, and 3 staffing requirements will be met prior to entering Mode 2.

Resolution of other industry issues such as multiple spurious hot shorts is being tracked to resolution resolved through the TVA Corrective Action Program. TVA will monitor and implement the resolution when NRC guidance is issued.

NRC has conducted three inspections of the fire protection program: (1) the Unit 1 Recovery Special Program for Fire Protection (Reference 5), (2) the Special Program for Cable Installation and Separation (Reference 6) and (3) NRC Inspection Report 050000259/2006016 (Reference 7). The findings from these inspections are not risk significant and are being tracked to resolution by the TVA Corrective Action Program. Hence, there are no outstanding items from any of these inspections that would prevent safe shut down of Units 1, 2, and 3 during and following a postulated Appendix R Fire.

TVA concludes that, based on the discussion above, this proposed revision to the BFN license will allow BFN to implement an NRC approved Appendix R Safe Shutdown Program in accordance with the guidance set forth in GLs 86-10 and 88-12 for a combined Units 1, 2, and 3 operation. The change can be approved with no adverse safety consequences.

5 Regulatory Safety Analysis

5.1 No Significant Hazards Consideration

TVA has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on three standards set forth in 10 CFR 50.92, "Issuance of Amendment," as discussed below:

(1) Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed change revises the license condition to reflect a combined Units 1, 2 and 3 Fire Protection Report. Compliance with the applicable Appendix R requirements is ensured through implementation of the Fire Protection Program and the Appendix R Safe Shutdown Program including Regulatory Issue Summary 2006-10, "Regulatory Expectations with Appendix R Paragraph III.G.2 Post-Fire Manual Actions." The change does not affect any design bases accident or the ability of any safe shutdown equipment to perform its function. Also, although modifications were required to bring BFN in compliance with 10 CFR 50 Appendix R, there are no physical modifications required to implement this license amendment. Therefore, this proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

(2) Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change revises the license condition to reflect a combined Units 1, 2 and 3 Fire Protection Report. Compliance with the applicable Appendix R requirements is ensured through implementation of the Fire Protection Program and Appendix R Safe Shutdown Program including Regulatory Issue Summary 2006-10, "Regulatory Expectations with Appendix R Paragraph III.G.2 Post-Fire Manual Actions." This change does not affect any design basis accident or the ability of any safe shutdown equipment to perform its function. Also, there are no physical modifications required to implement this license amendment. Therefore, this proposed change does not create the possibility of a new or different kind of accident from an accident previously evaluated.

(3) Does the proposed change involve a significant reduction in the margin of safety

Response: No.

The proposed change revises the license condition to reflect a combined Units 1, 2 and 3 Fire Protection Report. Compliance with the applicable Appendix R requirements is ensured through the implementation of the Fire Protection Program and Appendix R Safe Shutdown Program (Units 1, 2, and 3 Fire Protection Report) including Regulatory Issue Summary 2006-10, "Regulatory Expectations with Appendix R Paragraph III.G.2 Post-Fire Manual Actions." The proposed change does not affect any design basis accident and does not reduce or adversely affect the capability to achieve and maintain safe shutdown in the event of a fire. Furthermore, no reductions to the requirements

for equipment operability, surveillance requirements or setpoints are being made which could result in reduction in the margin of safety. Therefore, this proposed change will not result in a reduction in the margin of safety.

Based on the above, TVA concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92 (c), and accordingly, a finding of "no significant hazards consideration" is justified.

I. Applicable Regulatory Requirements

TVA proposes to change the BFN operating license that will allow TVA to implement a combined Units 1, 2, and 3, 10 CFR Appendix R Safe Shutdown Program. The objectives of the program remain unchanged: (1) ensure the equipment relied upon for safe shutdown of any unit during of following a fire is available when called upon, and (2) provide a mechanism to ensure safe shutdown equipment is available, or compensatory measures are taken if safe shut down equipment is unavailable.

In conclusion, based on the consideration above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commissions regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security of to the health and safety of the public.

II. Environmental Impact Consideration

The proposed change does not involve a significant hazards consideration, a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or a significant increase in individual of cumulative occupational radiation exposure. Therefore, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed change is not required.

References:

1. NRC Letter to TVA dated November 2, 1995: Safety Evaluation of Post-Fire Safe Shutdown Capability and Issuance of Technical Specification Amendments for Browns Ferry Nuclear Plant Units 1, 2, and 3.

2. NRC Letter to TVA dated October 21, 1988: Appendix R Exemptions for Browns Ferry Nuclear Plant, Units 1, 2, and 3. .

3. TVA Letter to NRC dated January 15, 1992: Browns Ferry Nuclear Plant (BFN) - Fire protection Report.

4. TVA Letter to NRC dated October 26, 2006: Browns Ferry Nuclear Plant (BFN) - Units 1, 2, and 3 - Revision to Exemption form 10 CFR 50, Appendix R, Section III.G.2.b.

5. NRC Letter to TVA dated August 10, 2006: Browns Ferry Nuclear Plant Unit 1 Recovery - NRC integrated Inspection Report 05000259/2006007.

6. NRC Letter to TVA dated July 13, 2006: Browns Ferry Nuclear Plant Unit 1 Recovery - NRC integrated Inspection Report 05000259/2006012.

7. NRC Letter to TVA dated November 13, 2006: Browns Ferry Nuclear Plant Unit 1 Recovery - NRC Inspection Report 050000259/2006016

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-459 REQUEST FOR AN APPENDIX R LICENSE AMENDMENT

PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UP)

See Attached:

Operating License

Unit 1 Page 5

Unit 2 Page 5

Unit 3 Page 4

(13) Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the safety evaluations dated December 8, 1988; March 6, 1991; March 31, 1993; November 2, 1995; ( ); and Supplement dated November 3, 1989; subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(14) The licensee shall maintain the Augmented Quality Program for the Standby Liquid Control System to provide quality control elements to ensure component reliability for the required alternative source term function defined in the Updated Final Safety Analyses Report (UFSAR).

(15) The licensee is required to confirm that the conclusions made in TVA's letter dated September 17, 2004, for the turbine building remain acceptable using seismic demand accelerations based on dynamic seismic analysis prior to the restart of Unit 1.

D. The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the UFSAR required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, TVA may make changes to the programs and activities described in the supplement without prior Commission approval, provided that TVA evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

E. The UFSAR supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. TVA shall complete these activities no later than December 20, 2013, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

F. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of the most recent NRC-approved version of the Boiling Water Reactor Vessels and Internals Project (BWRVIP) Integrated Surveillance Program (ISP) appropriate for the configuration of the specimens in the capsule. Any changes to the BWRVIP ISP capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.

G. Not Used

(14) Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the safety evaluations dated December 8, 1988; March 6, 1991; March 31, 1993; November 2, 1995; ( ); and Supplement dated November 3, 1989; subject to the following provision:

> The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(15) The licensee shall maintain the Augmented Quality Program for the Standby Liquid Control System to provide quality control elements to ensure component reliability for the required alternative source term function defined in the Updated Final Safety Analyses Report (UFSAR).

D. The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the UFSAR required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, TVA may make changes to the programs and activities described in the supplement without prior Commission approval, provided that TVA evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

E. The UFSAR supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. TVA shall complete these activities no later than June 28, 2014, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

F. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of the most recent NRC-approved version of the Boiling Water Reactor Vessels and Internals Project (BWRVIP) Integrated Surveillance Program (ISP) appropriate for the configuration of the specimens in the capsule. Any changes to the BWRVIP ISP capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.

(3) The licensee is authorized to relocate certain requirements included in Appendix A and the former Appendix B to licensee-controlled documents. Implementation of this amendment shall include the relocation of these requirements to the appropriate documents, as described in the licensee's application dated September 6, 1996; as supplemented May 1, August 14, November 5 and 14, December 3, 4, 11, 22, 23, 29, and 30, 1997; January 23, March 12, April 16, 20, and 28, May 7, 14, 19, and 27, and June 2, 5, 10 and 19, 1998; evaluated in the NRC staff's Safety Evaluation enclosed with this amendment. This amendment is effective immediately and shall be implemented within 90 days of the date of this amendment.

(4) Deleted.

(5) Classroom and simulator training on all power uprate related changes that affect operator performance will be conducted prior to operating at uprated conditions. Simulator changes that are consistent with power uprate conditions will be made and simulator fidelity will be validated in accordance with ANSI/ANS 3.5-1985. Training and the plant simulator will be modified, as necessary, to incorporate changes identified during startup testing. This amendment is effective immediately.

(6) The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Browns Ferry Nuclear Plant Physical Security Plan, Training and Qualification Plan, and Contingency Plan," submitted by letter dated September 10, 2004, and supplemented on October 22, 2004.

(7) Browns Ferry Nuclear Plant shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for BFN as approved in the safety evaluations dated December 8, 1988; March 6, 1991, March 31, 1993; November 2, 1995; (_____); and Supplement dated November 3, 1989; subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(8) Deleted.

ENCLOSURE 3

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS-459 REQUEST FOR AN APPENDIX R LICENSE AMENDMENT

COMMITMENT

The combined Units 1, 2, and 3 SSIs will be released from administrative hold prior to BFN Unit 1 entering Mode 2.