



1101 Market Street, Chattanooga, Tennessee 37402

CNL-22-055

September 29, 2022

10 CFR 50.90

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Browns Ferry Nuclear Plant Units 1, 2, and 3
Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68
NRC Dockets 50-259, 50-260, and 50-296

Subject: **Browns Ferry Nuclear Plant, Units 1, 2, and 3 Application to Delete Acreage Value Discussion from Technical Specifications (BFN TS-543)**

In accordance with the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.90, Tennessee Valley Authority (TVA) is submitting for Nuclear Regulatory Commission (NRC) approval, a request for an amendment to Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68 for the Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3.

TVA requests deletion of the phrase describing the BFN acreage discussion in Technical Specification (TS) Section 4.1, "Site Location." This information is already described in the Updated Final Safety Analysis Report and is not a level of detail required under 10 CFR 50.36(c)(4) or the Atomic Energy Act.

The Enclosure to this letter provides a description and assessment of the proposed change. Attachment 1 to the Enclosure provides the existing BFN Unit 1, 2, and 3 TS pages marked up to show the proposed changes. Attachment 2 to the Enclosure provides revised (re-typed) BFN TS pages. There are no associated TS Bases pages for this proposed change.

TVA has determined that there is no significant hazards consideration associated with the proposed change and that the license amendment qualifies for a categorical exclusion from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9). Additionally, in accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter and enclosures to the Alabama State Department of Public Health.

Approval of the proposed license amendment is requested within 12 months of the date of this letter with implementation within 30 days following NRC approval.

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There are no new regulatory commitments made in this letter.

Please address any questions regarding this submittal to Stuart L. Rymer, Senior Manager, Fleet Licensing at slymer@tva.gov.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 29th day of September 2022.

Respectfully,



 Digitally signed by Rearden, Pamela S
Date: 2022.09.29 19:41:44 -04'00'

James Barstow
Vice President, Nuclear Regulatory Affairs and Support Services

Enclosure: Description and Assessment of the Proposed Change

cc: NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Browns Ferry Nuclear Plant
NRC Project Manager - Browns Ferry Nuclear Plant
State Health Officer, Alabama State Department of Public Health

Enclosure

Description and Assessment of the Proposed Change

Browns Ferry Nuclear Plant Units 1, 2, and 3

Enclosure

Description and Assessment of the Proposed Change

Subject: Browns Ferry Nuclear Plant, Units 1, 2, and 3 Application to Delete Acreage Value Discussion from Technical Specifications (BFN TS-543)

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2. Proposed TS Changes (Final typed) Browns Ferry Nuclear Plant, Units 1, 2, and 3

Enclosure

Description and Assessment of the Proposed Change

1.0 SUMMARY DESCRIPTION

TVA requests deletion of the phrase describing the Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3 acreage discussion in Technical Specification (TS) Section 4.1, "Site Location." This information is already described in the Updated Final Safety Analysis Report (UFSAR) and is not a level of detail required under Title 10 of the *Code of Federal Regulations* (10 CFR) 50.36(c)(4) or the Atomic Energy Act.

2.0 DETAILED DESCRIPTION

2.1 Current TS Requirement/Reason for the Proposed Change

TS Section 4.1, "Site Location," states the following:

The BFN site contains approximately 840 acres and is located on the north shore of Wheeler Lake at Tennessee River Mile 294 in Limestone County, Alabama. The minimum distance from the outside of the secondary containment building to the boundary of the exclusion area as defined in 10 CFR 100.3 is ≥ 4000 feet.

The approximately 840 acres shown in TS Section 4.1 for all three units does not include a transfer of approximately 42 acres of TVA reservoir properties to Browns Ferry in 1979 which increased the Browns Ferry owned acreage to approximately 880 acres. The land that was transferred was mostly along the plant shoreline and was already part of the site Owner Controlled Area; therefore, the transfer did not result in a change to the BFN site boundaries. TVA is opting to delete the acreage phrase rather than update it, as the acreage information is contained in Section 2.2.1 of the BFN UFSAR and is an unnecessary level of detail in the TS.

2.2 Description of the Proposed Change

The proposed change revises TS Section 4.1 as follows:

The BFN site is located on the north shore of Wheeler Lake at Tennessee River Mile 294 in Limestone County, Alabama. The minimum distance from the outside of the secondary containment building to the boundary of the exclusion area as defined in 10 CFR 100.3 is ≥ 4000 feet.

Attachment 1 to the Enclosure provides the existing BFN Unit 1, 2, and 3 TS pages marked up to show the proposed changes. Attachment 2 to the Enclosure provides revised (re-typed) BFN TS pages. There are no associated TS Bases pages for this proposed change.

3.0 TECHNICAL EVALUATION

The proposed change deletes the acreage value in TS Section 4.1, "Site Location." The acreage information is contained in Section 2.2.1 of the BFN UFSAR. The site acreage value is not required by 10 CFR 50.36(c)(4), "Design Features." The only legal requirement is to provide a description of the place of use of the special nuclear material, as required by Section 182.a of the Atomic Energy Act of 1954 (as documented in Technical Specification traveler CEOG-03 to the Improved Standard Technical Specifications (ISTS), which was incorporated into Revision 1

Description and Assessment of the Proposed Change

of the ISTS on April 7, 1995 (Reference 1)). The revised BFN TS will continue to meet this minimum content requirement.

4.0 REGULATORY ANALYSIS

4.1 Applicable Regulatory Requirements/Criteria

The requirements of 10 CFR 50.36(c) consist of a set of objective criteria for determining which regulatory requirements and operating restrictions should be included in TS. These criteria include Limiting Conditions for Operation (LCOs), Safety Limits (SLs), Limiting Safety System Settings (LSSSs), and Surveillance Requirements (SRs) associated with plant structures, systems, and components (SSCs) that support the safety analyses of plant. It also contains a requirement for design features such as materials of construction and geometric arrangements, which, if altered or modified, would have a significant effect on safety. The proposed change involves removing information from the TS that do not fit the requirements of 10 CFR 50.36 for inclusion in the TS. The proposed text description in the Site Location section is in alignment with the level of information necessary for this TS section and is considered administrative in nature. All LCOs, SLs, and LSSSs associated with plant SSCs remain unchanged from this proposed amendment. All TS requirements for plant SSCs remain in accordance with 10 CFR 50.36(c). Therefore, the proposed changes are consistent with current regulations.

4.2 Precedent

The NRC approved an amendment to Watts Bar Nuclear Plant, Units 1 and 2, deleting figures associated with the site location, dated June 22, 2020 (Reference 2).

4.3 No Significant Hazards Consideration Analysis

TVA requests deletion of the phrase describing the BFN Units 1, 2, and 3 acreage discussion in TS Section 4.1, "Site Location." This information is already described in the UFSAR and is not a level of detail required under 10 CFR 50.36(c)(4) or the Atomic Energy Act.

TVA has evaluated whether a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below.

1. *Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?*

Response: No

The proposed change removes information regarding the BFN acreage value from the BFN TS. This change is administrative in nature, and no actual plant equipment, accident analyses, or dose consequences will be affected by the proposed change.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Enclosure

Description and Assessment of the Proposed Change

2. *Does the proposed amendment create the possibility of a new or different kind of accident from any previously evaluated?*

Response: No

The proposed change removes information regarding the BFN acreage value from the BFN TS. This change is administrative in nature. No actual plant equipment or accident analyses will be affected by the proposed changes, and no new failure modes or accident initiators will be created.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. *Does the proposed amendment involve a significant reduction in a margin of safety?*

Response: No

The proposed change removes information regarding the BFN acreage value from the BFN TS. This change is administrative in nature. Margins of safety are associated with confidence in the ability of the fission product barriers to limit the level of potential dose to the public. No actual plant equipment or accident analyses will be affected by the proposed change. Additionally, the proposed changes will not relax any criteria used to establish safety limits, will not relax any safety systems settings, nor will they relax the bases for any limiting conditions of operation.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, TVA concludes that the proposed change 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.

4.4 Conclusion

In conclusion, based on the considerations discussed 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 NRC regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL EVALUATION

The proposed license amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in

Enclosure

Description and Assessment of the Proposed Change

10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

6.0 REFERENCES

1. NUREG-1433, Volume 1, "Standard Technical Specifications General Electric Plants, BWR/4," Revision 1, April 1995 (ML13196A477).
2. NRC letter to TVA, "Watts Bar Nuclear Plant, Units 1 and 2 - Issuance of Amendment Nos. 135 and 39 Regarding Miscellaneous Administrative Changes to the Technical Specifications (EPID L-2019-LLA-0120)," dated June 22, 2020 (ML20016A278).

Attachment 1

**Proposed Technical Specification Changes (Markups)
Browns Ferry Nuclear Plant Units 1, 2, and 3
(3 total pages)**

4.0 DESIGN FEATURES

4.1 Site Location

The BFN site ~~contains approximately 840 acres and~~ is located on the north shore of Wheeler Lake at Tennessee River Mile 294 in Limestone County, Alabama. The minimum distance from the outside of the secondary containment building to the boundary of the exclusion area as defined in 10 CFR 100.3 is ≥ 4000 feet.

4.2 Reactor Core

4.2.1 Fuel Assemblies

The reactor shall contain 764 fuel assemblies. Each assembly shall consist of a matrix of Zircalloy fuel rods with an initial composition of natural or slightly enriched uranium dioxide (UO_2) as fuel material, and water rods or channels. Limited substitutions of zirconium alloy or stainless steel filler rods for fuel rods, in accordance with approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with NRC staff approved codes and methods and have been shown by tests or analyses to comply with all safety design bases. A limited number of lead test assemblies that have not completed representative testing may be placed in nonlimiting core regions.

4.2.2 Control Rod Assemblies

The reactor core shall contain 185 cruciform shaped control rod assemblies. The control material shall be boron carbide, hafnium metal, or both, as approved by the NRC.

(continued)

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(3 total pages)**

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