



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

April 5, 2022

Mr. James Barstow  
Vice President, Nuclear Regulatory  
Affairs and Support Services  
Tennessee Valley Authority  
1101 Market Street, LP 4A-C  
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2 AND 3; CLINCH RIVER  
NUCLEAR SITE; SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2; WATTS  
BAR NUCLEAR PLANT, UNITS 1 AND 2 – REVIEW OF QUALITY  
ASSURANCE PLAN CHANGES (EPID L-2022-LLQ-0002)

Dear Mr. Barstow:

By letter dated February 4, 2022, Tennessee Valley Authority (TVA) submitted Revision 40 to TVA-NQA-PLN89-A, "TVA Nuclear Quality Assurance Plan," (NQAP) to the U.S. Nuclear Regulatory Commission (NRC) for review and approval of changes that are reductions in commitments in accordance with paragraph 50.54(a)(4) of Title 10 of the *Code of Federal Regulations* (10 CFR).

Specifically, TVA requested NRC approval to eliminate the Vice President, Nuclear Oversight position and reflect the reporting relationship of the General Manager, Quality Assurance (QA), to the Chief Nuclear Officer. In addition, TVA requested to revise the education and work experience requirements for QA management to be consistent with industry standards.

The NRC staff reviewed TVA's requested changes to its NQAP, as documented in the enclosed safety evaluation, and finds that TVA will continue to comply with the criteria of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," and, therefore, is acceptable.

J. Barstow

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If you have any questions, please contact Kimberly Green at 301-415-1627 or via e-mail at [Kimberly.Green@nrc.gov](mailto:Kimberly.Green@nrc.gov).

Sincerely,

David J. Wrona, Chief  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos.: 50-259, 50-260, 50-296,  
72-052, 52-047, 50-327,  
50-328, 72-034, 50-390,  
50-391, and 72-1048

Enclosures: As stated

cc: Listserv



UNITED STATES  
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST TO REVISE THE NUCLEAR QUALITY ASSURANCE PLAN

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3

CLINCH RIVER NUCLEAR SITE

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

WATTS BAR NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-259, 50-260, 50-296, 72-052, 52-047, 50-327, 50-328, 72-034,

50-390, 50-391, AND 72-1048

1.0 INTRODUCTION

By letter dated February 4, 2022 (Reference 1), Tennessee Valley Authority (TVA) submitted Revision 40 to TVA-NQA-PLN89-A, "TVA Nuclear Quality Assurance Plan," (NQAP) to the U.S. Nuclear Regulatory Commission (NRC) for review and approval of changes in accordance with paragraph 50.54(a)(4) of Title 10 of the *Code of Federal Regulations* (10 CFR).

Specifically, the TVA requested approval to eliminate the Vice President, Nuclear Oversight (NOS) position and reflect the reporting relationship of the General Manager (GM), Quality Assurance (QA), to the Chief Nuclear Officer (CNO). In addition, TVA requested to revise the education and work experience requirements for QA management to be consistent with industry standards. The proposed changes are considered to be reductions in commitments in accordance with the provisions of 10 CFR 50.54(a)(4).

The TVA NQAP describes the quality assurance program for the following plants and their co-located independent spent fuel storage installations (ISFSIs): Browns Ferry Nuclear Plant, Units 1, 2, and 3; Sequoyah Nuclear Plant, Units 1 and 2; and Watts Bar Nuclear Plant, Units 1 and 2. The program also applies to the Clinch River Nuclear Site.

2.0 REGULATORY EVALUATION

The regulatory requirements for nuclear power plant QA programs are set forth in Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, 10 CFR 50.34(b)(6)(ii), and 10 CFR 50.54(a).

Appendix B to 10 CFR Part 50 establishes the QA requirements for the design, fabrication, construction, and testing of systems structures and components (SSCs). Criterion I, "Organization," of Appendix B describes the requirements for the QA organization including the authority and duties of persons and organizations performing activities affecting the safety-related functions SSCs.

The regulations in 10 CFR 50.34(b)(6)(ii) require the final safety analysis report for a nuclear power facility to include information on the managerial and administrative controls that would ensure safe operation. The information on the controls shall also include a discussion on how the applicable requirements of Appendix B to 10 CFR Part 50 will be satisfied.

The regulations in 10 CFR 50.54 require each power plant subject to the requirements of Appendix B to implement a QA program, and 10 CFR 50.54(a)(4) sets forth the NRC's regulatory requirements regarding changes to a QA program description. Changes to a QA program description that reduce the licensee's commitments must be submitted and receive NRC approval prior to implementation. This includes changes made to the QA program description as presented in the safety analysis report or in a topical report that must be submitted as specified in 10 CFR 50.4.

The submittal of a change to the QA program description must include all pages affected by that change and must be accompanied by a forwarding letter identifying the change, the reason for the change, and the basis for concluding that the revised program incorporating the change continues to satisfy the criteria of Appendix B to 10 CFR Part 50, and the QA program description commitments previously accepted by the NRC.

In evaluating the adequacy of the revision to the NQAP, the NRC staff used the guidance contained in NUREG-0800, Section 17.3, (Reference 2), which provides acceptance criteria for QA program descriptions.

### 3.0 TECHNICAL EVALUATION

In its letter dated February 4, 2022, TVA requested approval of proposed changes to its NQAP that are considered to be reductions in commitment. TVA proposed to eliminate the Vice President, NOS position and reflect the reporting relationship of the GM, QA to the CNO. In addition, TVA proposed to change the education and work experience requirements for QA management to be consistent with industry standards. TVA included the justification for the proposed changes as well as markups of the affected pages.

The NRC staff reviewed TVA's request for the proposed changes to its NQAP. The NRC staff determined that elimination of the Vice President, NOS position will not jeopardize the organizational freedom and independence related to activities subject to the requirements of Appendix B to 10 CFR Part 50. In its place, the GM, QA will now be responsible for assuring the effective implementation of the QA program and will report to the CNO. The GM, QA will continue to (1) have sufficient authority, organizational freedom, and independence; and (2) will have direct access to the levels of management necessary to perform its function, consistent with the requirements in Criterion I of Appendix B to 10 CFR Part 50.

In addition, the NRC staff determined that the proposed changes to the QA management education and work experience requirements are consistent with the requirements of the 2014 Edition of the American National Standards Institute/American Nuclear Society (ANSI/ANS) 3.1 (Reference 3), which have been endorsed by the NRC in Revision 4 of Regulatory Guide 1.8,

(Reference 4). These changes will continue to provide: (1) assurance that an appropriate QA program is established and effectively executed; and (2) verification that activities affecting safety-related and quality-related functions have been correctly performed, consistent with the requirements in Criterion I of Appendix B to 10 CFR Part 50. Furthermore, these changes do not affect QA management's ability to have sufficient authority, organizational freedom, and independence to identify quality problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions.

#### 4.0 CONCLUSION

As discussed above, the NRC staff reviewed TVA's requested changes as described in its letter. The NRC staff found that TVA will continue to comply with Criterion I of Appendix B to 10 CFR Part 50, 10 CFR 50.34(b)(6)(ii), and 10 CFR 50.54(a). Therefore, the NRC staff concludes that the requested changes are acceptable.

#### 5.0 REFERENCES

1. Polickoski, J. T., Tennessee Valley Authority, letter to U.S. NRC, "Nuclear Quality Assurance Plan, TVA-NQA-PLN89-A, Reduction in Commitment," February 4, 2022 (ADAMS Accession No. ML22035A183).
2. U.S. Nuclear Regulatory Commission, NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," Section 17.3, "Quality Assurance Program Description," August 1990 (ADAMS Accession No. ML052350376).
3. American National Standard, ANSI/ANS-3.1-2014, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants."
4. Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants," Revision 4, June 2019 (ADAMS Accession No. ML19101A395).

Principal Contributor: Y. Diaz-Castillo

Date: April 5, 2022

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