

May 28, 2004

Mr. J. A. Scalice
Chief Nuclear Officer and
Executive Vice President
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

SUBJECT: BELLEFONTE NUCLEAR PLANT, UNITS 1 AND 2; BROWNS FERRY
NUCLEAR PLANT, UNITS 1, 2, AND 3; SEQUOYAH NUCLEAR PLANT,
UNITS 1 AND 2; WATTS BAR NUCLEAR PLANT, UNITS 1 AND 2
REGARDING QUALITY ASSURANCE PROGRAM CHANGE (TAC NOS.
MC0676, MC0679, MC0680, MC0681, MC0682, MC0677, MC0678, MC0683,
MC0684)

Dear Mr. Scalice:

By letter dated August 28, 2003, as supplemented by letter dated January 16, 2004, the Tennessee Valley Authority submitted proposed changes to its quality assurance program, applicable to the Bellefonte, Browns Ferry, Sequoyah, and Watts Bar Nuclear Plants. Your letter states that you have determined that the changes constitute a reduction in commitment to the quality assurance program; therefore, these changes must be submitted to and approved by the U.S. Nuclear Regulatory Commission (NRC) staff prior to implementation in accordance with Title 10 of the *Code of Federal Regulations*, Section 50.54(a)(4). The January 16, 2004, letter provided responses to the NRC staff's request for additional information contained in our letter dated October 14, 2003.

We have reviewed and evaluated the information provided in your August 28, 2003, and January 16, 2004, submittals, and we have determined that the quality assurance program, as revised, continues to satisfy the standards and regulations and is acceptable for implementation. A copy of the safety evaluation is enclosed.

Sincerely,

/RA/

Manny M. Comar, Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260, 50-296, 50-327,
50-328, 50-390, 50-391, 50-438 & 50-439

Enclosure: Safety Evaluation

cc w/enclosures: See next page

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Distribution: See next page

*SE Input dtd 4/29/04

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Dated: May 28, 2004

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

NUCLEAR QUALITY ASSURANCE PLAN (TVA-NQA-PLN89-A)

TENNESSEE VALLEY AUTHORITY

BELLEFONTE, BROWNS FERRY, SEQUOYAH, AND WATTS BAR NUCLEAR PLANTS

DOCKET NOS. 50-438, 50-439, 50-259, 50-260, 50-296, 50-327, 50-328, 50-390, 50-391

1.0 INTRODUCTION

By letter dated August 28, 2003, as supplemented by letter dated January 16, 2004, the Tennessee Valley Authority (TVA, the licensee) submitted Revision 13 to its nuclear quality assurance (NQA) program description, applicable to the Bellefonte, Browns Ferry, Sequoyah, and Watts Bar Nuclear Plants. The revision includes two changes identified by the licensee as reductions in commitment, which require U.S. Nuclear Regulatory Commission (NRC, the Commission) approval prior to implementation. These changes involve (1) deletion of a concurrence requirement for quality control inspector certifications and (2) revision of the quality assurance requirements for lay-up programs for deferred plants.

2.0 BACKGROUND

The revised NQA Plan is provided in accordance with Title 10, *Code of Federal Regulations* (10 CFR) Section 50.54(a)(4) and 10 CFR 50.55(f)(3) and the periodic submittal frequency of 10 CFR 50.71(e). The submission itemizes the changes to the NQA plan since the previous revision and provides justification for changes. The submission also includes a copy of the revised NQA Plan. Bellefonte Units 1 and 2 and Watts Bar Unit 2 are in the deferral status addressed by the Commission Policy Statement on Deferred Plants (Generic Letter (GL) 87-15).

3.0 EVALUATION

3.1 Regulatory Evaluation

3.1.1 Inspection Certification Requirements

The licensee's inspection program is described in Section 9.1 of the NQA Plan; the training, qualification, and certification program for personnel performing quality-related activities is described in Section 11.0. These NQA Plan sections address requirements contained in Criterion X and Criterion II of Appendix B to 10 CFR Part 50. In implementing these requirements, the licensee follows the guidance of American National Standards Institute

Enclosure

(ANSI) N45.2-1971 and ANSI N18.7-1976/ANS 3.2 [American Nuclear Society], as described in Appendix B to the NQA Plan.

3.1.2 Preservation of Equipment for Deferred Plants

The Commission Policy Statement on Deferred Plants was published in the *Federal Register* on October 14, 1987 (52 FR 38077) and subsequently issued as GL 87-15. The policy statement provides guidance on quality assurance (QA) requirements for deferred plants and how new regulatory positions would be applied to deferred plants that are reactivated. The scope of these requirements apply to structures, systems, and components (SSC) important to safety, as addressed by General Design Criterion 1, "Quality Standards," of Appendix A to 10 CFR Part 50.

The policy statement defines a "deferred plant" as a nuclear power plant at which the licensee has ceased construction or reduced activity to a maintenance level, maintains the construction permit in effect, and has not announced termination of the plant. The policy statement imposes no new requirements, but makes clear the Commission's position on implementing existing requirements for deferred plants.

Section III.3 of the policy statement identifies NRC requirements for verification of construction status, retention and protection of records, and maintenance and preservation of equipment and materials. These requirements are applied, in part, through 10 CFR 50.54(a), "Conditions of Licenses," and 10 CFR 50.55(f), "Conditions of Construction Permits," which require that a QA program be implemented. The holder of a construction permit must maintain a QA program that meets the requirements of Appendix B to 10 CFR Part 50. (It is noted that the regulations with regard to maintenance (Section 50.65) do not apply to holders of construction permits.)

By letter to the NRC dated July 14, 2000, the licensee confirmed that Bellefonte Units 1 and 2 and Watts Bar Unit 2 were in the "deferred" status and that existing lay-up programs complied with the guidance of GL 87-15. Revision 13 to the NQA Plan incorporates a change to the licensee's lay-up program, which would provide the licensee with the flexibility to terminate lay-up preventive maintenance on selected equipment without further notification to NRC.

3.2. Technical Evaluation

3.2.1 Inspection Certification Requirements

Section 9.1 of the NQA Plan describes the licensee's inspection program; paragraph 9.1.3.D of that section contains the following commitment:

The Vice President, Engineering and Technical Services (E&TS), is responsible for establishing and implementing programs for training and certification of personnel performing quality control (QC) activities. The General Manger, Nuclear Assurance (NA), is responsible for concurring with TVA Nuclear (TVAN) inspector certifications.

The licensee proposes to eliminate the concurrence requirement for the General Manager, NA. This concurrence responsibility would also be eliminated from paragraph 9.3.3.F, which contains an identical commitment for inspector certifications specific to special processes.

The submittal notes that this requirement was incorporated into the NQA Plan when the QC inspection requirement was transferred from NA to E&TS. NA has determined that it now has a well-established oversight role and that its resources can be better utilized in other areas. NA will continue to provide oversight by assessing and/or auditing the inspector certification program and performing observations of inspector performance. NA will continue to review and approve the inspection program and the special processes inspection program to ensure inclusion of QA requirements (NQA Plan, Sections 9.1.3.A and 9.3.3.C).

The licensee's commitment for NA concurrence on inspector certifications is specific to the NQA Plan and does not constitute a commitment to applicable regulatory guides or standards. The staff finds the proposed reduction in commitment to be acceptable.

3.2.2 Preservation of Equipment for Deferred Plants

The licensee proposes to revise the NQA Plan to terminate lay-up preventive maintenance for selected equipment for deferred plants. Under the proposed revision, equipment for which lay-up maintenance is discontinued would be entered into the licensee's corrective action program, described in Section 10 of the NQA Plan. Equipment for deferred plants would be characterized as "active" or "inactive." "Active" refers to SSC for which preventive maintenance consistent with the guidance of GL 87-15 is maintained. "Inactive" refers to SSC for which preventive maintenance has been terminated. The tracking process for identifying, recording, and updating the status of deferred equipment is described in the licensee's letter dated January 16, 2004. The information would be processed and verified as QA data in accordance with the NQA Plan.

The licensee states that this option provides the flexibility to discontinue maintenance, preservation, and documentation activities when such maintenance is no longer practical or feasible. The decision to discontinue lay-up preventive maintenance is based on several factors that include degradation due to design life, outdated or obsolete equipment, design improvements, and the economic feasibility of replacing equipment as opposed to preserving it indefinitely under the lay-up program. Administrative controls prohibit deferred equipment from use in nuclear safety-related applications unless compliance is fully restored in accordance with implementing procedures.

The licensee considers the option to abandon equipment in place to be consistent with the Commission Policy Statement, as inferred by the following staff response to public comments on the policy statement. The reference section of the policy statement (II.A) reads as follows:

In the context of this policy statement, it is expected that a utility, planning to maintain its reactivation option or transfer of ownership to others, will identify any SSC which are important to safety and establish appropriate maintenance, preservation, and documentation (MPD) for these SSC. If a utility determines, based on an analysis of cost-effectiveness, to develop MPD only for safety-related SSC, it must recognize the possibility that SSC for which adequate MPD were not developed may have to be replaced if and when reactivation or transfer of ownership takes place.

Based on cost-effectiveness evaluations, the licensee has determined that it would be more economical to replace or possibly restore certain SSC following testing by repair or corrective maintenance than to continue to implement current lay-up program requirements.

The licensee's current QA program, which is applicable to the deferred units, meets the requirements of Appendix B to 10 CFR Part 50. Revision 13 would incorporate a change that would terminate lay-up preventive maintenance on selected equipment.

The staff response cited by the licensee implies that alternatives to maintenance, preservation, and documentation may be made on the basis of economic evaluations. The term "important to safety," in the context of General Design Criterion 1, includes as a subset the term "safety related." Thus, it is reasonable to use economic evaluations to determine when preventive maintenance is terminated for safety-related equipment. Implicit in the decision to discontinue preventive maintenance is an acknowledgment that the SSC may need to be replaced when reactivation or transfer of ownership takes place.

When notified by a holder of a construction permit of the intent to resume construction, the staff will take the actions described in Section III.A.7 of the policy statement. These actions include review, verification, and inspection activities to determine the acceptability of SSC in accordance with the acceptability criteria of General Design Criterion 1. SSC that fail to meet the acceptability criteria or will not meet current NRC requirements may require special NRC attention and may need to be replaced.

Based on the licensee's description for placing inactive components in the corrective action program, tracking equipment status through the use of a quality-controlled database, administrative controls on the use of deferred equipment, and NRC staff reviews of the acceptability of deferred equipment upon reactivation, the staff finds that the proposed process for terminating preventive maintenance on deferred equipment is acceptable.

4. CONCLUSION

Based on review of the changes incorporated under Revision 13 to the licensee's QA program, the staff has determined that the program continues to satisfy the requirements of Appendix B to 10 CFR Part 50 and is, therefore, acceptable. Subsequent changes to the program will be controlled in accordance with the regulatory change control process in 10 CFR 50.54(a).

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Date: May 28, 2004

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**BROWNS FERRY NUCLEAR PLANT
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