TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

DEC 07 1989

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

Gentlemen:

In the Matter of	)	Docket Nos.	50-259 50-390
Tennessee Valley Authority	)		50-260 50-391
			50-296 50-438
			50-327 50-439
			50-328

TVA NUCLEAR QUALITY ASSURANCE PLAN

Enclosed is TVA's response to your request for additional information (RAI) informally received November 28, 1989, on the TVA Nuclear Quality Assurance Plan (Plan) submitted by TVA letter dated November 3, 1989. This enclosure documents the satisfactory resolution of those RAIs that were discussed with Jack Donohew of your staff and Ralph Shell of TVA on November 29, 1989. As discussed with Mr. Donohew, TVA understands there are no outstanding NRC issues that should prevent NRC staff concurrence on the Plan.

Included as part of the enclosure are revised pages to the Plan which reflect this response and are to be inserted as replacement pages in your copy of the Plan dated October 26, 1989. TVA intends to begin transitioning to the Plan and believes our complete implementation of the Plan should not affect your audit of our program at Browns Ferry. We recognize that when the Safety Evaluation Report is issued, some minor program changes may be necessary.

Once approved, the Plan takes precedence over quality assurance program requirements in other licensing documents except Technical Specifications. As these other licensing documents are revised, they will conform to the Plan. Also, once approved, TVA will submit a clean copy of the Plan and provide dates when full implementation will be completed.

If you have any questions, please telephone F. L. Ginn at (615) 751-7667.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

M. J. Ray

Manager, Nuclear Licensing
and Regulatory Affairs

Enclosure
cc: See page 2

A001 Add: NRR/DLPQ/PEB 1 1 Ltr Encl 1 1

U.S. Nuclear Regulatory Commission

DEC 07 1989

cc (Enclosure):
Ms. S. C. Black, Assistant Director
for Projects
TVA Projects Division
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 2085.

Mr. B. A. Wilson. Assistant Director
for Inspection Programs
TVA Projects Division
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

NRC Resident Inspector
Browns Ferry Nuclear Plant
Route 12, P.O. Box 637
Athens, Alabama 35609-2000

NRC Resident Inspector
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy Daisy, Tennessee 37379

NRC Resident Inspector
Watts Bar Nuclear Plant
P.O. Box 700
Spring City, Tennessee 37381

Additional NRC Questions On The TVA NQA Plan
(Received November 28 and Subsequent Telephone Conversation of November 29)
Revision 0, 10/26/89

	NRC Question	Response to Question
1a.	In the Table of Contents, the title of Section 9.5 differs from the title in the text ("safety-related" is missing).	Agree. The Table of Contents has been revised to be consistent with title of Section 9.5. (Refer to text change on page 4 of the plan).
1b.	Section 4.1.5.E (p. 12) and 4.1.10.C.5 (p. 21) both say "control of M&TE" and "compliance" used to describe (limit) the I&C devices. Is this intentional in that the graded QA program goes beyond the "safety related" and "compliance" I&C devices into the realm of "quality related" I&C devices?	TVA did not intentionally omit (limit) "safety related" or "compliance" from "control of M&TE" and "installed" I&C devices in Sections 4.1.5.E and 4.1.10.C.5. The text has been revised adding safety related to Sections 4.1.5.E and 4.1.10.C.5. Also, the same corrections has been made to Sections 9.5.3.A and 9.5.4, first paragraph. (Refer to text changes on pages 12, 21 and 60 of the plan.)
1c.	Section 9.5.2.D (p. 60) indicates that its requirements are in addition to those in 9.5.2.C. It is somewhat confusing, therefore, to note that part 9.5.2.D.2 has the same requirement as part 9.5.2.C.4.	Agree. For clarification Section 9.5.2.D.2 has been deleted from the text. (Refer to text change on page 60 of the plan.)
8a.	The response to item 8 states: "The Manager of NQA has overall responsibility for establishing requirements." This appears to be a misstatement which should be changed.	The response to question 8 has been revised to delete "regulatory." (Refer to page 3 of 15 of Enclosure 2 of the previous submittal.)
8b.	The Topical Report still does not appear to show the TVA position with overall (i.e., ultimate) responsibility for the development and administration of the QA program. Indicate who (by position title) has the responsibility.	The NQA Plan specifies in Section 4.1.1 that the Senior Vice President has the overall responsibility for the establishment, implementation, and evaluation of the effectiveness of TVA's NQA Program. For clarification this section has been revised in the text to include administration of the program. (Refer to text change on page 10 of the plan.)
39a.	The fourth line from the end of the response to item 39 refers to Section 10.2.2.4. It appears this should be 10.2.2.H.	Agree. The response to question has been revised to refer to Section 10.2.2.H. (Refer to page 14 of 15 of Enclosure 2 of the previous submittal.)

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established for all organizational levels. The NP Policy and Organization Manual (P&OM) describes the general organizational structure and primary responsibilities of NP organizations and responsibilities of non-NP TVA organizations involved in the NQAP. The Human Resource Organization shall prepare organization charts that show overall NP organizational structure. The overall organizational structure and the NQA organizational structure is shown in Appendix H. The size of the NQA organization, including the size of respective site QA staffs, is determined by assessing the resources required to adequately perform functions and workloads assigned to each NQA organizational unit.

Chapter 13 of each plant's Final Safety Analysis Report (FSAR) provides a description of other key organizational positions, including the site director's organization and plant operating staffs, responsible for administering and implementing the NQAP.

4.1 Functions of Organizations

NP management, while carrying out their functions, are required to fully comply with all aspects of the NQAP applicable to their organization and ensure proper implementation. This subsection identifies (1) functional responsibilities that are generally implemented through procedures and instructions by all NP organizations involved in the program, and (2) specific QA functional responsibilities that the identified organizations are to develop through NPS documents.

4.1.1

The Senior Vice President, Nuclear Power has the overall responsibility for the establishment, implementation, and administration of TVA's NQAP and the evaluation of its effectiveness. This responsibility is administered through his management staff, including:

Vice President, Nuclear Business Operations
Vice President, New Projects
Vice President, Nuclear Engineering
Vice President and Nuclear Technical Director
Manager, Nuclear Human Resources
Vice President, Nuclear Assurance and Services
Vice President, Nuclear Power Production
Chairman, Nuclear Safety Review Board

4.1.2 NP Organizations

All NP organizations have the following general functions:

A. Invoke appropriate NQAP requirements on non-NP TVA organizations that provide services for quality-related programs and features.

B. Regularly review the status and adequacy of those parts of the NQAP which they are executing.

4.1.4 New Projects

In addition to the responsibilities described in subsection 4.1.2, the Vice President, New Projects is responsible for the following:

A. Ensuring that activities at unlicensed units are conducted in a safe, efficient, reliable, and quality manner.

B. Implementing the Nuclear Maintenance Program during construction phase activities.

C. Ensuring that the QA requirements established by this plan in the following activity areas are either included or referenced (as appropriate) in related procedures or instructions sponsored by New Projects.

1. Control of special processes.

2. Line verification activities.

3. Test control.

4. Handling, storage, and shipping.

5. Inspection, test, and operating status.

6. Implementing the requirements of the NCM for ASME Section III activities.

7. Control of maintenance.

8. Implementing the deferred plant quality assurance program requirements as identified in Appendix F.

4.1.5 Nuclear Engineering

In addition to the responsibilities described in subsection 4.1.2, the Vice President, Nuclear Engineering (NE) is responsible for ensuring that the QA requirements established by this plan in the following activity areas are either included or referenced (as appropriate) in related procedures or instructions sponsored by NE.

A. Design control.

B. Inspection and line verification.

C. Control of special processes.

D. Test control.

E. Control of M&TE and installed safety related I&C devices.

4. Control of maintenance.

5. Control of M&TE and installed safety related I&C devices.

6. Control of special processes.

4.1.11 Nuclear Safety Review Board

In addition to the responsibilities described in subsection 4.1.2, the Chairman, Nuclear Safety Review Board (NSRB) is responsible for ensuring that the QA requirements established by this plan related to NSRB functions are either included or referenced (as appropriate) in related procedures or instructions. The Chairman, NSRB is also responsible for providing recommendations to the Senior Vice President, Nuclear Power for improving the NQAP and for complying with the administrative requirements delineated in Technical Specifications.

5.0 Nuclear QA Program

The Manager, NQA develops this plan to establish the requirements of the NQAP that encompass the General Management and General Regulatory Requirements in Sections 3.1 and 3.2 of this plan. The program requirements apply to design, construction, testing, operation, maintenance, repair, replacement, and modification of TVA nuclear facilities. Units in transition to the operational phase require special processing. The Vice President, New Projects shall provide notification to the Vice Presidents of NPP and NA&S of those activities affecting the unit that have been transitioned to Operations.

The Vice President, NTD shall develop and maintain a fuel program that is consistent with requirements of the NQAP. The fuel program shall address suppliers interface responsibilities related to nuclear fuel from plant design and construction through operation and disposal of the fuel.

NP organizations performing activities within the scope of the NQAP shall implement the program through written procedures and instructions.

Non-NP TVA organizations providing services within the scope of the NQAP shall develop QA programs as required by Interoffice Agreements. Non-NP TVA organization QA programs shall be reviewed and approved by NQA.

5.1 Program Scope

A. The requirements of the NQAP shall apply to safety-related structures, systems, and components and associated activities and shall take into account special equipment, environmental conditions, skills, or processes.

B. The requirements shall also apply to TVA identified quality-related programs and features which are important to the continued reliable operation of TVA's nuclear facilities. These programs and features are listed below. Appendix C, "Guidelines for Determination of TVA

2. Installed safety-related I&C devices shall be controlled to ensure performance of required periodic calibrations.

3. Environmental qualification controls for 10 CFR 50.49 installed safety-related I&C devices shall be established in applicable design documents. These controls shall be maintained when installed safety-related I&C devices are opened in place or removed for calibration in a laboratory.

4. Installed safety-related I&C devices which are consistently found to be out of calibration shall be identified and repaired or replaced.

D. Unique Requirements for Installed Compliance I&C Devices

Controls for installed compliance I&C devices shall include the following requirements. These requirements are in addition to those noted in Sections 9.5.2.A. and 9.5.2.C.

1. Methods shall be established to identify previous usage of installed compliance I&C devices when found to be out of calibration. These methods shall require that inspections or tests be repeated or a documented evaluation be performed when the integrity of past measurements obtained with the suspect equipment or device cannot be demonstrated.

9.5.3 Responsibilities

A. The Vice President, NPP is responsible for the development of controls for M&TE and installed safety related I&C devices. The program elements in Section 9.5.2 and the related source require- ments contained within the documents listed in Section 9.5.4 shall be addressed.

B. The Vice President, NE is responsible for providing qualitative/quantitative criteria in design output documents.

9.5.4 Source Requirement Documents

The following source requirement documents, as applicable, with exceptions as noted in Appendix B of this plan, establish mandatory controls which must be addressed in the development of programs and procedures for the control of M&TE and installed safety related I&C devices.

A. 10 CFR 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment."

Additional NRC Questions
on the TVA NQA Plan
(Received 9/27 and 9/29 by Telecon and in Meeting of 10/3 and subsequent telephone conversation)
Rev. 0, 10/26/89

NRC Request for Additional Information (RAI)	Disposition
7. Last item of 4.1.5 (or 6) indicates VP and NTD is responsible for establishing and managing the nuclear fuels program. Does this include the QA/QC program for nuclear fuels?	Yes, the VP and NTD is responsible for the QA/QC program for nuclear fuels. This program is highly technical and small in scope and requires the use of trained and qualified specialists in nuclear fuels. NQA shall review and concur with the nuclear fuels QA Program. (Refer to text change on page 18 of the plan.)
8. Section 4.1.9.A said NQA manager was responsible for developing and administering the QA program, including the NQA Plan. The 9/1/89 submittal seems to limit this responsibility to NQA Plan only. Indicate where the plan shows the TVA position with overall responsibility for developing and administering the program.	The Manager of NQA has overall responsibility for establishing QA requirements. Responsibility for establishing and maintaining programs to implement those requirements are specified in Section 4 of the NQA Plan.
9. Response to RAI 18 indicates assessment results are submitted to Senior VP, affected VPs, and site directors. Section 4.1.9.d does not include site director. Clarity.	Section 4.1.9.D has been revised to include the affected site directors. (Refer to text change on page 16 of the plan.)
10. Section 4.1.9.G.1.b states NQA&E Manager is responsible to conduct indepth technical audits to assess technical adequacy of engineering activities. This appears to include responsibility listed in 4.1.9.G.1.f. If last section required for onsite contractors, is not a separate section required for offsite contractors who perform engineering services? Clarify NQA&E responsibility for audits of engineering. Note text in 4.1.9.G.1 is inconsistent with Appendix H. (Nuclear Quality A&E vs Nuclear QA A&E).	NQA&E performs indepth technical audits of engineering activities of onsite contractors and TVA. Quality Programs performs indepth technical audits of offsite contractors who perform engineering services. Section 4.1.9.G.2.m has been revised to reflect indepth technical audits by Quality Programs. (Refer to text change on page 18 of the plan.) Appendix H. (Nuclear QA Audit and Evaluation Manager) is incorrect. The correct title is Nuclear Quality Audit and Evaluation Manager, and Appendix H has been corrected. (Refer to page 110 of the plan.)

Additional NRC Questions
on the TVA NQA Plan
(Received 9/27 and 9/29 by Telecon and in Meeting of 10/3 and subsequent telephone conversation)
Rev. 0, 10/26/89

NRC Request for Additional Information (RAI)		Disposition
39. (Continued)		
Question	Disposition to be considered	
26	Second sentence	Section 6.1.2.B.3 has been revised to clarify that these reviews are by NQA personnel or others knowledgeable of QA requirements. (Refer to text addition on page 27 of the plan.)
37	All (with NPD instead of nuclear fuel)	It is inappropriate to include this level of detail in the NQA Plan. This level of detail is specified in a nuclear power standard. No text change needed.
40	First paragraph	It is inappropriate to add this level of detail in the plan. Section 10.2.2.B states that established instructions exist for the handling of corrected on the spot (COTS) items. These implementing instructions are contained in an NQA procedure. No text change needed.
42	All but first line and last sentence	It is inappropriate to add this level of detail in the plan. Section 10.2.2.G requires verification and documentation of satisfactory corrective action completion by appropriate organizations. The details, including QA follow-up of corrective action, are contained in NP Nuclear Quality Assurance Manual, Part I, Section 2.16. Section 10.2.2.H has been included in the text to specify that independent verification of corrective action implementation is performed by NQA as specified within the Corrective Action Program procedure.
40. The response to Q38 does not provide the requested commitment. Clarify.		As stated in our initial response CAQs are corrected, or evaluated and determined not to adversely impact testing prior to the initiation of preoperational testing. This is addressed in a WBN site director procedure and Section 9.4.2.3.h has been added to the text. (Refer to text change on page 55 of the plan.)