

TENNESSEE VALLEY AUTHORITY

Regulatory

File 674

CHATTANOOGA, TENNESSEE 37401

November 17, 1972

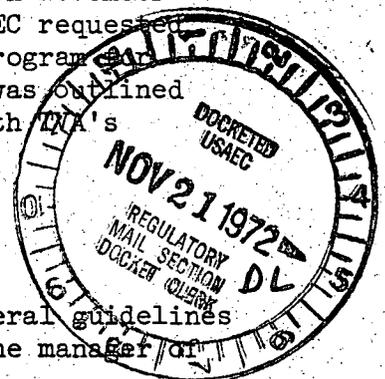
Mr. John F. O'Leary, Director
Directorate of Licensing
U.S. Atomic Energy Commission
Washington, DC 20545



Dear Mr. O'Leary:

In the Matter of the Applications of) Docket Nos. 50-390
Tennessee Valley Authority) 50-391

In telephone conversation with TVA representatives on November 10, 1972, Messrs. Paul Check and Mark Peranich of AEC requested additional information on TVA's Quality Assurance Program for Design and Construction. The needed clarification was obtained by specific questions, which are set forth below with TVA's response.



AEC Question No. 1

Discuss in further detail the referenced OEDC's general guidelines pertaining to the authority that the assistant to the manager of quality assurance can exercise over such items as:

- a. The approval of QA instructions developed by the engineering or construction organizations to implement respective QA commitment within the PSAR.
- b. Requiring changes to QA QC program instructions of engineering or construction or corrective action.
- c. The quality-related activities of the DED quality assurance coordinator and the construction engineer.

TVA Response

TVA intends to comply fully with the requirements of 10CFR50, Appendix B. In the areas of design and construction of nuclear power plants, the Manager of OEDC has overall responsibility for the Quality Assurance Program. He discharges this responsibility through his Assistant to the Manager for Quality Assurance, who has a full-time staff of engineers, auditors, and specialists under his direct supervision.

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1. The Assistant to the Manager for Quality Assurance will have the responsibility and authority to audit all aspects of quality assurance within the area of responsibility of OEDC and identify problems in quality assurance areas and authority to initiate necessary changes. His authority will include but not be limited to the following:
 - a. To review and approve all Quality Assurance Procedures issued by the Division of Engineering Design and the Division of Construction.
 - b. To require changes to QA Procedures and to take corrective action on his own to assure that necessary revisions have been adopted and placed in effect.
 - c. To execute surveillance over quality-related activities of the DEED Quality Assurance Coordinator and Construction Engineer and to direct corrective action.

For further information, a copy of a letter to the Assistant to the Manager for Quality Assurance from the Manager of Engineering Design and Construction is enclosed. This letter clearly outlines the duties and responsibilities of the Assistant to the Manager for Quality Assurance.

AEC Question No. 2

Appendix A, Subsections A.2.1.b and f of the PSAR refer to QA staff activities which are supervised or directed by the assistant to the manager for quality assurance. In regard to the above:

- a. Illustrate on a separate organizational chart the referenced QA staff which is supervised or directed by the assistant to the manager for quality assurance. Discuss the functional assignments and full-time or part-time aspects of each staff position.
- b. With respect to audits of the Division of Engineering and Construction to what extent will such audits examine procedures, activities, and records? Who will perform these audits? What qualifications will be specified for auditors? What will be the frequency of audits? Also, discuss which audits will include independent, selective examinations of the end product developed or constructed by each organization.

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- c. Discuss in detail the system on followup action on audit results. Include not only actions on findings of noncompliance to established procedures, but also on findings where the established system is not sufficient or appropriate to control activities in progress.

TVA Response

In regard to the QA staff activities which are supervised or directed by the Assistant to the Manager for Quality Assurance:

- a. Enclosure 2 is an organizational chart for the OEDC Quality Assurance Staff supervised by the Assistant to the Manager for Quality Assurance. The composition and functional assignments will be as follows:

Administrative Section--This section will be composed of a Procedure Group, a Division of Engineering Group, and a Division of Construction Group. It will be responsible for auditing the activities of the Divisions of Engineering Design and Construction for compliance with Quality Assurance Procedures and Administrative Releases dealing with QA. It will also assure through audits that procedures are available to cover quality assurance activities before the actual performance of the activities.

Technical Section--This section will be composed of the Civil Engineering Group, the Electrical Engineering Group, and the Mechanical Engineering Group. It will be responsible for auditing site activities for compliance with Construction Procedures in areas such as welding, concreting, calibrating, and nondestructive testing. This section will also be responsible for auditing the quality assurance aspects of the preoperational test program. In addition to the full-time staff personnel, the specialized expertise available in other organizational elements of OEDC will be utilized when and as necessary for auditing specific activities. These audit activities will be outside and independent of their normal assignments.

- b. With respect to audits of the Divisions of Engineering Design and Construction, they will be conducted to the extent that vertical, indepth audits will be performed in selected areas followed by horizontal audits where problems have been identified. This will

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include a determination that required procedures are available, that activities conform to procedures and are appropriately documented. These audits will be performed by the full-time staff personnel supplemented by specialists as necessary.

Auditing personnel will be required to have appropriate qualifications including a basic knowledge and understanding of the areas they are to audit and of auditing techniques applicable to those areas. In general, specific areas will be audited on a quarterly basis and more frequently where significant problems are discovered. Audits by the Technical Section will include independent, selective examination of end products.

- c. The followup action on audit results will consist of: (1) a report to management and the organization responsible for a problem area; (2) the problem analyzed in conjunction with the organization responsible and corrective action identified; (3) implementation of corrective action by responsible organization; and (4) monitoring the problem area and continued reporting by auditing personnel until corrective action has been implemented. These steps apply to findings of noncompliance to established procedures and to areas where the established QA system is found inadequate.

We believe that the above is fully responsive to the questions raised by the staff members. We intend to incorporate the information contained in the responses in an amendment to Appendix A to the PSAR as soon as possible.

Very truly yours,



J. E. Gilleland
Assistant to the Manager of Power

Enclosures

UNITED STATES GOVERNMENT

Memorandum

TENNESSEE VALLEY AUTHORITY

TO : Assistant to the Manager for Quality Assurance

RegulatoryFile Cy.FROM : G. H. Kimmons, Manager of Engineering Design and Construction,
607 UB

DATE : November 14, 1972

SUBJECT: QUALITY ASSURANCE PROGRAM FOR WATTS BAR NUCLEAR PLANT

Received w/lt Dated 11-17-72

A quality assurance program for design and construction of the Watts Bar Nuclear Plant is in effect. In your capacity as Assistant to the Manager for Quality Assurance, I am delegating to you the job of formulating and issuing requirements for the overall OEDC QA program, assuring that the QA program is adequate in all respects to meet the requirements of Appendix B to 10 CFR 50 and other applicable regulations, and assuring that the QA program is being implemented and executed in strict compliance with such requirements. Your assignment includes a determination that the QA programs of the NSSS vendor, his subcontractors, and TVA contractors and subcontractors have been reviewed, approved, and audited.

The task of organizing for and achieving quality assurance in their areas of responsibility is assigned to the Director of Engineering Design, the Director of Construction, and to Westinghouse as the NSSS supplier. Your job is to assure that fully acceptable QA is being achieved in all areas and, if not, issue directives for corrective action which you are to followup for acceptable implementation.

You are required to review and approve QA program plans and procedures, initiate and execute audits of QA activities and records, require corrective action where needed, and issue instructions for followup of corrective action taken.

To assist you, I have approved the establishment of a suitable staff of specialists directly under your supervision and control in such numbers as may be found necessary to do the job.

You are to keep me informed, both verbally and by written reports, issued monthly, on the status and adequacy of QA program activities.

Your responsibilities as outlined above for the Watts Bar Nuclear Plant will also apply to the Sequoyah Nuclear Plant, now under

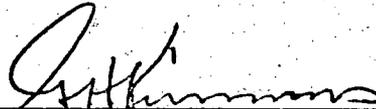


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Assistant to the Manager for Quality Assurance
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QUALITY ASSURANCE PROGRAM FOR WATTS BAR NUCLEAR PLANT

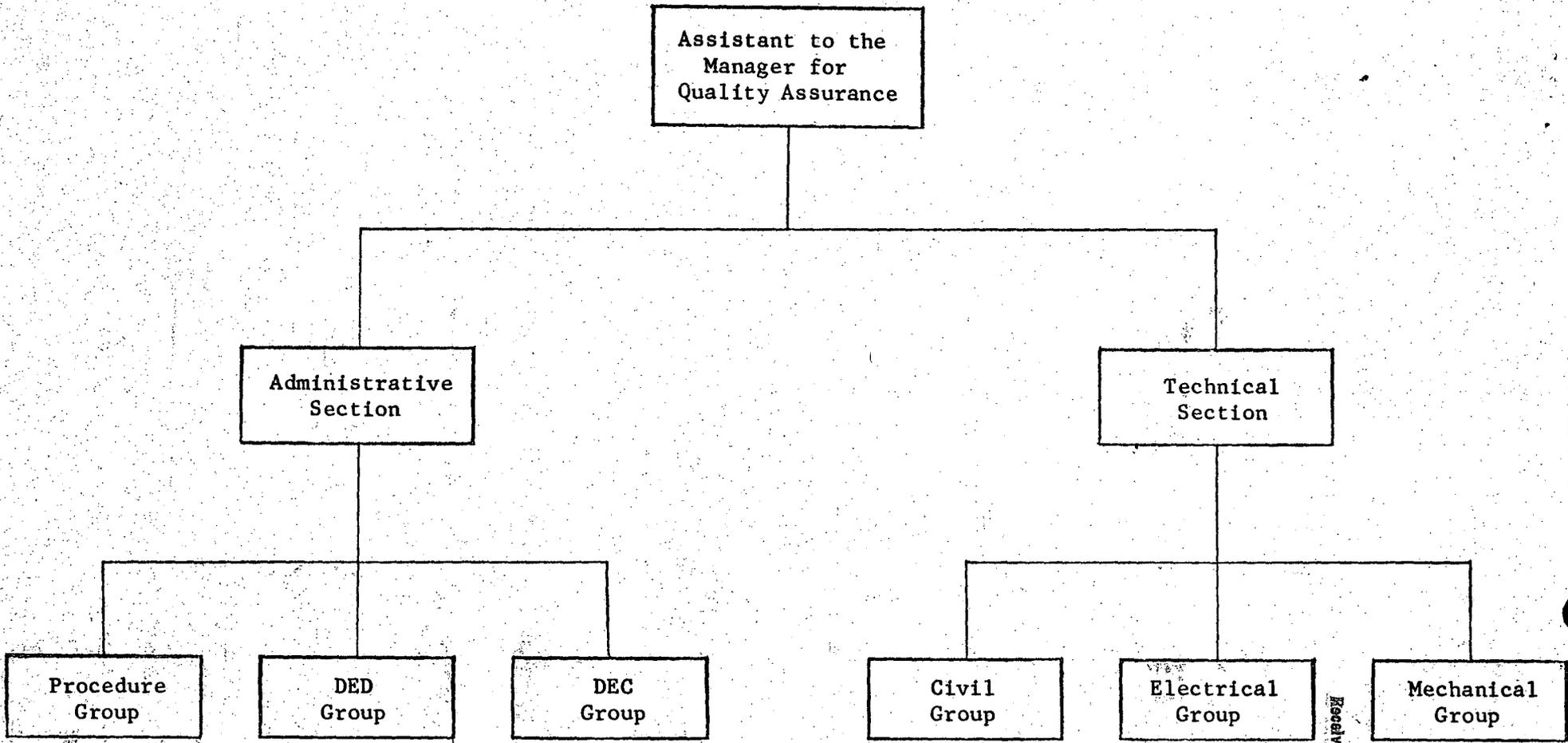
construction, and all future nuclear power plants for the TVA power system. Your responsibilities with respect to Browns Ferry Nuclear Plant will be set forth in a separate memorandum.



G. H. Kimmons

JRR:LVP

CC: J. R. Parrish, 505 UB
H. H. Mull, 707 UB
James L. Williams, Jr., 405 LB-C
J. E. Watson, 818 PRB-C
David Powell, 643 NSB
Doug Horne, 614 UB



ORGANIZATION CHART FOR OEDC QUALITY ASSURANCE STAFF

Received in / 1 / 1 Dated 11-10-72

Enclosure 2

Regulatory

File 099