



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

SAFETY EVALUATION BY THE OFFICE OF SPECIAL PROJECTS

SUPPORTING AMENDMENT NO. 74 TO FACILITY OPERATING LICENSE NO. DPR-77

AND AMENDMENT NO. 66 TO FACILITY OPERATING LICENSE NO. DPR-79

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

1.0 INTRODUCTION

By letters dated April 17, 1987 and March 1 and June 13, 1988, the Tennessee Valley Authority (the licensee) proposed changes to the Sequoyah (SQNP) Units 1 and 2 Technical Specifications (TS). The changes are to Section 6, Administrative Controls, of the TS. The changes are primarily 1) to incorporate site organizational and title changes, 2) to delete the organization charts in accordance with Generic Letter (GL) 88-06, and 3) to revise the list of primary coolant sources outside containment in the section. The revision to the list of primary coolant sources outside containment applies only to the Unit 1 TS. This corrects errors in the list of systems outside of containment that could contain radioactive fluid after an accident.

The application dated June 13, 1988 was supplemented by the licensee's letters dated June 22 and 24, 1988.

2.0 EVALUATION

2.1 Application Dated April 17, 1987

By letter dated April 17, 1987, the licensee submitted proposed changes to Section 6.8.5.a of the Unit 1 TS to correct errors in the list of systems outside of containment that could contain radioactive fluid after an accident. Section 6.8.5.a identifies systems outside of containment that could contain primary coolant after a Design Basis LOCA. The proposed change deletes references to the charging system, the iodine cleanup system and the hydrogen recombiner system and adds the Reactor Coolant System (RCS) sample system to the section.

Section 6.8.5.a of the Unit 1 TS erroneously includes the charging system, iodine cleanup system and the hydrogen recombiner system and excludes the RCS Sample System from the list of systems outside of containment that could contain primary coolant after a LOCA. The charging system is part of the Chemical and Volume Control System which is already referenced in Section 6.8.5.a. The Sequoyah plant does not contain an iodine cleanup system. The Sequoyah Hydrogen Recombiners are internal to the containment; therefore, they have no components outside containment. The RCS sample system can transport primary coolant outside containment after a LOCA; therefore, it should be included in Section 6.8.5.a.

Based on the improvement in accuracy of Section 6.8.5.a provided by this TS change, the proposed change is acceptable.

2.2 Application Dated March 1, 1988

By letter dated March 1, 1988, the licensee requested changes to the Administrative Controls section (Section 6) of the TS. The proposed changes are to reflect corporate and site organizational changes for the units.

2.2.1 Figures 6.2-1 and 6.2-2

The request to revise Figures 6.2-1 and 6.2-2 was withdrawn in the licensee's application dated June 13, 1988. See Section 2.3 of this evaluation below.

2.2.2 Specifications 6.2, 6.3, 6.4, 6.5.2.8 and 6.10.2

The licensee has proposed several changes to use the word "facility" when referring to both units and the word "unit" when referring to only one of the two units. As an example, in Specification 6.3.1, the "facility" staff is proposed in place of the "unit" staff because the staff of both units is being referred to. These changes are acceptable.

The request to revise Section 6.2 was withdrawn in the licensee's application dated June 13, 1988. See Section 2.3.3 of this evaluation below.

2.2.3 Specification 6.2.3.4, Authority

The licensing staff title was changed from Nuclear Safety and Licensing to Nuclear Licensing and Regulatory Affairs. This was done to clarify the independence of the Nuclear Safety Review Board from the licensing staff. There are no changes in lines of authority or responsibility related to these TS changes. This change is acceptable because it represents a title change only.

2.2.4 Specification 6.5.1, Plant Operations Review Committee (PORC)

The licensee has requested that as part of the technical support reorganization, the PORC composition be revised to reflect the superintendent positions as members. The Operations Manager and Quality Engineering (QE) Manager are also retained as members. A Division of Nuclear Engineering representative is added as a PORC member to provide engineering expertise. This change is acceptable to the staff because with the proposed reorganization it maintains the PORC composition consistent with the PORC responsibility to provide a diverse, upper management oversight review of activities affecting nuclear safety.

2.2.5 Specification 6.5.1A, Technical Review and Control

The licensee has proposed revisions to section 6.5.1A because the Plant Manager and the plant superintendents are ultimately responsible for the safe operation of the plant. As such, the activities that affect nuclear safety are under their supervision and control. The Site Director is deleted from the authority of designating the appropriate responsible manager to approve procedures and of approving designated Administrative Procedures. The Technical Support Superintendent and Site Radiological Control Superintendent are added to the individuals who may (1) approve Administrative Procedures and (2) propose modifications and implementing work plans to structures, systems, and components that affect plant nuclear safety. Further, a minor word addition is made in Section 6.5.1A.1.c for consistency with other wording in the Section. The staff agrees that the changes are consistent with the intent of this specification and are, therefore, acceptable.

2.3 Application Dated June 13, 1988

On March 22, 1988, the staff issued GL 88-06 entitled "Removal of Organization charts from Technical Specification Administrative Control Requirements." The staff used GL 88-06 as guidance in reviewing the licensee's application dated June 13, 1988 for changes to TS Section 6.

By letter dated June 13, 1988, as supplemented June 22 and 24, 1988, the licensee submitted a request for changes to Section 6, Administrative Controls, of the TS to incorporate GL 88-06. The first proposed change would replace the organization charts currently in the TS with more general organizational requirements. Most of these elements are already required by regulation, other TS or the Final Safety Analysis Report, as described below. These general requirements capture the essence of those organizational features depicted on the charts that are important to the NRC for ensuring that the plant will be operated safely. In addition, the licensee proposed to make several other changes to Section 6. These include: changing references of Manager of Nuclear Power to "Senior Vice President, Nuclear Power" in different places in the TS; and changing references of "shift and "control room" to "unit shift" and "unit control room" in TS Section 6.2.2.

Because the first proposed change (deletion of organization charts from TS) is the most significant of those in the amendment request, the next several pages of this Safety Evaluation are devoted to an evaluation of this issue, with a discussion of applicable regulatory requirements, past practice, and safety considerations. The remaining TS changes proposed by TVA are then evaluated.

2.3.1 Figures 6.2-1 and 6.2-2

Section 6.0 of the licensee's TS is required to contain the details of those administrative controls necessary to assure safe operation of the facility. For the first change, TVA proposed to replace Sequoyah TS 6.2.1, TS Figure 6.2-1 (the figure showing the offsite organization), and TS Figure 6.2-2 (the figure showing the unit onsite organization) with more general organizational requirements. These general requirements capture the essence of those organizational features depicted on the charts that are important to the NRC for ensuring that the plant will be operated safely.

TVA stated that the proposed changes are justified because they are administrative in nature and do not affect plant operation. TVA notes that, in addition to being required by the TS, the important organizational features depicted on the organization charts are also required or controlled by other regulatory control mechanisms. For example, TVA's Quality Assurance (QA) Program for Sequoyah is required by 10 CFR 50, Appendix B, to include similar information relating to the organizational structure.

The licensee contends that changes to these charts have resulted in processing unnecessary amendments by both TVA and the NRC. The licensee has stated that deletion of the organization charts will, therefore, eliminate needless expenditure of resources for both organizations.

2.3.1.1 Regulatory Requirements Applicable to Organizational Structure

10 CFR 50.36, "Technical Specifications," which implements Section 182a of the Atomic Energy Act, was promulgated by the Commission on December 17, 1968 (33 FR 18610). This rule delineates requirements for determining the contents of the TS. The TS set forth the specific characteristics of the facility and the conditions for its operation that are required to provide adequate protection to the health and safety of the public. Specifically, 10 CFR 50.36 requires that:

Each licensee authorizing operation of a production or utilization facility of a type described in Section 50.21 or 50.22 will include Technical Specifications. The Technical Specifications will be derived from the analyses and evaluation included in the safety analysis report, and amendments thereto, submitted pursuant to 50.34. The Commission may include such additional TS as the Commission finds appropriate.

The regulation further states that the TS will include, among other things, items in the following category:

Administrative Controls: Administrative controls are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner. Each licensee shall submit any reports to the Commission pursuant to approved Technical Specifications as specified in Section 50.4.

2.3.1.2 Past Practice

Review of the organization, personnel qualifications, education, experience, training, and their overall capacity to operate a plant safely has always been of concern to the NRC, and its predecessor, the AEC. Before a plant is licensed to operate, a finding is made that the applicant's staff is capable of operating the plant safely. In the past, the organization charts were included in the TS so that changes made after operation began would require prior NRC approval. This was done to preserve certain specific features of the licensed organization.

While the regulation does not specifically require that the TS contain organization charts, the practice of including organization charts in the TS began in the late 1960s. These charts were used as an aid in depicting the organizational and management relationships thought to be needed to meet the provisions of 10 CFR 50.36(c)(5). The practice of including organization charts in the TS has continued since:

Organization charts do depict the reporting chain for some organizational functions that must be independent of scheduling and operating pressures. Until 10 CFR Part 50, Appendix B, - "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," was adopted in 1970, organization charts were partially relied on by the staff for assuring this function.

As stated in 10 CFR 50, Appendix B, Criterion I, "Organization:"

Such persons and organizations performing quality assurance functions shall report to a management level such that this required authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations, are provided.

Appendix B further acknowledges that the organizational structures may take many forms, but emphasizes that regardless

of structure, the individuals assigned the responsibility for execution of any portion of the program shall have access to such levels of management as may be necessary to perform this function. The licensee's required QA Program specifies and depicts these organizational relationships in greater detail than currently exists in the TS.

The practice of including organization charts in the TS was established before the advent of 10 CFR 50, Appendix B and other associated guidance documents, such as the Regulatory Guide 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants," and NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants-LWR Edition." A general description of the features needed by the staff to make the findings that the applicant is capable of operating the plant safely is now mandated by Appendix B.

2.3.1.3 Safety Considerations

The fundamental safety issue in the proposal to delete organization charts from the TS is whether there can be reasonable assurance that the organization will operate the plant safely and remain effective without requiring prior staff approval for changes reflected in organization charts.

It has been the staff's experience that organization charts by themselves have been little help to reviewers in assessing the safety significance of changes to the plant and licensee. Nevertheless, because the charts are in the TS, license amendment requests have been required to effect organizational changes as simple as combining some minor functions under one organizational element shown on the chart. The usefulness of the charts to the staff in recent years has been minimal and the safety relevance of the charts themselves is small.

Specific operational requirements that bear more directly on the safety matters of concern to the staff than the organization charts are required elsewhere in TS. For example, the organizational element responsible for the control room command function is identified separately in the TS, as are the requirements for minimum staffing under various operating modes. The organizational management functions for independent reviews and audits, unit review group and independent safety engineering groups, and shift technical advisor are also specified in other TS. Thus, the organization charts themselves are not needed to support the staff's finding that the organization will operate the plant safely.

In summary, the specific details of the operating organization are not essential to the safe operation of the facility, and the staff concludes that the details can be modified in many ways while maintaining adequate operational safety. Over the years of experience with the details of operating organizations, the staff has been able to identify those organizational characteristics which are important to assure plant safety.

The important features of a licensee's organization (currently depicted on the TS organization charts, but not already included in other TS) necessary for the staff to find that the organization will operate the plant safely are stated below.

- a. Lines of authority, responsibility and communications shall be established and defined from the highest management levels through intermediate levels to and including all operating organization positions. Those relationships shall be documented and updated, as appropriate, in the form of organizational charts, functional descriptions of departmental responsibilities and relationships and job descriptions for key personnel positions, or in equivalent forms of documentation. These organizational relationships will be maintained in a document such as the FSAR or QA Manual.
- b. There shall be an individual executive position (corporate officer) in the offsite organization having corporate responsibility for overall plant nuclear safety. This individual shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant so that continued nuclear safety is assured.
- c. There shall be an individual management position in the onsite organization having responsibilities for overall unit safe operation which shall have control over those onsite resources necessary for safe operation and maintenance of the plant.
- d. Although the individuals who train the operating staff and those who carry out the health physics and quality assurance functions may report to the appropriate manager on site, they shall have sufficient organizational freedom to be independent from operating pressures.
- e. Senior Reactor Operator (SRO) and Reactor Operator (RO) licenses shall continue to be required for the positions so indicated on the current TS organization charts.

- f. Other TS which reference the current organization charts shall be revised to reference the appropriate functional responsibility or position.

This application dated June 13, 1988 proposed to revise the TS to add statements incorporating the features above to replace the organization charts being deleted.

The licensee has proposed to include the information of item a above in the organization charts and descriptions in Chapter 13 of the Sequoyah Final Safety Analysis Report (FSAR). This is proposed Specification 6.2.1.a. The licensee's organization will be kept current through FSAR updates rather than through TS changes. The FSAR is updated annually in accordance with 10 CFR 50.71(e). Both an FSAR update and an application for a TS change are submitted to the NRC; however, the FSAR update may be implemented without Commission approval whereas a change to the TS may not be implemented without prior Commissioner approval.

Therefore, based on the above, the staff concludes that the removal of the organization charts from the TS will not prevent the licensee from meeting the standards of 10 CFR 50.36 and the underlying statutory requirements. Moreover, the deletion of unnecessary detail of organization charts will save resources for both the NRC and the licensee and will allow the staff to focus on issues of importance to the plant's safety. Therefore, the licensee's proposal is acceptable.

In the June 13, 1988 application, the licensee initially proposed to identify the management officers by general terminology. However, after discussions with the NRC staff, the licensee by letter dated June 22, 1988 modified its application to identify the Senior Vice President, Nuclear Power and the Plant Manager in proposed Technical Specification 6.2.1.b and 6.2.1.c by their titles in accordance with the recommendations of GL 88-06. This change merely adds clarity to the more general terminology issued in the June 13, 1988 request and does not affect the substance of the amendments as noticed nor the staff's proposed no significant hazards consideration determination. These proposed changes are acceptable.

2.3.2 Changing References to Manager of Nuclear Power

The licensee proposed to delete reference to the title, "Manager of Nuclear Power" in several different places in the TS and replace it with a reference to "Senior Vice President, Nuclear Power." These titles are for the same position, head of the Office of Nuclear Power. The title "Senior Vice President, Nuclear Power" becomes effective with the reorganization of the Office of Nuclear Power scheduled for July 1, 1988. The NRC staff believes that a specific person in the licensee's

organization at the Vice President level should carry the responsibility, and that it must be clear who it is. The staff believes that Senior Vice President, Nuclear Power is an appropriate title for this position, and the licensee's proposal is acceptable.

2.3.3 Specification 6.2.2

See Section 2.1.2 of this evaluation above. The proposed addition of the word "unit" to "shift" and "control room" in Specification 6.2.2 merely adds clarity to this section and does not affect the substance of this section. Therefore, these changes are acceptable.

2.3.4 Exigent Circumstances

In its application dated June 13, 1988, the licensee requested that its proposed administrative changes in this evaluation be processed on an exigent basis. This request is asking the Commission to act quickly on the licensee's application dated June 13, 1988. This would not permit a Federal Register notice to be published, allowing 30 days for public comment prior to the Commission acting on the application, in accordance with 10 CFR 50.91(a)(2)(i).

In its letters dated June 13 and 24, 1988, the licensee explained that the proposed amendment is required to be effective before the Office of Nuclear Power may be reorganized. The licensee requested immediate action on its proposed amendment. The licensee stated that it was "extremely important" that the reorganization of the Office of Nuclear Power be implemented by July 1, 1988 in order to achieve a "more effective and responsive" organization. The licensee explained that due to the evolving nature of certain of these corporate organization changes and the resulting revisions to its application for a TS change, it was not able to submit its application in time to avoid exigent processing of the amendment.

The Commission has evaluated the licensee's request and determined that this change should be implemented without unnecessary delay in accordance with 10 CFR 50.91(a)(6). The amendment would permit organizational changes to be made by the licensee as scheduled for July 1, 1988. Since the proposed changes have no adverse effect on safety and would be beneficial to overall efficiency, such changes should be permitted with minimum delay. Consequently, the Commission has determined that these exigent circumstances justify reducing the public notice period normally provided for licensing amendments and issuing the amendment at the close of business June 30, 1988. The

Commission has concluded that the licensee has not failed to use its best efforts to make a timely application in order to create the exigency and take advantage of this procedure.

A legal notice requesting public comments by June 30, 1988 was published in the Chattanooga News-Free Press and the Chattanooga Times on June 24, 1988. See Section 2.3.6 for the comments received.

2.3.5 Final No Significant Hazards Consideration

The revisions to the TS in the application dated June 13, 1988 to delete the organization charts from Section 6.0, change the title of Manager of Nuclear Power to Senior Vice President, Nuclear Power and add references to the "unit" organization in Specification 6.2.2 have been evaluated against the standards of 10 CFR 50.92 and have been determined to not involve a significant hazards consideration. These changes do not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated. This change is administrative in nature and is intended to eliminate the need for NRC approval of a license amendment before implementation of an organization change. The changes to titles and references are also administrative in nature. The functions specified in Section 6.0 important to the safe operation of the plant have not been altered or deleted. There are no hardware, procedure, personnel or analysis changes represented by this proposal that adversely affect the probability of occurrence or the consequences of an accident previously evaluated in the plant FSAR.
2. Create the possibility of a new or different kind of accident from any previously evaluated. Since there are no changes in plant design or operation, inclusion of the proposed changes in the TS would not create the possibility of a new or different kind of accident from any previously evaluated.
3. Involve a significant reduction in a margin of a safety. For the reasons previously stated, adoption of the proposed changes would not involve a significant reduction in safety margin for the plant.

The changes to the TS are administrative in nature, should increase the effectiveness of the utility's management controls and should provide a positive contribution to the safety of the plant and corporate activities. Consequently, the staff has made a final determination that the changes in the TS do not

involve a significant hazards consideration as defined by 10 CFR 50.92.

2.3.5 Consultation With State Of Tennessee

The State of Tennessee was consulted concerning the TS changes on June 30, 1988 and had no comments.

2.3.6 Comments From The Public

On June 29, 1988, Mr. G. Richard Howard of Chattanooga, Tennessee, requested a clarification on the application dated June 13, 1988 as to where the licensee's organization charts would appear if they are deleted from Section 6 of the TS. The staff explained that the proposed TS 6.2.1.a states that the organization charts would appear in the Sequoyah FSAR. The licensee's organization will be kept current because the FSAR is updated annually in accordance with 10 CFR 50.71(e).

3.0 CONCLUSION

The proposed amendments to Section 6, "Administrative Controls" in the licensee's applications dated April 17, 1987 and March 1 and June 13, 1988 revise Section 6 of the TS for both Units 1 and 2. Based on the above, the proposed changes are acceptable.

4.0 ENVIRONMENTAL CONSIDERATIONS

These amendments involve changes in recordkeeping, or administrative procedure or requirements. The Commission has previously issued proposed findings that amendments as these involve no significant hazards considerations and there has been no public comment on such findings. The staff has also determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environment assessment need be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

For the application dated April 17, 1987 and March 1, 1988, the Commission has previously issued a notice of opportunity for a hearing and a proposed finding that these applications involve no significant hazards consideration and there has been no request for a hearing or public comments on these findings. For the application dated June 13, 1988, the Commission's final determination of no significant hazards consideration is given in Section 2.3.5 of this evaluation above. Therefore, we have concluded, based on the considerations discussed

above, that (1) these amendments will not (a) significantly increase the probability or consequences of accidents previously evaluated, (b) create the possibility of a new or different accident from any previously evaluated, or (c) significant reduce a margin of safety and, therefore, the amendment does not involve significant hazards considerations; (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; and (3) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendments will not be inimical to the common defense and security nor to the health and safety of the public.

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Dated: June 30, 1988