

March 9, 1989

Mr. Oliver D. Kingsley, Jr.
 Senior Vice President, Nuclear Power
 Tennessee Valley Authority
 6N 38A Lookout Place
 1101 Market Street
 Chattanooga, Tennessee 37402-2801

Dear Mr. Kingsley:

SUBJECT: REACTOR COOLANT SYSTEM SAFETY VALVES (TAC R00522/R00523) (TS 88-26)
 SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

The Commission has issued the enclosed Amendment No. 104 to Facility Operating License No. DPR-77 and Amendment No. 93 to Facility Operating License No. DPR-79 for the Sequoyah Nuclear Plant, Units 1 and 2, respectively. These amendments are in response to your application dated December 6, 1988.

The amendments modify the Sequoyah Nuclear Plant, Units 1 and 2 Technical Specifications. The changes add a footnote to the limiting condition for operation 3.4.2 for the reactor coolant system (RCS) safety valves. The footnote allows the three safety valves on the pressurizer for each unit to be tested at the same times in Modes 4 and 5 by removing the valves from the pressurizer and covering the holes in the RCS by a non-pressure-retaining membrane.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

Original signed by B. D. Liaw for

Suzanne Black, Assistant Director
 for Projects
 TVA Projects Division
 Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 104 to License No. DPR-77
2. Amendment No. 93 to License No. DPR-79
3. Safety Evaluation

cc w/enclosures:
 See next page

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Mr. Oliver D. Kingsley, Jr.

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Sequoyah Nuclear Plant

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

TENNESSEE VALLEY AUTHORITY
DOCKET NO. 50-327
SEQUOYAH NUCLEAR PLANT, UNIT 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 104
License No. DPR-77

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Tennessee Valley Authority (the licensee) dated December 6, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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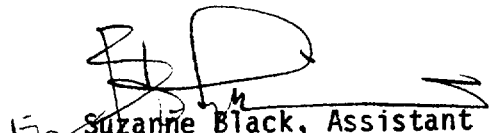
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-77 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 93, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Suzanne Black, Assistant Director
for Projects
TVA Projects Division
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 9, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 104

FACILITY OPERATING LICENSE NO. DPR-77

DOCKET NO. 50-327

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change. Overleaf pages* are provided to maintain document completeness.

REMOVE

3/4 4-3

3/4 4-4

INSERT

3/4 4-3

3/4 4-4*

REACTOR COOLANT SYSTEM

3/4.4.2 SAFETY VALVES - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.4.2 A minimum of one pressurizer code safety valve shall be OPERABLE[#] with a lift setting of 2485 PSIG \pm 1%.*

APPLICABILITY: MODES 4 and 5

ACTION:

With no pressurizer code safety valve OPERABLE, immediately suspend all operations involving positive reactivity changes and place an OPERABLE RHR loop into operation in the shutdown cooling mode.

SURVEILLANCE REQUIREMENTS

4.4.2 No additional Surveillance Requirements other than those required by Specification 4.0.5.

*The lift setting pressure shall correspond to ambient conditions of the valve of nominal operating temperature and pressure.

#A safety valve is not required OPERABLE provided at least one safety valve is removed from the pressurizer and the associated RCS breach is not covered by a pressure retaining membrane.

REACTOR COOLANT SYSTEM

3/4.4.3 SAFETY AND RELIEF VALVES - OPERATING

SAFETY VALVES - OPERATING

LIMITING CONDITION FOR OPERATION

3.4.3.1 All pressurizer code safety valves shall be OPERABLE with a lift setting of 2485 PSIG \pm 1%.*

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

With one pressurizer code safety valve inoperable, either restore the inoperable valve to OPERABLE status within 15 minutes or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.1 No additional Surveillance Requirements other than those required by Specification 4.0.5.

*The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure.



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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 93
License No. DPR-79

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Tennessee Valley Authority (the licensee) dated December 6, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.


2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-79 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 93, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Suzanne Black, Assistant Director
for Projects
TVA Projects Division
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 9, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 93

FACILITY OPERATING LICENSE NO. DPR-79

DOCKET NO. 50-328

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change. Overleaf pages* are provided to maintain document completeness.

REMOVE

3/4 4-5

3/4 4-6

INSERT

3/4 4-5*

3/4 4-6

REACTOR COOLANT SYSTEM

COLD SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.4.1.4 Two[#] residual heat removal (RHR) loops shall be OPERABLE* and at least one RHR loop shall be in operation.**

APPLICABILITY: MODE 5.

ACTION:

- a. With less than the above required RHR/reactor coolant loops OPERABLE, immediately initiate corrective action to return the required RHR/reactor coolant loops to OPERABLE status as soon as possible.
- b. With no RHR loop in operation, suspend all operations involving a reduction in boron concentration of the Reactor Coolant System and immediately initiate corrective action to return the required RHR loop to operation.

SURVEILLANCE REQUIREMENTS

4.4.1.4 The residual heat removal loop shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.

#One RHR loop may be inoperable for up to 2 hours for surveillance testing provided the other RHR loop is OPERABLE and in operation. Four filled reactor coolant loops with at least 2 steam generators having levels greater than or equal to 10 percent (wide-range indication) may be substituted for one RHR loop.

*The normal or emergency power source may be inoperable.

**The RHR pumps may be de-energized for up to 1 hour provided 1) no operations are permitted that would cause dilution of the Reactor Coolant System boron concentration, and 2) core outlet temperature is maintained at least 10°F below saturation temperature.

REACTOR COOLANT SYSTEM

3/4.4.2 SAFETY VALVES - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.4.2 A minimum of one pressurizer code safety valve shall be OPERABLE# with a lift setting of 2485 PSIG \pm 1%.*

APPLICABILITY: MODES 4 and 5.

ACTION:

With no pressurizer code safety valve OPERABLE, immediately suspend all operations involving positive reactivity changes and place an OPERABLE residual heat removal loop into operation in the shutdown cooling mode.

SURVEILLANCE REQUIREMENTS

4.4.2 No additional Surveillance Requirements other than those required by Specification 4.0.5.

*The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure.

#A safety valve is not required OPERABLE provided at least one safety valve is removed from the pressurizer and the associated RCS breach is not covered by a pressure retaining membrane.



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

ENCLOSURE 3

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 104 TO FACILITY OPERATING LICENSE NO. DPR-77
AND AMENDMENT NO. 93 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 letter dated December 6, 1988, the Tennessee Valley Authority (TVA) proposed to modify the Sequoyah Nuclear Plant (SQN) Units 1 and 2 Technical Specifications (TS). The proposed changes were to TS Section 3/4.4.2 to allow all three pressurizer code safety valves to be removed from the pressurizer and tested at the same time. TVA proposed to modify TS 3.4.2, Reactor Coolant System Limiting Conditions for Operation for Safety Valves - Shutdown, by adding a footnote: "A safety valve is not required OPERABLE provided at least one safety valve is removed from the pressurizer and the associated RCS breach is not covered by a pressure retaining membrane."

2.0 EVALUATION

The staff sees no useful function for an operable code safety valve during shutdown (i.e., Modes 4 and 5) when the reactor coolant system (RCS) is open and adequately vented. The staff recognizes that, as written, Section 3/4.4.2 may be interpreted as requiring an operable code safety valve on the pressurizer even though the RCS is open to containment.

In the interest of avoiding such an interpretation, the staff accepts the proposed addition of a footnote eliminating the need for an operable code safety valve when at least one valve has been removed and the resulting RCS breach is not covered by a pressure retaining membrane. This change has no effect on the intended protection of the primary coolant boundary from over pressure events by the code safety valves. Some safety enhancement should result from more effective service and calibration practices on these valves.

The staff concludes that the proposed change is acceptable. The change makes an explicit statement to avoid misapplication of the Limiting Condition for Operation for the RCS code safety valves. By allowing concurrent removal of all three code safety valves an unintended constraint to effective maintenance and calibration of the safety valves is removed from the TS.

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3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendments involve 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. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of these amendments.

4.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (54 FR 1025) on January 11, 1989 and consulted with the State of Tennessee. No public comments were received and the State of Tennessee did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) 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.

Principal Contributor: J. Watt

Dated: March 9, 1989

Mr. Oliver D. Kingsley, Jr.

-2-

Sequoyah Nuclear Plant

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