

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 RELIEF VALVES, SEQUOYAH NUCLEAR PLANT,
UNITS 1 AND 2 (TAC R00520/R00521) (TS 88-29)

The Commission has issued the enclosed Amendment No. 105 to Facility Operating License No. DPR-77 and Amendment No. 94 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 delete surveillance requirement (SR) 4.4.3.2.3 for the pressurizer power-operated relief valves (PORVs) and associated block valves. This SR was not required and it duplicated other SRs on these valves.

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. 105 to License No. DPR-77
- 2. Amendment No. 84 to License No. DPR-79
- 3. Safety Evaluation

cc w/enclosures:
See next page

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[Handwritten signature]

Mr. Oliver D. Kingsley, Jr.

-2- Sequoyah Nuclear Plant

cc:

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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. 105
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.

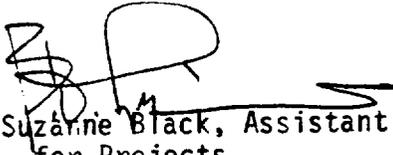
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-77 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 105, 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. 105

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 4-4a

INSERT

3/4 4-4a

REACTOR COOLANT SYSTEM

RELIEF VALVES - OPERATING

LIMITING CONDITION FOR OPERATION

3.4.3.2 Two power relief valves (PORVs) and their associated block valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With one or more PORV(s) inoperable, within 1 hour either restore the PORV(s) to OPERABLE status or close the associated block valve(s) and remove power from the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With one or more block valve(s) inoperable, within 1 hour either restore the block valve(s) to OPERABLE status or close the block valve(s) and remove power from the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.4.3.2.1 In addition to the requirements of Specification 4.0.5, each PORV shall be demonstrated OPERABLE at least once per 18 months by:

- a. Performance of a CHANNEL CALIBRATION, and
- b. by operating the valve through one complete cycle of full travel.

4.4.3.2.2 Each block valve shall be demonstrated OPERABLE at least once per 92 days by operating the valve through one complete cycle of full travel.



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. 94
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. 94, 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

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

ATTACHMENT TO LICENSE AMENDMENT NO. 94

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 4-7
3/4 4-8

INSERT

3/4 4-7*
3/4 4-8

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.

REACTOR COOLANT SYSTEM

RELIEF VALVES - OPERATING

LIMITING CONDITION FOR OPERATION

3.4.3.2 All power operated relief valves (PORVs) and their associated block valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With one or more PORV(s) inoperable, within 1 hour either restore the PORV(s) to OPERABLE status or close the associated block valve(s) and remove power from the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With one or more block valve(s) inoperable, within 1 hour either restore the block valve(s) to OPERABLE status or close the block valve(s) and remove power from the block valve(s); otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.4.3.2.1 In addition to the requirements of Specification 4.0.5, each PORV shall be demonstrated OPERABLE at least once per 18 months by:

- a. Performance of a CHANNEL CALIBRATION, and
- b. Operating the valve through one complete cycle of full travel.

4.4.3.2.2 Each block valve shall be demonstrated OPERABLE at least once per 92 days by operating the valve through one complete cycle of full travel.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 105 TO FACILITY OPERATING LICENSE NO. DPR-77
AND AMENDMENT NO. 94 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 of December 6, 1988, the Tennessee Valley Authority (the licensee) proposed to modify the Sequoyah Nuclear Plant, Units 1 and 2 Technical Specifications (TS). The proposed change would delete surveillance requirement (SR) 4.4.3.2.3 for the pressurizer power-operated relief valves (PORV) and associated block valves.

The pressurizer PORVs have been changed from air-operated to solenoid-operated valves. The PORVs are now permanently aligned to the 125-volt (V) direct current (dc) vital battery boards, which are the emergency power supply. The block valves are motor-operated valves (MOVs) powered from the 480-V reactor MOV boards, which are powered by the shutdown boards. The emergency power transfer is performed at the feed to the 6.9-kilovolt (kV) shutdown boards by transfer from offsite power to the diesel generators. Emergency power supply operability to the shutdown boards is accomplished by SR 4.8.1.1.2.

The licensee, therefore, proposed that since the PORVs are powered by the 125-V dc vital battery boards and since surveillance of the emergency power supply transfer to the shutdown boards is accomplished by SR 4.8.1.1.2, then SR 4.4.3.2.3 may be deleted. Its elimination removes an unnecessary burden to the operators and avoids potential confusion about the intent of the requirement.

2.0 EVALUATION

The SRs to demonstrate the operability of the two PORVs and their associated block valves are numbered SR 4.4.3.2.1, 4.4.3.2.2, 4.4.3.2.3 and 4.4.3.2.4. The first SR, in addition to the requirements of Specification 4.0.5, requires that each PORV be demonstrated OPERABLE at least once every 18 months by: (a) performance of a CHANNEL CALIBRATION, and (b) by operating the valve through one complete cycle of full travel.

The second SR requires that each block valve be demonstrated OPERABLE at least once per 92 days by operating the valve through one complete cycle of full travel.

The third SR, which is proposed for deletion, is for the emergency power supply for the PORVs and block valves to be demonstrated OPERABLE at least once per 18 months by the following: (a) transferring motive and control power from the normal to the emergency power supply and (b) operating the valves through a complete cycle of full travel.

The fourth SR is for inspection of repair welds and adjoining piping which is not relevant to the proposed SR except for renumbering it if the third SR is deleted.

It is the staff's interpretation that valve OPERABILITY is demonstrated by conformance with surveillance requirements one and two above. The third requirement applies to the demonstration of the transfer of the motive and control power supply followed by a repeat of the valve operability demonstration on emergency power.

As the PORVs are now permanently aligned to the vital bus, there is no power realignment to test. In a somewhat similar manner, the MOV boards receive a continuous power supply from the 480-V shutdown boards regardless of whether power is from the normal supply or the emergency supply. Existing diesel generator (DG) requirements in SR 4.8.1.1.2 ensure the capability of the DGs to automatically start and energize the shutdown boards.

Therefore, the staff agrees with the licensee that sufficient surveillance requirements are provided to assure operability of the pressurizer PORVs and associated block valves and to confirm availability of power to the valves without SR 4.4.3.2.3. The requirement in SR 4.4.3.2.3 to operate the valves through a complete cycle of full travel every 18 months remains in SR 4.4.3.2.1 and 4.3.2.2 for the PORVs and associated block valves, respectively.

The staff concludes that the licensee's proposed action is acceptable and SR 4.4.3.2.3 may be deleted as proposed. The change will not diminish safety or increase the probability of an accident in any area of the plant.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes to the surveillance requirements. 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.