

DEC 22 1980

Docket No. 50-327

Mr. H. G. Parris  
Manager of Power  
Tennessee Valley Authority  
500A Chestnut Street, Tower II  
Chattanooga, Tennessee 37401

Dear Mr. Parris:

SUBJECT: ISSUANCE OF AMENDMENT NO. 1 TO FACILITY OPERATING LICENSE  
NO. DPR-77 - SEQUOYAH NUCLEAR PLANT, UNIT 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 1  
to Facility Operating License No. DPR-77.

This amendment approves your proposed changes to Appendix A Technical Specifications  
for the Sequoyah Nuclear Plant, Unit 1, which permits testing of certain valves in  
Mode 3 and allows a leakage limit of three gallons per minute per valve for two valves.  
Also, a 30-day period was given to conduct tests at rated system temperature and  
pressures to determine a reasonable leakage rate limit. These changes were proposed  
in your letters of September 23 and 24, 1980. Oral authorization was provided on  
September 23, and confirmed in our letter of October 2, 1980.

A copy of the related safety evaluation supporting Amendment No. 1 to Facility  
Operating License DPR-77 is enclosed. Also enclosed is a copy of the Federal Register  
Notice which has been forwarded to the Office of the Federal Register for publication.

Sincerely,

*[Signature]*  
A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing

Enclosures:

- 1. Amendment No. 1
- 2. Safety Evaluation
- 3. Federal Register Notice

cc w/enclosures:  
See next page

CP 1

8101 100606

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| OFFICE  | LB #2/DL   | LB #2/DL | OELD               | LB #2/DL   |  |  |
| SURNAME | MSer / LLM | Ostahle  | <i>[Signature]</i> | ASchwencer |  |  |
| DATE    | 11/ /80    | 11/ /80  | 12/ /80            | 12/15 /80  |  |  |

Mr. H. G. Parris  
Manager of Power  
Tennessee Valley Authority  
500A Chestnut Street Tower II  
Chattanooga, Tennessee 37401

cc: Herbert S. Sanger, Jr., Esq.  
General Counsel  
Tennessee Valley Authority  
400 Commerce Avenue  
E 11B 33  
Knoxville, Tennessee 37902

Mr. H. N. Culver  
Tennessee Valley Authority  
400 Commerce Avenue, 249A HBB  
Knoxville, Tennessee 37902

Mr. Bob Faas  
Westinghouse Electric Corporation  
P. O. Box 355  
Pittsburgh, Pennsylvania 15230

Mr. Mark Burzynski  
Tennessee Valley Authority  
400 Chestnut Street Tower II  
Chattanooga, Tennessee 37401

Mr. J. F. Cox  
Tennessee Valley Authority  
400 Commerce Avenue, W10C131C  
Knoxville, Tennessee 37902

Resident Inspector/Sequoyah NPS  
c/o U.S. Nuclear Regulatory Commission  
P. O. Box 699  
Hixson, Tennessee 37343

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 1  
License No. DPR-77

1. The Nuclear Regulatory Commission (the Commission) having found that:
  - A. The application for amendment to the Sequoyah Nuclear Plant, Unit 1 (the facility) Facility Operating License No. DPR-77, filed by the Tennessee Valley Authority (licensee), dated September 24, 1980, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the license, as amended, 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 hereby amended by page changes to the Appendix A 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:

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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 1, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This amended license is effective as of September 23, 1980.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing

Attachment:  
Appendix A Technical  
Specification changes

Date of Issuance:

DEC 22 1980

\*SEE PREVIOUS YELLOW FOR CONCURRENCE

|           |              |          |           |                     |  |  |  |
|-----------|--------------|----------|-----------|---------------------|--|--|--|
| OFFICE ▶  | LB #2/DL     | LB #2/DL | OELD      | <del>LB</del> #2/DL |  |  |  |
| SURNAME ▶ | MService/LLM | *CStahle | *McGurren | ASchwencer          |  |  |  |
| DATE ▶    | 12/ /80      | 11/25/80 | 11/26/80  | 12/16/80            |  |  |  |

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 1, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This amended license is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing

Attachment:  
Appendix A Technical  
Specification changes

Date of Issuance:

|         |              |          |          |            |  |  |
|---------|--------------|----------|----------|------------|--|--|
| OFFICE  | LB #2/DL     | LB #2/DL | OELD     | LB #2/DL   |  |  |
| SURNAME | MService/LLM | CChahie  | McQuinn  | ASchwencer |  |  |
| DATE    | 11/21/80     | 11/25/80 | 11/20/80 | 12/15/80   |  |  |

TABLE 3.4-1

REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES

| <u>VALVE NUMBER</u> | <u>FUNCTION</u>                                  |
|---------------------|--|
| 63-586              | Boron Injection                                  |
| 63-587              | Boron Injection                                  |
| 63-588              | Boron Injection                                  |
| 63-589              | Boron Injection                                  |
| 63-581              | Boron Injection                                  |
| 63-560              | Accumulator Discharge (1)                        |
| 63-561              | Accumulator Discharge (1)                        |
| 63-562              | Accumulator Discharge (1)                        |
| 63-563              | Accumulator Discharge (1)                        |
| 63-622              | Accumulator Discharge                            |
| 63-623              | Accumulator Discharge                            |
| 63-624              | Accumulator Discharge                            |
| 63-625              | Accumulator Discharge                            |
| 63-551              | Safety Injection (Cold Leg)                      |
| 63-553              | Safety Injection (Cold Leg)                      |
| 63-557              | Safety Injection (Cold Leg)                      |
| 63-555              | Safety Injection (Cold Leg)                      |
| 63-632              | Residual Heat Removal (Cold Leg) (1)             |
| 63-633              | Residual Heat Removal (Cold Leg) (1)             |
| 63-634              | Residual Heat Removal (Cold Leg) (1)             |
| 63-635              | Residual Heat Removal (Cold Leg) (1)             |
| 63-641              | Residual Heat Removal/Safety Injection (Hot Leg) |
| 63-644              | Residual Heat Removal/Safety Injection (Hot Leg) |
| 63-558              | Safety Injection (Hot Leg)                       |
| 63-559              | Safety Injection (Hot Leg)                       |
| 63-543              | Safety Injection (Hot Leg)                       |
| 63-545              | Safety Injection (Hot Leg)                       |
| 63-547              | Safety Injection (Hot Leg)                       |
| 63-549              | Safety Injection (Hot Leg)                       |
| 63-640              | Safety Injection (Hot Leg)                       |
| 63-643              | Residual Heat Removal (Hot Leg)                  |
| 87-558              | Residual Heat Removal (Hot Leg)                  |
| 87-599              | Upper Head Injection                             |
| 87-560              | Upper Head Injection                             |
| 87-561              | Upper Head Injection                             |
| 87-562              | Upper Head Injection                             |
| 87-563              | Upper Head Injection                             |
| FCV-74-1            | Upper Head Injection (1)(2)                      |
| FCV-74-2            | Residual Heat Removal (1)(2)                     |
|                     | Residual Heat Removal (1)(2)                     |

- 
- (1) The valves must be tested prior to entering MODE 2.  
 (2) The leakage limit for these valves is 3 GPM. This value will be finalized within 30 days of issuance of this amendment.

## REACTOR COOLANT SYSTEM

### OPERATIONAL LEAKAGE

#### LIMITING CONDITION FOR OPERATION

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3.4.6.2 Reactor Coolant System leakage shall be limited to:

- a. No PRESSURE BOUNDARY LEAKAGE,
- b. 1 GPM UNIDENTIFIED LEAKAGE,
- c. 1 GPM total primary-to-secondary leakage through all steam generators and 500 gallons per day through any one steam generator,
- d. 10 GPM IDENTIFIED LEAKAGE from the Reactor Coolant System,
- e. 40 GPM CONTROLLED LEAKAGE at a Reactor Coolant System pressure of  $2235 \pm 20$  psig.
- f. 1 GPM leakage from any Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1.\*

APPLICABILITY: MODES 1, 2, 3 and 4

#### ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With any Reactor Coolant System leakage greater than any one of the above limits, excluding PRESSURE BOUNDARY LEAKAGE, and leakage from Reactor Coolant System Pressure Isolation Valves, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed manual or deactivated automatic valves, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.4.6.1 Reactor Coolant System leakages shall be demonstrated to be within each of the above limits by:

\*Specific exceptions to the 1 GPM leakage limit and the MODE 3 and 4 applicability are listed on Table 3.4-1.

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-327

TENNESSEE VALLEY AUTHORITY

NOTICE OF ISSUANCE OF AMENDMENT

FACILITY OPERATING LICENSE NO. DPR-77

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 1 to Facility Operating License No. DPR-77, issued to Tennessee Valley Authority (licensee) for the Sequoyah Nuclear Plant, Unit 1 (the facility) located in Hamilton County, Tennessee. This amendment covers the authorization given on September 23, 1980, to TVA to proceed with proposed changes to the Technical Specifications which permitted testing of certain valves in a different Mode of plant operation as well as at different leakage rates for a 30-day period.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5 (d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

8101 100620

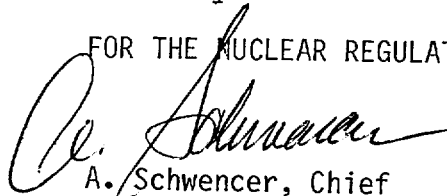


For further details with respect to this action, see (1) Tennessee Valley Authority letter, dated September 24, 1980, (2) Amendment No. 1 to Facility Operating License No. DPR-77 with Appendix A Technical Specification page changes, and (3) the Commission's related Safety Evaluation.

All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and the Chattanooga Hamilton County Bicentennial Library, 1001 Broad Street, Chattanooga, Tennessee 37402. A copy of Amendment No. 1 may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland this 22nd day of December 1980.

FOR THE NUCLEAR REGULATORY COMMISSION

  
A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-327

TENNESSEE VALLEY AUTHORITY

NOTICE OF ISSUANCE OF AMENDMENT

FACILITY OPERATING LICENSE NO. DPR-77

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 1 to Facility Operating License No. DPR-77, issued to Tennessee Valley Authority (licensee) for the Sequoyah Nuclear Plant, Unit 1 (the facility) located in Hamilton County, Tennessee. This amendment covers the authorization given on September 23, 1980, to TVA to proceed with proposed changes to the Technical Specifications which permitted testing of certain valves in a different Mode of plant operation as well as at different leakage rates for a 30-day period.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5 (d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

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For further details with respect to this action, see (1) Tennessee Valley Authority letter, dated September 24, 1980, (2) Amendment No. 1 to Facility Operating License No. DPR-77 with Appendix A Technical Specification page changes, and (3) the Commission's related Safety Evaluation.

All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and the Chattanooga Hamilton County Bicentennial Library, 1001 Broad Street, Chattanooga, Tennessee 37402. A copy of Amendment No. 1 may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland this 22nd day of December 1980.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing

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| OFFICE  | LB #2/DL     | LB #2/DL | OELD     | LB #2/DL   |  |  |
| SURNAME | M Ser.../LLM | C Stahle | McGon... | ASchwencer |  |  |
| DATE    | 11/25/80     | 11/26/80 | 11/26/80 | 12/15/80   |  |  |

SAFETY EVALUATION REPORT BY THE  
OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 1  
TO FACILITY OPERATING LICENSE DPR-77  
TENNESSEE VALLEY AUTHORITY

Introduction

On September 23, 1980, oral authorization was given to proceed with proposed changes to the Technical Specifications for Sequoyah, Unit 1 which allowed operation with exception to the leakage rates of certain valves and deletion of the requirement to leak test before entering Mode 4. Relief was granted for a 30 day period. The proposed changes are described in the TVA letter dated September 23, 1980. Additional information is provided in the TVA letter of September 24, 1980.

TVA is carrying out further efforts in this area to determine leakage rates that are reasonably attainable for the specified valves and other changes that would be appropriate in this area.

Evaluation

The technical specifications requires all pressure isolation valves to be leak tested prior to entering hot shutdown (Mode 4) on a periodic testing interval or each time the valve is disturbed. TVA requested the technical specifications change to permit leak testing prior to entering startup (Mode 2) for the pressure isolation valves located at the cold leg injection nozzle, the residual heat removal (RHR) return to the cold leg and the RHR suction line.

The basis for requesting this change is the following:

- (1) So as to cause the pressure isolation valves to the cold leg injection nozzle to backseat properly, a pressure above that at Mode 5 is required.
- (2) In order to perform comprehensive leak testing on the RHR discharge and suction isolation valves, the RHR system is required to be shut down. The RHR system is required to function in Mode 5 but is isolated in Mode 3.

We agree with this basis since meaningful leak testing can only be accomplished upon full seating of the valves required to be tested. We are of the opinion that leak testing at a higher pressure with a larger differential pressure across the valve produces a more accurate calculation of leak rate and more closely simulates actual operating conditions since extrapolation methods are not required.

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TVA also requested that relief be given for 30 days from the 1.0 GPM maximum leak rate criteria in the technical specifications for the motor operated pressure isolation valves in the RHR supply line. The 30 day period will be used to correlate leak testing data discrepancies between integrated system leakage and extrapolated individual valve data and to investigate testing at higher pressures. Leak rates for these valves using existing test procedures was found to be above the 1.0 GPM technical specification limit when extrapolated to operating pressures.

The staff has determined that an allowable leak rate of 3.0 GPM for these valves is acceptable for the 30 day grace period provided that the resolution of test data discrepancies is accomplished, and a report that summarizes the findings is submitted for staff review. This determination is based on the following:

- (1) The staff is presently reviewing leak rate criteria for all motor operated valves which perform a pressure isolation function and is considering raising the limit for these valves only.
- (2) Quantitative leak rate measurements provide an indication of degradation of the valve over time. NUREG-0677 identified two failure modes for motor operated valves; rupture and inadvertent opening (operator error). Rupture was eliminated based upon the low probability of its occurrence; however, inadvertent opening was identified as a critical failure mode. In order to reduce the probability of failure in this mode, the RHR motor operated pressure isolation valves at Sequoyah are interlocked so that the operator cannot open two valves in series before the pressure is low enough for switchover.

Based upon the above considerations, the staff has concluded that the 3.0 GPM 30 day leak rate criteria will provide sufficient warning of valve degradation. Furthermore, the pressure isolation valve configuration, coupled with system interlocks, provides an additional level of assurance against intersystem LOCA's.

TVA's request for a 30 day waiver from surveillance requirement 4.4.6.2.2.d in the technical specifications is not required. The proposed new testing procedure will meet the technical specification requirement.

We conclude that reasonable assurance will be provided during the 30 day waiver period that the design pressure of low pressure systems which interface with the reactor coolant system will not be exceeded.

We have determined that the amendment does not authorize a change in effluent types of total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant

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from the standpoint of environmental impact and, pursuant to 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

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| DATE ▶    | ..... | ..... | ..... | ..... | ..... | ..... |

SAFETY EVALUATION REPORT BY THE  
OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 1  
TO FACILITY OPERATING LICENSE DPR-77  
TENNESSEE VALLEY AUTHORITY

Introduction

On September 23, 1980, oral authorization was given to proceed with proposed changes to the Technical Specifications for Sequoyah, Unit 1 which allowed operation with exception to the leakage rates of certain valves and deletion of the requirement to leak test before entering Mode 4. Relief was granted for a 30 day period. The proposed changes are described in the TVA letter dated September 23, 1980. Additional information is provided in the TVA letter of September 24, 1980.

TVA is carrying out further efforts in this area to determine leakage rates that are reasonably attainable for the specified valves and other changes that would be appropriate in this area.

Evaluation

The technical specifications requires all pressure isolation valves to be leak tested prior to entering hot shutdown (Mode 4) on a periodic testing interval or each time the valve is disturbed. TVA requested the technical specifications change to permit leak testing prior to entering startup (Mode 2) for the pressure isolation valves located at the cold leg injection nozzle, the residual heat removal (RHR) return to the cold leg and the RHR suction line.

The basis for requesting this change is the following:

- (1) So as to cause the pressure isolation valves to the cold leg injection nozzle to backseat properly, a pressure above that at Mode 5 is required.
- (2) In order to perform comprehensive leak testing on the RHR discharge and suction isolation valves, the RHR system is required to be shut down. The RHR system is required to function in Mode 5 but is isolated in Mode 3.

We agree with this basis since meaningful leak testing can only be accomplished upon full seating of the valves required to be tested. We are of the opinion that leak testing at a higher pressure with a larger differential pressure across the valve produces a more accurate calculation of leak rate and more closely simulates actual operating conditions since extrapolation methods are not required.

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DJPE

TVA also requested that relief be given for 30 days from the 1.0 GPM maximum leak rate criteria in the technical specifications for the motor operated pressure isolation valves in the RHR supply line. The 30 day period will be used to correlate leak testing data discrepancies between integrated system leakage and extrapolated individual valve data and to investigate testing at higher pressures. Leak rates for these valves using existing test procedures was found to be above the 1.0 GPM technical specification limit when extrapolated to operating pressures.

The staff has determined that an allowable leak rate of 3.0 GPM for these valves is acceptable for the 30 day grace period provided that the resolution of test data discrepancies is accomplished, and a report that summarizes the findings is submitted for staff review. This determination is based on the following:

- (1) The staff is presently reviewing leak rate criteria for all motor operated valves which perform a pressure isolation function and is considering raising the limit for these valves only.
- (2) Quantitative leak rate measurements provide an indication of degradation of the valve over time. NUREG-0677 identified two failure modes for motor operated valves; rupture and inadvertent opening (operator error). Rupture was eliminated based upon the low probability of its occurrence; however, inadvertent opening was identified as a critical failure mode. In order to reduce the probability of failure in this mode, the RHR motor operated pressure isolation valves at Sequoyah are interlocked so that the operator cannot open two valves in series before the pressure is low enough for switchover.

Based upon the above considerations, the staff has concluded that the 3.0 GPM 30 day leak rate criteria will provide sufficient warning of valve degradation. Furthermore, the pressure isolation valve configuration, coupled with system interlocks, provides an additional level of assurance against intersystem LOCA's.

TVA's request for a 30 day waiver from surveillance requirement 4.4.6.2.2.d in the technical specifications is not required. The proposed new testing procedure will meet the technical specification requirement.

We conclude that reasonable assurance will be provided during the 30 day waiver period that the design pressure of low pressure systems which interface with the reactor coolant system will not be exceeded.

We have determined that the amendment does not authorize a change in effluent types of total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant



from the standpoint of environmental impact and, pursuant to 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.



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. 1  
License No. DPR-77

1. The Nuclear Regulatory Commission (the Commission) having found that:
  - A. The application for amendment to the Sequoyah Nuclear Plant, Unit 1 (the facility) Facility Operating License No. DPR-77, filed by the Tennessee Valley Authority (licensee), dated September 24, 1980, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the license, as amended, 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 hereby amended by page changes to the Appendix A 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:

8101 100614 DUPE

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 1, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This amended license is effective as of September 23, 1980.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing

Attachment:  
Appendix A Technical  
Specification changes

Date of Issuance:

DEC 22 1980

## REACTOR COOLANT SYSTEM

### OPERATIONAL LEAKAGE

#### LIMITING CONDITION FOR OPERATION

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3.4.6.2 Reactor Coolant System leakage shall be limited to:

- a. No PRESSURE BOUNDARY LEAKAGE,
- b. 1 GPM UNIDENTIFIED LEAKAGE,
- c. 1 GPM total primary-to-secondary leakage through all steam generators and 500 gallons per day through any one steam generator,
- d. 10 GPM IDENTIFIED LEAKAGE from the Reactor Coolant System,
- e. 40 GPM CONTROLLED LEAKAGE at a Reactor Coolant System pressure of  $2235 \pm 20$  psig.
- f. 1 GPM leakage from any Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1.\*

APPLICABILITY: MODES 1, 2, 3 and 4

#### ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With any Reactor Coolant System leakage greater than any one of the above limits, excluding PRESSURE BOUNDARY LEAKAGE, and leakage from Reactor Coolant System Pressure Isolation Valves, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed manual or deactivated automatic valves, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.4.6.1 Reactor Coolant System leakages shall be demonstrated to be within each of the above limits by:

\*Specific exceptions to the 1 GPM leakage limit and the MODE 3 and 4 applicability are listed on Table 3.4-1.

TABLE 3.4-1

REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES

| <u>VALVE NUMBER</u> | <u>FUNCTION</u>                                  |
|---------------------|--|
| 63-586              | Boron Injection                                  |
| 63-587              | Boron Injection                                  |
| 63-588              | Boron Injection                                  |
| 63-589              | Boron Injection                                  |
| 63-581              | Boron Injection                                  |
| 63-560              | Accumulator Discharge (1)                        |
| 63-561              | Accumulator Discharge (1)                        |
| 63-562              | Accumulator Discharge (1)                        |
| 63-563              | Accumulator Discharge (1)                        |
| 63-622              | Accumulator Discharge                            |
| 63-623              | Accumulator Discharge                            |
| 63-624              | Accumulator Discharge                            |
| 63-625              | Accumulator Discharge                            |
| 63-551              | Safety Injection (Cold Leg)                      |
| 63-553              | Safety Injection (Cold Leg)                      |
| 63-557              | Safety Injection (Cold Leg)                      |
| 63-555              | Safety Injection (Cold Leg)                      |
| 63-632              | Residual Heat Removal (Cold Leg) (1)             |
| 63-633              | Residual Heat Removal (Cold Leg) (1)             |
| 63-634              | Residual Heat Removal (Cold Leg) (1)             |
| 63-635              | Residual Heat Removal (Cold Leg) (1)             |
| 63-641              | Residual Heat Removal/Safety Injection (Hot Leg) |
| 63-644              | Residual Heat Removal/Safety Injection (Hot Leg) |
| 63-558              | Safety Injection (Hot Leg)                       |
| 63-559              | Safety Injection (Hot Leg)                       |
| 63-543              | Safety Injection (Hot Leg)                       |
| 63-545              | Safety Injection (Hot Leg)                       |
| 63-547              | Safety Injection (Hot Leg)                       |
| 63-549              | Safety Injection (Hot Leg)                       |
| 63-640              | Safety Injection (Hot Leg)                       |
| 63-643              | Residual Heat Removal (Hot Leg)                  |
| 87-558              | Residual Heat Removal (Hot Leg)                  |
| 87-599              | Upper Head Injection                             |
| 87-560              | Upper Head Injection                             |
| 87-561              | Upper Head Injection                             |
| 87-562              | Upper Head Injection                             |
| 87-563              | Upper Head Injection                             |
| FCV-74-1            | Residual Heat Removal (1)(2)                     |
| FCV-74-2            | Residual Heat Removal (1)(2)                     |

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- (1) The valves must be tested prior to entering MODE 2.  
 (2) The leakage limit for these valves is 3 GPM. This value will be finalized within 30 days of issuance of this amendment.

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