

December 27, 1982

Docket Nos: 50-327
and 50-328

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. 22 to Facility Operating License
No. DPR-77 and Amendment No. 12 to Facility Operating
License No. DPR-79 - Sequoyah Nuclear Plant, Units 1 and 2

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 22 to
Facility Operating License No. DPR-77 and Amendment No. 12 to Facility Operating
License No. DPR-79.

The amendments change the winter flood level and the surveillance requirements for
flood protection. These changes were made in response to your letter dated
August 16, 1982. Some of the changes requested in that letter were approved by
Amendments 20 and 10 dated December 23, 1982. The remainder of the changes requested
will be addressed in a future amendment.

A copy of the related safety evaluation supporting Amendment No. 22 to Facility
Operating License DPR-77 and Amendment No. 12 to Facility Operating License DPR-79
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,

Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Enclosures:

1. Amendment No. 22 to DPR-77
2. Amendment No. 12 to DPR-79
3. Safety Evaluation
4. Federal Register Notice

cc w/enclosures:
See next page

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SURNAME	MDuncan/hmc	MMilner	CStahle	EAdensam			
DATE	9/28/82	9/28/82	9/28/82	10/29/82			

SEQUOYAH

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 Corp.
P.O. Box 355
Pittsburgh, Pennsylvania 15230

Mr. Jerry Wills
Tennessee Valley Authority
400 Chestnut Street, Tower II
Chattanooga, Tennessee 37401

Mr. Donald L. Williams, Jr.
Tennessee Valley Authority
400 Commerce Avenue, W10C131C
Knoxville, Tennessee 37902

Resident Inspector/Sequoyah NPS
c/o U.S. Nuclear Regulatory
Commission
2600 Igou Ferry Road
Soddy Daisy, Tennessee 37379

Director, Office of Urban
& Federal Affairs
108 Parkway Towers
404 James Robertson Way
Nashville, Tennessee 37219

Attorney General
Supreme Court Building
Nashville, Tennessee 37219

U.S. Environmental Protection
Agency
ATTN: EIS Coordinator
345 Courtland Street
Atlanta, Georgia 30308

Honorable Don Moore, Jr.
County Judge
Hamilton County Courthouse
Chattanooga, Tennessee 37402

Regional Administrator
Nuclear Regulatory Commission,
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

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AMENDMENT NO. 22 TO FACILITY OPERATING LICENSE DPR-77 - SEQUOYAH UNIT 1
AMENDMENT NO. 12 TO FACILITY OPERATING LICENSE DPR-79 - SEQUOYAH UNIT 2

DISTRIBUTION w/enclosures:

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Local PDR
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A. Rosenthal, ASLAB
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TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 22
License No. DPR-77

1. The Nuclear Regulatory Commission (the Commission) has 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 August 16, 1982, 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 attachments 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 Appendix A, as revised through Amendment No. 22, are hereby incorporated into the license.

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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

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Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Attachment:
Appendix A Technical
Specification Changes

Date of Issuance: December 27, 1982

OFFICE	LA:DL:LB #4	DL:LB #4	DL:LB #4	DE:HGE B	OELD	DL:LB #4	
SURNAME	MDuncan/hmc	MMiller	CSchle	GLear	<i>[Signature]</i>	EAdensam	
DATE	9/28/82	9/28/82	9/27/82	9/27/82	9/27/82	9/27/82	

ATTACHMENT TO LICENSE AMENDMENT NO. 22

FACILITY OPERATING LICENSE NO. DPR-77

DOCKET NO. 50-327

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Amended
Page

3/4 7-15
3/4 7-16

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PLANT SYSTEMS

3/4.7.6 FLOOD PROTECTION

LIMITING CONDITION FOR OPERATION

3.7.6 The flood protection plan shall be ready for implementation to maintain the plant in a safe condition.

APPLICABILITY: When one or more of the following conditions exist:

- a. heavy rainfall conditions in the east Tennessee watershed,
- b. an early warning or alert that a critical combination of flood and/or high headwater levels may or have developed,
- c. an early warning or alert involving Fontana Dam, or
- d. recognizable seismic activity in the east Tennessee region.

ACTION:

- a. With a Stage I flood warning issued initiate and complete within 10 hours the Stage I flood protection procedure which shall include being in at least HOT STANDBY within 6 hours, with a SHUTDOWN MARGIN of at least 5% delta k/k and T_{avg} less than or equal to 350°F within the following 4 hours. If within 10 hours following the issuance of a Stage I flood warning communications between the TVA Division of Water Resources and the Sequoyah Nuclear Plant cannot be verified, initiate and complete the Stage II flood protection procedure within the following 17 hours. With a Stage II flood warning issued initiate the Stage II flood protection plan in time to ensure completion before the predicted flooding of the site and no later than 17 hours prior to the predicted arrival time of the initial critical flood level (703 ft msl winter and summer).
- b. With a seismic event occurring after a critical combination of flood and/or headwater alerts are issued verify and maintain communications between TVA Power Control Center and the Sequoyah Nuclear Plant within 6 hours or initiate and complete the Stage I flood protection plan within the following 10 hours. If communications have not been established upon completion of the Stage I flood protection plan initiate and complete the Stage II flood protection plan within the following 17 hours.
- c. With a Fontana Dam Alert issued verify and maintain communications between Fontana Dam and the Sequoyah Nuclear Plant with 1 hour or initiate and complete the Stage I flood protection plan within 10 hours. If communications have not been established upon completion of the Stage I flood protection plan initiate and complete the Stage II flood protection plan within the following 17 hours.

PLANT SYSTEMS

3/4.7.6 FLOOD PROTECTION

LIMITING CONDITION FOR OPERATION (Continued)

- d. With either the Norris, Cherokee, Douglas, Fort Loudon, Fontana, Hiwassee, Apalachia, Blue Ridge or Tellico dam failed seismically, after a critical combination of flood and/or headwater alerts is issued initiate and complete the Stage I flood protection plan within 10 hours. Upon completion of the Stage I flood protection plan initiate and complete the Stage II flood protection plan within the following 17 hours. Both the Stage I and the Stage II flood protection plans will be terminated if it is determined that the potential for flooding the site does not exist.

SURVEILLANCE REQUIREMENTS

4.7.6.1 The water level in the forebay shall be determined at least once per 8 hours when the water level is less than or equal to 693 feet Mean Sea Level USGS datum and at least once per 15 minutes when the water level is above these limits.

4.7.6.2 Communications between Sequoyah Nuclear Plant:

- a. and TVA Division of Water Resources shall be maintained every 3 hours during heavy rainfall condition in the east Tennessee watershed.
- b. and TVA Power Control Center shall be maintained every 3 hours following a recognizable seismic event that has occurred when a critical combination of flood and/or headwater alert is issued. Communications shall be maintained until it has been determined that the potential for flooding the site does not exist.
- c. and Fontana Dam shall be maintained every hour when an alert involving Fontana Dam has been issued by TVA Division of Water Resources.

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 12
License No. DPR-79

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Sequoyah Nuclear Plant, Unit 2 (the facility) Facility Operating License No. DPR-79 filed by the Tennessee Valley Authority (licensee), dated August 16, 1982, 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 attachments 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 Appendix A, as revised through Amendment No. 12 are hereby incorporated into the license.

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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

Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Attachment:
Appendix A Technical
Specification Changes

Date of Issuance: December 27, 1982

No legal objection

OFFICE	LA:DL:LB #4	DL:LB #4	DL:LB #4	DE:HGEB	OELD	DL:LB #4	
SURNAME	MDuncan/hmc	MMilham	CStahle	GLear	<i>to file</i>	EAdensam	
DATE	9/28/82	9/28/82	9/28/82	9/28/82	9/28/82	9/28/82	

ATTACHMENT TO LICENSE AMENDMENT NO. 12

FACILITY OPERATING LICENSE NO. DPR-79

DOCKET NO. 50-328

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Amended
Page

3/4 7-15

3/4 7-16

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PLANT SYSTEMS

3/4.7.6 FLOOD PROTECTION PLAN

LIMITING CONDITION FOR OPERATION

3.7.6 The flood protection plan shall be ready for implementation to maintain the plant in a safe condition.

APPLICABILITY: When one or more of the following conditions exist:

- a. heavy rainfall conditions in the east Tennessee watershed,
- b. an early warning or alert that a critical combination of flood and/or high headwater levels may or have developed,
- c. an early warning or alert involving Fontana Dam, or
- d. recognizable seismic activity in the east Tennessee region.

ACTION:

- a. With a Stage I flood warning issued initiate and complete within 10 hours the Stage I flood protection plan which shall include being in at least HOT STANDBY within 6 hours, with a SHUTDOWN MARGIN of at least 5% delta k/k and T/avg less than or equal to 350°F within the following 4 hours. If within 10 hours following the issuance of a Stage I flood warning communications between the TVA Division of Water Resources and the Sequoyah Nuclear Plant cannot be verified, initiate and complete the Stage II flood protection procedure within the following 17 hours. With a Stage II flood warning issued initiate the Stage II flood protection plan in time to ensure completion before the predicted flooding of the site and no later than 17 hours prior to the predicted arrival time of the initial critical flood level (703 ft msl winter and summer).
- b. With a seismic event occurring after a critical combination of flood and/or headwater alerts are issued verify and maintain communications between TVA Power Control Center and the Sequoyah Nuclear Plant within 6 hours or initiate and complete the Stage I flood protection plan within the following 10 hours. If communications have not been established upon completion of the Stage I flood protection plan initiate and complete the Stage II flood protection plan within the following 17 hours.

PLANT SYSTEMS

ACTION: (Continued)

- c. With a Fontana Dam Alert issued verify and maintain communications between Fontana Dam and the Sequoyah Nuclear Plant with 1 hour or initiate and complete the Stage I flood protection plan within 10 hours. If communications have not been established upon completion of the Stage I flood protection plan initiate and complete the Stage II flood protection plan within the following 17 hours.
- d. With either the Norris, Cherokee, Douglas, Fort Loudon, Fontana, Hiwassee, Apalachia, Blue Ridge or Tellico dam failed seismically after a critical combination of flood and/or headwater alerts is issued initiate and complete the Stage I flood protection plan within 10 hours. Upon completion of the Stage I flood protection plan initiate and complete the Stage II flood protection plan within the following 17 hours. Both the Stage I and the Stage II flood protection plans will be terminated if it is determined that the potential for flooding the site does not exist.

SURVEILLANCE REQUIREMENTS

4.7.6.1 The water level in the forebay shall be determined at least once per 8 hours when the water level is less than or equal to 693 feet Mean Sea Level USGS datum and at least once per 15 minutes when the water level is above these limits.

4.7.6.2 Communications between Sequoyah Nuclear Plant:

- a. and TVA Division of Water Resources shall be maintained every 3 hours during heavy rainfall condition in the east Tennessee watershed.
- b. and TVA Power Control Center shall be maintained every 3 hours following a recognizable seismic event that has occurred when a critical combination of flood and/or headwater alert is issued. Communications shall be maintained until it has been determined that the potential for flooding the site does not exist,
- c. and Fontana Dam shall be maintained every hour when an alert involving Fontana Dam has been issued by TVA Division of Water Resources.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 22 TO FACILITY OPERATING LICENSE DPR-77
AND AMENDMENT NO. 12 TO FACILITY OPERATING LICENSE DPR-79
TENNESSEE VALLEY AUTHORITY

INTRODUCTION

In an August 16, 1982, transmittal TVA requested Sequoyah Unit 1 and 2 Technical Specification changes concerning flood protection. The three Technical Specification changes involved were discussed in a September 14, 1982, telecon between NRC and TVA staffs. One change was accepted as TVA proposed, a second was denied and the final was amended to the agreement of both parties.

EVALUATION

The staff agrees with TVA's proposed change to Technical Specification 3.7.6. The change corrects an error in the winter critical flood level and provides uniformity of 703 ft mean sea level (MSL) for both winter and summer critical flood levels. The summer elevation of 703 ft MSL had previously been approved for Technical Specifications.

The proposed change in Technical Specification 4.7.6.2 would decrease the communication frequency between Sequoyah Nuclear Plant and TVA Division of Water Resources to every 4 hours rather than every 3 hours. The proposal was denied because TVA has not incorporated changes which would warrant the longer communications interval of 4 hours, and the staff feels the 3 hour period is necessary.

Additionally, Technical Specification 4.7.6.1 dealing with Surveillance Requirements has been amended. The 703 ft MSL has been lowered to 693 ft MSL to allow additional time for the TVA Division of Water Resources to predict the actual arrival time of flood peak. The frequency of water level determination when above this level has been changed from 2 hours to 15 minutes to aid in achieving an accurate flood peak arrival time. The arrival time may then be coordinated with the initiation of Stage II plant modifications to ensure their completion before flooding of the site.

ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types or 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 §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.

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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, does not create the possibility of an accident of a type different from any evaluated previously, 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.

Date: December 27, 1982

Principal Contributors: Melanie Miller, Licensing Branch No. 4, DL
Carl Stahle, Licensing Branch No. 4, DL
Gary Staley, Hydrologic and Geotechnical
Engineering Branch, DE

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DATE ▶

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-327 AND 50-328

TENNESSEE VALLEY AUTHORITY

NOTICE OF ISSUANCE OF AMENDMENTS

FACILITY OPERATING LICENSE NOS. DPR-77 AND DPR-79

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 22 to Facility Operating License No. DPR-77 and Amendment No. 12 to Facility Operating License No. DPR-79, issued to Tennessee Valley Authority (licensee) for the Sequoyah Nuclear Plant, Units 1 and 2 (the facilities) located in Hamilton County, Tennessee. These amendments change the winter flood level and the surveillance requirements for flood protection. The amendments are effective as of their dates of issuance.

The application for the amendments 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 amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) environmental impact statements, or negative declarations and environmental impact appraisals need not be prepared in connection with issuance of these amendments.

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For further details with respect to this action, see (1) Tennessee Valley Authority letter dated August 16, 1982, (2) Amendment No. 22 to Facility Operating License No. DPR-77 with Appendix A Technical Specification page changes; (3) Amendment No. 12 to Facility Operating License No. DPR-79 with Appendix A Technical Specification page changes; and (4) 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. 22 and Amendment No. 12 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 27th day of December 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

OFFICE	LA:DL:LB #4	DL:LB #4	DL:LB #4	OELD	DL:LB #4		
SURNAME	MDuncan/hmc	MMiller	CStahle	<i>[Signature]</i>	EAdensam		
DATE	9/28/82	9/28/82	9/28/82	10/14/82	10/20/82		

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Docket Nos. 50-327/328

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E. Adensam

C. Stahle

M. Duncan

M. Miller

D. Eisenhut

OELD

September 28, 1982

Docket Nos: 50-327
and 50-328

MEMORANDUM FOR: Thomas M. Novak, Assistant Director
for Licensing
Division of Licensing

THRU: Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

FROM: Carl Stahle, Project Manager
Licensing Branch No. 4
Division of Licensing

SUBJECT: ISSUANCE OF AMENDMENT NO. 22 TO FACILITY OPERATING
LICENSE DPR-77 AND AMENDMENT NO.12 TO FACILITY
OPERATING LICENSE DPR-79, SEQUOYAH NUCLEAR PLANT,
UNITS 1 AND 2

Regarding the issuance of subject amendments, there is no known public
correspondence or irreversible impact associated with this subject.

Carl Stahle, Project Manager
Licensing Branch No. 4
Division of Licensing

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DATE	9/28/82	9/28/82	9/28/82	9/28/82			