

December 23, 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. 17 to Facility Operating License
No. DPR-77 and Amendment No. 8 to Facility Operating
License No. DPR-79 - Sequoyah Nuclear Plant, Units 1 and 2

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 17 to
Facility Operating License No. DPR-77 and Amendment No. 8 to Facility Operating
License No. DPR-79.

The amendments change the diesel generator battery float voltage and the isola-
tion times for containment isolation valves. The other changes requested in
your September 17, 1982, letter will be addressed in future amendments.

A copy of the related safety evaluation supporting Amendment No. 17 to Facility
Operating License DPR-77 and Amendment No. 8 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. 17 to DPR-77
2. Amendment No. 8 to DPR-79
3. Safety Evaluation
4. Federal Register Notice

cc w/enclosures:
See next page

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OFFICE	LA:DL:LB #4	DL:LB #4	DL:LB #4	DL:LB #4			
SURNAME	MDuncan/hmc	MMiller	CStanley	EAdensam			
DATE	10/3/82	10/3/82	10/7/82	10/21/82			

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
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Knoxville, Tennessee 37902

Mr. H. N. Culver
Tennessee Valley Authority
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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
2500 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

OFFICE ▶	.....	.....	.....	.....	.....	.....	.....
SURNAME ▶	.....	.....	.....	.....	.....	.....	.....
DATE ▶	.....	.....	.....	.....	.....	.....	.....

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 17
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 September 17, 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. 17, 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 23, 1982

OFFICE	LA:DL:LB #4	DL:LB #4	DL:LB #4	OELD	DL:LB #4	AD:L:DL	
SURNAME	MDuncan/hmc	MMiller	CStahle	Walt	EAdensam	IMM	
DATE	10/3/82	10/3/82	10/17/82	10/5/82	10/27/82	12/1/82	

no objection
RF

ATTACHMENT TO LICENSE AMENDMENT NO.17

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 3-33
3/4 8-6

OFFICE ▶	.....	.....	.....	.....	.....	.....	.....
SURNAME ▶	.....	.....	.....	.....	.....	.....	.....
DATE ▶	.....	.....	.....	.....	.....	.....	.....

INSTRUMENTATION

TABLE 3.3-5 (Continued)

TABLE NOTATION

- (1) Diesel generator starting and sequence loading delays included. Response time limit includes opening of valves to establish SI path and attainment of discharge pressure for centrifugal charging pumps, SI and RHR pumps.
- (2) Using air operated valve
- (3) The following valves are exceptions to the response times shown in the table and will have the values listed in seconds for the initiating signals and function indicated:

Valves: FCV-26-240, -243
Response times: 2.d. 21⁽⁸⁾/31⁽⁹⁾
3.d. 22⁽⁸⁾
4.d. 21⁽⁸⁾/31⁽⁹⁾
5.d. 24⁽⁸⁾/34⁽⁹⁾
6.d. 21⁽⁸⁾/31⁽⁹⁾

Valves: FCV-61-96, -97, -110, -122, -191, -192, -193, -194
Response times:

2.d. 31⁽⁸⁾
3.d. 32⁽⁸⁾
4.d. 31⁽⁸⁾
5.d. 34⁽⁸⁾
6.d. 31⁽⁸⁾

Valve: FCV-70-143
Response times: 2.d. 61⁽⁸⁾/71⁽⁹⁾
3.d. 62⁽⁸⁾
4.d. 61⁽⁸⁾/71⁽⁹⁾
5.d. 64⁽⁸⁾/74⁽⁹⁾
6.d. 61⁽⁸⁾/71⁽⁹⁾

- (4) On 2/3 any Steam Generator
- (5) On 2/3 in 2/4 Steam Generator
- (6) Radiation detectors for Containment Ventilation Isolation may be excluded from Response Time Testing.
- (7) Diesel generator starting and sequence loading delays not included. Offsite power available. Response time limit includes opening of valves to establish SI path and attainment of discharge pressure for centrifugal charging pumps.
- (8) Diesel generator starting and sequence loading delays not included. Response time limit includes operating time of valves.
- (9) Diesel Generator starting and sequence loading delays included. Response time limit includes operating time of valves.

SURVEILLANCE REQUIREMENTS (Continued)

4.8.1.1.3 The 125-volt D.C. distribution panel, 125-volt D.C. battery bank and associated charger for each diesel generator shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying:
 1. That the parameters in Table 4.8-1a meet the Category A limits.
 2. That the total battery terminal voltage is greater than or equal to 124-volts on float charge.
- b. At least once per 92 days by:
 1. Verifying that the parameters in Table 4.8-1a meet the Category B limits,
 2. Verifying there is no visible corrosion at either terminals or connectors, or the cell to terminal connection resistance of these items is less than 150×10^{-6} ohms, and
 3. Verifying that the average electrolyte temperature of 6 connected cells is above 60 F.
- c. At least once per 18 months by verifying that:
 1. The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration.
 2. The battery to battery and terminal connections are clean, tight and coated with anti-corrosion material.
 3. The resistance of each cell to terminal connection is less than or equal to 150×10^{-6} ohms.

4.8.1.1.4 Reports - All diesel generator failures, valid or non-valid, shall be reported to the Commission pursuant to Specification 6.9.1. Reports of diesel generator failures shall include the information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977. If the number of failures in the last 100 valid tests (on a per nuclear unit basis) is greater than or equal to 7, the report shall be supplemented to include the additional information recommended in Regulatory Position C.3.b of Regulatory Guide 1.108, Revision 1, August 1977.

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 8
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 September 17, 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. 8, are hereby incorporated into the license.

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DATE ▶

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 23, 1982

Not to be distributed

OFFICE	LA:DL:LB #4	DL:LB #4	DL:LB #4	OELD	DL:LB #4	AD:LB	
SURNAME	MDuncan/bmc	MMiller	Stahle	Stahle	EAdensam	TNovak	
DATE	10/3/82	10/3/82	10/17/82	10/8/82	10/27/82	12/27/82	

ATTACHMENT TO LICENSE AMENDMENT NO. 8

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 8-6
3/4 3-33

OFFICE ▶	.....	.....	.....	.....	.....	.....	.....
SURNAME ▶	.....	.....	.....	.....	.....	.....	.....
DATE ▶	.....	.....	.....	.....	.....	.....	.....

INSTRUMENTATION

TABLE 3.3-5 (Continued)

TABLE NOTATION

(1) Diesel generator starting and sequence loading delays included. Response time limit includes opening of valves to establish SI path and attainment of discharge pressure for centrifugal charging pumps, SI and RHR pumps.

(2) Using air operated valve

(3) The following valves are exceptions to the response times shown in the table and will have the values listed in seconds for the initiating signals and function indicated:

Valves: FCV-26-240, -243
Response times: 2.d. 21⁽⁸⁾/31⁽⁹⁾
3.d. 22⁽⁸⁾
4.d. 21⁽⁸⁾/31⁽⁹⁾
5.d. 24⁽⁸⁾/34⁽⁹⁾
6.d. 21⁽⁸⁾/31⁽⁹⁾

Valves: FCV-61-96, -97, -110, -122, -191, -192, -193, -194
Response times

2.d. 31⁽⁸⁾
3.d. 32⁽⁸⁾
4.d. 31⁽⁸⁾
5.d. 34⁽⁸⁾
6.d. 31⁽⁸⁾

Valve: FCV-70-143
Response times: 2.d. 61⁽⁸⁾/71⁽⁹⁾
3.d. 62⁽⁸⁾
4.d. 61⁽⁸⁾/71⁽⁹⁾
5.d. 64⁽⁸⁾/74⁽⁹⁾
6.d. 61⁽⁸⁾/71⁽⁹⁾

(4) On 2/3 any Steam Generator

(5) On 2/3 in 2/4 Steam Generator

(6) Radiation detectors for Containment Ventilation Isolation may be excluded from Response Time Testing.

(7) Diesel generator starting and sequence loading delays not included. Offsite power available. Response time limit includes opening of valves to establish SI path and attainment of discharge pressure for centrifugal charging pumps.

(8) Diesel generator starting and sequence loading delays not included. Response time limit includes operating time of valves.

(9) Diesel generator starting and sequence loading delays included. Response time limit includes operating time of valves.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- f. At least once per 10 years* by:
1. Draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank using a sodium hypochlorite solution, and
 2. Performing a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code at a test pressure equal to 110 percent of the system design pressure.

4.8.1.1.3 The 125-volt D.C. distribution panel, 125-volt D.C. battery bank and associated charger for each diesel generator shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying:
1. That the parameters in Table 4.8-1a meet the Category A limits.
 2. That the total battery terminal voltage is greater than or equal to 124 volts on float charge.
- b. At least once per 92 days by:
1. Verifying that the parameters in Table 4.8-1a meet the Category B limits,
 2. Verifying there is no visible corrosion at either terminals or connectors, or the cell to terminal connection resistance of these items is less than 150×10^{-6} ohms, and
 3. Verifying that the average electrolyte temperature of 6 connected cells is above 60 F.
- c. At least once per 18 months by verifying that:
1. The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration.
 2. The battery to battery and terminal connections are clean, tight and coated with anti-corrosion material.
 3. The resistance of each cell to terminal connection is less than or equal to 150×10^{-6} ohms.

*These requirements are waived for the initial surveillance.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 17 TO FACILITY OPERATING LICENSE DPR-77
AND AMENDMENT NO. 8 TO FACILITY OPERATING LICENSE DPR-79
TENNESSEE VALLEY AUTHORITY

INTRODUCTION

In a September 17, 1982, transmittal TVA requested a correction to their inadvertent errors involving containment isolation valve stroke times which were overlooked in requesting the May 4, 1982, amendments to both licenses.

Also in their September 17 letter, TVA requested a change to the diesel generator battery float voltage. TVA has replaced the diesel generator batteries at Sequoyah with lead calcium cells necessitating a lower float voltage.

EVALUATION

The May 4, 1982, amendments lengthened the valve isolation times for the ice condenser glycol lines from 10 to 30 seconds. Errors in the technical specifications were incurred when the overall phase A response time was not changed to reflect the increased isolation time. Similarly, the isolation time for the fire protection valves had been approved as 20 seconds in the initial issuance of Sequoyah Units 1 and 2 Technical Specifications, which is greater than or equal to the overall phase A response time. For both the glycol line isolation valves and the fire protection isolation valves, the corresponding phase A response times were increased. Because this amendment corrects discrepancies resulting from previously approved tech specs, the staff agrees that the amendment should be instituted.

Additionally, the new deisel generator cells at Sequoyah require a change in the minimum float voltage of surveillance requirement 4.8.1.1.3.9.2 for Units 1 and 2. There are 57 cell units with a manufacturer's recommended minimum float voltage of 2.17 volts/cell. Therefore, 123.69 volts or 124 volts is the minimum total float voltage requirement. Because the manufacturer's recommended maximum of 128.25 volts is presently exceeded in the technical specification, the tech spec voltage of 129 volts could contribute to shorter battery life.

From this justification, the staff agrees that survillance requirement 4.8.1.1.3.9.2 should be changed from 129 volts to 124 volts.

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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.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant decrease in a safety margin, the amendments do 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 23, 1982

Principal Contributors: Melanie Miller, Licensing Branch No. 4, DL
Carl Stahle, Licensing Branch No. 4, DL
John Knox, Power Systems Branch, DSI
James Pulsipher, Containment Systems Branch, DSI

OFFICE	LA:DL:LB.#4	DL:LB.#4	DL:LB.#4	CSB	PSB	DL:LB.#4
SURNAME	MDuncan/hmc	MMiller	CStahle	WButler	MSrinivasan	EAdensam
DATE	10/3/82	10/3/82	10/17/82	10/10/82	10/21/82	10/21/82

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. 17 to Facility Operating License No. DPR-77 and Amendment No. 8 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 diesel generator battery float voltage and the isolation times for containment isolation valves. 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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OFFICE ▶
SURNAME ▶
DATE ▶

For further details with respect to this action, see (1) Tennessee Valley Authority letter dated September 17, 1982, (2) Amendment No. 17 to Facility Operating License No. DPR-77 with Appendix A Technical Specification page changes; (3) Amendment No. 8 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. 17 and Amendment No. 8 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 23rd day of December 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

3/

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>Robert Miller</i>	EAdensam		
DATE	10/3/82	10/3/82	10/7/82	10/8/82	10/27/82		

forms only

DISTRIBUTION:
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 LB #4 r/f
 E. Adensam
 C. Stahle
 M. Duncan
 M. Miller
 D. Eisenhut

December 17, 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. 17 TO FACILITY OPERATING
 LICENSE DPR-77 AND AMENDMENT NO. 8 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.

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

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 P PDR

OFFICE	LA:DL:LB #4	DL:LB #4	DL:LB #4	DL:LB #4			
SURNAME	MDuncan/hmc	MMiller	CStahle	EAdensam			
DATE	10/3/82	10/3/82	10/17/82	10/17/82			

AMENDMENT NO. 17 TO FACILITY OPERATING LICENSE DPR-77 - SEQUOYAH UNIT 1
AMENDMENT NO. 8 TO FACILITY OPERATING LICENSE DPR-79 - SEQUOYAH UNIT 2

DISTRIBUTION w/enclosures:

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