

July 12, 1988

Docket Nos. 50-327/328

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

Distribution

Docket File	BDLiaw	TVA-Rockville
NRC PDR	FMcCoy	SQN Rdg. File
Local PDR	MSimms	
Projects Rdg.	JDonohew	
	JRutberg	
JPartlow	FMiraglia	
	EJordan	
JAxelrad	ACRS(10)	
SRichardson	GPA/CA	
SBlack	GPA/PA	

Dear Mr. White:

SUBJECT: REMOTE SHUTDOWN MONITORING INSTRUMENTATION (TAC 64672, 64673)
(TS 79)

Re: Sequoyah Nuclear Plant, Units 1 and 2

The Commission has issued the enclosed Amendment No. 76 to Facility Operating License No. DPR-77 and Amendment No. 77 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 February 3, 1987.

The amendments modify Technical Specification Table 3.3-9, Remote Shutdown Monitoring Instrumentation, for both units. Specifically, the instrument measurement range of (1) the pressurizer level (item 5) is changed from 0-525 inch to 0-100 percent and of (2) the auxiliary feedwater flow rate (item 11) is changed from 0-880 gpm to 0-440 gpm. The required number of minimum channels operable is clarified by changing the description given for the reactor coolant temperature-hot leg (item 3) from 1 to 1/loop and the description given for the auxiliary feedwater flow rate (item 11) from 1 to 1/steam generator.

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

Suzanne C. Black, Assistant Director
for Projects
TVA Projects Division
Office of Special Projects

BB07210178 BB0712
PDR ADDOCK 05000327
P PNU

Enclosures:

1. Amendment No. 76 to License No. DPR-77
2. Amendment No. 77 to License No. DPR-79
3. Safety Evaluation

cc w/enclosures:
See next page

*SEE PREVIOUS CONCURRENCE
OSP:TVA/LA* OSP:TVA/PM*
MSimms JDonohew
6/21/88 6/21/88

TVA:AD/TP*
BDLiaw
6/29/88

OGC*
RBachman
7/1/88

OSP:AD/P
SBlack
7/12/88

DFol
1/1

July 12, 1988

Docket Nos. 50-327/328

Mr. S. A. White
Manager of Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Distribution

Docket File	BDLiaw	TVA-Rockville
NRC PDR	FMcCoy	SQN Rdg. File
Local PDR	MSimms	
Projects Rdg.	JDonohew	
[REDACTED]	JRutberg	
JPartlow	FMiraglia	
[REDACTED]	EJordan	
JAxelrad	ACRS(10)	
SRichardson	GPA/CA	
SBlack	GPA/PA	

Dear Mr. White:

SUBJECT: REMOTE SHUTDOWN MONITORING INSTRUMENTATION (TAC 64672, 64673)
(TS 79)

Re: Sequoyah Nuclear Plant, Units 1 and 2

The Commission has issued the enclosed Amendment No. 76 to Facility Operating License No. DPR-77 and Amendment No. 77 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 February 3, 1987.

The amendments modify Technical Specification Table 3.3-9, Remote Shutdown Monitoring Instrumentation, for both units. Specifically, the instrument measurement range of (1) the pressurizer level (item 5) is changed from 0-525 inch to 0-100 percent and of (2) the auxiliary feedwater flow rate (item 11) is changed from 0-880 gpm to 0-440 gpm. The required number of minimum channels operable is clarified by changing the description given for the reactor coolant temperature-hot leg (item 3) from 1 to 1/loop and the description given for the auxiliary feedwater flow rate (item 11) from 1 to 1/steam generator.

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,

Suzanne C. Black, Assistant Director
for Projects
TVA Projects Division
Office of Special Projects

Enclosures:

1. Amendment No. 76 to License No. DPR-77
2. Amendment No. 77 to License No. DPR-79
3. Safety Evaluation

cc w/enclosures:
See next page

OSP:TVA/LA
MSimms
6/21/88

OSP:TVA/PM
JPartlow
6/21/88

TVA:AD/TR
BDLiaw
6/20/88

OSP:
Sachmann
7/1/88

OSP:AD/P
SBlack
7/12/88

Mr. S. A. White
Tennessee Valley Authority

Sequoyah Nuclear Plant

CC:
General Counsel
Tennessee Valley Authority
400 West Summit Hill Drive
E11 B33
Knoxville, Tennessee 37902

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta Street, N.W.
Atlanta, Georgia 30323

Mr. R. L. Gridley
Tennessee Valley Authority
5N 157B Lookout Place
Chattanooga, Tennessee 37402-2801

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

Mr. H. L. Abercrombie
Tennessee Valley Authority
Sequoyah Nuclear Plant
P.O. Box 2000
Soddy Daisy, Tennessee 37379

Mr. Michael H. Mobley, Director
Division of Radiological Health
T.E.R.R.A. Building, 6th Floor
150 9th Avenue North
Nashville, Tennessee 37219-5404

Mr. M. R. Harding
Tennessee Valley Authority
Sequoyah Nuclear Plant
P.O. Box 2000
Soddy Daisy, Tennessee 37379

Dr. Henry Myers, Science Advisor
Committee on Interior
and Insular Affairs
U.S. House of Representatives
Washington, D.C. 20515

Mr. D. L. Williams
Tennessee Valley Authority
400 West Summit Hill Drive
W10 B85
Knoxville, Tennessee 37902

County Judge
Hamilton County Courthouse
Chattanooga, Tennessee 37402



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. 76
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 February 3, 1987, 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.

8807210180 880712
PDR ADOCK 05000327
P PNU

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. 76, 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 Special Projects

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 12, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 76

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 3-51

3/4 3-52

INSERT

3/4 3-51

3/4 3-52*

TABLE 3.3-9

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>READOUT LOCATION</u>	<u>MEASUREMENT RANGE</u>	<u>MINIMUM CHANNELS OPERABLE</u>
1. Source Range Nuclear Flux	NOTE 1	1 to 1×10^6 cps	1
2. Reactor Trip Breaker Indication	at trip switchgear	OPEN-CLOSE	1/trip breaker
3. Reactor Coolant Temperature - Hot Leg	NOTE 1	0-650°F	1/loop
4. Pressurizer Pressure	NOTE 1	0-3000 psig	1
5. Pressurizer Level	NOTE 1	0-100%	1
6. Steam Generator Pressure	NOTE 1	0-1200 psig	1/steam generator
7. Steam Generator Level	NOTE 2 or near Auxiliary F. W. Pump	0-100%	1/steam generator
8. Full Length Control Rod Position Limit Switches	Auxiliary Instrument Room: Racks R41-44	On-off	1 insertion limit switch/rod
9. RHR Flow Rate	NOTE 1	0-4500 gpm	1
10. RHR Temperature	NOTE 1	50-400°F	1
11. Auxiliary Feedwater Flow Rate	NOTE 1	0-440 gpm	1/steam generator

TABLE 3.3-9 (Continued)

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>READOUT LOCATION</u>	<u>MEASUREMENT RANGE</u>	<u>MINIMUM CHANNELS OPERABLE</u>
12. Pressurizer Relief Tank Pressure	NOTE 1	0-100 psig	1
13. Containment Pressure	NOTE 1	-1 to +15 psig	1

NOTE 1: Auxiliary Control Room Panel 1-L-10

NOTE 2: Auxiliary Control Room Panels 1-L-11A and 1-L-11B



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. 67
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 February 3, 1987, 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. 67, 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 Special Projects

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 12, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 67

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 3-51

3/4 3-52

INSERT

3/4 3-51*

3/4 3-52

INSTRUMENTATION

REMOTE SHUTDOWN INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.5 The remote shutdown monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE with readouts displayed external to the control room.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With the number of OPERABLE remote shutdown monitoring channels less than required by Table 3.3-9, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.
- b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.5 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-6.

TABLE 3.3-9

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>READOUT LOCATION</u>	<u>MEASUREMENT RANGE</u>	<u>MINIMUM CHANNELS OPERABLE</u>
1. Source Range Nuclear Flux	NOTE 1	1 to 1×10^6 cps	1
2. Reactor Trip Breaker Indication	at trip switchgear	OPEN-CLOSE	1/trip breaker
3. Reactor Coolant Temperature - Hot Leg	NOTE 1	0-650°F	1/loop
4. Pressurizer Pressure	NOTE 1	0-3000 psig	1
5. Pressurizer Level	NOTE 1	0-100%	1
6. Steam Generator Pressure	NOTE 1	0-1200 psig	1/steam generator
7. Steam Generator Level	NOTE 2 or near Auxiliary F. W. Pump	0-100%	1/steam generator
8. Full Length Control Rod Position Limit Switches	Auxiliary Instrument Room: Racks R41-44	On-off	1 insertion limit switch/rod
9. RHR Flow Rate	NOTE 1	0-4500 gpm	1
10. RHR Temperature	NOTE 1	50-400°F	1
11. Auxiliary Feedwater Flow Rate	NOTE 1	0-440 gpm	1/steam generator



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

SAFETY EVALUATION BY THE OFFICE OF SPECIAL PROJECTS

SUPPORTING AMENDMENT NO. 76 TO FACILITY OPERATING LICENSE NO. DPR-77

AND AMENDMENT NO. 77 TO FACILITY OPERATING LICENSE NO. DPR-79

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

1.0 INTRODUCTION

By letter dated February 3, 1987 the Tennessee Valley Authority (TVA) requested amendments to the Sequoyah Nuclear Plant, Units 1 and 2 Appendix A Technical Specifications (TS). The proposed amendments would clarify TS Table 3.3-9 Shutdown Monitoring Instrumentation. The proposed changes to Table 3.3-9 are as follows:

- 1) The measurement range shown for pressurizer level (item 5) is to be changed from 0-525 inch to 0-100 percent.
- 2) The measurement range shown for auxiliary feedwater flow rate (item 11) is to be changed from 0-880 gpm to 0-440 gpm.
- 3) The minimum number of channels operable for reactor coolant temperature-hot leg (item 3) is to be changed from 1 to 1/loop.
- 4) The minimum required channels operable for auxiliary feedwater flow rate (item 11) is to be changed from 1 to 1/steam generator.

2.0 EVALUATION

The proposed change associated with pressurizer level measurement range indication from 0-525 inches to 0-100 percent, will enhance the clarity of Table 3.3-9. The change eliminates inconsistency between parameters identified in the table and actual measured parameters depicted by control room indicating devices. The control room indicators read out in 0-100% of level.

The proposed change to the measurement range for feedwater flow rate will likewise eliminate inconsistency between table entries and actual indication. The appropriate quantity to be measured and indicated is the inlet flow to the steam generators. The 0-880 gpm range currently indicated on Table 3.3-9 is the discharge capacity of the steam driven auxiliary feedwater pump. Since the amount of auxiliary feedwater flow to each steam generator is the parameter measured on Table 3.3-9 and not the discharge capacity of the steam driven pump, the given measurement should reflect the 0-440 gpm range of the feedwater indicators for each steam generator.

The two remaining changes which are in the "Minimum Channels Operable" column of Table 3.3-9 are editorial and are intended only to clarify the number of channels required on a per loop or per steam generator basis. The "1/" in the present Table 3.3-9 for the reactor trip breaker indication and auxiliary feed-water flow rate is not correct. The correct numbers are "1/loop" and "1/steam generator," respectively. This change eliminates the potential for misinterpretation of the TS requirements.

The staff has reviewed the licensee's proposed changes to the Sequoyah Units 1 and 2 TS and finds them acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets 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 the amendment.

4.0 CONCLUSION

We have 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 amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Principal Contributor: E. N. Fields

Dated: July 12, 1988