

October 28, 1986

Docket Nos.: 50-327
and 50-328

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

Dear Mr. White:

Subject: Issuance of Amendment No.49 to Facility Operating License
No. DPR-77 and Amendment No. 41 to Facility Operating
License No. DPR-79 - Sequoyah Nuclear Plant, Units 1 and 2

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 49 to Facility Operating License No. DPR-77 and Amendment No. 41 to Facility Operating License No. DPR-79. These amendments are in response to your request dated January 25, 1984. Other changes requested in that letter are being addressed in other amendments.

The amendments change the Technical Specifications (TS) to delete diesel generator Surveillance Requirement 4.8.1.1.2.d.6. The amendments are effective as of their date of issuance. This letter should not be construed as an authorization to commence operations prior to the Tennessee Valley Authority appropriately addressing the concerns identified in the 50.54(f) letter dated September 17, 1985.

A copy of the related safety evaluation supporting Amendment No. 49 to Facility Operating License DPR-77 and Amendment No. 41 to Facility Operating License DPR-79 is enclosed.

Notice of issuance will be included in the Commission's next bi-weekly Federal Register notice.

Sincerely,

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Carl R. Stahle, Project Manager
PWR Project Directorate #4
Division of PWR Licensing-A

Enclosures:

- 1. Amendment No. 49 to DPR-77
- 2. Amendment No. 41 to DPR-79
- 3. Safety Evaluation

cc w/enclosures: See next page

PWR#4/DPWR-A
MDuncan/rad
10/9/86

PWR#4/DPWR-A
JH Lonich
10/9/86

JH For
PWR#4/DPWR-A
CStahle
10/9/86

PWR#4/DPWR-A
BJYoungblood
10/8/86

Mr. C. C. Mason
Tennessee Valley Authority

Sequoyah Nuclear Plant

cc:
Tennessee Department of Public
Health
ATTN: Director, Bureau of
Environmental Health Services
Cordell Hull Building
Nashville, Tennessee 37219

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission,
101 Marietta Street, N.W., Suite 2900
Atlanta, Georgia 30323

J.A. Kirkebo
ATTN: D.L. Williams
Tennessee Valley Authority
400 West Summit Hill Drive, W12 A12
Knoxville, Tennessee 37902

Mr. Michael H. Mobley, Director
Division of Radiological Health
T.E.R.R.A. Building
150 9th Avenue North
Nashville, Tennessee 37203

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

County Judge
Hamilton County Courthouse
Chattanooga, Tennessee 37402

R. L. Gridley
Tennessee Valley Authority
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Chattanooga, Tennessee 37402-2801

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

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

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

October 28, 1986

AMENDMENT NO.49 TO FACILITY OPERATING LICENSE NO. DPR-77 - Sequoyah Nuclear Plant
Unit 1
AMENDMENT NO.41 TO FACILITY OPERATING LICENSE NO. DPR-79 - Sequoyah Nuclear Plant
Unit 2

DISTRIBUTION w/ enclosures:

Docket No. 50-327/328

NRC PDR

Local PDR

NSIC

PRC System

PD#4 Reading File

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OGC-Beth

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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 49
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 January 25, 1984, 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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PDR

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 49 are hereby incorporated into 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

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B. J. Youngblood, Director
PWR Project Directorate #4
Division of PWR Licensing-A

Attachment"
Appendix A Technical
Specification Changes

Date of Issuance: October 28, 1986

PWR#4/DPWR-A
MDuncan/mac
10/9/86

PWR#4/DPWR-A
JHolonich
10/9/86

PWR#4/DPWR-A
CStahle
10/9/86

OGC/BETH
Set
10/15/86

PWR#4/DPWR-A
BJYoungblood
10/27/86

ATTACHMENT TO LICENSE AMENDMENT NO. 49

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 areas of change.

Amended
Pages

3/4 8-4

3/4 8-5

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4. Simulating a loss of offsite power by itself, and:
 - a) Verifying de-energization of the shutdown boards and load shedding from the shutdown boards.
 - b) Verifying the diesel starts on the auto-start signal, energizes the shutdown boards with permanently connected loads within 10 seconds, energizes the auto-connected shutdown loads through the load sequencers and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady state voltage and frequency of the shutdown boards shall be maintained at 6900 ± 690 volts and 60 ± 1.2 Hz during this test.
5. Verifying that on a ESF actuation test signal (without loss of offsite power) the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 6900 ± 690 volts and 60 ± 1.2 Hz within 10 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.
6. Simulating a loss of offsite power in conjunction with an ESF actuation test signal, and
 - a) Verifying de-energization of the shutdown boards and load shedding from the shutdown boards.
 - b) Verifying the diesel starts from ambient condition on the auto-start signal, energizes the shutdown boards with permanently connected loads within 10 seconds, energizes the auto-connected emergency (accident) loads through the load sequencers and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 6900 ± 690 volts and 60 ± 1.2 Hz during this test.
 - c) Verifying that all automatic diesel generator trips, except engine overspeed and generator differential, are automatically bypassed upon loss of voltage on the shutdown board and/or safety injection actuation signal.
7. Verifying the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 4400 kw and during the remaining 22 hours of this test, the diesel generator shall be loaded to greater than or equal to 4000 kw.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

Within 5 minutes after completing this 24 hour test, perform Specification 4.8.1.1.2.c.4. The generator voltage and frequency shall be 6900 ± 690 volts and 60 ± 1.2 Hz within 10 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

8. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 4000 kw.
9. Verifying the diesel generator's capability to:
 - a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power.
 - b) Transfer its loads to the offsite power source, and
 - c) Be restored to its shutdown status.
10. Verifying that the automatic load sequence timers are OPERABLE with the setpoint for each sequence timer within ± 5 percent of its design setpoint.
11. Verifying that the following diesel generator lockout features prevent diesel generator starting only when required:
 - a) Engine overspeed
 - b) 86 GA lockout relay
- e. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting the diesel generators simultaneously, during shutdown, and verifying that the diesel generators accelerate to at least 900 rpm in less than or equal to 10 seconds.
- 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 design to Section III, subsection ND of the ASME Code at a test pressure equal to 110 percent of the system design pressure.

*These requirements are waived for the initial surveillance.



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. 41
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 January 25, 1984, 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-79 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 41 are hereby incorporated into 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

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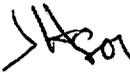
B. J. Youngblood, Director
PWR Project Directorate #4
Division of PWR Licensing-A

Attachment
Appendix A Technical
Specification Changes

Date of Issuance: October 28, 1986

PWR#4/DPWR-A
MDuncan/mac
10/9/86


PWR#4/DPWR-A
JHolonich
10/9/86


PWR#4/DPWR-A
CStahle
10/9/86

OGC/BETH
SAB
10/15/86


PWR#4/DPWR-A
BJYoungblood
10/12/86

ATTACHMENT TO LICENSE AMENDMENT NO. 41

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 areas of change.

Amended
Page

3/4 8-4
3/4 8-5

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4. Simulating a loss of offsite power by itself, and:
 - a) Verifying de-energization of the shutdown boards and load shedding from the shutdown boards.
 - b) Verifying the diesel starts on the auto-start signal, energizes the shutdown boards with permanently connected loads within 10 seconds, energizes the auto-connected shutdown loads through the load sequencers and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady state voltage and frequency of the shutdown boards shall be maintained at 6900 ± 690 volts and 60 ± 1.2 Hz during this test.
5. Verifying that on a ESF actuation test signal, without loss of offsite power, the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The generator voltage and frequency shall be 6900 ± 690 volts and 60 ± 1.2 Hz within 10 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.
6. Simulating a loss of offsite power in conjunction with an ESF actuation test signal, and
 - a) Verifying de-energization of the shutdown boards and load shedding from the shutdown boards.
 - b) Verifying the diesel starts on the auto-start signal, energizes the shutdown boards with permanently connected loads within 10 seconds, energizes the auto-connected emergency (accident) loads through the load sequencers and operates for greater than or equal to 5 minutes while its generator is loaded with the emergency loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 6900 ± 690 volts and 60 ± 1.2 Hz during this test.
 - c) Verifying that all automatic diesel generator trips, except engine overspeed and generator differential, are automatically bypassed upon loss of voltage on the shutdown board and/or safety injection actuation signal.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

7. Verifying the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to greater than or equal to 4400 kw and during the remaining 22 hours of this test, the diesel generator shall be loaded to greater than or equal to 4000 kw. The generator voltage and frequency shall be 6900 ± 690 volts and 60 ± 1.2 Hz within 10 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test. Within 5 minutes after completing this 24 hour test, perform Specification 4.8.1.1.2.d.4.b
8. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 4000 kw.
9. Verifying the diesel generator's capability to:
 - a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power.
 - b) Transfer its loads to the offsite power source, and
 - c) Be restored to its shutdown status.
10. Verifying that the automatic load sequence timers are OPERABLE with the setpoint for each sequence timer within ± 5 percent of its design setpoint.
11. Verifying that the following diesel generator lockout features prevent diesel generator starting only when required:
 - a) Engine overspeed
 - b) 86 GA lockout relay
- e. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting the diesel generators simultaneously, during shutdown, and verifying that the diesel generators accelerate to at least 900 rpm in less than or equal to 10 seconds.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO.49 TO FACILITY OPERATING LICENSE DPR-77
AND AMENDMENT NO.41 TO FACILITY OPERATING LICENSE DPR-79
TENNESSEE VALLEY AUTHORITY

I. INTRODUCTION

By letter dated January 25, 1984, the Tennessee Valley Authority (TVA) requested various changes to Sequoyah Units 1 and 2 Technical Specifications. This evaluation only addresses the deletion of Surveillance Requirement 4.8.1.1.2.d.6 from the specification.

II. EVALUATION

TVA has proposed the deletion of diesel generator Surveillance Requirement 4.8.1.1.2.d.6 from the Sequoyah Units 1 and 2 Technical Specifications. The surveillance requirement verified that on a simulated loss of the diesel generator, with offsite power not available, the loads are shed from the shutdown boards and that subsequent loading of the diesel generator is in accordance with design requirements. The deletion of this surveillance is consistent with the staff request in Generic Letter 83-30 dated July 21, 1983. The proposed change is, therefore, acceptable.

III. ENVIRONMENTAL CONSIDERATION

These amendments involve changes in surveillance requirements. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration, and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

IV. CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register on September 28, 1984 (49 FR 38410) and consulted with the state of Tennessee. No public comments were received, and the state of Tennessee did not have any comments.

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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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: Carl R. Stahle, PWR#4, DPWR-A
Joe Holonich, PWR#4, DPWR-A

Dated: October 28, 1986