



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20565

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 160  
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 November 27, 1991, 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.

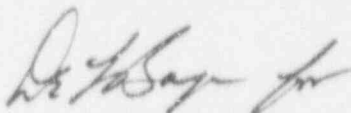
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-77 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 160, 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, to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Frederick J. Hebdon, Director  
Project Directorate II-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 24, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 160

FACILITY OPERATING LICENSE NO. DPR-77

LOCKET 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.

REMOVE

3/4 3-21  
3/4 3-23  
3/4 3-23a

INSERT

3/4 3-21  
3/4 3-23  
3/4 3-23a

TABLE 3.3-3 (Continued)

## ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

| FUNCTIONAL UNIT   | TOTAL NO.<br>OF CHANNELS | CHANNELS<br>TO TRIP                              | MINIMUM<br>CHANNELS<br>OPERABLE | APPLICABLE<br>MODES | ACTION |
|---|--------------------------|--|---------------------------------|---------------------|--------|
| 7. LOSS OF POWER  |                          |  |                                 |                     |        |
| a. 6.9 kv Shutdown Board<br>--Loss of Voltage               |                          |  |                                 |                     |        |
| 1. Start Diesel<br>Generators                               | 2/shutdown<br>board      | 1 loss of<br>voltage on<br>any shutdown<br>board | 2/shutdown<br>board             | 1, 2, 3, 4          | 35*    |
| 2. Load Shedding  | 2/shutdown<br>board      | 1/shutdown<br>board                              | 2/shutdown<br>board             | 1, 2, 3, 4          | 34*    |
| b. 6.9 kv Shutdown Board<br>Degraded Voltage                |                          |  |                                 |                     |        |
| 1. Voltage Sensors  | 3/shutdown<br>board      | 2/shutdown<br>board                              | 2/shutdown<br>board             | 1, 2, 3, 4          | 34*    |
| 2. Diesel Generator<br>Start and Load<br>Shedding Timer     | 2/shutdown<br>board      | 1/shutdown<br>board                              | 1/shutdown<br>board             | 1, 2, 3, 4          | 34*    |
| 3. SI/Degraded<br>Voltage Enable<br>Timer                   | 2/shutdown<br>board      | 1/shutdown<br>board                              | 1/shutdown<br>board             | 1, 2, 3, 4          | 34*    |
| 8. ENGINEERED SAFETY FEATURE<br>ACTUATION SYSTEM INTERLOCKS |                          |  |                                 |                     |        |
| a. Pressurizer Pressure --<br>P-11/Not P-11                 | 3                        | 2  | 2                               | 1, 2, 3             | 22a    |
| b. Deleted  |                          |  |                                 |                     |        |
| c. Steam Generator<br>Level P-14                            | 3/loop                   | 2/loop<br>any loop                               | 3/loop                          | 1, 2                | 22c    |

TABLE 3.3-3 (Continued)

- ACTION 21 - With less than the Minimum Number of Channels OPERABLE, declare the associated auxiliary feedwater pump inoperable, and comply with the ACTION requirements of Specification 3.7.1.2.
- ACTION 22 With less than the Minimum Number of Channels OPERABLE, declare the interlock inoperable and verify that all affected channels of the functions listed below are OPERABLE or apply the appropriate ACTION statement(s) for those functions. Functions to be evaluated are:
- a. Safety Injection
    - Pressurizer Pressure
    - Steam Line Pressure
    - Negative Steam Line Pressure Rate
  - b. Deleted
  - c. Turbine Trip
    - Steam Generator Level High-High
    - Feedwater Isolation
    - Steam Generator Level High-High
- ACTION 23 - With the number of OPERABLE channels one less than the Total Number of Channels, be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.1.
- ACTION 24 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.
- ACTION 25 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated valve inoperable and take the ACTION required by Specification 3.7.1.5.
- ACTION 34 -
- a. With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - b. With the number of OPERABLE channels less than the Total Number of Channels by more than one, declare the associated 6,900-volt shutdown board inoperable, and comply with the action requirements of Specification 3.8.2.1 or 3.8.2.2 as applicable.

TABLE 3.3-3 (Continued)

- ACTION 35 - With the number of OPERABLE channels less than the Total Number of Channels by one or more, declare the associated diesel generator set inoperable, and comply with the action requirements of Specification 3.8.1.1 or 3.8.1.2 as applicable.
- ACTION 36 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- a. The inoperable channel is placed in the tripped condition within 6 hours.
  - b. For the affected protection set, the Trip Time Delay for one affected steam generator ( $T_S$ ) is adjusted to match the Trip Time Delay for multiple affected steam generators ( $T_M$ ) within 4 hours.
  - c. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.2.1.1.
- ACTION 37 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected protection set, the Trip Time Delays ( $T_S$  and  $T_M$ ) threshold power level for zero seconds time delay is adjusted to 0% RTP.
- ACTION 38 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected protection set, the Steam Generator Water Level - Low-Low (EAM) channels trip setpoint is adjusted to the same value as Steam Generator Water Level - Low-Low (Adverse).



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20666

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 150  
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 November 27, 1991, 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.

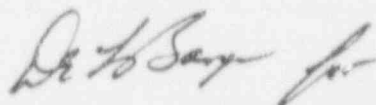
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-79 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.150, 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, to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Frederick J. Hebdon, Director  
Project Directorate II-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: July 24, 1992



ATTACHMENT TO LICENSE AMENDMENT NO. 150

FACILITY OPERATING LICENSE NO. DPR-79

DOCKET NO. 50-328

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TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

| FUNCTIONAL UNIT                                   | TOTAL NO. OF CHANNELS | CHANNELS TO TRIP                        | MINIMUM CHANNELS OPERABLE | APPLICABLE MODES | ACTION |
|---|-----------------------|---|---------------------------|------------------|--------|
| 7. LOSS OF POWER                                  |                       |   |                           |                  |        |
| a. 6.9 kv Shutdown Board --Loss of Voltage        |                       |   |                           |                  |        |
| 1. Start Diesel Generators                        | 2/shutdown board      | 1 loss of voltage on any shutdown board | 2/shutdown board          | 1, 2, 3, 4       | 35*    |
| 2. Load Shedding                                  | 2/shutdown board      | 1/shutdown board                        | 2/shutdown board          | 1, 2, 3, 4       | 34*    |
| b. 6.9 kv Shutdown Board Degraded Voltage         |                       |   |                           |                  |        |
| 1. Voltage Sensors                                | 3/shutdown board      | 2/shutdown board                        | 2/shutdown board          | 1, 2, 3, 4       | 34*    |
| 2. Diesel Generator Start and Load Shedding Timer | 2/shutdown board      | 1/shutdown board                        | 1/shutdown board          | 1, 2, 3, 4       | 34*    |
| 3. SI/Degraded Voltage Enable Timer               | 2/shutdown board      | 1/shutdown board                        | 1/shutdown board          | 1, 2, 3, 4       | 34*    |

TABLE 3.3-3 (Continued)

- ACTION 21 - With less than the Minimum Number of Channels OPERABLE, declare the associated auxiliary feedwater pump inoperable, and comply with the ACTION requirements of Specification 3.7.1.2.
- ACTION 22 With less than the Minimum Number of Channels OPERABLE, declare the interlock inoperable and verify that all affected channels of the functions listed below are OPERABLE or apply the appropriate ACTION statement(s) for those functions. Functions to be evaluated are:
- a. Safety Injection
    - Pressurizer Pressure
    - Steam Line Pressure
    - Negative Steam Line Pressure Rate
  - b. Deleted
  - c. Turbine Trip
    - Steam Generator Level High-High
    - Feedwater Isolation
    - Steam Generator Level High-High
- ACTION 23 - With the number of OPERABLE channels one less than the Total Number of Channels, be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.1.
- ACTION 24 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.
- ACTION 25 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated valve inoperable and take the ACTION required by Specification 3.7.1.5.
- ACTION 34 -
- a. With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  - b. With the number of OPERABLE channels less than the Total Number of Channels by more than one, declare the associated 6,900-volt shutdown board inoperable, and comply with the action requirements of Specification 3.8.2.1 or 3.8.2.2 as applicable.

TABLE 3.3-3 (Continued)

- ACTION 35 - With the number of OPERABLE channels less than the Total Number of Channels by one or more, declare the associated diesel generator set inoperable, and comply with the action requirements of Specification 3.8.1.1 or 3.8.1.2 as applicable.
- ACTION 36 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- a. The inoperable channel is placed in the tripped condition within 6 hours.
  - b. For the affected protection set, the Trip Time Delay for one affected steam generator ( $T_S$ ) is adjusted to match the Trip Time Delay for multiple affected steam generators ( $T_M$ ) within 4 hours.
  - c. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1.1.
- ACTION 37 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected protection set, the Trip Time Delays ( $T_S$  and  $T_M$ ) threshold power level for zero seconds time delay is adjusted to 0% RTP.
- ACTION 38 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided that within 6 hours, for the affected protection set, the Steam Generator Water Level - Low-Low (EAM) channels trip setpoint is adjusted to the same value as Steam Generator Water Level - Low-Low (Adverse).