

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 8  
License No. DPR-77

1. The Nuclear Regulatory Commission (the Commission) having 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 July 14, 1981, 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 1;
  - 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 amended 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-077 is hereby amended to read as follows:

OFFICE							
SURNAME	8107280154	810715					
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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 8, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This amended license is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*ES*

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

Attachment:  
Appendix A Technical  
Specification Changes

Date of Issuance: July 15, 1981

OFFICE ▶	DL:LB #4	LA:DL:LB #4	ASB	LGB	OELD	DL:LB #4	AD:L/DL
SURNAME ▶	CStanley/hmc	MDuncan	OParr	MVirgilio		EAdensam	RTedesco
DATE ▶	7/15/81	7/15/81	7/ /81	7/ /81	7/ /81	7/15/81	7/15/81

ATTACHMENT TO LICENSE AMENDMENT NO. 8

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. The corresponding overleaf pages are also provided to maintain document completeness.

<u>Overleaf</u>		<u>Amended</u>	
<u>Page</u>		<u>Page</u>	
3/4	7-16	3/4	7-15
B3/4	7-3	B3/4	7-4

## PLANT SYSTEMS

### 3/4.7.5 ULTIMATE HEAT SINK

#### LIMITING CONDITION FOR OPERATION

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3.7.5 The ultimate heat sink shall be OPERABLE with the average temperature of water at the ERCW system suction of less than or equal to 83°F.

APPLICABILITY: MODES 1, 2, 3 and 4.

#### ACTION:

With the average temperature of the water at the ERCW system suction greater than 83°F be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIRMENTS

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4.7.5 The ultimate heat sink shall be determined OPERABLE at least once per 24 hours by verifying the average temperature to be within its limits.

## PLANT SYSTEMS

### 3/4.7.6 FLOOD PROTECTION

#### LIMITING CONDITION FOR OPERATION

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3.7.6 Flood protection shall be provided for all safety related components and structures.

APPLICABILITY: At all times

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 Plant cannot be verified, or if a Stage II flood warning is issued verify that the Stage I flood protection procedure is complete and initiate and complete the Stage II flood protection procedure within the following 17 hours.
- b. With a critical combination of flood and/or headwater alert issued concurrent with a loss of communications between the TVA Power Control Center and the Sequoyah Plant restore the communications system to OPERABLE status within 3 hours or initiate and complete the Stage I flood protection procedure described in ACTION a above within 10 hours. Upon completion of the Stage I flood protection procedure initiate and complete the Stage II flood protection procedure within the following 14 hours.
- c. With a Fontana Dam alert concurrent with a loss of communications between the Fontana Dam and the Sequoyah Plant restore the communication system to OPERABLE status within 1 hour or initiate and complete the Stage I flood protection procedure described in ACTION a above within 10 hours. Upon completion of the Stage I flood protection procedure initiate and complete the Stage II flood protection procedure within the following 17 hours.
- d. With either the Norris, Cherokee, Douglas, Fort Loudoun, Fontana, Hiwassee, Apalachia, Blue Ridge or Tellico dam failed seismically, and with a critical combination of flood and/or headwater alert issued initiate and complete the Stage I flood protection procedure described in Action a above within 10 hours. Upon completion of the Stage I flood protection procedure initiate and complete the Stage II flood protection procedures within the following 17 hours.

## PLANT SYSTEMS

### BASES

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#### 3/4.7.1.4 ACTIVITY

The limitations on secondary system specific activity ensure that the resultant off-site radiation dose will be limited to a small fraction of 10 CFR Part 100 limits in the event of a steam line rupture. This dose also includes the effects of a coincident 1.0 GPM primary to secondary tube leak in the steam generator of the affected steam line. These values are consistent with the assumptions used in the accident analyses.

#### 3/4.7.1.5 MAIN STEAM LINE ISOLATION VALVES

The OPERABILITY of the main steam line isolation valves ensures that no more than one steam generator will blowdown in the event of a steam line rupture. This restriction is required to 1) minimize the positive reactivity effects of the Reactor Coolant System cooldown associated with the blowdown, and 2) limit the pressure rise within containment in the event the steam line rupture occurs within containment. The OPERABILITY of the main steam isolation valves within the closure times of the surveillance requirements are consistent with the assumptions used in the accident analyses.

#### 3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

The limitation on steam generator pressure and temperature ensures that the pressure induced stresses in the steam generators do not exceed the maximum allowable fracture toughness stress limits. The limitations of 70°F and 200 psig are based on a steam generator RT<sub>NDT</sub> of 60°F and are sufficient to prevent brittle fracture.

#### 3/4.7.3 COMPONENT COOLING WATER SYSTEM

The OPERABILITY of the component cooling water system ensures that sufficient cooling capacity is available for continued operation of safety related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the accident analyses.

#### 3/4.7.4 ESSENTIAL RAW COOLING WATER SYSTEM

The OPERABILITY of the essential raw cooling water system and the auxiliary essential raw cooling water system ensures that sufficient cooling capacity is available for continued operation of safety related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the accident conditions within acceptable limits.

## PLANT SYSTEMS

### BASES

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#### 3/4.7.5 ULTIMATE HEAT SINK

The limitations on the temperature ensure that sufficient cooling capacity is available to either 1) provide normal cooldown of the facility, or 2) to mitigate the effects of accident conditions within acceptable limits.

The limitations on the maximum temperature are based on providing a 30 day cooling water supply to safety related equipment without exceeding their design basis temperature and is consistent with the recommendations of Regulatory guide 1.27, "Ultimate Heat Sink for Nuclear Plants", March 1974.

#### 3/4.7.6 FLOOD PROTECTION

The requirements for flood protection ensures that facility protective actions will be taken and operation will be terminated in the event of flood conditions. A Stage I flood warning is issued when the water in the forebay is predicted to exceed 697 feet Mean Sea Level USGS datum during October 1 through April 15, or 703 Feet Mean Sea Level USGS datum during April 15 through September 30. A Stage II flood warning is issued when the water in the forebay is predicted to exceed 703 feet Mean Sea Level USGS datum. A maximum allowed water level of 703 Mean Sea Level USGS datum provides sufficient margin to ensure waves due to high winds cannot disrupt the flood mode preparation. A Stage I or Stage II flood warning requires the implementation of procedures which include plant shutdown. Further, in the event of a loss of communications simultaneous with a critical combination flood, headwaters, and/or seismically induced dam failure the plant will be shutdown and flood protection measures implemented.

#### 3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

The OPERABILITY of the control room ventilation system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix "A", 10 CFR 50. ANSI N510-1975 will be used as a procedural guide for surveillance testing.