

ENCLOSURE 1

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNIT 2

DOCKET NO. 50-328

(TVA-SQN-TS-93-12)

LIST OF AFFECTED PAGES

Unit 2

OPERATING LICENSE, PAGE 11

s. Primary Coolant Outside Containment (Section 22.2, III.D.1.1)

Prior to exceeding 5 percent power level, TVA is required to complete the leak tests on Unit 2, and results are to be submitted within 30 days from the completion of the testing.

- D. Exemptions from certain requirements of Appendices G and J to 10 CFR Part 50 are described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, Supplements No. 1 and No. 5. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore, these exemptions are hereby granted. The facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission.

A temporary exemption from General Design Criterion 57 found in Appendix A to 10 CFR part 50 is described in the Office of Nuclear Reactor Regulation's Safety Evaluation Report, Supplement No. 5, Section 6.2.4. This exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. The exemption, therefore, is hereby granted and shall remain in effect through the first refueling outage as discussed in Section 6.2.4 of Supplement 5 to the Safety Evaluation Report. The granting of the exemption is authorized with the issuance of the Facility Operating License. The facility will operate, to the extent authorized herein, in conformity with the application as amended, the provisions of the Act, and the regulations of the Commission. Additional exemptions are listed in attachment 2. AE

E. Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revision to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 KCFR 50.54(p). The Safeguards Contingency Plan is incorporated into the Physical Security Plan. The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Sequoyah Physical Security Plan," with revisions submitted through November 23, 1987; and "Sequoyah Security Personnel Training and Qualification Plan," with revisions submitted through April 16, 1987. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein. R65

(17) SURVEILLANCE INTERVAL EXTENSION

THE PERFORMANCE INTERVAL FOR THOSE SURVEILLANCE REQUIREMENTS IDENTIFIED IN THE LICENSEE'S REQUEST FOR SURVEILLANCE INTERVAL EXTENSION DATED SEPTEMBER 8, 1993, SHALL BE EXTENDED TO APRIL 15, 1994, TO COINCIDE WITH THE CYCLE 6 REFUELING OUTAGE. THE EXTENDED INTERVAL SHALL NOT EXCEED A TOTAL OF 25 MONTHS. Amendment 65 June 24, 1988

ENCLOSURE 2

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNIT 2

DOCKET NO. 50-328

(TVA-SQN-TS-93-12)

DESCRIPTION AND JUSTIFICATION FOR

EXTENSION OF 18-MONTH SURVEILLANCE REQUIREMENT INTERVALS

### Description of Change

TVA proposes to modify the Sequoyah Nuclear Plant (SQN) Unit 2 technical specifications (TSs) to add Operating License Condition 2.C.(17) that extends the surveillance intervals for the surveillance requirements (SRs) listed in Enclosure 4 until April 15, 1994. This extension supports the schedule for the Unit 2 Cycle 6 refueling outage and will result in surveillance intervals that do not exceed 25 months for the affected components.

### Reason for Change

SQN Unit 2 entered a forced outage on March 1, 1993, during the sixth fuel cycle. This forced outage is expected to last approximately 6 1/2 months. Following resumption of power, this duration will cause SQN to exceed the allowable 25 percent extension of 4 1/2 months in accordance with TS 4.0.2 for the 18-month surveillances listed in Enclosure 4. Approximately 6 months of usable fuel exists in the present core load and by extending the 18-month SRs to April 15, 1994, fuel burnup can be optimized. This is based on a start-up of Unit 2 in September 1993, and a scheduled shutdown for the refueling outage on or before April 2, 1994. The additional two-week extension to April 15, 1994, is requested to maintain the low-temperature overpressure protection (LTOP) instrumentation in TS compliance. The LTOP instrumentation is required in Modes 4, 5, and 6 with the reactor vessel head in place.

The SRs for which an extension is required cannot be performed during power operation without risking a unit transient and would impact the present Unit 2 start-up schedule. Therefore, performance of these SRs under the existing TS requirements would require a delay in the present start-up schedule or an unnecessary plant shutdown before January 31, 1994.

### Justification for Change

The proposed change is temporary and allows a one-time extension of specific 18-month SRs for Cycle 6 to allow surveillance testing to coincide with the sixth refueling cycle. The maximum surveillance interval increase during which the plant is operating at power will be less than 2 1/4 months and will not affect the reliability established by surveillance testing performed normal intervals.

TS 4.0.2 is an administrative control that ensures that surveillance tests are performed periodically and defines a reasonable extension period for such testing. The basis for this specification describes the SRs as "sufficient to ensure that the reliability associated with the surveillance activity is not significantly degraded beyond that obtained from the nominal specified interval." The margin of safety assumed by the required refueling surveillances may be slightly reduced by extending the surveillance intervals. However, TVA has concluded that the reliability defined by the normal surveillance intervals (e.g., daily, weekly, monthly) will not be significantly reduced by the extension. This conclusion is based on the following considerations for extending surveillances that primarily involve instrumentation components.

1. Current monitoring of instrumentation and ongoing TS surveillance tests provide assurance that the equipment involved in the extended surveillance tests will remain in an operable condition until testing is performed at the next refueling outage.
2. Periodic surveillance tests have been performed since the last refueling outage to monitor system and component performance and to detect any significant degradation. Surveillance testing will continue to be performed during the requested extension interval that provides added assurance that the reliability of equipment associated with the extended surveillance will not be significantly degraded by this one-time extension.
3. Historically, the electronic components in the reactor protection system and engineered safety features actuation system have shown a very high degree of reliability. This reliability is further enhanced by the online diagnostics and self-calibration routine provided by the Eagle 21 protection sets installed at SQN.

For surveillances that primarily involve non-instrumentation-type components, item 2 above will apply, and the following discussions are provided to further support the acceptability to extend their surveillance intervals.

1. Rod-Drop Timing Measurement (SR 4.1.3.4)

Historically, SQN has not experienced failures of rod-drop times exceeding allowable TS values. In addition, this surveillance will only require an extension beyond the TS 4.0.2 allowance of approximately two days after which the unit will be in a mode that does not require this function to be operable. Testing will be performed before entering an applicable mode following the refueling outage. Therefore, this extension for rod-drop time measurement of approximately two days is acceptable.

2. Hydrogen Mitigation System Igniter Temperature (SR 4.6.4.3.b)

The hydrogen igniters are subjected to a quarterly test to verify that the voltage and current to each igniter are within an acceptable range. Failure to meet these requirements results in the igniter(s) being declared inoperable. For the past five years, no failures to reach an acceptable temperature have been identified for an igniter that passed the quarterly voltage and current SRs. Therefore, the continued performances of the quarterly igniter test will serve to ensure adequate igniter temperatures for the approximately 1 1/2-month extension beyond the TS 4.0.2 allowance. In addition, extending this surveillance will preclude an additional entry into the excess letdown heat exchanger room to verify temperatures on two igniters and eliminate the high-radiation exposures associated with this activity.

3. Lower-Voltage Circuit Breaker Test (SR 4.8.3.1.a.2)

This surveillance requires containment penetration conductor overcurrent protection devices to be demonstrated operable at least once every 18 months by selecting and functionally testing a representative sample of at least 10 percent of each type of lower-voltage circuit breakers. During the last two performances of this surveillance, no failures were identified. In addition, breaker functional tests have been completed within the past 13 months such that molded-case circuit breakers included in this surveillance (approximately 95 percent of the related breakers) were inspected and exercised. Industry guidance indicates that most circuit breaker failures involve the operating mechanism and that exercising the breakers is probably the most important of all inspections or tests. Also, electrical penetrations are protected by redundant overcurrent devices, typically a fuse, or in some instances, another circuit breaker. Because of their reliable history, the recent inspection and exercising of the molded-case breakers, and the existence of redundant penetration protection, extending the surveillance such that testing may be deferred for approximately two months is acceptable.

4. Non-1E Load Circuit Breaker Test (SR 4.8.3.3.a)

This surveillance requires that the circuit breakers actuated by fault currents, which are used as isolation devices protecting 1E busses from nonqualified loads, shall be demonstrated operable at least once every 18 months by selecting and functionally testing a representative sample of at least 10 percent of each type of circuit breaker.

During the last two performances of this surveillance, only two failures were recorded. One of the failures involved a Westinghouse Electric Corporation, Type KB molded-case breaker. Only three of this type breaker are included in the surveillance, and all three breakers have been tested during the past two performances. Like the breakers covered in the item above, molded-case breakers included in this surveillance have been inspected and exercised within the past 13 months. The other breaker that failed to meet its acceptance criteria was a Westinghouse Type DS metal-enclosed circuit breaker. Numerous Westinghouse, Type DS breakers that are not included in the TS testing program have been tested over the past three years. Any generic problem with the breakers would have been detected during this testing. In addition, 6 out of the 10 Type DS breakers included in the surveillance have been tested within the past three years. Since (1) Type KB molded-case breakers in the surveillance have been tested within the past three years, (2) molded-case breakers have been recently inspected and exercised, and (3) no adverse trend has been identified related to Type DS breakers, extending the surveillance to allow testing to be deferred for approximately two months is acceptable.

5. Boron Injection, Emergency Core Cooling System, and Normal Charging Flow Path Automatic Valve Actuation on Safety Injection Signal (SRs 4.1.2.2.c, 4.5.2.e.1, 4.5.3, and 4.6.3.2.e)

The safety injection automatic valve actuations required by the SRs listed above are satisfied by a single test instruction that integrates these verifications. The performance of these verifications requires the disabling of reactor coolant pump seal flow, both trains of normal charging, and residual heat removal. The impact of placing the plant in these required configurations will result in undesirable conditions that could result in equipment damage or the loss of cooling to the core while in Mode 5. In the case of the residual heat removal system, TSs would be violated by removing both trains of cooling for more than one hour to satisfy this surveillance.

For these reasons, the verifications are performed during refueling outages with the core unloaded. Under this condition, the TS requirements are not applicable; and there is not a potential heat source in the reactor vessel that requires a cooling source. Since Unit 2 is not in a refueling outage, radiation exposure, start-up schedule delay, and cost associated with offloading the core are not justified in lieu of extending these SRs for approximately two months. In addition, no failures have been identified during the last four performances of these SRs. Therefore, extending these SRs to allow testing to be deferred for approximately two months is acceptable.

This operating license change is consistent with short-term changes granted by NRC for other plants (e.g., North Anna Power Station, Unit 1 Cycle 9; and Beaver Valley Power Station, Unit 1 Cycle 9) to extend the 18-month surveillance intervals to a refueling outage. Following the sixth refueling outage, the plant will continue to comply with the 18-month surveillance intervals for future operating cycles. The proposed changes do not affect the Updated Final Safety Analysis Report since the changes are temporary and only apply for Cycle 6. Therefore, based on the above, this change will not reduce the safety of the plant.

#### Environmental Impact Evaluation

The proposed change request does not involve an unreviewed environmental question because operation of SQN Units 1 and 2 in accordance with this change would not:

1. Result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement (FES) as modified by the staff's testimony to the Atomic Safety and Licensing Board, supplements to the FES, environmental impact appraisals, or decisions of the Atomic Safety and Licensing Board.
2. Result in a significant change in effluents or power levels.
3. Result in matters not previously reviewed in the licensing basis for SQN that may have a significant environmental impact.

Enclosure 3

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DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

## Significant Hazards Evaluation

TVA has evaluated the proposed technical specification (TS) change and has determined that it does not represent a significant hazards consideration based on criteria established in 10 CFR 50.92(c). Operation of Sequoyah Nuclear Plant (SQN) in accordance with the proposed amendment will not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change is temporary and allows a one-time extension of specific 18-month surveillance requirements (SRs) for Cycle 6 to allow surveillance testing to coincide with the sixth refueling outage. The proposed surveillance interval extension is short and will not cause a significant reduction in system reliability nor affect the ability of the systems to perform their design function. Current monitoring of plant conditions and continuation of the surveillance testing required during normal plant operation will continue to be performed to ensure conformance with TS operability requirements. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any previously analyzed.

Extending the surveillance interval for the performance of specific testing will not create the possibility of any new or different kind of accidents. No change is required to any system configurations, plant equipment, or analyses. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Involve a significant reduction in a margin of safety.

Surveillance interval extensions will not impact any plant safety analyses since the assumptions used will remain unchanged. The safety limits assumed in the accident analyses and the design function of the equipment required to mitigate the consequences of any postulated accidents will not be changed since only the 18-month surveillance test interval is being extended. Extending the surveillance test interval for the performance of these specific tests could slightly reduce the margin of safety derived from required surveillances. However, historical performance generally indicates a high degree of reliability, and surveillance testing performed during normal plant operation will continue to be performed to verify proper performance. Therefore, the plant will be maintained within the analyzed limits, and the proposed extension will not significantly reduce the margin of safety.

ENCLOSURE 4

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AFFECTED SURVEILLANCE REQUIREMENTS

# SURVEILLANCE REQUIREMENTS (SRs) TO BE EXTENDED

18-Month Plus 25%  
Allowance Expires On

Technical Specification (TS) SR 4.1.2.2.c Boron Injection Flow Path Automatic Valve Actuation on Safety Injection Signal	2/14/94
TS SR 4.1.3.4 Rod-Drop Timing Measurement	3/31/94
TS SR 4.2.5.3 Channel Calibration of RCS Flow Instrumentation	2/23/94
TS SR 4.3.1.1.1 Items: 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 17, and 22 Channel Calibration of Reactor Trip System Instrumentation	2/3/94
TS SR 4.3.1.1.2 Reactor Trip System Instrumentation Interlocks	2/3/94
TS SR 4.3.1.1.3 Items: 7, 8, 9, 10, 12, and 13 Response Time of Reactor Trip System Instrumentation	2/9/94
TS SR 4.3.2.1.1 Items: 1, 2, 3, 4, 5, 6, 7, 8, and 9 Engineered Safety Feature Actuation System Instrumentation Channel Calibrations	1/30/94
TS SR 4.3.2.1.2 Engineered Safety Feature Actuation System Instrumentation Interlocks	2/9/94
TS SR 4.3.2.1.3 Items: 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, and 13 Engineered Safety Feature Actuation System Instrumentation Response Time Measurement	1/31/94
TS SR 4.3.3.5 Items 3, 4, 5, 6, 7, 9, 11, 12, and 13 Channel Calibration of Remote Shutdown Instrumentation	2/1/94
TS SR 4.3.3.7.b Channel Calibration of Accident Monitoring Instrumentation	2/1/94
TS SR 4.4.3.2.1.a Channel Calibration of Power Operated Relief Valves	2/9/94
TS SR 4.4.3.2.1.b Operation Through One Complete Cycle of Power Operated Relief Valves in Mode 4	3/8/94

18-Month Plus 25%  
Allowance Expires On

TS SR 4.4.12.1.b Channel Calibration of Low-Temperature Overpressure Protection System	2/8/94
TS SR 4.5.1.1.2.b Channel Calibration of Cold Leg Injection Accumulator Pressure and Level Instrumentation	2/18/94
TS SRs 4.5.2.e.1 and 4.5.3 Emergency Core Cooling System Flow Path Automatic Valve Actuation on Safety Injection Signal	2/14/94
TS SR 4.6.3.2.e Normal Charging Isolation Valve Actuation on Safety Injection Signal	2/14/94
TS SR 4.6.4.3.b Temperature Verification of Hydrogen Mitigation System Igniters	2/17/94
TS SR 4.8.3.1.a.2 Lower-Voltage Circuit Breaker Test for Containment Penetration Conductor Overcurrent Protective Devices	2/1/94
TS SR 4.8.3.3.a Non-IE Load Circuit Breaker Test for Isolation Devices	2/3/94