

ENCLOSURE 1

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

(TVA-SQN-TS-87-31)

LIST OF AFFECTED PAGES

Unit 1

3/4 6-18

Unit 2

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CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. Verifying that on a Containment Ventilation isolation test signal, each Containment Ventilation Isolation valve actuates to its isolation position.

4.6.3.3 The isolation time of each power operated or automatic valve of Table 3.6-2 shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.3.4 Each Containment Purge isolation valve shall be demonstrated OPERABLE within 24 hours after each closing of the valve, except when the valve is being used for multiple cyclings, then at least once per 72 hours, by verifying that when the measure leakage rate of these valves is added to the leakage rates determined pursuant to Specification 4.6.1.2.d for all other Type B and C penetrations, the combined leakage rate is $\leq 0.60 L_a$.

- d. Verifying that on a high containment pressure isolation test signal, each Containment Vacuum Relief valve actuates to its isolation position.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.2 Each isolation valve specified in Table 3.6-2 shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

- a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position.
- b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position.
- c. Verifying that on a Containment Ventilation isolation test signal, each Containment Ventilation valve actuates to its isolation position.

4.6.3.3 The isolation time of each power operated or automatic valve of Table 3.6-2 shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.3.4 Each containment purge isolation valve shall be demonstrated OPERABLE within 24 hours after each closing of the valve, except when the valve is being used for multiple cyclings, then at least once per 72 hours, by verifying that when the measured leakage rate is added to the leakage rates determined pursuant to Specification 4.6.1.2d. for all other Type B and C penetrations, the combined leakage rate is less than or equal to $0.60 L_a$.

- d. Verifying that on a high containment pressure isolation test signal, each Containment Vacuum Relief valve actuates to its isolation position.

ENCLOSURE 2

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

(TVA-SQN-TS-87-31)

DESCRIPTION AND JUSTIFICATION FOR THE ADDITION OF
SURVEILLANCE REQUIREMENTS TO TEST THE CONTAINMENT
ISOLATION SIGNAL FOR THE CONTAINMENT VACUUM RELIEF
ISOLATION VALVES

ENCLOSURE 2

Description of Change

A new surveillance requirement, 4.6.3.2.d, is being added to specifically address the containment isolation signal and valve actuation for the containment vacuum relief isolation valves.

Reason for Change

The current surveillance requirement 4.6.3.2 requires testing of the valves that receive one of the three containment isolation signals that emanate from the solid-state protection system (SSPS): Phase A Isolation, Phase B Isolation, and Containment Ventilation Isolation. The containment vacuum relief isolation valves receive a containment isolation signal from dedicated pressure switches that actuate on high containment pressure. This signal does not pass through the SSPS; therefore, it is not considered a Phase B Isolation signal.

The details of this system are shown on Final Safety Analysis Report figures 9.4.7-1, 9.4.8-1, and 9.4.8-4. The three containment vacuum relief isolation valves, FCV-30-46, FCV-30-47, and FCV-30-48, are shown along with the dedicated pressure switches at the top of the containment on the flow diagram 47W866-1 (figure 9.4.7-1). Each containment vacuum relief isolation valve has two dedicated, redundant pressure switches that actuate on high containment pressure. Each pressure switch energizes a solenoid valve that provides control air to actuate the isolation valve. The control circuits are shown on control diagram 47W610-30-1 (figure 9.4.8-1) and the functional logic is shown on logic diagram 47W611-30-3 (figure 9.4.8-4).

The failure mode of the three isolation valves is fail-open on a loss of control air. This failure mode ensures that the containment is protected from unacceptable vacuum conditions. This design feature was chosen because the valve-open position has been evaluated as providing the greatest safety for the plant. This feature has been recently reviewed by NRC and is described in more detail in the referenced letter.

Justification for Change

The current surveillance requirement 4.6.3.2 does not specifically address the containment isolation signal for the containment vacuum relief isolation valves. The proposed surveillance requirement 4.6.3.2.d will address test requirements for the dedicated containment isolation logic for these valves. The containment vacuum relief system is a plant-specific feature for Sequoyah Nuclear Plant. The NRC Standard Technical Specifications (NUREG-0452) requirements must be augmented to address this plant-specific feature.

Reference: Letter from TVA to NRC dated January 2, 1987, "Sequoyah Nuclear Plant - Containment Isolation Design Pertaining To The Chemical And Volume Control System"

ENCLOSURE 3

PROPOSED TECHNICAL SPECIFICATION CHANGES

SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

(TVA-SQN-TS-87-31)

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATIONS
FOR THE ADDITION OF SURVEILLANCE REQUIREMENTS
TO TEST THE CONTAINMENT ISOLATION SIGNAL FOR THE
CONTAINMENT VACUUM RELIEF ISOLATION VALVES

ENCLOSURE 3

SIGNIFICANT HAZARDS CONSIDERATIONS

1. Is the probability of an occurrence or the consequences of an accident previously evaluated in the safety analysis report significantly increased?

No. The addition of the surveillance requirements to test the containment isolation signal for the containment vacuum relief isolation valves will not increase the probability or the consequences of an accident previously evaluated in the safety analysis report. The addition of specific surveillance requirements for this containment isolation feature will decrease the probability of failure of this isolation feature. The consequences of any previously analyzed accident remain unchanged or are reduced because of the increased reliability of this containment isolation feature.

2. Is the possibility for an accident of a new or different type than evaluated previously in the safety analysis report created?

No. The addition of the surveillance requirement to test the containment isolation signal for the containment vacuum relief isolation valves will not create a new or different type of accident than previously evaluated in the safety analysis report. Testing will be done during cold shutdown or refueling when containment isolation capability is not required. No hardware changes are being made; therefore, no new failure modes are being introduced.

3. Is the margin of safety significantly reduced?

No. The addition of a specific surveillance requirement to test the containment isolation signal for the containment vacuum relief isolation valves will ensure that specific testing is performed on a periodic basis. The addition of the surveillance requirement will increase the margin of safety.