

ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT (SQN)
UNITS 1 AND 2
DOCKET NOS. 327 AND 328

PROPOSED TECHNICAL SPECIFICATION (TS)
CHANGE TS-96-08, REVISION 1

DESCRIPTION AND EVALUATION OF THE PROPOSED CHANGE

I. DESCRIPTION OF THE PROPOSED CHANGE

TVA proposes to add TS 6.8.4.i, entitled "Configuration Risk Management Program (CRMP)," to the Administrative Controls section of SQN's TSs. This addition supplements SQN TS Change 96-08, Revision 1, that was submitted to NRC by letter dated August 27, 1998. TS Change 96-08, Revision 1, proposed an extension of the allowed outage time (AOT) for an emergency diesel generator (EDG) from 72 hours to 7 days, along with the deletion of unnecessary reporting requirements and a license condition. This supplement does not alter or impact these changes.

The purpose of the CRMP is to ensure that a probabilistic risk-informed assessment process is in place that assesses the overall impact of planned maintenance and unplanned equipment inoperability on plant risk. The CRMP will ensure that risk-significant configurations are not entered for planned EDG maintenance and provides risk evaluations for unplanned plant configurations. The CRMP will be implemented whenever an EDG is out-of-service. The programmatic elements included in the CRMP for SQN are as follows:

- a. Provisions for the control and implementation of a Level 1 at-power internal events PRA-informed methodology. The assessment shall be capable of evaluating the applicable plant configuration.
- b. Provisions for performing an assessment prior to entering the limiting condition for operation (LCO) action for preplanned activities.
- c. Provisions for performing an assessment after entering an LCO action for unplanned entry into the LCO action.

9810140304 981008
PDR ADOCK 05000327
P PDR

- d. Provisions for assessing the need for additional actions after the discovery of additional equipment out-of-service conditions while in the LCO action.
- e. Provisions for considering other applicable risk significant contributors such as Level 2 issues and external events, qualitatively or quantitatively.

In addition to the change described above, TVA is revising TS Bases Section 3/4.8 to include the basis for implementation of a CRMP as it applies to the TS action for removing an EDG from service.

II. REASON FOR THE PROPOSED CHANGE

TVA is proposing the addition of the CRMP to the SQN TSs to support NRC's review of TS Change 96-08, Revision 1. TS Change 96-08, Revision 1, proposed an extension of SQN's EDG AOT from 72 hours to 7 days. TVA's AOT extension request is based on a three tier approach for the evaluation of risk as recommended in NRC Regulatory Guide (RG) 1.177. Tier 3 of this approach is a program that recommends the use of a CRMP to ensure risk impacts are properly evaluated prior to performing EDG maintenance activities and for plant configuration changes when an EDG is out-of-service. TVA did not include a CRMP as part of the proposed TS Change 96-08, Revision 1, although the Tier 1 and 2 provisions recommended by RG 1.177 were utilized to justify the proposed change. The CRMP omission was based on existing methods for evaluating risk associated with maintenance activities at SQN and NRC's plans to place similar controls in the Maintenance Rule (10 CFR 50.65).

Based on recent staff guidance, NRC has requested that a CRMP be included into SQN TSs to ensure that TSs provide a program for evaluating risk significant configurations associated with risk-informed AOT extensions. TVA's proposed supplemental TS change incorporates a CRMP into SQN TSs to satisfy the evaluation of risk significant configurations and the intent of the Tier 3 program approach.

III. SAFETY ANALYSIS

The proposed TS change adds a CRMP to ensure that a risk-informed process is in place to assess the overall impact of plant maintenance and changing plant configurations on plant risk. This program is implemented during periods when an EDG is out-of-service.

The programmatic elements of the CRMP ensure that the risk impact of having an EDG out-of-service is appropriately evaluated prior to performing maintenance activities and for changing plant conditions while an EDG is inoperable. The elements of SQN's proposed CRMP remain consistent with the guidance provided in RG 1.177. This supplement to the proposed TS change is a conservative addition of an administrative risk-informed process to ensure that plant risk are properly evaluated and taken into consideration. The risk assessments included in the CRMP will be performed in a timeframe defined by the SQN's Corrective Action Program as recommended by the guidance in RG 1.177.

The addition of this supplement to TS Change 96-08, Revision 1, does not impact the justification for the proposed 7-day EDG AOT change. This supplement incorporates RG 1.177 Tier 3 recommendations to further support the AOT extension by providing risk-informed assessments when applying the 7-day provision. This addition enhances the acceptability for granting the 7-day EDG AOT and will improve the ability to maintain plant nuclear safety.

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
SEQUOYAH PLANT (SQN)
UNITS 1 and 2

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS 96-08,
REVISION 1 SUPPLEMENT
MARKED PAGES

I. AFFECTED PAGE LIST

Unit 1

B 3/4 8-1
6-10a

Unit 2

B 3/4 8-1
6-10

II. MARKED PAGES

See attached.

Insert

i. Configuration Risk Management Program

The Configuration Risk Management Program (CRMP) provides a proceduralized risk-informed assessment to manage the risk associated with equipment inoperability. The program applies to technical specification structures, systems, or components for which a risk-informed allowed outage time has been granted. The program shall include the following elements:

- a. Provisions for the control and implementation of a Level 1 at-power internal events PRA-informed methodology. The assessment shall be capable of evaluating the applicable plant configuration.
- b. Provisions for performing an assessment prior to entering the Limiting Condition for Operation (LCO) Action for preplanned activities.
- c. Provisions for performing an assessment after entering the LCO Action for unplanned entry into the LCO Action.
- d. Provisions for assessing the need for additional actions after the discovery of additional equipment out of service conditions while in the LCO Action.
- e. Provisions for considering other applicable risk significant contributors such as Level 2 issues and external events, qualitatively or quantitatively.

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1 and 3/4.8.2 A.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least one redundant set of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source.

The footnote for Action b of LCO 3.8.1.1 requires completion of a determination that the OPERABLE diesel generators are not inoperable due to common cause failure or performance of Surveillance 4.8.1.1.2.a.4 if Action b is entered. The intent is that all diesel generator inoperabilities must be investigated for common cause failures regardless of how long the diesel generator inoperability persists.

The action to determine that the OPERABLE diesel generators are not inoperable due to common cause failure provides an allowance to avoid unnecessary testing of OPERABLE diesel generators. If it can be determined that the cause of the inoperable diesel generator does not exist on the OPERABLE diesel generators, Surveillance Requirement 4.8.1.1.2.a.4 does not have to be performed. If the cause of inoperability exists on other diesel generator(s), and the other diesel generator(s) would be declared inoperable upon discovery and Action e of LCO 3.8.1.1 would be entered as applicable. Once the common failure is repaired, the common cause no longer exists, and the action to determine inoperability due to common cause failure is satisfied. If the cause of the initial inoperable diesel generator cannot be conformed not to exist on the remaining diesel generators, performance of Surveillance 4.8.1.1.2.a.4 suffices to provide assurance to continued OPERABILITY of the other diesel generators.

According to Generic Letter 84-15, 24 hours is reasonable to confirm that the OPERABLE diesel generators are not affected by the same problem as the inoperable diesel generator.

THIS TEXT IS PROPOSED FOR DELETION BY TS CHANGE

96-08, REV 1

Additional ACTION requirements are specified for performance of the chemical cleaning required by Surveillance Requirement 4.8.1.1.2.f.1. The motor-driven fuel pumps for the diesel generator set with the tanks being cleaned will be temporarily connected to the underground storage tanks for the other diesel generator set with the same train designation. An additional fuel-oil inventory of approximately 68,000 gallons will be available in one of the yard storage tanks prior to the start of the chemical cleaning of any underground storage tank. Within practical limits, the chemical cleaning of an underground storage tank will be performed during a refueling or other scheduled outage for the associated unit.

SEQUOYAH - UNIT 1

B 3/4 8-1

Amendment No. 12, 137, 173, 205

June 29, 1995

WHEN APPLYING ACTION b OF LCO 3.8.1.1, THE CONFIGURATION RISK MANAGEMENT PROGRAM DESCRIBED IN SECTION 6.8.4.i IS REQUIRED TO BE IMPLEMENTED.

R209

R141

h. Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50 Appendix J, Option B, as modified by approved exemptions. Visual examination and testing, including test intervals and extensions, shall be in accordance with Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995 with exceptions provided in the site implementing instructions.

The peak calculated containment internal pressure for the design basis loss of coolant accident, P_1 , is 12.0 psig.

The maximum allowable containment leakage rate, L_1 , at P_1 , is 0.25% of the primary containment air weight per day.

Leakage rate acceptance criteria are:

- a. Containment overall leakage rate acceptance criteria is $\leq 1.0 L_1$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60 L_1$ for the combined Type B and Type C tests, and $\leq 0.75 L_1$ for Type A tests;
- b. Air lock testing acceptance criteria are:
 - 1) Overall air lock leakage rate is $\leq 0.05 L_1$ when tested at $\geq P_1$.
 - 2) For each door, leakage rate is $\leq 0.01 L_1$ when pressurized to ≥ 6 psig for at least two minutes.

The provisions of SR 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of SR 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

ADD INSERT →

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1 AND 3/4.8.2 A.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least one redundant set of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source.

The footnote for Action b of LCO 3.8.1.1 requires completion of a determination that the OPERABLE diesel generators are not inoperable due to common cause failure or performance of Surveillance 4.8.1.1.2.a.4 if Action b is entered. The intent is that all diesel generator inoperabilities must be investigated for common cause failures regardless of how long the diesel generator inoperability persists.

R195

The action to determine that the OPERABLE diesel generators are not inoperable due to common cause failures provides an allowance to avoid unnecessary testing of OPERABLE diesel generators. If it can be determined that the cause of the inoperable diesel generator does not exist on the OPERABLE diesel generators, Surveillance Requirement 4.8.1.1.2.a.4 does not have to be performed. If the cause of inoperability exists on other diesel generator(s), the other diesel generator(s) would be declared inoperable upon discovery and Action e of LCO 3.8.1.1 would be entered as applicable. Once the common failure is repaired, the common cause no longer exists, and the action to determine inoperability due to common cause failure is satisfied. If the cause of the initial inoperability diesel generator cannot be confirmed not to exist on the remaining diesel generators, performance of Surveillance 4.8.1.1.2.a.4 suffices to provide assurance of continued OPERABILITY of the other diesel generators.

According to Generic Letter 84-15, 24 hours is reasonable to confirm that the OPERABLE diesel generators are not affected by the same problem as the inoperable diesel generator.

THIS TEXT IS PROPOSED FOR DELETION BY TS CHANGE 96-08, REV 1 R123

Additional ACTION requirements are specified for performance of the chemical cleaning required by Surveillance Requirement 4.8.1.1.2.f.1. The motor-driven fuel pumps for the diesel generator set with the tanks being cleaned will be temporarily connected to the underground storage tanks for the other diesel generator set with the same train designation. An additional fuel-oil inventory of approximately 68,000 gallons will be available in one of the yard storage tanks prior to the start of the chemical cleaning of any underground storage tank. Within practical limits, the chemical cleaning of an underground storage tank will be performed during a refueling or other scheduled outage for the associated unit.

WHEN APPLYING ACTION b OF LCO 3.8.1.1, THE CONFIGURATION RISK MANAGEMENT PROGRAM DESCRIBED IN SECTION 6.8.4.2 IS REQUIRED TO BE IMPLEMENTED.

ADMINISTRATIVE CONTROLS

b. Air lock testing acceptance criteria are:

- 1) Overall air lock leakage rate is $\leq 0.05 L_d$ when tested at $\geq P_1$.
- 2) For each door, leakage rate is $\leq 0.01 L_d$ when pressurized to ≥ 6 psig for at least two minutes.

R207

The provisions of SR 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of SR 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted in accordance with 10 CFR 50.4.

R64

STARTUP REPORT

6.9.1.1 DELETED

6.9.1.2 DELETED

6.9.1.3 DELETED

R223

ADD INSERT

ENCLOSURE 3

TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT (SQN)
UNITS 1 and 2

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS 96-08,
REVISION 1 SUPPLEMENT
REVISED PAGES

I. AFFECTED PAGE LIST

Unit 1

B 3/4 8-1
6-10a

Unit 2

B 3/4 8-1
6-10

II. REVISED PAGES

See attached.

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1 and 3/4.8.2 A.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least one redundant set of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source. When applying Action b of LCO 3.8.1.1, the Configuration Risk Management Program described in Section 6.8.4.i is required to be implemented.

The footnote for Action b of LCO 3.8.1.1 requires completion of a determination that the OPERABLE diesel generators are not inoperable due to common cause failure or performance of Surveillance 4.8.1.1.2.a.4 if Action b is entered. The intent is that all diesel generator inoperabilities must be investigated for common cause failures regardless of how long the diesel generator inoperability persists.

The action to determine that the OPERABLE diesel generators are not inoperable due to common cause failure provides an allowance to avoid unnecessary testing of OPERABLE diesel generators. If it can be determined that the cause of the inoperable diesel generator does not exist on the OPERABLE diesel generators, Surveillance Requirement 4.8.1.1.2.a.4 does not have to be performed. If the cause of inoperability exists on other diesel generator(s), the other diesel generator(s) would be declared inoperable upon discovery and Action e of LCO 3.8.1.1 would be entered as applicable. Once the common failure is repaired, the common cause no longer exists, and the action to determine inoperability due to common cause failure is satisfied. If the cause of the initial inoperable diesel generator cannot be confirmed not to exist on the remaining diesel generators, performance of Surveillance 4.8.1.1.2.a.4 suffices to provide assurance to continued OPERABILITY of the other diesel generators.

According to Generic Letter 84-15, 24 hours is reasonable to confirm that the OPERABLE diesel generators are not affected by the same problem as the inoperable diesel generator.

R209

h. Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50 Appendix J, Option B, as modified by approved exemptions. Visual examination and testing, including test intervals and extensions, shall be in accordance with Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995 with exceptions provided in the site implementing instructions.

The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a , is 12.0 psig.

The maximum allowable containment leakage rate, L_a , at P_a , is 0.25% of the primary containment air weight per day.

Leakage rate acceptance criteria are:

- a. Containment overall leakage rate acceptance criteria is $\leq 1.0 L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60 L_a$ for the combined Type B and Type C tests, and $\leq 0.75 L_a$ for Type A tests;
- b. Air lock testing acceptance criteria are:
 - 1) Overall air lock leakage rate is $\leq 0.05 L_a$ when tested at $\geq P_a$.
 - 2) For each door, leakage rate is $\leq 0.01 L_a$ when pressurized to ≥ 6 psig for at least two minutes.

The provisions of SR 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of SR 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

i. Configuration Risk Management Program

The Configuration Risk Management Program (CRMP) provides a proceduralized risk-informed assessment to manage the risk associated with equipment inoperability. The program applies to Technical Specification structures, systems, or components for which a risk-informed allowed outage time has been granted. The program shall include the following elements:

- a. Provisions for the control and implementation of a Level 1 at-power internal events PRA-informed methodology. The assessment shall be capable of evaluating the applicable plant configuration.
- b. Provisions for performing an assessment prior to entering the Limiting Condition for Operation (LCO) Action for preplanned activities.
- c. Provisions for performing an assessment after entering the LCO Action for unplanned entry into the LCO Action.
- d. Provisions for assessing the need for additional actions after the discovery of additional equipment out of service conditions while in the LCO Action.
- e. Provisions for considering other applicable risk significant contributors such as Level 2 issues and external events, qualitatively or quantitatively.

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1 AND 3/4.8.2 A.C. SOURCES AND ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least one redundant set of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source. When applying Action b of LCO 3.8.1.1, the Configuration Risk Management Program described in Section 6.8.4.i is required to be implemented.

The footnote for Action b of LCO 3.8.1.1 requires completion of a determination that the OPERABLE diesel generators are not inoperable due to common cause failure or performance of Surveillance 4.8.1.1.2.a.4 if Action b is entered. The intent is that all diesel generator inoperabilities must be investigated for common cause failures regardless of how long the diesel generator inoperability persists.

R195

The action to determine that the OPERABLE diesel generators are not inoperable due to common cause failures provides an allowance to avoid unnecessary testing of OPERABLE diesel generators. If it can be determined that the cause of the inoperable diesel generator does not exist on the OPERABLE diesel generators, Surveillance Requirement 4.8.1.1.2.a.4 does not have to be performed. If the cause of inoperability exists on other diesel generator(s), the other diesel generator(s) would be declared inoperable upon discovery and Action e of LCO 3.8.1.1 would be entered as applicable. Once the common failure is repaired, the common cause no longer exists, and the action to determine inoperability due to common cause failure is satisfied. If the cause of the initial inoperable diesel generator cannot be confirmed not to exist on the remaining diesel generators, performance of Surveillance 4.8.1.1.2.a.4 suffices to provide assurance of continued OPERABILITY of the other diesel generators.

According to Generic Letter 84-15, 24 hours is reasonable to confirm that the OPERABLE diesel generators are not affected by the same problem as the inoperable diesel generator.

ADMINISTRATIVE CONTROLS

B. Air lock testing acceptance criteria are:

- 1) Overall air lock leakage rate is $\leq 0.05 L_a$ when tested at $\geq P_a$.
- 2) For each door, leakage rate is $\leq 0.01 L_a$ when pressurized to ≥ 6 psig for at least two minutes.

R207

The provisions of SR 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of SR 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

i. Configuration Risk Management Program

The Configuration Risk Management Program (CRMP) provides a proceduralized risk-informed assessment to manage the risk associated with equipment inoperability. The program applies to Technical Specification structures, systems, or components for which a risk-informed allowed outage time has been granted. The program shall include the following elements:

- a. Provisions for the control and implementation of a Level 1 at-power internal events PRA-informed methodology. The assessment shall be capable of evaluating the applicable plant configuration.
- b. Provisions for performing an assessment prior to entering the Limiting Condition for Operation (LCO) Action for preplanned activities.
- c. Provisions for performing an assessment after entering the LCO Action for unplanned entry into the LCO Action.
- d. Provisions for assessing the need for additional actions after the discovery of additional equipment out of service conditions while in the LCO Action.
- e. Provisions for considering other applicable risk significant contributors such as Level 2 issues and external events, qualitatively or quantitatively.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted in accordance with 10 CFR 50.4.

R64

STARTUP REPORT

- 6.9.1.1 DELETED
- 6.9.1.2 DELETED
- 6.9.1.3 DELETED

R223