INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

NEW PAGE

MAIN FEEDWATER ISOLATION, REGULATING, AND BYPASS VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.6 Four main feedwater isolation valves (MFIVs), four main feedwater regulating valves (MFRVs), and four MFRV bypass valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3

ACTION:

a. With one or more MFIVs inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With one or more MFRVs inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. With one or more MFRV bypass valves inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

d. For each MFIV, MFRV, or MFRV bypass valve that has been closed or isolated to satisfy Action a., b., or c. above, verify that it is closed or isolated once per 7 days.

e. With two valves in the same main feedwater flow path inoperable, isolate the affected flow path within 8 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

f. Separate entry into the above ACTIONS is allowed for each valve or flow path. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.6 In addition to the requirements of Specification 4.0.5, verify each MFIV, MFRV, and MFRV bypass valve closes on an actual or simulated automatic actuation signal at least once per 18 months.

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.

INSERT →

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_{NDT} of 25°F and are sufficient to prevent brittle fracture. BR

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 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. R16

INSERT

3/4.7.1.6 MAIN FEEDWATER ISOLATION, REGULATING, AND BYPASS VALVES

Isolation of the main feedwater (MFW) system is provided when required to mitigate the consequences of a steam line break, feedwater line break, excessive feedwater flow, and loss of normal feedwater (and station blackout) accident. Redundant isolation capability is provided on each feedwater line consisting of the feedwater isolation valve (MFIV) and the main feedwater regulating valve (MFRV) and its associated bypass valve. The safety function of these valves is fulfilled when closed or isolated by a closed manual isolation valve. Therefore, the feedwater isolation function may be considered OPERABLE if its respective valves are OPERABLE, if they are maintained in a closed and deactivated position, or if isolated by a closed manual valve. The 72-hour completion time to either restore, close, or isolate an inoperable valve takes into account the redundancy afforded by the remaining OPERABLE valves and the low probability of an event occurring that would require isolation of the MFW flow paths during this time period. The 8-hour completion time for two inoperable valves in one flow path takes into account the potential for no redundant system to perform the required safety function and a reasonable duration to close or isolate the flow path. Although the steam generator can be isolated with the failure of two valves in parallel, the double failure could be an indication of a common mode failure and should be treated the same as the loss of the isolation function. The 7-day frequency to verify that an inoperable valve is closed or isolated is reasonable based on valve status indications available in the control room, and other administrative controls to ensure the valves are closed or isolated.

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

R203

R188

NEW PAGE

MAIN FEEDWATER ISOLATION, REGULATING, AND BYPASS VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.6 Four main feedwater isolation valves (MFIVs), four main feedwater regulating valves (MFRVs), and four MFRV bypass valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3

ACTION:

a. With one or more MFIVs inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With one or more MFRVs inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. With one or more MFRV bypass valves inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

d. For each MFIV, MFRV, or MFRV bypass valve that has been closed or isolated to satisfy Action a., b., or c. above, verify that it is closed or isolated once per 7 days.

e. With two valves in the same main feedwater flow path inoperable, isolate the affected flow path within 8 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

f. Separate entry into the above ACTIONS is allowed for each valve or flow path. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.6 In addition to the requirements of Specification 4.0.5, verify each MFIV, MFRV, and MFRV bypass valve closes on an actual or simulated automatic actuation signal at least once per 18 months.

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.

INSERT →

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_{NDT} of 25°F and are sufficient to prevent brittle fracture. BR

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 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.

INSERT

3/4.7.1.6 MAIN FEEDWATER ISOLATION, REGULATING, AND BYPASS VALVES

Isolation of the main feedwater (MFW) system is provided when required to mitigate the consequences of a steam line break, feedwater line break, excessive feedwater flow, and loss of normal feedwater (and station blackout) accident. Redundant isolation capability is provided on each feedwater line consisting of the feedwater isolation valve (MFIV) and the main feedwater regulating valve (MFRV) and its associated bypass valve. The safety function of these valves is fulfilled when closed or isolated by a closed manual isolation valve. Therefore, the feedwater isolation function may be considered OPERABLE if its respective valves are OPERABLE, if they are maintained in a closed and deactivated position, or if isolated by a closed manual valve. The 72-hour completion time to either restore, close, or isolate an inoperable valve takes into account the redundancy afforded by the remaining OPERABLE valves and the low probability of an event occurring that would require isolation of the MFW flow paths during this time period. The 8-hour completion time for two inoperable valves in one flow path takes into account the potential for no redundant system to perform the required safety function and a reasonable duration to close or isolate the flow path. Although the steam generator can be isolated with the failure of two valves in parallel, the double failure could be an indication of a common mode failure and should be treated the same as the loss of the isolation function. The 7-day frequency to verify that an inoperable valve is closed or isolated is reasonable based on valve status indications available in the control room, and other administrative controls to ensure the valves are closed or isolated.

ENCLOSURE 3

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

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE TS 97-03
REVISED PAGES

I. AFFECTED PAGE LIST

Unit 1

Index Page VIII
¾ 7-10a
B ¾ 7-3
B ¾ 7-3a

Unit 2

Index Page VIII
¾ 7-10a
B ¾ 7-3
B ¾ 7-3a

II. REVISED PAGES

See attached.

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

PLANT SYSTEMS

MAIN FEEDWATER ISOLATION, REGULATING, AND BYPASS VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.6 Four main feedwater isolation valves (MFIVs), four main feedwater regulating valves (MFRVs), and four MFRV bypass valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3

ACTION:

a. With one or more MFIVs inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With one or more MFRVs inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. With one or more MFRV bypass valves inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

d. For each MFIV, MFRV, or MFRV bypass valve that has been closed or isolated to satisfy Action a., b., or c. above, verify that it is closed or isolated once per 7 days.

e. With two valves in the same main feedwater flow path inoperable, isolate the affected flow path within 8 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

f. Separate entry into the above ACTIONS is allowed for each valve or flow path. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.6 In addition to the requirements of Specification 4.0.5, verify each MFIV, MFRV, and MFRV bypass valve closes on an actual or simulated automatic actuation signal at least once per 18 months.

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.

3/4.7.1.6 MAIN FEEDWATER ISOLATION, REGULATING, AND BYPASS VALVES

Isolation of the main feedwater (MFW) system is provided when required to mitigate the consequences of a steam line break, feedwater line break, excessive feedwater flow, and loss of normal feedwater (and station blackout) accident. Redundant isolation capability is provided on each feedwater line consisting of the feedwater isolation valves (MFIV) and the main feedwater regulating valve (MFRV) and its associated bypass valve. The safety function of these valves is fulfilled when closed or isolated by a closed manual isolation valve. Therefore, the feedwater isolation function may be considered OPERABLE if its respective valves are OPERABLE, if they are maintained in a closed and deactivated position, or if isolated by a closed manual valve. The 72-hour completion time to either restore, close, or isolate an inoperable valve takes into account the redundancy afforded by the remaining OPERABLE valves and the low probability of an event occurring that would require isolation of the MFW flow paths during this time period. The 8-hour completion time for two inoperable valves in one flow path takes into account the potential for no redundant system to perform the required safety function and a reasonable duration to close or isolate the flow path. Although the steam generator can be isolated with the failure of two valves in parallel, the double failure could be an indication of a common mode failure and should be treated the same as the loss of the isolation function. The 7-day frequency to verify that an inoperable valve is closed or isolated is reasonable based on valve status indications available in the control room, and other administrative controls to ensure the valves are closed or isolated.

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_{NDT} of 25°F and are sufficient to prevent brittle fracture. | BR

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 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. R16

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

MAIN FEEDWATER ISOLATION, REGULATING, AND BYPASS VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.6 Four main feedwater isolation valves (MFIVs), four main feedwater regulating valves (MFRVs), and four MFRV bypass valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3

ACTION:

a. With one or more MFIVs inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. With one or more MFRVs inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

c. With one or more MFRV bypass valves inoperable, POWER OPERATION may continue provided the inoperable valve is returned to OPERABLE status or closed or isolated within 72 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

d. For each MFIV, MFRV, or MFRV bypass valve that has been closed or isolated to satisfy Action a., b., or c. above, verify that it is closed or isolated once per 7 days.

e. With two valves in the same main feedwater flow path inoperable, isolate the affected flow path within 8 hours; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

f. Separate entry into the above ACTIONS is allowed for each valve or flow path. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.6 In addition to the requirements of Specification 4.0.5, verify each MFIV, MFRV, and MFRV bypass valve closes on an actual or simulated automatic actuation signal at least once per 18 months.

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.

3/4.7.1.6 MAIN FEEDWATER ISOLATION, REGULATING, AND BYPASS VALVES

Isolation of the main feedwater (MFW) system is provided when required to mitigate the consequences of a steam line break, feedwater line break, excessive feedwater flow, and loss of normal feedwater (and station blackout) accident. Redundant isolation capability is provided on each feedwater line consisting of the feedwater isolation valve (MFIV) and the main feedwater regulating valve (MFRV) and its associated bypass valve. The safety function of these valves is fulfilled when closed or isolated by a closed manual isolation valve. Therefore, the feedwater isolation function may be considered OPERABLE if its respective valves are OPERABLE, if they are maintained in a closed and deactivated position, or if isolated by a closed manual valve. The 72-hour completion time to either restore, close, or isolate an inoperable valve takes into account the redundancy afforded by the remaining OPERABLE valves and the low probability of an event occurring that would require isolation of the MFW flow paths during this time period. The 8-hour completion time for two inoperable valves in one flow path takes into account the potential for no redundant system to perform the required safety function and a reasonable duration to close or isolate the flow path. Although the steam generator can be isolated with the failure of two valves in parallel, the double failure could be an indication of a common mode failure and should be treated the same as the loss of the isolation function. The 7-day frequency to verify that an inoperable valve is closed or isolated is reasonable based on valve status indications available in the control room, and other administrative controls to ensure the valves are closed or isolated.

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_{NDT} of 50°F and are sufficient to prevent brittle fracture. BR

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 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.