

Industry/TSTF Standard Technical Specification Change Traveler

Clarify the CIV surveillance to apply only to automatic isolation valves

Priority/Classification 1) Correct Specifications

NUREGs Affected: ☒ 1430 ☒ 1431 ☒ 1432 ☒ 1433 ☒ 1434

Description:

Revise SR 3.6.3.5 to delete reference to verifying the isolation time of "each power operated" containment isolation valve and only require verification of each "automatic isolation valve."

Justification:

The Bases for this SR state that the "isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analysis." There may be valves credited as containment isolation valves which are power operated (i.e., can be remotely operated) that do not receive a containment isolation signal (e.g., a GDC 57 penetration). These power operated valves do not have an isolation time as assumed in the accident analyses since they require operator action. Therefore, deleting reference to power operated isolation valve time testing reduces the potential for misinterpreting the requirements of this SR while maintaining the assumptions of the accident analysis.

Revision History

OG Revision 0

Revision Status: Closed

Revision Proposed by:

Revision Description:

Original Issue

Owners Group Review Information

Date Originated by OG: 30-Oct-95

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 09-Nov-95

TSTF Review Information

TSTF Received Date: 27-Nov-95 Date Distributed for Review 27-Nov-95

OG Review Completed: ☒ BWO ☒ WOG ☒ CEOG ☒ BWROG

TSTF Comments:

Accept for CEOG

TSTF Resolution: Approved Date: 28-Nov-95

4/2/98

NRC Review Information

NRC Received Date: 11-Dec-95

NRC Reviewer: R. Giardina

NRC Comments:

12/14/95 - reviewer modified pkg and submitted to C. Grimes for review.

6/11/96 - C. Grimes comment: TSTF-46 will be referred to a Tech Br.

9/18/96 - NRC requested Bases modifications.

9/18/96 - TSTF accepted requested changes. Will prepare revision replacing "each power operated and each automatic" in the SR and "each power operated and automatic" in the SR Bases section with "each automatic power operated" in the PWR STS and "each power operated, automatic" in the BWR STS to be consistent with the LCO Bases section.

Final Resolution: Superseded by Revision

Final Resolution Date: 23-Jan-97

TSTF Revision 1**Revision Status: Active****Next Action:**

Revision Proposed by: NRC

Revision Description:

9/18/96 - NRC requested Bases modifications.

9/18/96 - TSTF accepted requested changes. Will prepare revision replacing "each power operated and each automatic" in the SR and "each power operated and automatic" in the SR Bases section with "each automatic power operated" in the PWR STS and "each power operated, automatic" in the BWR STS to be consistent with the LCO Bases section.

In addition, at the NRC's suggestion, the change in the valve nomenclature was applied to BWR/4 SR 3.6.4.2.2 (SCIVs), and BWR/6 SR 3.6.4.2.2 (SCIVs) and 3.6.5.3.4 (Drywell Isolation Valve[s]) and their associated Bases.

TSTF Review Information

TSTF Received Date: 18-Sep-96

Date Distributed for Review 20-Nov-96

OG Review Completed: ☒ BWO ☒ WOG ☒ CEOG ☒ BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved Date: 19-Dec-96

NRC Review Information

NRC Received Date: 23-Jan-97

NRC Reviewer: R. Giardina

NRC Comments:

3/13/97 - NRC approves.

Final Resolution: NRC Approves

Final Resolution Date: 13-Mar-97

Incorporation Into the NUREGs

File to BBS/LAN Date:

TSTF Informed Date:

TSTF Approved Date:

NUREG Rev Incorporated:

Affected Technical Specifications

SR 3.6.5.3.4 Bases

Drywell Isolation Valve[s]

4/2/98

SR 3.6.3.5	Containment Isolation Valves	NUREG(s)- 1430 1431 1432 Only
SR 3.6.3.5 Bases	Containment Isolation Valves	NUREG(s)- 1430 1431 1432 Only
LCO 3.6.4.2 Bases	SCIVs	NUREG(s)- 1433 1434 Only
SR 3.6.4.2.2	SCIVs	NUREG(s)- 1433 1434 Only
SR 3.6.4.2.2 Bases	SCIVs	NUREG(s)- 1433 1434 Only
SR 3.6.1.3.6	Primary Containment Isolation Valves	NUREG(s)- 1433 Only
SR 3.6.1.3.6 Bases	Primary Containment Isolation Valves	NUREG(s)- 1433 Only
SR 3.6.1.3.5	Primary Containment Isolation Valves	NUREG(s)- 1434 Only
SR 3.6.1.3.5 Bases	Primary Containment Isolation Valves	NUREG(s)- 1434 Only
SR 3.6.5.3.4	Drywell Isolation Valve[s]	NUREG(s)- 1434 Only

4/2/98

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.3.4 -----NOTE----- Valves and blind flanges in high radiation areas may be verified by use of administrative means. -----</p> <p>Verify each containment isolation manual valve and blind flange that is located inside containment and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.</p>	<p>Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days</p>
<p>SR 3.6.3.5 Verify the isolation time of each power operated and each automatic containment isolation valve is within limits.</p> <p style="text-align: center;"><i>power operated</i></p>	<p>[In accordance with the Inservice Testing Program or 92 days]</p>
<p>SR 3.6.3.6 Perform leakage rate testing for containment purge valves with resilient seals.</p>	<p>184 days</p> <p><u>AND</u></p> <p>Within 92 days after opening the valve</p>
<p>SR 3.6.3.7 Verify each automatic containment isolation valve that is not locked, sealed, or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.</p>	<p>[18] months</p>

(continued)

BASES

SURVEILLANCE
REQUIREMENTSSR 3.6.3.4 (continued)

probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

SR 3.6.3.5

power operated Verifying that the isolation time of each ~~power operated and automatic~~ containment isolation valve is within limits is required to demonstrate OPERABILITY. The isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analyses. [The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program or 92 days.]

SR 3.6.3.6

For containment purge valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J, is required to ensure OPERABILITY. Operating experience has demonstrated that this type of seal has the potential to degrade in a shorter time period than do other seal types. Based on this observation and the importance of maintaining this penetration leak tight (due to the direct path between containment and the environment), a Frequency of once per 184 days was established as part of the NRC resolution of Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" (Ref. 7).

Additionally, this SR must be performed within 92 days after opening the valve. The 92 day Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (greater than that occurring to a valve that has not been opened). Thus, decreasing the interval (from 184 days) is a prudent measure after a valve has been opened.

SR 3.6.3.7

Automatic containment isolation valves close on a containment isolation signal to prevent leakage of

(continued)

Containment Isolation Valves (Atmospheric,
Subatmospheric, Ice Condenser, and Dual)
3.6.3

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.3.4 -----NOTE----- Valves and blind flanges in high radiation areas may be verified by use of administrative means.</p> <p>Verify each containment isolation manual valve and blind flange that is located inside containment and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.</p>	<p>Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days</p>
<p>SR 3.6.3.5 Verify the isolation time of each power operated and each automatic containment isolation valve is within limits.</p> <p><i>power operated</i></p>	<p>In accordance with the Inservice Testing Program or 92 days</p>
<p>SR 3.6.3.6 Cycle each weight or spring loaded check valve testable during operation through one complete cycle of full travel, and verify each check valve remains closed when the differential pressure in the direction of flow is \leq [1.2] psid and opens when the differential pressure in the direction of flow is \geq [1.2] psid and $<$ [5.0] psid.</p>	<p>92 days</p>

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.6.3.4 (continued)

administrative controls and the probability of their misalignment is low. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time they are open.

This Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3, and 4, for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

SR 3.6.3.5

power
operated

Verifying that the isolation time of each ~~power operated and automatic~~ containment isolation valve is within limits is required to demonstrate OPERABILITY. The isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analyses. [The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program or 92 days.]

SR 3.6.3.6

In subatmospheric containments, the check valves that serve a containment isolation function are weight or spring loaded to provide positive closure in the direction of flow. This ensures that these check valves will remain closed when the inside containment atmosphere returns to subatmospheric conditions following a DBA. SR 3.6.3.6 requires verification of the operation of the check valves that are testable during unit operation. The Frequency of 92 days is consistent with the Inservice Testing Program requirement for valve testing on a 92 day Frequency.

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.3.4 -----NOTE----- Valves and blind flanges in high radiation areas may be verified by use of administrative means. -----</p> <p>Verify each containment isolation manual valve and blind flange that is located inside containment and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.</p>	<p>Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days</p>
<p>SR 3.6.3.5 Verify the isolation time of each power operated and each automatic containment isolation valve is within limits.</p> <p style="text-align: center;"><i>power operated</i></p>	<p>In accordance with the Inservice Testing Program or 92 days</p>
<p>SR 3.6.3.6 Perform leakage rate testing for containment purge valves with resilient seals.</p>	<p>184 days AND Within 92 days after opening the valve</p>
<p>SR 3.6.3.7 Verify each automatic containment isolation valve that is not locked, sealed, or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.</p>	<p>[18] months</p>

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BASES

SURVEILLANCE
REQUIREMENTS

SR 3.6.3.4 (continued)

administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, and 3 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

SR 3.6.3.5

power
operated

Verifying that the isolation time of each ~~power operated and automatic~~ containment isolation valve is within limits is required to demonstrate OPERABILITY. The isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analysis. [The isolation time and Frequency of this SR are in accordance with the Inservice Testing Program or 92 days.]

SR 3.6.3.6

For containment purge valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J (Ref. 5), is required to ensure OPERABILITY. Operating experience has demonstrated that this type of seal has the potential to degrade in a shorter time period than do other seal types. Based on this observation and the importance of maintaining this penetration leak tight (due to the direct path between containment and the environment), a Frequency of 184 days was established as part of the NRC resolution of Generic Issue B-20, "Containment Leakage Due to Seal Deterioration" (Ref. 3).

Additionally, this SR must be performed within 92 days after opening the valve. The 92 day Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (beyond that occurring to a valve that has not been opened). Thus, decreasing the interval (from 184 days) is a prudent measure after a valve has been opened.

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.1.3.4</p> <p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. Valves and blind flanges in high radiation areas may be verified by use of administrative means. 2. Not required to be met for PCIVs that are open under administrative controls. <p>-----</p> <p>Verify each primary containment manual isolation valve and blind flange that is located inside primary containment and is required to be closed during accident conditions is closed.</p>	<p>Prior to entering MODE 2 or 3 from MODE 4 if primary containment was de-inerted while in MODE 4, if not performed within the previous 92 days</p>
<p>SR 3.6.1.3.5</p> <p>Verify continuity of the traversing incore probe (TIP) shear isolation valve explosive charge.</p>	<p>31 days</p>
<p>SR 3.6.1.3.6</p> <p>Verify the isolation time of each power operated and each automatic PCIV^{power operated,} [except for MSIVs,] is within limits.</p>	<p>In accordance with the Inservice Testing Program or 92 days</p>

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SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.6.4.2.1 -----NOTES-----</p> <ol style="list-style-type: none"> 1. Valves and blind flanges in high radiation areas may be verified by use of administrative means. 2. Not required to be met for SCIVs that are open under administrative controls. <p>-----</p> <p>Verify each secondary containment isolation manual valve and blind flange that is required to be closed during accident conditions is closed.</p>	<p>31 days</p>
<p>SR 3.6.4.2.2 Verify the isolation time of each power operated, and each automatic SCIV is within limits.</p>	<div style="border: 1px solid black; padding: 5px;"> <p>In accordance with the Inservice Testing Program or 92 days</p> </div>
<p>SR 3.6.4.2.3 Verify each automatic SCIV actuates to the isolation position on an actual or simulated actuation signal.</p>	<p>[18] months</p>

BASES

SURVEILLANCE
REQUIREMENTSSR 3.6.1.3.4 (continued)

Two Notes have been added to this SR. The first Note allows valves and blind flanges located in high radiation areas to be verified by use of administrative controls. Allowing verification by administrative controls is considered acceptable since the primary containment is inerted and access to these areas is typically restricted during MODES 1, 2, and 3 for ALARA reasons. Therefore, the probability of misalignment of these PCIVs, once they have been verified to be in their proper position, is low. A second Note has been included to clarify that PCIVs that are open under administrative controls are not required to meet the SR during the time that the PCIVs are open.

SR 3.6.1.3.5

The traversing incore probe (TIP) shear isolation valves are actuated by explosive charges. Surveillance of explosive charge continuity provides assurance that TIP valves will actuate when required. Other administrative controls, such as those that limit the shelf life of the explosive charges, must be followed. The 31 day Frequency is based on operating experience that has demonstrated the reliability of the explosive charge continuity.

SR 3.6.1.3.6

Verifying the isolation time of each ~~power operated~~ and each automatic PCIV is within limits is required to demonstrate OPERABILITY. MSIVs may be excluded from this SR since MSIV full closure isolation time is demonstrated by SR 3.6.1.3.7. The isolation time test ensures that the valve will isolate in a time period less than or equal to that assumed in the safety analyses. The isolation time and Frequency of this SR are [in accordance with the requirements of the Inservice Testing Program or 92 days].

SR 3.6.1.3.7

For primary containment purge valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J (Ref. 3), is required to ensure

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BASES

APPLICABLE SAFETY ANALYSES (continued)

established by SCIVs is required to ensure that leakage from the primary containment is processed by the Standby Gas Treatment (SGT) System before being released to the environment.

Maintaining SCIVs OPERABLE with isolation times within limits ensures that fission products will remain trapped inside [secondary] containment so that they can be treated by the SGT System prior to discharge to the environment.

SCIVs satisfy Criterion 3 of the NRC Policy Statement.

LCO

SCIVs form a part of the [secondary] containment boundary. The SCIV safety function is related to control of offsite radiation releases resulting from DBAs.

The power operated ^{5 AUTOMATIC} isolation valves are considered OPERABLE when their isolation times are within limits and the valves actuate on an automatic isolation signal. The valves covered by this LCO, along with their associated stroke times, are listed in Reference 3.

The normally closed isolation valves or blind flanges are considered OPERABLE when manual valves are closed or open in accordance with appropriate administrative controls, automatic SCIVs are de-activated and secured in their closed position, and blind flanges are in place. These passive isolation valves or devices are listed in Reference 3.

APPLICABILITY

In MODES 1, 2, and 3, a DBA could lead to a fission product release to the primary containment that leaks to the [secondary] containment. Therefore, the OPERABILITY of SCIVs is required.

In MODES 4 and 5, the probability and consequences of these events are reduced due to pressure and temperature limitations in these MODES. Therefore, maintaining SCIVs OPERABLE is not required in MODE 4 or 5, except for other situations under which significant radioactive releases can be postulated, such as during operations with a potential for draining the reactor vessel (OPDRVs), during CORE

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BASES (continued)

SURVEILLANCE
REQUIREMENTS

SR 3.6.4.2.1

This SR verifies that each secondary containment manual isolation valve and blind flange that is required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the [secondary] containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification that those SCIVs in [secondary] containment that are capable of being mispositioned are in the correct position.

Since these SCIVs are readily accessible to personnel during normal operation and verification of their position is relatively easy, the 31 day Frequency was chosen to provide added assurance that the SCIVs are in the correct positions.

Two Notes have been added to this SR. The first Note applies to valves and blind flanges located in high radiation areas and allows them to be verified by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, and 3 for ALARA reasons. Therefore, the probability of misalignment of these SCIVs, once they have been verified to be in the proper position, is low.

A second Note has been included to clarify that SCIVs that are open under administrative controls are not required to meet the SR during the time the SCIVs are open.

SR 3.6.4.2.2

Verifying that the isolation time of each power operated ~~and~~ ~~each~~ automatic SCIV is within limits is required to demonstrate OPERABILITY. The isolation time test ensures that the SCIV will isolate in a time period less than or equal to that assumed in the safety analyses. The isolation time and Frequency of this SR are [in accordance with the Inservice Testing Program or 92 days].

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.6.1.3.5 Verify the isolation time of each power operated and each automatic PCIV[, except MSIVs,] is within limits. <div style="border: 1px solid black; border-radius: 15px; padding: 5px; display: inline-block; margin-left: 150px;">power operated,</div>	<div style="border: 1px solid black; padding: 5px;">In accordance with the Inservice Testing Program or 92 days</div>
<div style="border: 1px solid black; padding: 10px;"> <div style="border-bottom: 1px dashed black; margin-bottom: 10px;"> SR 3.6.1.3.6 -----NOTE----- <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">Only required to be met in MODES 1, 2, and 3.</div> </div> <div style="margin-top: 20px;">Perform leakage rate testing for each primary containment purge valve with resilient seals.</div> </div>	<div style="border: 1px solid black; padding: 10px;"> 184 days <u>AND</u> Once within 92 days after opening the valve </div>
SR 3.6.1.3.7 Verify the isolation time of each MSIV is \geq [3] seconds and \leq [5] seconds.	<div style="border: 1px solid black; padding: 5px;">In accordance with the Inservice Testing Program or 18 months</div>
SR 3.6.1.3.8 Verify each automatic PCIV actuates to the isolation position on an actual or simulated isolation signal.	<div style="border: 1px solid black; padding: 5px;">[18] months</div>

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SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.6.4.2.1 -----NOTES-----</p> <ol style="list-style-type: none"> 1. Valves and blind flanges in high radiation areas may be verified by use of administrative controls. 2. Not required to be met for SCIVs that are open under administrative means. <p>-----</p> <p>Verify each secondary containment isolation manual valve and blind flange that is required to be closed during accident conditions is closed.</p>	<p>31 days</p>
<p>SR 3.6.4.2.2 Verify the isolation time of each power operated, and each automatic SCIV is within limits.</p>	<p>In accordance with the Inservice Testing Program or 92 days</p>
<p>SR 3.6.4.2.3 Verify each automatic SCIV actuates to the isolation position on an actual or simulated automatic isolation signal.</p>	<p>[18] months</p>

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.6.5.3.4 Verify the isolation time of each power operated and each automatic drywell isolation valve is within limits.	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> In accordance with the Inservice Testing Program or 92 days </div>
SR 3.6.5.3.5 Verify each automatic drywell isolation valve actuates to the isolation position on an actual or simulated isolation signal.	[18] months
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> SR 3.6.5.3.6 Verify each [] inch drywell purge isolation valve is blocked to restrict the valve from opening > [50]%. </div>	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> [18] months </div>

BASES

SURVEILLANCE
REQUIREMENTSSR 3.6.1.3.4 (continued)

under administrative controls are not required to meet the SR during the time that the PCIVs are open.

SR 3.6.1.3.5*power operated,*

Verifying the isolation time of each ~~power operated~~ and each automatic PCIV is within limits is required to demonstrate OPERABILITY. MSIVs may be excluded from this SR since MSIV full closure isolation time is demonstrated by SR 3.6.1.3.6. The isolation time test ensures that the valve will isolate in a time period less than or equal to that assumed in the safety analysis. The isolation time and Frequency of this SR are [in accordance with the Inservice Testing Program or 92 days].

SR 3.6.1.3.6

For primary containment purge valves with resilient seals, additional leakage rate testing beyond the test requirements of 10 CFR 50, Appendix J (Ref. 4), is required to ensure OPERABILITY. Operating experience has demonstrated that this type of seal has the potential to degrade in a shorter time period than do other seal types. Based on this observation, and the importance of maintaining this penetration leak tight (due to the direct path between primary containment and the environment), a Frequency of 184 days was established. Additionally, this SR must be performed within 92 days after opening the valve. The 92 day Frequency was chosen recognizing that cycling the valve could introduce additional seal degradation (beyond that which occurs to a valve that has not been opened). Thus, decreasing the interval (from 184 days) is a prudent measure after a valve has been opened.

The SR is modified by a Note stating that the primary containment purge valves are only required to meet leakage rate testing requirements in MODES 1, 2, and 3. If a LOCA inside primary containment occurs in these MODES, purge valve leakage must be minimized to ensure offsite radiological release is within limits. At other times when the purge valves are required to be capable of closing

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BASES

APPLICABLE
SAFETY ANALYSES
(continued)

primary containment (Ref. 3), and a fuel handling accident in the auxiliary building (Ref. 4). The secondary containment performs no active function in response to each of these limiting events, but the boundary established by SCIVs is required to ensure that leakage from the primary containment is processed by the Standby Gas Treatment (SGT) System before being released to the environment.

Maintaining SCIVs OPERABLE with isolation times within limits ensures that fission products will remain trapped inside secondary containment so that they can be treated by the SGT System prior to discharge to the environment.

SCIVs satisfy Criterion 3 of the NRC Policy Statement.

LCO

SCIVs form a part of the secondary containment boundary. The SCIV safety function is related to control of offsite radiation releases resulting from DBAs.

The automatic (power operated) isolation valves are considered OPERABLE when their isolation times are within limits and the valves actuate on an automatic isolation signal. The valves covered by this LCO, along with their associated stroke times, are listed in Reference 5.

The normally closed isolation valves or blind flanges are considered OPERABLE when manual valves are closed or open in accordance with appropriate administrative controls, automatic SCIVs are de-activated and secured in their closed position, and blind flanges are in place. These passive isolation valves or devices are listed in Reference 5.

APPLICABILITY

In MODES 1, 2, and 3, a DBA could lead to a fission product release to the primary containment that leaks to the secondary containment. Therefore, OPERABILITY of SCIVs is required.

In MODES 4 and 5, the probability and consequences of these events are reduced due to pressure and temperature limitations in these MODES. Therefore, maintaining SCIVs OPERABLE is not required in MODE 4 or 5, except for other

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BASES (continued)

SURVEILLANCE
REQUIREMENTS

SR 3.6.4.2.1

This SR verifies each secondary containment isolation manual valve and blind flange that is required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the [secondary containment] boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification that those SCIVs in [secondary containment] that are capable of being mispositioned are in the correct position.

Since these SCIVs are readily accessible to personnel during normal unit operation and verification of their position is relatively easy, the 31 day Frequency was chosen to provide added assurance that the SCIVs are in the correct positions.

Two Notes have been added to this SR. The first Note applies to valves and blind flanges located in high radiation areas and allows them to be verified by use of administrative controls. Allowing verification by administrative controls is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, and 3 for ALARA reasons. Therefore, the probability of misalignment of these SCIVs, once they have been verified to be in the proper position, is low.

A second Note has been included to clarify that SCIVs that are open under administrative controls are not required to meet the SR during the time the SCIVs are open.

SR 3.6.4.2.2

Verifying the isolation time of each power operated, and each automatic SCIV is within limits is required to demonstrate OPERABILITY. The isolation time test ensures that the SCIV will isolate in a time period less than or equal to that assumed in the safety analyses. The isolation time and Frequency of this SR are [in accordance with the Inservice Testing Program or 92 days].

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BASES

SURVEILLANCE
REQUIREMENTS
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SR 3.6.5.3.2

This SR ensures that the [20] inch drywell purge isolation valves are closed as required or, if open, open for an allowable reason. This SR is intended to be used for drywell purge isolation valves that are fully qualified to close under accident conditions; therefore, these valves are allowed to be open for limited periods of time. This SR has been modified by a Note indicating the SR is not required to be met when the drywell purge supply or exhaust valves are open for pressure control, ALARA or air quality considerations for personnel entry, or surveillances that require the valve to be open [provided the [20] inch containment [purge system supply and exhaust] lines are isolated]. The 31 day Frequency is consistent with the valve requirements discussed under SR 3.6.5.3.1.

SR 3.6.5.3.3

This SR requires verification that each drywell isolation manual valve and blind flange that is required to be closed during accident conditions is closed. The SR helps to ensure that drywell bypass leakage is maintained to a minimum. Since these valves are inside primary containment, the Frequency specified as "prior to entering MODE 2 or 3 from MODE 4, if not performed in the previous 92 days," is appropriate because of the inaccessibility of the drywell isolation valves and because these drywell isolation valves are operated under administrative controls and the probability of their misalignment is low.

A Note has been included to clarify that valves that are open under administrative controls are not required to meet the SR during the time the valves are open.

SR 3.6.5.3.4

Verifying that the isolation time of each power operated, and each automatic drywell isolation valve is within limits is required to demonstrate OPERABILITY. The isolation time test ensures the valve will isolate in a time period less than or equal to that assumed in the safety analysis. The isolation time and Frequency of this SR are [in accordance with the Inservice Testing Program or 92 days].

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