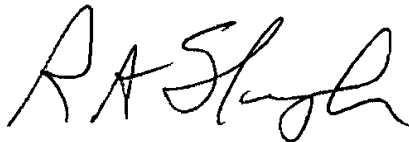


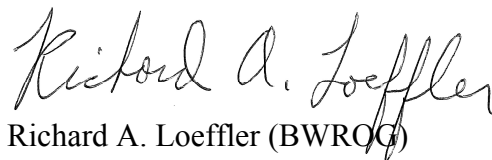
September 10, 2013

TSTF-13-12
PROJ0753Attn: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001SUBJECT: Transmittal of TSTF-541, Revision 0, "Add Exceptions to Surveillance
Requirements When the Safety Function is Being Performed"Enclosed for NRC review is Revision 0 of TSTF-541, "Add Exceptions to Surveillance
Requirements When the Safety Function is Being Performed." TSTF-541 is applicable to all
plant types.The TSTF requests that the NRC bill the Boiling Water Reactor Owners' Group and the
Pressurized Water Reactor Owners Group for the review of this Traveler.

Should you have any questions, please contact us.



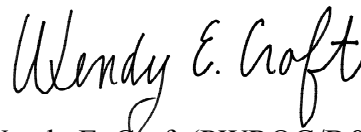
Robert Slough (PWROG/W)



Richard A. Loeffler (BWROG)



Otto W. Gustafson (PWROG/CE)



Wendy E. Croft (PWROG/B&W)

Enclosure

cc: Michelle Honcharik, Licensing Processes Branch, NRC
Robert Elliott, Technical Specifications Branch, NRC

Technical Specifications Task Force Improved Standard Technical Specifications Change Traveler

Add Exceptions to Surveillance Requirements When the Safety Function is Being Performed

NUREGs Affected: 1430 1431 1432 1433 1434

Classification: 1) Technical Change

Recommended for CLIP?: Yes

Correction or Improvement: Improvement

NRC Fee Status: Not Exempt

Changes Marked on ISTS Rev 4.0

See attached

Revision History

OG Revision 0

Revision Status: Active

Revision Proposed by: PWROG

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 03-Jul-13

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 29-Jul-13

TSTF Review Information

TSTF Received Date: 31-Jul-13

Date Distributed for Review 31-Jul-13

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:
(No Comments)

TSTF Resolution: Approved

Date: 09-Sep-13

NRC Review Information

NRC Received Date: 09-Sep-13

Affected Technical Specifications

SR 3.6.7.4

Spray Additive System

NUREG(s)- 1430 Only

10-Sep-13

SR 3.6.7.4 Bases	Spray Additive System	NUREG(s)- 1430 Only
SR 3.7.10.3	CREVS	NUREG(s)- 1430 Only
SR 3.7.10.3 Bases	CREVS	NUREG(s)- 1430 Only
SR 3.7.12.3	EVS	NUREG(s)- 1430 Only
SR 3.7.12.3 Bases	EVS	NUREG(s)- 1430 Only
SR 3.7.12.5	EVS	NUREG(s)- 1430 Only
SR 3.7.12.5 Bases	EVS	NUREG(s)- 1430 Only
SR 3.7.13.3	FSPVS	NUREG(s)- 1430 Only
SR 3.7.13.3 Bases	FSPVS	NUREG(s)- 1430 Only
SR 3.7.13.5	FSPVS	NUREG(s)- 1430 Only
SR 3.7.13.5 Bases	FSPVS	NUREG(s)- 1430 Only
SR 3.6.11.3	ICS (Atmospheric and Subatmospheric)	NUREG(s)- 1431 Only
SR 3.6.11.3 Bases	ICS (Atmospheric and Subatmospheric)	NUREG(s)- 1431 Only
SR 3.6.11.4	ICS (Atmospheric and Subatmospheric)	NUREG(s)- 1431 Only
SR 3.6.11.4 Bases	ICS (Atmospheric and Subatmospheric)	NUREG(s)- 1431 Only
SR 3.6.13.3	SBACS (Dual and Ice Condenser)	NUREG(s)- 1431 Only
SR 3.6.13.3 Bases	SBACS (Dual and Ice Condenser)	NUREG(s)- 1431 Only
SR 3.6.13.4	SBACS (Dual and Ice Condenser)	NUREG(s)- 1431 Only
SR 3.6.13.4 Bases	SBACS (Dual and Ice Condenser)	NUREG(s)- 1431 Only
SR 3.7.10.3	CREFS	NUREG(s)- 1431 Only
SR 3.7.10.3 Bases	CREFS	NUREG(s)- 1431 Only
SR 3.7.12.3	ECCS PREACS	NUREG(s)- 1431 Only
SR 3.7.12.3 Bases	ECCS PREACS	NUREG(s)- 1431 Only
SR 3.7.12.5	ECCS PREACS	NUREG(s)- 1431 Only
SR 3.7.12.5 Bases	ECCS PREACS	NUREG(s)- 1431 Only
SR 3.7.13.3	FBACS	NUREG(s)- 1431 Only
SR 3.7.13.3 Bases	FBACS	NUREG(s)- 1431 Only

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SR 3.7.13.5	FBACS	NUREG(s)- 1431 Only
SR 3.7.13.5 Bases	FBACS	NUREG(s)- 1431 Only
SR 3.7.14.3	PREACS	NUREG(s)- 1431 Only
SR 3.7.14.3 Bases	PREACS	NUREG(s)- 1431 Only
SR 3.7.14.5	PREACS	NUREG(s)- 1431 Only
SR 3.7.14.5 Bases	PREACS	NUREG(s)- 1431 Only
SR 3.6.8.3	SBEACS (Dual)	NUREG(s)- 1432 Only
SR 3.6.8.3 Bases	SBEACS (Dual)	NUREG(s)- 1432 Only
SR 3.6.8.4	SBEACS (Dual)	NUREG(s)- 1432 Only
SR 3.6.8.4 Bases	SBEACS (Dual)	NUREG(s)- 1432 Only
SR 3.6.10.3	ICS (Atmospheric and Dual)	NUREG(s)- 1432 Only
SR 3.6.10.3 Bases	ICS (Atmospheric and Dual)	NUREG(s)- 1432 Only
SR 3.6.10.4	ICS (Atmospheric and Dual)	NUREG(s)- 1432 Only
SR 3.6.10.4 Bases	ICS (Atmospheric and Dual)	NUREG(s)- 1432 Only
SR 3.7.10.2	ECW	NUREG(s)- 1432 Only
SR 3.7.10.2 Bases	ECW	NUREG(s)- 1432 Only
SR 3.7.11.3	CREACS	NUREG(s)- 1432 Only
SR 3.7.11.3 Bases	CREACS	NUREG(s)- 1432 Only
SR 3.7.13.3	ECCS PREACS	NUREG(s)- 1432 Only
SR 3.7.13.3 Bases	ECCS PREACS	NUREG(s)- 1432 Only
SR 3.7.13.5	ECCS PREACS	NUREG(s)- 1432 Only
SR 3.7.13.5 Bases	ECCS PREACS	NUREG(s)- 1432 Only
SR 3.7.14.3	FBACS	NUREG(s)- 1432 Only
SR 3.7.14.3 Bases	FBACS	NUREG(s)- 1432 Only
SR 3.7.14.5	FBACS	NUREG(s)- 1432 Only
SR 3.7.14.5 Bases	FBACS	NUREG(s)- 1432 Only
SR 3.7.15.3	PREACS	NUREG(s)- 1432 Only

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SR 3.7.15.3 Bases	PREACS	NUREG(s)- 1432 Only
SR 3.7.15.5	PREACS	NUREG(s)- 1432 Only
SR 3.7.15.5 Bases	PREACS	NUREG(s)- 1432 Only
SR 3.5.1.10	ECCS - Operating	NUREG(s)- 1433 Only
SR 3.5.1.10 Bases	ECCS - Operating	NUREG(s)- 1433 Only
SR 3.5.2.6	ECCS - Shutdown	NUREG(s)- 1433 Only
SR 3.5.2.6 Bases	ECCS - Shutdown	NUREG(s)- 1433 Only
SR 3.5.3.5	RCIC System	NUREG(s)- 1433 Only
SR 3.5.3.5 Bases	RCIC System	NUREG(s)- 1433 Only
SR 3.6.4.3.3	SGT System	NUREG(s)- 1433 Only
SR 3.6.4.3.3 Bases	SGT System	NUREG(s)- 1433 Only
SR 3.6.4.3.4	SGT System	NUREG(s)- 1433 Only
SR 3.6.4.3.4 Bases	SGT System	NUREG(s)- 1433 Only
SR 3.7.2.6	[PSW] System and [UHS]	NUREG(s)- 1433 Only
SR 3.7.2.6 Bases	[PSW] System and [UHS]	NUREG(s)- 1433 Only
SR 3.7.4.3	[MCREC] System	NUREG(s)- 1433 Only
SR 3.5.1.5	ECCS - Operating	NUREG(s)- 1434 Only
SR 3.5.1.5 Bases	ECCS - Operating	NUREG(s)- 1434 Only
SR 3.5.2.6	ECCS - Shutdown	NUREG(s)- 1434 Only
SR 3.5.2.6	ECCS - Shutdown	NUREG(s)- 1434 Only
SR 3.5.3.5	RCIC System	NUREG(s)- 1434 Only
SR 3.5.3.5 Bases	RCIC System	NUREG(s)- 1434 Only
SR 3.6.1.7.3	RHR Containment Spray System	NUREG(s)- 1434 Only
SR 3.6.1.7.3 Bases	RHR Containment Spray System	NUREG(s)- 1434 Only
SR 3.6.4.3.3	SGT System	NUREG(s)- 1434 Only
SR 3.6.4.3.3 Bases	SGT System	NUREG(s)- 1434 Only
SR 3.6.4.3.4	SGT System	NUREG(s)- 1434 Only

10-Sep-13

SR 3.6.4.3.4 Bases	SGT System	NUREG(s)- 1434 Only
SR 3.7.1.6	[SSW] System and [UHS]	NUREG(s)- 1434 Only
SR 3.7.1.6 Bases	[SSW] System and [UHS]	NUREG(s)- 1434 Only
SR 3.7.2.3	HPCS SWS	NUREG(s)- 1434 Only
SR 3.7.2.3	HPCS SWS	NUREG(s)- 1434 Only
SR 3.7.3.3	[CRFA] System	NUREG(s)- 1434 Only
SR 3.7.3.3 Bases	[CRFA] System	NUREG(s)- 1434 Only

1. SUMMARY DESCRIPTION

The proposed change will revise Surveillance Requirements (SRs) specified in the following Technical Specifications (TS) by adding notes or exceptions valves and dampers that are locked, sealed or otherwise secured in the actuated position, in order to consider the SR met and the associated Limiting Condition for Operation (LCO) met when the subject structure, system or component (SSC) is Operable (i.e., is capable of performing its specified safety function):

NUREG-1430, "Standard Technical Specifications Babcock and Wilcox Plants"

- TS 3.6.7, "Spray Additive System,"
- TS 3.7.10, "Control Room Emergency Ventilation System (CREVS),"
- TS 3.7.12, "Emergency Ventilation System (EVS),"
- TS 3.7.13, "Fuel Storage Pool Ventilation System (FSPVS),"

NUREG-1431, "Standard Technical Specifications Westinghouse Plants"

- TS 3.6.11, "Iodine Cleanup System (ICS) (Atmospheric and Subatmospheric),"
- TS 3.6.13, "Shield Building Air Cleanup System (SBACS) (Dual and Ice Condenser),"
- TS 3.7.10, "Control Room Emergency Filtration System (CREFS),"
- TS 3.7.12, "Emergency Core Cooling System (ECCS) Pump Room Exhaust Air Cleanup System (PREACS),"
- TS 3.7.13, "Fuel Building Air Cleanup System (FBACS),"
- TS 3.7.14, "Penetration Room Exhaust Air Cleanup System (PREACS),"

NUREG-1432, "Standard Technical Specifications Combustion Engineering Plants"

- TS 3.5.2, "ECCS – Operating,"
- TS 3.6.8, "Shield Building Exhaust Air Cleanup System (SBEACS) (Dual),"
- TS 3.6.10, "Iodine Cleanup System (ICS) (Atmospheric and Dual),"
- TS 3.7.10, "Essential Chilled Water (ECW),"
- TS 3.7.11, "Control Room Emergency Air Cleanup System (CREACS),"
- TS 3.7.13, "Emergency Core Cooling System (ECCS) Pump Room Exhaust Air Cleanup System (PREACS),"
- TS 3.7.14, "Fuel Building Air Cleanup System (FBACS)," and
- TS 3.7.15, "Penetration Room Exhaust Air Cleanup System (PREACS)."

NUREG-1433, "Standard Technical Specifications General Electric BWR/4 Plants"

- TS 3.5.1, "Emergency Core Cooling Systems (ECCS) Operating,"
- TS 3.5.2, "Emergency Core Cooling Systems (ECCS) Shutdown,"
- TS 3.5.3, "Reactor Core Isolation Cooling System (RCIC),"
- TS 3.6.4.3, "Standby Gas Treatment (SGT) System,"
- TS 3.7.2, "[Plant Service Water (PSW)] System and [Ultimate Heat Sink (UHS)]," and
- TS 3.7.4 "[Main Control Room Environmental Control (MCREC)] System."

NUREG-1434, "Standard Technical Specifications General Electric BWR/6 Plants"

- TS 3.5.1, "Emergency Core Cooling Systems (ECCS) Operating,"
- TS 3.5.2, "Emergency Core Cooling Systems (ECCS) Shutdown,"
- TS 3.5.3, "Reactor Core Isolation Cooling System (RCIC),"
- TS 3.6.1.7, "Residual Heat Removal (RHR) Containment Spray System,"

TS 3.6.4.3, "Standby Gas Treatment (SGT) System,"
 TS 3.7.1, "[Standby Service Water (SSW)] System and [Ultimate Heat Sink (UHS)],"
 TS 3.7.2, "High Pressure Core Spray (HPCS) Service Water System (SWS)," and
 TS 3.7.3, "[Control Room Fresh Air (CRFA)] System."

2. DETAILED DESCRIPTION

10 CFR 50.36(c)(3) states:

Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

Surveillance Requirement 3.0.1 states:

SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits. (Emphasis added.)

The definition of Operable - Operability states:

A system, subsystem, train, component, or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s). (Emphasis added.)

The combination of these requirements and definition makes clear that when a SR is not met, the LCO is not met. In most cases, failure to meet the SR also results in the inoperability of the subject SSC. However, there are instances in which an SSC is not capable of meeting a SR but is still capable of performing its specified safety function(s). To avoid unnecessarily declaring the LCO not met and following the Conditions and Required Actions, the Improved Standard Technical Specifications (ISTS) address several of these instances through Notes stating that the SR is not required to be met. For example:

- NUREG-1431, SR 3.9.4.2, states, "Verify each required containment purge and exhaust valve actuates to the isolation position on an actual or simulated actuation signal." It is modified by a Note which states, "Not required to be met for containment purge and exhaust valve(s) in penetrations closed to comply with LCO 3.9.4.c.1." With the containment purge and exhaust valves closed, verification that the valve will close when

an isolation signal is received is not needed to ensure the valves can perform their specified safety functions.

- NUREG-1433, SR 3.1.7.1, states, "Verify each vacuum breaker is closed." It is modified by a Note which states, "Not required to be met for vacuum breakers open when performing their intended function." When the vacuum breaker opens to break vacuum, it is performing its intended safety function and meeting the SR would be contrary to the intended function of the valves.

In other instances in the ISTS, the SR text contains exceptions. For example:

- NUREG-1431, SR 3.5.2.5, states, "Verify each ECCS automatic valve in the flow path *that is not locked, sealed, or otherwise secured in position*, actuates to the correct position on an actual or simulated actuation signal."
- NUREG-1432, SR 3.7.5.3, states, "Verify each AFW automatic valve *that is not locked, sealed, or otherwise secured in position*, actuates to the correct position on an actual or simulated actuation signal."
- NUREG-1433, SR 3.5.3.2, states, "Verify each RCIC System manual, power operated, and automatic valve in the flow path, *that is not locked, sealed, or otherwise secured in position*, is in the correct position."

Need For Change

There are SRs in the ISTS that are not required to be met in all circumstances in order for the SSC to perform its specified safety function(s), but that do not contain Notes or exceptions in the SR text. As a result, in some cases the SRs are declared not met and the Conditions and Required Actions entered even though the subject SSC is still Operable (i.e., is capable of performing its specified safety function(s)).

For example, SR 3.6.11.4 states, "Verify each ICS filter bypass damper can be opened." The active phrase "can be opened" means that the SR would not be met if the filter bypass damper is locked open. The purpose of the damper is to conserve the operating life of the filter by bypassing air flow around it unless the damper is opened by a signal. There is no assumption that the damper is able to close post-accident. When the damper is locked opened, the filter is performing its specified safety function (albeit at the cost of more frequent replacement of the filter materials). Nevertheless, in this case the LCO would be declared not met per SR 3.0.1 since the SR is not met, even though the ICS is Operable. This circumstance is adverse to plant safety as it may lead to an unnecessary plant shutdown (a transient) when the system is Operable.

A review of the ISTS identified SRs that do not have exceptions but for which exceptions would be appropriate to avoid unnecessary entry into Conditions and Required Actions. Many system SRs require verification that an SSC actuates on an actual or simulated actuation signal or that it actuates within a specified time. If the SSC is locked in the "actuated," post-accident position, it cannot "actuate" (i.e., move or start working) and the SR is not met. However, if the SSC is not assumed to move following actuation, the SSC is capable of performing its specified safety

function with the valve locked in the actuated position. In these cases, the SR should not be required to be met if the SSC is locked in the actuated, post-accident position.

Proposed Change

The proposed change to the Technical Specifications makes the following revisions (Changes are shown in italics). Note that the changes are in brackets and adoption of each change requires plant-specific verification, as described in a Bases Reviewer's Note and the model application.

NUREG-1430 (Babcock and Wilcox (B&W))

- SR 3.6.7.4 is revised from "Verify each spray additive automatic valve in the flow path actuates to the correct position on an actual or simulated actuation signal." to "Verify each spray additive automatic valve in the flow path [*not locked, sealed or otherwise secured in the actuated position*] actuates to the correct position on an actual or simulated actuation signal."
- SR 3.7.10.3 "Verify [each CREVS train actuates] [or the control room isolates] on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.7.12.3, "Verify each EVS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.7.12.5 is revised from "Verify each EVS filter cooling bypass damper can be opened." to "Verify each EVS filter cooling bypass damper [*not locked, sealed or otherwise secured in the open position*] can be opened."
- SR 3.7.13.3 "Verify each FSPVS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.7.13.5 is revised from "Verify each FSPVS filter bypass damper can be opened." to "Verify each FSPVS filter bypass damper [*not locked, sealed or otherwise secured in the open position*] can be opened."

NUREG-1431 (Westinghouse)

- SR 3.6.11.3 "Verify each ICS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.6.11.4 is revised from "Verify each ICS filter bypass damper can be opened." to "Verify each ICS filter bypass damper [*not locked, sealed or otherwise secured in the open position*] can be opened."
- SR 3.6.13.3 "Verify each SBACS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"

- SR 3.6.13.4 is revised from "Verify each SBACS filter bypass damper can be opened." to "Verify each SBACS filter bypass damper *[not locked, sealed or otherwise secured in the open position]* can be opened."
- SR 3.7.10.3 "Verify each CREFS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.7.12.3 "Verify each ECCS PREACS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.7.12.5 is revised from "Verify each ECCS PREACS filter bypass damper can be closed." to "Verify each ECCS PREACS filter bypass damper *[not locked, sealed or otherwise secured in the closed position]* can be closed."
- SR 3.7.13.3 "Verify each FBACS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.7.13.5 is revised from "Verify each FBACS filter bypass can be closed." to "Verify each FBACS filter bypass damper *[not locked, sealed or otherwise secured in the closed position]* can be closed."
- SR 3.7.14.3 "Verify each PREACS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.7.14.5 is revised from "Verify each PREACS filter bypass damper can be closed." to "Verify each PREACS filter bypass damper *[not locked, sealed or otherwise secured in the closed position]* can be closed."

NUREG-1432 (Combustion Engineering (CE))

- SR 3.6.8.3 "Verify each SBEACS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.6.8.4 is revised from "Verify each SBEACS filter bypass can be opened." to "Verify each SBEACS filter bypass damper *[not locked, sealed or otherwise secured in the open position]* can be opened."
- SR 3.6.10.3 "Verify each ICS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.6.10.4 is revised from "Verify each ICS filter bypass damper can be opened." to "Verify each ICS filter bypass damper *[not locked, sealed or otherwise secured in the open position]* can be opened."
- SR 3.7.10.2 "Verify the proper actuation of each ECW System component on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating

"Not required to be met for valves locked, sealed, or otherwise secured in the actuated position."

- SR 3.7.11.3 "Verify each CREACS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating *"Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position."*
- SR 3.7.13.3 "Verify each ECCS PREACS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating *"Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position."*
- SR 3.7.13.5 is revised from "Verify each ECCS PREACS filter bypass damper can be opened." to "Verify each ECCS PREACS filter bypass damper [*not locked, sealed or otherwise secured in the open position*] can be opened."
- SR 3.7.14.3 "Verify each FBACS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating *"Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position."*
- SR 3.7.14.5 is revised from "Verify each FBACS filter bypass damper can be opened." to "Verify each FBACS filter bypass damper [*not locked, sealed or otherwise secured in the open position*] can be opened."
- SR 3.7.15.3 "Verify each PREACS train actuates on an actual or simulated actuation signal." is revised by the addition of a bracketed Note stating *"Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position."*
- SR 3.7.15.5 is revised from "Verify each PREACS filter bypass damper can be opened." to "Verify each PREACS filter bypass damper [*not locked, sealed or otherwise secured in the open position*] can be opened."

NUREG-1433 (General Electric (GE) BWR/4)

- SR 3.5.1.10 "Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal." is revised by the addition of a bracketed Note. Note 2 states *"Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position."*
- SR 3.5.2.6 "Verify each required ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal." is revised by the addition of a bracketed Note. Note 2 states *"Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position."*
- SR 3.5.3.5 "Verify the RCIC System actuates on an actual or simulated automatic initiation signal." is revised by the addition of a bracketed Note stating *"Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position."*
- SR 3.6.4.3.3 "Verify each SGT subsystem actuates on an actual or simulated initiation signal." is revised by the addition of a bracketed Note stating *"Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position."*

- SR 3.6.4.3.4 is revised from "[Verify each SGT filter cooler bypass damper can be opened and the fan started." to "[Verify each SGT filter cooler bypass damper *[not locked, sealed or otherwise secured in the open position]* can be opened and the fan started."
- SR 3.7.2.6 "Verify each [PSW] subsystem actuates on an actual or simulated initiation signal." is revised by the addition of a bracketed Note. The Note states "*Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.*"
- SR 3.7.4.3 "Verify each [MCREC] subsystem actuates on an actual or simulated initiation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position.*"

NUREG-1434 (General Electric (GE) BWR/6)

- SR 3.5.1.5 "Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal." is revised by the addition of a bracketed Note. Note 2 states "*Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.*"
- SR 3.5.2.6 "Verify each required ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal." is revised by the addition of a bracketed Note. Note 2 states "*Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.*"
- SR 3.5.3.5 "Verify the RCIC System actuates on an actual or simulated automatic initiation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.*"
- SR 3.6.1.7.3 is revised from "Verify each RHR containment spray subsystem automatic valve in the flow path actuates to its correct position on an actual or simulated automatic initiation signal." to "Verify each RHR containment spray subsystem automatic valve in the flow path *[not locked, sealed or otherwise secured in the actuated position]* actuates to its correct position on an actual or simulated automatic initiation signal."
- SR 3.6.4.3.3 "Verify each SGT subsystem actuates on an actual or simulated initiation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed, or otherwise secured in the actuated position.*"
- SR 3.6.4.3.4 is revised from "[Verify each SGT filter cooler bypass damper can be opened and the fan started." to "[Verify each SGT filter cooler bypass damper *[not locked, sealed or otherwise secured in the open position]* can be opened and the fan started."
- SR 3.6.5.3.4 is revised from "Verify the isolation time of each power operated, automatic drywell isolation valve is within limits." to "Verify the isolation time of each

power operated, automatic drywell isolation valve *[not locked, sealed or otherwise secured in the closed position]* is within limits."

- SR 3.6.5.3.5 is revised from "Verify each automatic drywell isolation valve actuates to the isolation position on an actual or simulated isolation signal." to "Verify each automatic drywell isolation valve *[not locked, sealed or otherwise secured in the closed position]* actuates to the isolation position on an actual or simulated isolation signal."
- SR 3.7.1.6 "Verify each [SSW] subsystem actuates on an actual or simulated initiation signal." is revised by the addition of a bracketed Note. The Note states "*Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.*"
- SR 3.7.2.3 "Verify the HPCS SWS actuates on an actual or simulated initiation signal." is revised by addition of a bracketed Note stating "*Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.*"
- SR 3.7.3.3 "Verify each [CRFA] subsystem actuates on an actual or simulated initiation signal." is revised by the addition of a bracketed Note stating "*Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position.*"

Changes to the Technical Specification Bases are made to reflect the changes to the Technical Specifications and clarify the use of these requirements. Reviewer's Notes are incorporated to provide assurance that the appropriate confirmations are performed.

A model application is included as Enclosure 1. The model may be used by licensees desiring to adopt the proposed change following NRC approval.

3. TECHNICAL EVALUATION

System Descriptions

The Spray Additive System (NUREG-1430) is a subsystem of the Containment Spray System that assists in reducing the iodine fission product inventory in the containment atmosphere resulting from a Design Basis Accident (DBA). In the event of an accident such as a loss of coolant accident (LOCA), the Spray Additive System will be automatically actuated upon a high containment pressure signal by the Engineered Safety Features Actuation System (ESFAS). The purpose of SR 3.6.7.4 (NUREG-1430) is to verify that each automatic valve in the Spray Additive System flow path actuates to its correct position upon receipt of an actual or simulated actuation signal.

The EVS (NUREG-1430) filters air from the area of the active ECCS components during the recirculation phase of a LOCA. Ductwork, valves or dampers, and instrumentation also form part of the system. During emergency operations, the EVS dampers are realigned, and fans are started to begin filtration. Upon receipt of the actuation signal(s), normal air discharges from the negative pressure area are isolated, and the stream of ventilation air discharges through the system filter trains. The prefilters remove any large particles in the air, and any entrained water droplets present, to prevent excessive loading of the HEPA filters and charcoal adsorbers. The purpose of SR 3.7.12.3 (NUREG-1430) is to verify proper actuation of all train components,

including dampers, on an actual or simulated actuation signal. The purpose of SR 3.7.12.5 is to ensure that the system is functioning properly by operating the EVS filter bypass damper.

The FSPVS (NUREG-1430) provides negative pressure in the fuel storage area, and filters airborne radioactive particulates from the area of the fuel pool following a fuel handling accident. The FSPVS consists of portions of the normal Fuel Handling Area Ventilation System (FHAVS), the station EVS, ductwork bypasses, and dampers. The portion of the normal FHAVS used by the FSPVS consists of ducting between the spent fuel pool and the normal FHAVS exhaust fans or dampers, and redundant radiation detectors installed close to the suction end of the FHAVS exhaust fan ducting. The purpose of SR 3.7.13.3 (NUREG-1430) is to verify proper actuation of all train components, including dampers, on an actual or simulated actuation signal. The purpose of SR 3.7.13.5 is to ensure that the system is functioning properly by operating the FSPVS filter bypass damper.

The CREVS (NUREG-1430), CREFS (NUREG-1431), CREACS (NUREG-1432), [MREC] (NUREG-1433), and [CRFA] (NUREG-1434) provide a protected environment from which occupants can control the unit following an uncontrolled release of radioactivity, hazardous chemicals, or smoke. The purpose of SR 3.7.10.3 (NUREG-1430 and NUREG-1431), SR 3.7.11.3 (NUREG-1432), SR 3.7.4.3 (NUREG-1433), and SR 3.7.3.3 (NUREG-1434) is to verify that each train / subsystem starts and operates on an actual or simulated actuation signal.

The SBACS (NUREG-1431) and SBEACS (NUREG-1432) are required to ensure that radioactive materials that leak from the primary containment into the shield building (secondary containment) following a DBA are filtered and adsorbed prior to exhausting to the environment. The containment has a secondary containment called the shield building, which is a concrete structure that surrounds the steel primary containment vessel. Between the containment vessel and the shield building inner wall is an annular space that collects any containment leakage that may occur following a LOCA. The SBACS and SBEACS establish a negative pressure in the annulus between the shield building and the steel containment vessel. Filters in the system then control the release of radioactive contaminants to the environment. The SBACS and SBEACS each consist of two separate and redundant trains. Each train includes a heater, [cooling coils,] a prefilter, moisture separators, a HEPA filter, an activated charcoal adsorber section for removal of radioiodines, and a fan. Ductwork, valves and/or dampers, and instrumentation also form part of the system. The system initiates and maintains a negative air pressure in the shield building by means of filtered exhaust ventilation of the shield building following receipt of a safety injection (SI) signal. The purpose of SR 3.6.13.3 (NUREG-1431) and SR 3.6.8.3 (NUREG-1432) is to verify proper actuation of all train components, including dampers, on an actual or simulated actuation signal. The purpose of SR 3.6.13.4 (NUREG-1431) and SR 3.6.8.4 (NUREG-1432) is to ensure that the system is functioning properly by operating the filter bypass damper.

The ICS (NUREG-1431 and NUREG-1432) is provided to reduce the concentration of fission products released to the containment atmosphere following a postulated accident. The ICS would function together with the Containment Spray and Cooling Systems following a DBA to reduce the potential release of radioactive material, principally iodine, from the containment to the environment. The ICS consists of two 100% capacity, separate, independent, and redundant

trains. Each train includes a heater, [cooling coils,] a prefilter, a demister, a high efficiency particulate air (HEPA) filter, an activated charcoal adsorber section for removal of radioiodines, and a fan. Ductwork, valves and/or dampers, and instrumentation also form part of the system. The system initiates filtered recirculation of the containment atmosphere following receipt of a safety injection signal. The purpose of SR 3.6.11.3 (NUREG-1431) and SR 3.6.10.3 (NUREG-1432) is to verify proper actuation of all train components, including dampers, on an actual or simulated actuation signal. The purpose of SR 3.6.11.4 (NUREG-1431) and SR 3.6.10.4 (NUREG-1432) is to ensure that the system is functioning properly by operating the ICS filter bypass damper.

The ECCS PREACS (NUREG-1431 and NUREG-1432), in conjunction with other normally operating systems, also provide environmental control of temperature and humidity in the ECCS pump room area and the lower reaches of the Auxiliary Building. Ductwork, valves or dampers, and instrumentation also form part of the system, as well as demisters functioning to reduce the relative humidity of the air stream. During emergency operations, the ECCS PREACS dampers are realigned, and fans are started to begin filtration. Upon receipt of the actuating ESFAS signal(s), normal air discharges from the ECCS pump room isolate, and the stream of ventilation air discharges through the system filter trains. The prefilters or demisters remove any large particles in the air, and any entrained water droplets present, to prevent excessive loading of the HEPA filters and charcoal adsorbers. The purpose of SR 3.7.12.3 (NUREG-1431) and SR 3.7.13.3 (NUREG-1432) is to verify proper actuation of all train components, including dampers, on an actual or simulated actuation signal. The purpose of SR 3.7.12.5 (NUREG-1431) and SR 3.7.13.5 (NUREG-1432) is to ensure that the system is functioning properly by operating the ECCS PREACS filter bypass damper.

The FBACS (NUREG-1431 and NUREG-1432) filter airborne radioactive particulates from the area of the fuel pool following a fuel handling accident or LOCA. The FBACS, in conjunction with other normally operating systems, also provides environmental control of temperature and humidity in the fuel pool area. FBACS consists of two independent and redundant trains. Each train consists of a heater, a prefilter or demister, a HEPA filter, an activated charcoal adsorber section for removal of gaseous activity (principally iodines), and a fan. Ductwork, valves or dampers, and instrumentation also form part of the system, as well as demisters, functioning to reduce the relative humidity of the airstream. The system initiates filtered ventilation of the fuel handling building following receipt of a high radiation signal. The FBACS is a standby system, parts of which may also be operated during normal plant operations. Upon receipt of the actuating signal, normal air discharges from the building, the fuel handling building is isolated, and the stream of ventilation air discharges through the system filter trains. The purpose of SR 3.7.13.3 (NUREG-1431) and SR 3.7.14.3 (NUREG-1432) is to verify proper actuation of all train components, including dampers, on an actual or simulated actuation signal. The purpose of SR 3.7.13.5 (NUREG-1431) and SR 3.7.14.5 (NUREG-1432) is to ensure that the system is functioning properly by operating the FBACS filter bypass damper.

The PREACS (NUREG-1431 and NUREG-1432) filter air from the penetration area between containment and the Auxiliary Building. The PREACS consists of two independent and redundant trains. Each train consists of a heater, a prefilter or demister, a HEPA filter, an activated charcoal adsorber section for removal of gaseous activity (principally iodines), and a

fan. Ductwork, valves or dampers, and instrumentation, as well as demisters, functioning to reduce the relative humidity of the air stream, also form part of the system. The PREACS is a standby system, parts of which may also operate during normal unit operations. Upon receipt of the actuating signal(s), the PREACS dampers are realigned and fans are started to initiate filtration. The purpose of SR 3.7.14.3 (NUREG-1431) and SR 3.7.15.3 (NUREG-1432) is to verify proper actuation of all train components, including dampers, on an actual or simulated actuation signal. The purpose of SR 3.7.14.5 (NUREG-1431) and SR 3.7.15.5 (NUREG-1432) is to ensure that the system is functioning properly by operating the PREACS filter bypass damper.

The ECW System (NUREG-1432) provides a heat sink for the removal of process and operating heat from selected safety related air handling systems during a DBA or transient. The ECW System is a closed loop system consisting of two independent trains. Each 100% capacity train includes a heat exchanger, surge tank, pump, chemical addition tank, piping, valves, controls, and instrumentation. An independent 100% capacity chilled water refrigeration unit cools each train. The ECW System is actuated on a Safety Injection Actuation Signal (SIAS) and supplies chilled water to the heating, ventilation, and air conditioning units in Engineered Safety Feature (ESF) equipment areas (e.g., the main control room, electrical equipment room, and safety injection pump area). The purpose of SR 3.7.10.2 (NUREG-1432) is to verify proper automatic operation of the ECW System components and that the ECW pumps will start in the event of any accident or transient that generates an SIAS. This SR also ensures that each automatic valve in the flow paths actuates to its correct position on an actual or simulated SIAS.

The ECCS (NUREG-1433 and NUREG-1434) is designed to limit the release of radioactive materials to the environment following a loss of coolant accident (LOCA) and consists of the High Pressure Coolant Injection (HPCI) System (High Pressure Core Spray (HPCS) System in NUREG-1434), the Core Spray (CS) System (Low Pressure Core Spray (LPCS) System in NUREG-1434), the low pressure coolant injection (LPCI) mode of the Residual Heat Removal (RHR) System, and the Automatic Depressurization System (ADS). The purpose of SR 3.5.1.10 and SR 3.5.2.6 (NUREG-1433) and SR 3.5.1.5 and SR 3.5.2.6 (NUREG-1434) is to verify the automatic initiation logic of HPCI (or HPCS), CS (or LPCS), and LPCI will cause the systems or subsystems to operate as designed, including actuation of the system throughout its emergency operating sequence, automatic pump startup and actuation of all automatic valves to their required positions on receipt of an actual or simulated actuation signal.

The function of the RCIC (NUREG-1433 and NUREG-1434) is to respond to transient events by providing makeup coolant to the reactor. The purpose of SR 3.5.3.5 (NUREG-1433 and NUREG-1434) is to verify the system operates as designed, including actuation of the system throughout its emergency operating sequence; that is, automatic pump startup and actuation of all automatic valves to their required positions on receipt of an actual or simulated actuation signal.

The RHR Containment Spray System (NUREG-1434) is designed to mitigate the effects of primary containment bypass leakage and low energy line breaks. The purpose of SR 3.6.1.7.3 is to verify that each RHR containment spray subsystem automatic valve actuates to its correct position upon receipt of an actual or simulated automatic actuation signal.

The function of the Standby Gas Treatment (SGT) System (NUREG-1433 and NUREG-1434) is to ensure that radioactive materials that leak from the primary containment into the secondary containment following a DBA are filtered and adsorbed prior to exhausting to the environment. The purpose of SR 3.6.4.3.3 (NUREG-1433 and NUREG-1434) is to verify that each SGT subsystem starts on receipt of an actual or simulated initiation signal. The purpose of SR 3.6.4.3.4 (NUREG-1433 and NUREG-1434) is to verify verifies that the filter cooler bypass damper can be opened and the fan started. This ensures that the ventilation mode of SGT System operation is available.

The HPCS SWS (NUREG-1434) provides cooling water for the removal of heat from components of the Division 3 HPCS system. The purpose of SR 3.7.2.3 (NUREG-1434) is to verify that the automatic valves of the HPCS SWS will automatically switch to the safety or emergency position to provide cooling water exclusively to the safety related equipment on an actual or simulated initiation signal.

Evaluation

The proposed change incorporates an allowance excluding valves and dampers that are locked, sealed or otherwise secured in the actuated position from SRs verifying isolation times, or ability to move to the actuated position on an actual or simulated actuation signal. Incorporation of this allowance is consistent with similar requirements in the standard TS.

NUREG-1430 currently provides similar exclusions in:

- SR 3.5.2.5 (ECCS automatic valves),
- SR 3.6.3.7 (automatic containment isolation valves),
- SR 3.6.6.5 (automatic containment spray valves),
- SR 3.7.5.3 (Emergency Feedwater automatic valves),
- SR 3.7.7.2 (CCW automatic valves), and
- SR 3.7.8.2 (SWS automatic valves).

NUREG-1431 currently provides similar exclusions in:

- SR 3.5.2.5 (ECCS automatic valves),
- SR 3.6.3.8 (automatic containment isolation valves),
- SR 3.6.6A.5 (automatic containment spray valves),
- SR 3.6.6B.5 (automatic containment spray valves),
- SR 3.6.6C.3 (automatic containment spray valves),
- SR 3.6.6D.3 (Quench Spray automatic valves),
- SR 3.6.6E.6 (Recirculation Spray automatic valves),
- SR 3.6.7.4 (spray additive automatic valves),
- SR 3.6.14.4 (Hydrogen collection header motor operated valves),
- SR 3.7.5.3 (Auxiliary Feedwater automatic valves),
- SR 3.7.7.2 (CCW automatic valves), and
- SR 3.7.8.2 (SWS automatic valves).

NUREG-1432 currently provides similar exclusions in:

- SR 3.5.2.6 (ECCS automatic valves),
- SR 3.6.3.7 (automatic containment isolation valves),
- SR 3.6.6A.6 (automatic containment spray valves),
- SR 3.6.6B.6 (automatic containment spray valves),
- SR 3.6.7.5 (spray additive automatic valves),
- SR 3.7.5.3 (Auxiliary Feedwater automatic valves),
- SR 3.7.7.2 (CCW automatic valves), and
- SR 3.7.8.2 (SWS automatic valves).

NUREG-1433 currently provides similar exclusions in:

- SR 3.1.7.6 (Standby liquid control valves)
- SR 3.5.1.2 and SR 3.5.2.4 (ECCS valves),
- SR 3.5.3.2 (RCIC valves),
- SR 3.6.1.3.3 and SR 3.6.1.3.4 (primary containment isolation valves),
- SR 3.6.2.3.1 (RHR suppression pool cooling valves),
- SR 3.6.2.4.1 (RHR suppression pool spray valves),
- SR 3.6.4.2.1 (secondary containment isolation valves),
- SR 3.7.1.1 (RHR service water system valves),
- SR 3.7.2.5 (Plant service water and ultimate heat sink valves), and
- SR 3.7.3.1 (Diesel generator standby service water valves).

NUREG-1434 currently provides similar exclusions in:

- SR 3.1.7.6 (Standby liquid control valves)
- SR 3.5.1.2 and SR 3.5.2.4 (ECCS valves),
- SR 3.5.3.2 (RCIC valves),
- SR 3.6.1.3.3 and SR 3.6.1.3.4 (primary containment isolation valves),
- SR 3.6.1.7.1 (RHR containment spray valves),
- SR 3.6.2.3.1 (RHR suppression pool cooling valves),
- SR 3.6.2.4.3 (Suppression pool makeup valves),
- SR 3.6.4.2.1 (Secondary containment isolation valves),
- SR 3.6.5.3.3 (Drywell isolation valves),
- SR 3.7.1.5 (Standby service water system and ultimate heat sink valves), and
- SR 3.7.2.2 (High pressure core spray service water valves).

Valves and dampers affected by the incorporation of this allowance may be locked, sealed or otherwise secured in the actuated position provided that the safety analysis does not assume movement from the actuated position following an accident. While in the actuated position, verification of automatic actuation or valve isolation time is not necessary as the specified safety function is assured. It should be noted that the SR must still be met prior to removing the valve or damper from the locked, sealed or otherwise secured status. To provide additional assurance that the specified safety function is met, the associated Bases are revised to include a Reviewer's

Note to ensure that the licensee confirms that the safety analysis does not assume that the valves and dampers affected by incorporation of this SR allowance are assumed to move following an accident.

4. REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

10 CFR 50.65(a)(1) states the following:

Each holder of a license to operate a nuclear power plant...shall monitor the performance or condition of structures, systems, or components...in a manner sufficient to provide reasonable assurance that these structures, systems, and components...are capable of fulfilling their intended functions.

10 CFR 50, Appendix A, Criterion 19—Control room. Requires that a control room shall be provided from which actions can be taken to operate the nuclear power unit safely under normal conditions and to maintain it in a safe condition under accident conditions, including loss-of-coolant accidents. Adequate radiation protection shall be provided to permit access and occupancy of the control room under accident conditions without personnel receiving radiation exposures in excess of 5 rem whole body, or its equivalent to any part of the body, for the duration of the accident. Equipment at appropriate locations outside the control room shall be provided (1) with a design capability for prompt hot shutdown of the reactor, including necessary instrumentation and controls to maintain the unit in a safe condition during hot shutdown, and (2) with a potential capability for subsequent cold shutdown of the reactor through the use of suitable procedures.

10 CFR 50, Appendix A, Criterion 37—Testing of emergency core cooling system. Requires that the emergency core cooling system shall be designed to permit appropriate periodic pressure and functional testing to assure (1) the structural and leaktight integrity of its components, (2) the operability and performance of the active components of the system, and (3) the operability of the system as a whole and, under conditions as close to design as practical, the performance of the full operational sequence that brings the system into operation, including operation of applicable portions of the protection system, the transfer between normal and emergency power sources, and the operation of the associated cooling water system.

10 CFR 50, Appendix A, Criterion 43—Testing of containment atmosphere cleanup systems. Requires that the containment atmosphere cleanup systems shall be designed to permit appropriate periodic pressure and functional testing to assure (1) the structural and leaktight integrity of its components, (2) the operability and performance of the active components of the systems such as fans, filters, dampers, pumps, and valves and (3) the operability of the systems as a whole and, under conditions as close to design as practical, the performance of the full operational sequence that brings the systems into operation, including operation of applicable portions of the protection system, the transfer between normal and emergency power sources, and the operation of associated systems.

10 CFR 50, Appendix A, Criterion 61—Fuel storage and handling and radioactivity control.

Requires that the fuel storage and handling, radioactive waste, and other systems which may contain radioactivity shall be designed to assure adequate safety under normal and postulated accident conditions. These systems shall be designed (1) with a capability to permit appropriate periodic inspection and testing of components important to safety, (2) with suitable shielding for radiation protection, (3) with appropriate containment, confinement, and filtering systems, (4) with a residual heat removal capability having reliability and testability that reflects the importance to safety of decay heat and other residual heat removal, and (5) to prevent significant reduction in fuel storage coolant inventory under accident conditions.

10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," Criterion XI, "Test Control," states:

A test program shall be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents.

10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," states the following:

Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

The proposed change does not affect plant compliance with these regulations.

4.2 No Significant Hazards Consideration Determination

The proposed change will revise Surveillance Requirements (SRs) by adding notes or exceptions excluding valves and dampers that are locked, sealed or otherwise secured in the actuated position to consider the SR met when the subject structure, system or component (SSC) is Operable (i.e., is capable of performing its specified safety function). The industry has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, Issuance of Amendment:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

The proposed change revises SRs by adding notes or exceptions excluding from actuation and isolation time testing those valves and dampers that are locked, sealed or otherwise secured in the actuated position. The performance or exclusion of performance of SRs is not an initiator of any accident previously evaluated. As a result, the proposed change has no effect on the probability of any accident previously evaluated. The proposed

change excludes performance of certain SRs when the SR is not required to demonstrate that the SSC can perform the safety functions assumed in the accident analysis. As a result, the SSCs continue to perform their mitigating functions and the consequences of any accident previously evaluated are not affected.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any previously evaluated?

Response: No

The proposed change revises SRs by adding notes or exceptions excluding from actuation and isolation time testing those valves and dampers that are locked, sealed or otherwise secured in the actuated position. The change does not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a change in the methods governing normal plant operations. The change does not alter assumptions made in the safety analysis for pump or train operability or actuated valve or damper position.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No

The proposed change revises SRs by adding notes or exceptions excluding from actuation and isolation time testing those valves and dampers that are locked, sealed or otherwise secured in the actuated position. The proposed change does not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The safety analysis assumptions and acceptance criteria are not affected by this change.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

4.3 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5. ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6. REFERENCES

None

**Enclosure 1
Model Application**

[DATE]

10 CFR 50.90

ATTN: Document Control Desk
 U.S. Nuclear Regulatory Commission
 Washington, DC 20555-0001

DOCKET NO. PLANT NAME
 50-[xxx]
 SUBJECT: APPLICATION TO REVISE TECHNICAL SPECIFICATIONS TO ADOPT
 TSTF-541, "ADD EXCEPTIONS TO SURVEILLANCE REQUIREMENTS
 WHEN THE SAFETY FUNCTION IS BEING PERFORMED"

Pursuant to 10 CFR 50.90, [LICENSEE] is submitting a request for an amendment to the Technical Specifications (TS) for [PLANT NAME, UNIT NOS.].

The proposed change revises TS Surveillance Requirements (SRs) by adding notes or exceptions excluding from actuation and isolation time testing those valves and dampers that are locked, sealed or otherwise secured in the actuated position and the associated Limiting Condition for Operation (LCO) met when the subject structure, system or component (SSC) is Operable (i.e., is capable of performing its specified safety function).

Attachment 1 provides a description and assessment of the proposed changes. Attachment 2 provides the existing TS pages marked up to show the proposed changes. Attachment 3 provides revised (clean) TS pages. Attachment 4 provides existing TS Bases pages marked to show the proposed changes for information only. {Note: the attachments are not included in the model application.}

Approval of the proposed amendment is requested by [date]. Once approved, the amendment shall be implemented within [] days.

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated [STATE] Official.

[In accordance with 10 CFR 50.30(b), a license amendment request must be executed in a signed original under oath or affirmation. This can be accomplished by attaching a notarized affidavit confirming the signature authority of the signatory, or by including the following statement in the cover letter: "I declare under penalty of perjury that the foregoing is true and correct. Executed on (date)." The alternative statement is pursuant to 28 USC 1746. It does not require notarization.]

If you should have any questions regarding this submittal, please contact [NAME, TELEPHONE NUMBER].

Sincerely,

[Name, Title]

- Attachments:
1. Description and Assessment
 2. Proposed Technical Specification Changes (Mark-Up)
 3. Revised Technical Specification Pages
 4. Proposed Technical Specification Bases Changes (Mark-Up)

{Note: the attachments are not included in the model application.}

cc: NRC Project Manager
NRC Regional Office
NRC Resident Inspector
State Contact

ATTACHMENT 1 - DESCRIPTION AND ASSESSMENT

1.0 DESCRIPTION

The proposed amendment will revise Surveillance Requirements (SRs) specified in the following Technical Specifications (TS) by adding notes or exceptions to consider the SR met and the associated Limiting Condition for Operation (LCO) met when the subject structure, system or component (SSC) is Operable (i.e., is capable of performing its specified safety function):

[NUREG-1430, "Standard Technical Specifications Babcock and Wilcox Plants"]

- TS 3.6.7, "Spray Additive System,"
- TS 3.7.10, "Control Room Emergency Ventilation System (CREVS),"
- TS 3.7.12, "Emergency Ventilation System (EVS),"
- TS 3.7.13, "Fuel Storage Pool Ventilation System (FSPVS),"]

[NUREG-1431, "Standard Technical Specifications Westinghouse Plants"]

- TS 3.6.11, "Iodine Cleanup System (ICS) (Atmospheric and Subatmospheric),"
- TS 3.6.13, "Shield Building Air Cleanup System (SBACS) (Dual and Ice Condenser),"
- TS 3.7.10, "Control Room Emergency Filtration System (CREFS),"
- TS 3.7.12, "Emergency Core Cooling System (ECCS) Pump Room Exhaust Air Cleanup System (PREACS),"
- TS 3.7.13, "Fuel Building Air Cleanup System (FBACS),"
- TS 3.7.14, "Penetration Room Exhaust Air Cleanup System (PREACS),"]

[NUREG-1432, "Standard Technical Specifications Combustion Engineering Plants"]

- TS 3.6.8, "Shield Building Exhaust Air Cleanup System (SBEACS) (Dual),"
- TS 3.6.10, "Iodine Cleanup System (ICS) (Atmospheric and Dual),"
- TS 3.7.10, "Essential Chilled Water (ECW),"
- TS 3.7.11, "Control Room Emergency Air Cleanup System (CREACS),"
- TS 3.7.13, "Emergency Core Cooling System (ECCS) Pump Room Exhaust Air Cleanup System (PREACS),"
- TS 3.7.14, "Fuel Building Air Cleanup System (FBACS)," and
- TS 3.7.15, "Penetration Room Exhaust Air Cleanup System (PREACS)."]

[NUREG-1433, "Standard Technical Specifications General Electric BWR/4 Plants"]

- TS 3.5.1, "Emergency Core Cooling Systems (ECCS) Operating,"
- TS 3.5.2, "Emergency Core Cooling Systems (ECCS) Shutdown,"
- TS 3.5.3, "Reactor Core Isolation Cooling System (RCIC),"
- TS 3.6.4.3, "Standby Gas Treatment (SGT) System,"
- TS 3.7.2, "[Plant Service Water (PSW)] System and [Ultimate Heat Sink (UHS)]," and
- TS 3.7.4 "[Main Control Room Environmental Control (MCREC)] System.""]

[NUREG-1434, "Standard Technical Specifications General Electric BWR/6 Plants"]

- TS 3.5.1, "Emergency Core Cooling Systems (ECCS) Operating,"
- TS 3.5.2, "Emergency Core Cooling Systems (ECCS) Shutdown,"

TS 3.5.3, "Reactor Core Isolation Cooling System (RCIC),"
TS 3.6.1.7, "Residual Heat Removal (RHR) Containment Spray System,"
TS 3.6.4.3, "Standby Gas Treatment (SGT) System,"
TS 3.7.1, "[Standby Service Water (SSW)] System and [Ultimate Heat Sink (UHS)],"
TS 3.7.2, "High Pressure Core Spray (HPCS) Service Water System (SWS)," and
TS 3.7.3, "[Control Room Fresh Air (CRFA)] System."]

2.0 ASSESSMENT

2.1 Applicability of Published Safety Evaluation

[LICENSEE] reviewed the model safety evaluation dated [DATE] as part of the Federal Register Notice of Availability. This review included a review of the NRC staff's evaluation, as well as the information provided in TSTF-541. [LICENSEE] concluded that the justifications presented in TSTF-541, and the model safety evaluation prepared by the NRC staff are applicable to [PLANT, UNIT NOS.] and justify this amendment for the incorporation of the changes to the [PLANT] TS.

[The Traveler and model Safety Evaluation discuss the applicable regulatory requirements and guidance, including the 10 CFR 50, Appendix A, General Design Criteria (GDC). [PLANT] was not licensed to the 10 CFR 50, Appendix A, GDC. The [PLANT] equivalent of the referenced GDC are [REFERENCE INCLUDING UFSAR LOCATION, IF APPLICABLE]. [DISCUSS THE EQUIVALENCE OF THE REFERENCED PLANT-SPECIFIC REQUIREMENTS TO THE APPENDIX A GDC AS RELATED TO THE PROPOSED CHANGE.] This difference does not alter the conclusion that the proposed change is applicable to [PLANT].]

2.2 Optional Changes and Variations

[LICENSEE is not proposing any variations or deviations from the TS changes described in the TSTF-541, or the applicable parts of the NRC staff's model safety evaluation dated [DATE].]
[LICENSEE is proposing the following variations from the TS changes described in the TSTF-541 or the applicable parts of the NRC staff's model safety evaluation dated [DATE].]

[The [PLANT] TS utilize different [numbering][and][titles] than the Standard Technical Specifications on which TSTF-541 was based. Specifically, [describe differences between the plant-specific TS numbering and/or titles and the TSTF-541 numbering and titles.] These differences are administrative and do not affect the applicability of TSTF-541 to the [PLANT] TS.]

2.3 Licensee Verifications

[LICENSEE] confirms the following:

Movement of the affected valves or dampers following an accident is not assumed in the safety analysis for valves and dampers excluded from actuation testing on an actual or simulated signal or from isolation time testing.

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration Determination

[LICENSEE] requests adoption of TSTF-541, "Add Exceptions to Surveillance Requirements When the Safety Function is being Performed," which is an approved change to the Standard Technical Specifications (STS), into the [PLANT NAME, UNIT NOS] Technical Specifications (TS). The proposed amendment modifies the TS Surveillance Requirements (SRs) by adding notes or exceptions to consider the SR met and the associated Limiting Condition for Operation (LCO) met when the subject structure, system or component (SSC) is Operable (i.e., is capable of performing its specified safety function)

[LICENSEE] has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

The proposed change revises SRs by adding notes or exceptions excluding from actuation and isolation time testing those valves and dampers that are locked, sealed or otherwise secured in the actuated position. The performance or exclusion of performance of SRs is not an initiator of any accident previously evaluated. As a result, the proposed change has no effect on the probability of any accident previously evaluated. The proposed change excludes performance of certain SRs when the SR is not required to demonstrate that the SSC can perform the safety functions assumed in the accident analysis. As a result, the SSCs continue to perform their mitigating functions and the consequences of any accident previously evaluated are not affected.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any previously evaluated?

Response: No

The proposed change revises SRs by adding notes or exceptions excluding from actuation and isolation time testing those valves and dampers that are locked, sealed or otherwise secured in the actuated position. The change does not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a change in the methods governing normal plant operations. The change does not alter assumptions made in the safety analysis for pump or train operability or actuated valve or damper position.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No

The proposed change revises SRs by adding notes or exceptions excluding from actuation and isolation time testing those valves and dampers that are locked, sealed or otherwise secured in the actuated position. The proposed change does not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The safety analysis assumptions and acceptance criteria are not affected by this change.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, [LICENSEE] concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.0 ENVIRONMENTAL EVALUATION

The proposed change would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9).

Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

Enclosure 2
Revised Technical Specifications and Bases

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.7.2	Verify spray additive tank solution volume is \geq [12,970] gal and \leq [13,920] gal.	[184 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.6.7.3	Verify spray additive tank [NaOH] solution concentration is \geq [60,000 ppm] and \leq [65,000 ppm].	[184 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.6.7.4	Verify each spray additive automatic valve in the flow path <i>[not locked, sealed or otherwise secured in the actuated position]</i> actuates to the correct position on an actual or simulated actuation signal.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.6.7.5	Verify Spray Additive System flow [rate] from each solution's flow path.	[5 years <u>OR</u> In accordance with the Surveillance Frequency Control Program]

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.10.2 Perform required CREVS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.10.3 <i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i> Verify [each CREVS train actuates] [or the control room isolates] on an actual or simulated actuation signal.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.10.4 Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program
SR 3.7.10.5 [Verify the system makeup flow rate is \geq [270] and \leq [330] cfm when supplying the the control room with outside air.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]]

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.12.1	Operate each EVS train for [\geq 10 continuous hours with the heaters operating or (for systems without heaters) \geq 15 minutes].	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.12.2	Perform required EVS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.12.3	<i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i> Verify each EVS train actuates on an actual or simulated actuation signal.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.12.4	Verify one EVS train can maintain a pressure \leq [] inches water gauge relative to atmospheric pressure during the [post accident] mode of operation at a flow rate of \leq [3000] cfm.	[[18] months on a STAGGERED TEST BASIS <u>OR</u> In accordance with the Surveillance Frequency Control Program]

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.12.5 [Verify each EVS filter cooling bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]]

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.13.1	[Operate each FSPVS train for ≥ 10 continuous hours with the heaters operating or (for systems without heaters) ≥ 15 minutes].	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]]
SR 3.7.13.2	[Perform required FSPVS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]]
SR 3.7.13.3	<p>[-----NOTE----- <i>Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position.</i> -----]</p> <p>Verify each FSPVS train actuates on an actual or simulated actuation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>
SR 3.7.13.4	Verify one FSPVS train can maintain a pressure $\leq []$ inches water gauge with respect to atmospheric pressure during the [post accident] mode of operation at a flow rate $\leq [3000]$ cfm.	<p>[[18] months on a STAGGERED TEST BASIS</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.13.5 [Verify each FSPVS filter bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]]

BASES

SURVEILLANCE REQUIREMENTS (continued)

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.6.7.4

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding valves that are locked, sealed, or otherwise secured in position requires confirmation by the licensee that movement of the valves following an accident is not assumed in the safety analysis.
-----]

This SR provides verification that each automatic valve in the Spray Additive System flow path actuates to its correct position. *[This SR is not required for valves that are locked, sealed, or otherwise secured in the actuated position because these valves were verified to be in the actuated position prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the [18] month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.10.2

This SR verifies that the required CREVS testing is performed in accordance with the [Ventilation Filter Testing Program (VFTP)]. The [VFTP] includes testing HEPA filter performance, charcoal absorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal. Specific test Frequencies and additional information are discussed in detail in the [VFTP].

SR 3.7.10.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that [each CREVS train starts] [or the CRE isolates] and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The Frequency of [18] months is based on industry operating experience and is consistent with the typical refueling cycle.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]

SR 3.7.10.4

BASES

SURVEILLANCE
REQUIREMENTSSR 3.7.12.1

Standby systems should be checked periodically to ensure that they function properly. Since the environment and normal operating conditions on this system are not severe, testing each train once a month provides an adequate check on this system. Monthly heater operations dry out any moisture that may have accumulated in the charcoal from humidity in the ambient air. [Systems with heaters must be operated ≥ 10 continuous hours with the heaters energized. Systems without heaters need only be operated for ≥ 15 minutes to demonstrate the function of the system.] [The 31 day Frequency is based on known reliability of equipment and the two train redundancy available.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.7.12.2

This SR verifies that the required EVS testing is performed in accordance with the [Ventilation Filter Testing Program (VFTP)]. The [VFTP] includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the [VFTP].

SR 3.7.12.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each EVS train starts and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are*

locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.] [The [18] month Frequency is consistent with that specified in Reference 5.

OR

BASES

SURVEILLANCE REQUIREMENTS (continued)

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.7.12.4

This SR verifies the integrity of the negative pressure boundary area. The ability of the EVS to maintain a negative pressure, with respect to potentially uncontaminated adjacent areas, is periodically tested to verify proper functioning of the EVS. During the [post accident] mode of operation, the EVS is designed to maintain a slight negative pressure in the negative pressure boundary area with respect to adjacent areas to prevent unfiltered LEAKAGE. The EVS is designed to maintain this negative pressure at a flow rate of [3000] cfm from the negative pressure boundary area. [The Frequency of [18] months on a STAGGERED TEST BASIS is consistent with industry practice and other filtration SRs.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

[SR 3.7.12.5

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.
-----]

Operating the EVS filter bypass damper is necessary to ensure that the system functions properly. The OPERABILITY of the EVS filter bypass damper is verified if it can be closed. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]* [An [18] month Frequency is consistent with that specified in Reference 5.

BASES

SURVEILLANCE
REQUIREMENTS[SR 3.7.13.1

Standby systems should be checked periodically to ensure that they function properly. As the environment and normal operating conditions on this system are not severe, testing each train once every month provides an adequate check on this system. Monthly heater operation dries out any moisture accumulated in the charcoal from humidity in the ambient air. [Systems with heaters must be operated for ≥ 10 continuous hours with the heaters energized. Systems without heaters need only be operated for ≥ 15 minutes to demonstrate the function of the system.] [The 31 day Frequency is based on the known reliability of the equipment and the two train redundancy available.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]]

[SR 3.7.13.2

This SR verifies that the required FSPVS testing is performed in accordance with the [Ventilation Filter Testing Program (VFTP)]. The [VFTP] includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the [VFTP].]

[SR 3.7.13.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each FSPVS train starts and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the*

actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis. [The 18 month Frequency is consistent with that specified in Reference 6.

OR

BASES

SURVEILLANCE REQUIREMENTS (continued)

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]]

SR 3.7.13.4

This SR verifies the integrity of the fuel handling area. The ability of the fuel handling area to maintain a negative pressure, with respect to potentially uncontaminated adjacent areas, is periodically tested to verify proper function of the FSPVS. During the [post accident] mode of operation, the FSPVS is designed to maintain a slight negative pressure in the fuel handling area to prevent unfiltered LEAKAGE. The FSPVS is designed to maintain this negative pressure at a flow rate of \leq [3000] cfm to the fuel handling area. [The Frequency of [18] months on a STAGGERED TEST BASIS is consistent with industry practice.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]]

SR 3.7.13.5

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement or actuation of the dampers following an accident are not assumed in the safety analysis.
-----]]

Operating the FSPVS filter bypass damper is necessary to ensure that the system functions properly. The OPERABILITY of the FSPVS filter

bypass damper is verified if it can be opened. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]* [A
Frequency of [18] months is specified in Reference 6.

SURVEILLANCE REQUIREMENTS (continued)

<p>SR 3.6.11.3</p>	<p><i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i></p> <p>Verify each ICS train actuates on an actual or simulated actuation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.6.11.4</p>	<p>[Verify each ICS filter bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.13.3</p> <p><i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i></p> <p>Verify each SBACS train actuates on an actual or simulated actuation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.6.13.4</p> <p>[Verify each SBACS filter bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>
<p>SR 3.6.13.5</p> <p>Verify each SBACS train flow rate is \geq [] cfm.</p>	<p>[[18] months on a STAGGERED TEST BASIS</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.10.2 Perform required CREFS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.10.3 <i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i> Verify each CREFS train actuates on an actual or simulated actuation signal.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.10.4 Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.12.1	Operate each ECCS PREACS train for ≥ 10 continuous hours with the heaters operating or (for systems without heaters) ≥ 15 minutes].	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.12.2	Perform required ECCS PREACS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.12.3	<i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i> Verify each ECCS PREACS train actuates on an actual or simulated actuation signal.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.12.4	Verify one ECCS PREACS train can maintain a pressure $\leq [-0.125]$ inches water gauge relative to atmospheric pressure during the [post accident] mode of operation at a flow rate of $\leq [3000]$ cfm.	[[18] months on a STAGGERED TEST BASIS <u>OR</u> In accordance with the Surveillance Frequency Control Program]

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.12.5 [Verify each ECCS PREACS filter bypass damper <i>[not locked, sealed or otherwise secured in the closed position]</i> can be closed.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]]

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.13.1	Operate each FBACS train for ≥ 10 continuous hours with the heaters operating or (for systems without heaters) ≥ 15 minutes].	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.13.2	Perform required FBACS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.13.3	<p>[-----<i>NOTE</i>----- <i>Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position.</i> -----]</p> <p>Verify each FBACS train actuates on an actual or simulated actuation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>
SR 3.7.13.4	Verify one FBACS train can maintain a pressure $\leq [-0.125]$ inches water gauge with respect to atmospheric pressure during the [post accident] mode of operation at a flow rate $\leq [20,000]$ cfm.	<p>[[18] months on a STAGGERED TEST BASIS</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.13.5 [Verify each FBACS filter bypass damper <i>[not locked, sealed or otherwise secured in the closed position]</i> can be closed.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]]

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.14.1	Operate each PREACS train for [\geq 10 continuous hours with heaters operating or (for systems without heaters) \geq 15 minutes].	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.14.2	Perform required PREACS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.14.3	<p>[-----<i>NOTE</i>----- <i>Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position.</i> -----]</p> <p>Verify each PREACS train actuates on an actual or simulated actuation signal.</p>	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]]
SR 3.7.14.4	[Verify one PREACS train can maintain a pressure \leq [-0.125] inches water gauge relative to atmospheric pressure during the [post accident] mode of operation at a flow rate of \leq [3000] cfm.	[[18] months on a STAGGERED TEST BASIS <u>OR</u> In accordance with the Surveillance Frequency Control Program]]

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.14.5 [Verify each PREACS filter bypass damper <i>[not locked, sealed or otherwise secured in the closed position]</i> can be closed.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]]

BASES

SURVEILLANCE REQUIREMENTS (continued)

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]

SR 3.6.11.2

This SR verifies that the required ICS filter testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 3.6.11.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

The automatic startup test verifies that both trains of equipment start upon receipt of an actual or simulated test signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the [18] month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint. Furthermore, the Frequency was developed considering that the system equipment OPERABILITY is demonstrated at a 31 day Frequency by SR 3.6.11.1.

BASES

SURVEILLANCE REQUIREMENTS (continued)

[SR 3.6.11.4

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.

The ICS filter bypass dampers are tested to verify OPERABILITY. The dampers are in the bypass position during normal operation and must reposition for accident operation to draw air through the filters. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]*
 [The [18] month Frequency is considered to be acceptable based on the damper reliability and design, the mild environmental conditions in the vicinity of the dampers, and the fact that operating experience has shown that the dampers usually pass the Surveillance when performed at the [18] month Frequency.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]]

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- REFERENCES
1. 10 CFR 50, Appendix A, GDC 41, GDC 42, and GDC 43.
 2. FSAR, Section [6.5].
 3. Regulatory Guide 1.52, Revision [2].
 4. FSAR, Chapter [15].
-

BASES

SURVEILLANCE REQUIREMENTS (continued)

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.6.13.2

This SR verifies that the required SBACS filter testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 3.6.13.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

The automatic startup ensures that each SBACS train responds properly. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the [18] month Frequency. Therefore the Frequency was concluded to be

BASES

SURVEILLANCE REQUIREMENTS (continued)

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]

[SR 3.6.13.4

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement or actuation of the dampers following an accident are not assumed in the safety analysis.
 -----]

The SBACS filter bypass dampers are tested to verify OPERABILITY. The dampers are in the bypass position during normal operation and must reposition for accident operation to draw air through the filters. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is considered to be acceptable based on damper reliability and design, mild environmental conditions in the vicinity of the dampers, and the fact that operating experience has shown that the dampers usually pass the Surveillance when performed at the [18] month Frequency.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]]

SR 3.6.13.5

The proper functioning of the fans, dampers, filters, adsorbers, etc., as a system is verified by the ability of each train to produce the required

BASES

SURVEILLANCE
REQUIREMENTSSR 3.7.10.1

Standby systems should be checked periodically to ensure that they function properly. As the environment and normal operating conditions on this system are not too severe, testing each train once every month provides an adequate check of this system. Monthly heater operations dry out any moisture accumulated in the charcoal from humidity in the ambient air. [Systems with heaters must be operated for ≥ 10 continuous hours with the heaters energized. Systems without heaters need only be operated for ≥ 15 minutes to demonstrate the function of the system.] [The 31 day Frequency is based on the reliability of the equipment and the two train redundancy.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.7.10.2

This SR verifies that the required CREFS testing is performed in accordance with the [Ventilation Filter Testing Program (VFTP)]. The [VFTP] includes testing the performance of the HEPA filter, charcoal adsorber efficiency, minimum flow rate, and the physical properties of the activated charcoal. Specific test Frequencies and additional information are discussed in detail in the [VFTP].

SR 3.7.10.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each CREFS train starts and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are*

locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.] [The Frequency of [18] months is based on industry operating experience and is consistent with the typical refueling cycle.

OR

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.12.2

This SR verifies that the required ECCS PREACS testing is performed in accordance with the [Ventilation Filter Testing Program (VFTP)]. The [VFTP] includes testing HEPA filter performance, charcoal adsorbers efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test Frequencies and additional information are discussed in detail in the [VFTP].

SR 3.7.12.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each ECCS PREACS train starts and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is consistent with that specified in Reference 4.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]

SR 3.7.12.4

BASES

SURVEILLANCE REQUIREMENTS (continued)

This test is conducted with the tests for filter penetration; thus, an [18] month Frequency on a STAGGERED TEST BASIS is consistent with that specified in Reference 4.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----

Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.

[SR 3.7.12.5

-----REVIEWER'S NOTE-----

Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the closed position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.

Operating the ECCS PREACS bypass damper is necessary to ensure that the system functions properly. The OPERABILITY of the ECCS PREACS bypass damper is verified if it can be specified in Reference 4. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the closed position because these dampers were verified to be in the closed position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]* [An [18] month Frequency is consistent with that specified in Reference 4.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----

Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.

BASES

SURVEILLANCE REQUIREMENTS (continued)

[SR 3.7.13.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each FBACS train starts and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is consistent with Reference 6.]

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.

SR 3.7.13.4

This SR verifies the integrity of the fuel building enclosure. The ability of the fuel building to maintain negative pressure with respect to potentially uncontaminated adjacent areas is periodically tested to verify proper function of the FBACS. During the [post accident] mode of operation, the FBACS is designed to maintain a slight negative pressure in the fuel building, to prevent unfiltered LEAKAGE. The FBACS is designed to maintain a \leq [-0.125] inches water gauge with respect to atmospheric pressure at a flow rate of [20,000] cfm to the fuel building. [The Frequency of [18] months is consistent with the guidance provided in NUREG-0800, Section 6.5.1 (Ref. 7).

BASES

SURVEILLANCE REQUIREMENTS (continued)

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]

[SR 3.7.13.5

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the closed position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.
 -----]

Operating the FBACS filter bypass damper is necessary to ensure that the system functions properly. The OPERABILITY of the FBACS filter bypass damper is verified if it can be closed. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the closed position because these dampers were verified to be in the closed position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]* [An [18] month Frequency is consistent with Reference 6.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]]

REFERENCES

1. FSAR, Section [6.5.1].
2. FSAR, Section [9.4.5].
3. FSAR, Section [15.7.4].
4. Regulatory Guide 1.25.
5. 10 CFR 100.

BASES

SURVEILLANCE REQUIREMENTS (continued)

[SR 3.7.14.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each PREACS starts and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is consistent with that specified in Reference 5.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]]

[SR 3.7.14.4

This SR verifies the integrity of the penetration room enclosure. The ability of the penetration room to maintain a negative pressure, with respect to potentially uncontaminated adjacent areas, is periodically tested to verify proper function of PREACS. During the [post accident] mode of operation, the PREACS is designed to maintain a \leq [-0.125] inches water gauge relative to atmospheric pressure at a flow rate of [3000] cfm in the penetration room, with respect to adjacent areas, to prevent unfiltered LEAKAGE.

The minimum system flow rate maintains a slight negative pressure in the penetration room area, and provides sufficient air velocity to transport particulate contaminants, assuming only one filter train is operating. The

BASES

SURVEILLANCE REQUIREMENTS (continued)

The filters have a certain pressure drop at the design flow rate when clean. The magnitude of the pressure drop indicates acceptable performance, and is based on manufacturers' recommendations for the filter and adsorber elements at the design flow rate. An increase in pressure drop or a decrease in flow indicates that the filter is being loaded or that there are other problems with the system.

[This test is conducted along with the tests for filter penetration; thus, the [18] month Frequency is consistent with that specified in Reference 5. The Frequency of [18] months is also consistent with the guidance provided in NUREG-0800 (Ref. 6).

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]]

[SR 3.7.14.5

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the closed position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.

It is necessary to operate the PREACS filter bypass damper to ensure that the system functions properly. The OPERABILITY of the PREACS filter bypass damper is verified if it can be closed. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the closed position because these dampers were verified to be in the closed position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]*
[An [18] month Frequency is consistent with that specified in Reference 5.

OR

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.8.3 <i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i></p> <p>Verify each SBEACS train actuates on an actual or simulated actuation signal.</p>	<p>[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.6.8.4 [Verify each SBEACS filter bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>
<p>SR 3.6.8.5 Verify each SBEACS train flow rate is \geq [] cfm.</p>	<p>[[18] months on a STAGGERED TEST BASIS</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.10.3</p> <p><i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i></p> <p>Verify each ICS train actuates on an actual or simulated actuation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.6.10.4</p> <p>[Verify each ICS filter bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.10.1</p> <p>-----NOTE----- Isolation of ECW flow to individual components does not render the ECW System inoperable. -----</p> <p>Verify each ECW manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position.</p>	<p>[31 days</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.7.10.2</p> <p><i>[-----NOTE----- Not required to be met for valves locked, sealed or otherwise secured in the actuated position. -----]</i></p> <p>Verify the proper actuation of each ECW System component on an actual or simulated actuation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.11.2	Perform required CREACS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.11.3	<p><i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i></p> <p>Verify each CREACS train actuates on an actual or simulated actuation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
SR 3.7.11.4	Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.13.1	Operate each ECCS PREACS train for ≥ 10 continuous hours with the heater operating or (for systems without heaters) ≥ 15 minutes].	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.13.2	Perform required ECCS PREACS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.13.3	<i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i> Verify each ECCS PREACS train actuates on an actual or simulated actuation signal.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.13.4	Verify one ECCS PREACS train can maintain a negative pressure $\geq []$ inches water gauge relative to atmospheric pressure during the [post accident] mode of operation at a flow rate of $\leq [20,000]$ cfm.	[[18] months on a STAGGERED TEST BASIS <u>OR</u> In accordance with the Surveillance Frequency Control Program]

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.13.5 [Verify each ECCS PREACS filter bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]]

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.14.1	Operate each FBACS train for ≥ 10 continuous hours with the heaters operating or (for systems without heaters) ≥ 15 minutes].	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.14.2	Perform required FBACS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.14.3	<p>[-----<i>NOTE</i>----- <i>Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position.</i> -----]</p> <p>Verify each FBACS train actuates on an actual or simulated actuation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>
SR 3.7.14.4	Verify one FBACS train can maintain a negative pressure $\geq []$ inches water gauge with respect to atmospheric pressure, during the [post accident] mode of operation at a flow rate $\leq [3000]$ cfm.	<p>[[18] months on a STAGGERED TEST BASIS</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.14.5 [Verify each FBACS filter bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]]

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.15.1	Operate each PREACS train for $[\geq 10$ continuous hours with the heater operating or (for systems without heaters) ≥ 15 minutes].	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.15.2	Verify required PREACS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.15.3	<p>[-----NOTE----- <i>Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position.</i> -----]</p> <p>Verify each PREACS train actuates on an actual or simulated actuation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>
SR 3.7.15.4	[Verify one PREACS train can maintain a negative pressure $\geq []$ inches water gauge with respect to atmospheric pressure during the [post accident] mode of operation at a flow rate of $\leq [3000]$ cfm.	<p>[[18] months on a STAGGERED TEST BASIS</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.7.15.5 [Verify each PREACS filter bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]]

BASES

SURVEILLANCE REQUIREMENTS (continued)

elimination on the adsorbers and HEPA filters. [The 31 day Frequency was developed considering the known reliability of fan motors and controls, the two train redundancy available, and the iodine removal capability of the Containment Spray System.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.6.8.2

This SR verifies that the required SBEACS filter testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing of HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 3.6.8.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

The automatic startup ensures that each SBEACS train responds properly. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is based on the need to perform

this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the [18] month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint. Furthermore, the SR interval was developed considering that the SBEACS equipment OPERABILITY is demonstrated at a 31 day Frequency by SR 3.6.8.1.

BASES

SURVEILLANCE REQUIREMENTS (continued)

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

[SR 3.6.8.4

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.

The filter bypass dampers are tested to verify OPERABILITY. The dampers are in the bypass position during normal operation and must reposition for accident operation to draw air through the filters. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]*
[The [18] month Frequency is considered to be acceptable based on the damper reliability and design, the mild environmental conditions in the vicinity of the dampers, and the fact that operating experience has shown that the dampers usually pass the Surveillance when performed at the [18] month Frequency.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]]

BASES

SURVEILLANCE REQUIREMENTS (continued)

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]

SR 3.6.10.2

This SR verifies that the required ICS filter testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 3.6.10.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

The automatic startup test verifies that both trains of equipment start upon receipt of an actual or simulated test signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed at the [18] month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint. Furthermore, the Frequency was developed considering that the system equipment OPERABILITY is demonstrated on a 31 day Frequency by SR 3.6.10.1.

BASES

SURVEILLANCE REQUIREMENTS (continued)

[SR 3.6.10.4

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.

The ICS filter bypass dampers are tested to verify OPERABILITY. The dampers are in the bypass position during normal operation and must reposition for accident operation to draw air through the filters. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]*
 [The [18] month Frequency is considered to be acceptable based on the damper reliability and design, the mild environmental conditions in the vicinity of the dampers, and the fact that operating experience has shown that the dampers usually pass the Surveillance when performed at the [18] month Frequency.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]]

REFERENCES

1. 10 CFR 50, Appendix A, GDC 41, GDC 42, and GDC 43.
2. FSAR, Section [].
3. Regulatory Guide 1.52, Revision [2].
4. FSAR, Section [].

BASES

SURVEILLANCE REQUIREMENTS (continued)

This SR is modified by a Note indicating that the isolation of ECW flow to components or systems may render those components inoperable but does not affect the OPERABILITY of the ECW System.

[The 31 day Frequency is based on engineering judgment, is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.7.10.2

-----REVIEWER'S NOTE-----
Adoption of the Note excluding valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the valves following an accident is not assumed in the safety analysis.

This SR verifies proper automatic operation of the ECW System components that the ECW pumps will start in the event of any accident or transient that generates an SIAS. This SR also ensures that each automatic valve in the flow paths actuates to its correct position on an actual or simulated SIAS. *[The SR is modified by a Note excluding valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test valves that are locked, sealed, or otherwise secured in the actuated position because the affected valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* The ECW System cannot be fully actuated as part of the SIAS CHANNEL FUNCTIONAL TEST during normal operation. The actuation logic is tested as part of the SIAS functional test every 92 days, except for the subgroup relays that actuate the system that cannot be tested during normal unit operation. [The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance

BASES

SURVEILLANCE REQUIREMENTS (continued)

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.7.11.2

This SR verifies that the required CREACS testing is performed in accordance with the [Ventilation Filter Testing Program (VFTP)]. The [VFTP] includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test Frequencies and additional information are discussed in detail in the [VFTP].

SR 3.7.11.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each CREACS train starts and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The Frequency of [18] months is based on industry operating experience and is consistent with the typical refueling cycle.

OR

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.13.2

This SR verifies that the required ECCS PREACS testing is performed in accordance with the [Ventilation Filter Testing Program (VFTP)]. The [VFTP] includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the [VFTP].

SR 3.7.13.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each ECCS PREACS train starts and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is consistent with that specified in Regulatory Guide 1.52 (Ref. 4).

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]

SR 3.7.13.4

BASES

SURVEILLANCE REQUIREMENTS (continued)

This test is conducted with the tests for filter penetration; thus, an [18] month Frequency, on a STAGGERED TEST BASIS is consistent with other filtration SRs.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----

Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.

[SR 3.7.13.5

-----REVIEWER'S NOTE-----

Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.

Operating the ECCS PREACS filter bypass damper is necessary to ensure that the system functions properly. The OPERABILITY of the bypass damper is verified if it can be closed. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]* [An [18] month Frequency is consistent with that specified in Reference 4.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----

Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.

BASES

SURVEILLANCE REQUIREMENTS (continued)

[SR 3.7.14.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each FBACS train starts and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is consistent with that specified in Reference 6.]

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]]

SR 3.7.14.4

This SR verifies the integrity of the fuel building enclosure. The ability of the fuel building to maintain negative pressure with respect to potentially uncontaminated adjacent areas is periodically tested to verify proper function of the FBACS. During the post accident mode of operation, the FBACS is designed to maintain a slight negative pressure in the fuel building, with respect to adjacent areas, to prevent unfiltered LEAKAGE. The FBACS is designed to maintain this negative pressure at a flow rate of \leq [3000] cfm to the fuel building. [The Frequency of [18] months is consistent with the guidance provided in NUREG-0800, Section 6.5.1 (Ref. 7).

BASES

SURVEILLANCE REQUIREMENTS (continued)

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

[SR 3.7.14.5

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.
-----]

Operating the FBACS filter bypass damper is necessary to ensure that the system functions properly. The OPERABILITY of the FBACS filter bypass damper is verified if it can be closed. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]* [The 18 month Frequency is consistent with that specified in Reference 6.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]]

REFERENCES

1. FSAR, Section [6.5.1].
2. FSAR, Section [9.4.5].
3. FSAR, Section [15.7.4].
4. Regulatory Guide 1.25.
5. 10 CFR 100.

BASES

SURVEILLANCE
REQUIREMENTSSR 3.7.15.1

Standby systems should be checked periodically to ensure that they function properly. As the environment and normal operating conditions on this system are not severe, testing each train once every month provides an adequate check on this system.

Monthly heater operation dries out any moisture that may have accumulated in the charcoal as a result of humidity in the ambient air. [Systems with heaters must be operated for ≥ 10 continuous hours with the heaters energized. Systems without heaters need only be operated for ≥ 15 minutes to demonstrate the function of the system.] [The 31 day Frequency is based on the known reliability of the equipment and the two train redundancy available.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.7.15.2

This SR verifies the performance of PREACS filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)]. The [VFTP] includes testing the performance of the HEPA filter, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the [VFTP].

[SR 3.7.15.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each PREACS train starts and operates on an actual or simulated actuation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [The [18] month Frequency is consistent with that specified in Reference 4.]

OR

BASES

SURVEILLANCE REQUIREMENTS (continued)

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]]

[SR 3.7.15.5

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.

Operating the PREACS filter bypass damper is necessary to ensure that the system functions properly. The OPERABILITY of the PREACS filter bypass damper is verified if it can be closed. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]* [An [18] month Frequency is consistent with that specified in Reference 4.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]]

REFERENCES

1. FSAR, Section [6.5.1].
2. FSAR, Section [9.4.5].

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.1.10</p> <p>-----NOTE[S]----- <i>[1.]Vessel injection/spray may be excluded. [2. Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.]</i></p> <p>-----</p> <p>Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.5.1.11</p> <p>-----NOTE----- Valve actuation may be excluded.</p> <p>-----</p> <p>Verify the ADS actuates on an actual or simulated automatic initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY																												
SR 3.5.2.5	<p>Verify each required ECCS pump develops the specified flow rate [against a system head corresponding to the specified reactor pressure].</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td></td> <td style="text-align: center;">No.</td> <td style="text-align: center;">[System Head</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">of</td> <td style="text-align: center;">Corresponding</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">Pumps</td> <td style="text-align: center;">to a Reactor</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Pressure of]</td> </tr> <tr> <td style="text-align: left;"><u>System</u></td> <td style="text-align: left;"><u>Flow Rate</u></td> <td></td> <td></td> </tr> <tr> <td>CS</td> <td>≥ [4250] gpm</td> <td style="text-align: center;">[1]</td> <td>≥ [113] psig</td> </tr> <tr> <td>LPCI</td> <td>≥ [7700] gpm</td> <td style="text-align: center;">[1]</td> <td>≥ [20] psig</td> </tr> </table>			No.	[System Head			of	Corresponding			Pumps	to a Reactor				Pressure of]	<u>System</u>	<u>Flow Rate</u>			CS	≥ [4250] gpm	[1]	≥ [113] psig	LPCI	≥ [7700] gpm	[1]	≥ [20] psig	<p>[In accordance with the Inservice Testing Program</p> <p><u>OR</u></p> <p>[92 days]</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
		No.	[System Head																											
		of	Corresponding																											
		Pumps	to a Reactor																											
			Pressure of]																											
<u>System</u>	<u>Flow Rate</u>																													
CS	≥ [4250] gpm	[1]	≥ [113] psig																											
LPCI	≥ [7700] gpm	[1]	≥ [20] psig																											
SR 3.5.2.6	<p>-----NOTE[S]-----</p> <p><i>[1.]Vessel injection/spray may be excluded.</i></p> <p><i>[2. Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.]</i></p> <p>-----</p> <p>Verify each required ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>																												

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.3.4</p> <p>-----NOTE-----</p> <p>Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test.</p> <p>-----</p> <p>Verify, with [reactor pressure] ≤ [165] psig, the RCIC pump can develop a flow rate ≥ [400] gpm [against a system head corresponding to reactor pressure].</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.5.3.5</p> <p>-----NOTE[S]-----</p> <p><i>[1.]Vessel injection may be excluded.</i></p> <p><i>[2. Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.]</i></p> <p>-----</p> <p>Verify the RCIC System actuates on an actual or simulated automatic initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.4.3.2	Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.6.4.3.3	<p><i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i></p> <p>Verify each SGT subsystem actuates on an actual or simulated initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
SR 3.6.4.3.4	[Verify each SGT filter cooler bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened and the fan started.	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.7.2.5</p> <p>-----NOTE----- Isolation of flow to individual components does not render [PSW] System inoperable. -----</p> <p>Verify each [PSW] subsystem manual, power operated, and automatic valve in the flow paths servicing safety related systems or components, that is not locked, sealed, or otherwise secured in position, is in the correct position.</p>	<p>[31 days</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.7.2.6</p> <p>[-----NOTE----- <i>Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.</i> -----]</p> <p>Verify each [PSW] subsystem actuates on an actual or simulated initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.7.4.3</p> <p><i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i></p> <p>Verify each [MCREC] subsystem actuates on an actual or simulated initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.7.4.4</p> <p>Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.</p>	<p>In accordance with the Control Room Envelope Habitability Program</p>

BASES

SURVEILLANCE REQUIREMENTS (continued)

The Surveillance Frequencies for [SR 3.5.1.7,] SR 3.5.1.8, and SR 3.5.1.9 are controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.5.1.10

-----REVIEWER'S NOTES-----
Adoption of the allowance excluding automatic valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the automatic valves following an accident is not assumed in the safety analysis.

The ECCS subsystems are required to actuate automatically to perform their design functions. This Surveillance verifies that, with a required system initiation signal (actual or simulated), the automatic initiation logic of HPCI, CS, and LPCI will cause the systems or subsystems to operate as designed, including actuation of the system throughout its emergency operating sequence, automatic pump startup and actuation of all automatic valves to their required positions. This SR also ensures that the HPCI System will automatically restart on an RPV low water level (Level 2) signal received subsequent to an RPV high water level (Level 8) trip and that the suction is automatically transferred from the CST to the suppression pool. The LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.5.1 overlaps this Surveillance to provide complete testing of the assumed safety function.

[The 18 month Frequency is based on the need to perform the Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.

Operating experience has shown that these components usually pass the SR when performed at the 18 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

BASES

SURVEILLANCE REQUIREMENTS (continued)

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

This SR is modified by [a Note that][2 Notes. Note 1] excludes vessel injection/spray during the Surveillance. Since all active components are testable and full flow can be demonstrated by recirculation through the test line, coolant injection into the RPV is not required during the Surveillance.

[Note 2 excludes automatic valves that are locked, sealed, or otherwise secured in the actuated position because these valves were verified to be in the actuated position prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]

SR 3.5.1.11

The ADS designated S/RVs are required to actuate automatically upon receipt of specific initiation signals. A system functional test is performed to demonstrate that the mechanical portions of the ADS function (i.e., solenoids) operate as designed when initiated either by an actual or simulated initiation signal, causing proper actuation of all the required components. SR 3.5.1.12 and the LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.5.1 overlap this Surveillance to provide complete testing of the assumed safety function.

[The 18 month Frequency is based on the need to perform the Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the SR when performed at the 18 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency

BASES

SURVEILLANCE REQUIREMENTS (continued)

when the RCIC System diverts steam flow. Reactor steam pressure must be \geq [920] psig to perform SR 3.5.3.3 and \geq [150] psig to perform SR 3.5.3.4. Adequate steam flow is represented by [at least 1.25 turbine bypass valves open, or total steam flow $\geq 10^6$ lb/hr]. Therefore, sufficient time is allowed after adequate pressure and flow are achieved to perform these SRs. Reactor startup is allowed prior to performing the low pressure Surveillance because the reactor pressure is low and the time allowed to satisfactorily perform the Surveillance is short. The reactor pressure is allowed to be increased to normal operating pressure since it is assumed that the low pressure Surveillance has been satisfactorily completed and there is no indication or reason to believe that RCIC is inoperable. Therefore, these SRs are modified by Notes that state the Surveillances are not required to be performed until 12 hours after the reactor steam pressure and flow are adequate to perform the test.

[A 92 day Frequency for SR 3.5.3.3 is consistent with the Inservice Testing Program requirements. The 18 month Frequency for SR 3.5.3.4 is based on the need to perform the Surveillance under conditions that apply just prior to or during a startup from a plant outage. Operating experience has shown that these components usually pass the SR when performed at the 18 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.5.3.5

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding automatic valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the automatic valves following an accident is not assumed in the safety analysis.

The RCIC System is required to actuate automatically in order to verify its design function satisfactorily. This Surveillance verifies that, with a required system initiation signal (actual or simulated), the automatic initiation logic of the RCIC System will cause the system to operate as designed, including actuation of the system throughout its emergency operating sequence; that is, automatic pump startup and actuation of all automatic valves to their required positions. This test also ensures the

BASES

SURVEILLANCE REQUIREMENTS (continued)

RCIC System will automatically restart on an RPV low water level (Level 2) signal received subsequent to an RPV high water level (Level 8) trip and that the suction is automatically transferred from the CST to the suppression pool. The LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.5.2 overlaps this Surveillance to provide complete testing of the assumed safety function.

[The 18 month Frequency is based on the need to perform the Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the SR when performed at the 18 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.

This SR is modified by [a Note that][two Notes. *Note 1*] excludes vessel injection during the Surveillance. Since all active components are testable and full flow can be demonstrated by recirculation through the test line, coolant injection into the RPV is not required during the Surveillance.

[Note 2 excludes automatic valves that are locked, sealed, or otherwise secured in the actuated position because these valves were verified to be in the actuated position prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]

REFERENCES

1. 10 CFR 50, Appendix A, GDC 33.
2. FSAR, Section [5.5.6].

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.4.3.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each SGT subsystem starts on receipt of an actual or simulated initiation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* [While this Surveillance can be performed with the reactor at power, operating experience has shown that these components usually pass the Surveillance when performed at the [18] month Frequency. The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.6.2.6 overlaps this SR to provide complete testing of the safety function. Therefore, the Frequency was found to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]

[SR 3.6.4.3.4

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.

This SR verifies that the filter cooler bypass damper can be opened and the fan started. This ensures that the ventilation mode of SGT System operation is available. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]* [While this Surveillance can be performed with the reactor at power, operating experience has shown that these components usually pass the Surveillance when performed at the [18] month Frequency, which is based on the refueling cycle. Therefore, the Frequency was found to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]]

BASES

SURVEILLANCE REQUIREMENTS (continued)

to locking, sealing, or securing. A valve is also allowed to be in the nonaccident position, and yet considered in the correct position, provided it can be automatically realigned to its accident position within the required time. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

This SR is modified by a Note indicating that isolation of the [PSW] System to components or systems may render those components or systems inoperable, but does not affect the OPERABILITY of the [PSW] System. As such, when all [PSW] pumps, valves, and piping are OPERABLE, but a branch connection off the main header is isolated, the [PSW] System is still OPERABLE.

[The 31 day Frequency is based on engineering judgment, is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.7.2.6

-----REVIEWER'S NOTES-----
Adoption of the allowance excluding automatic valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the automatic valves following an accident is not assumed in the safety analysis.

This SR verifies that the automatic isolation valves of the [PSW] System will automatically switch to the safety or emergency position to provide cooling water exclusively to the safety related equipment during an accident event. This is demonstrated by the use of an actual or simulated initiation signal. This SR also verifies the automatic start capability of one of the two [PSW] pumps in each subsystem.

[This SR is modified by a Note which excludes automatic valves that are locked, sealed, or otherwise secured in the actuated position because these valves were verified to be in the actuated position prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]

[Operating experience has shown that these components usually pass the SR when performed at the [18] month Frequency. Therefore, this Frequency is concluded to be acceptable from a reliability standpoint.

OR

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.4.2

This SR verifies that the required [MCREC] testing is performed in accordance with the [Ventilation Filter Testing Program (VFTP)]. The [VFTP] includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test Frequencies and additional information are discussed in detail in the [VFTP].

SR 3.7.4.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that on an actual or simulated initiation signal, each [MCREC] subsystem starts and operates. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.7.1.5 overlaps this SR to provide complete testing of the safety function. [The Frequency of [18] months is based on industry operating experience and is consistent with the typical refueling cycle.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
 -----]

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.1.5</p> <p>-----NOTE[S]-----</p> <p><i>[1.]Vessel injection/spray may be excluded.</i></p> <p><i>[2. Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.]</i></p> <p>-----</p> <p>Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.5.1.6</p> <p>-----NOTE-----</p> <p>Valve actuation may be excluded.</p> <p>-----</p> <p>Verify the ADS actuates on an actual or simulated automatic initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY															
SR 3.5.2.5	<p>Verify each required ECCS pump develops the specified flow rate [against a system head corresponding to the specified reactor pressure].</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td></td> <td>[System Head Corresponding to a Reactor Pressure of]</td> </tr> <tr> <td><u>System</u></td> <td><u>Flow Rate</u></td> <td><u>Pressure of]</u></td> </tr> <tr> <td>LPCS</td> <td>≥ [7115] gpm</td> <td>≥ [290] psig</td> </tr> <tr> <td>LPCI</td> <td>≥ [7450] gpm</td> <td>≥ [125] psig</td> </tr> <tr> <td>HPCS</td> <td>≥ [7115] gpm</td> <td>≥ [445] psig</td> </tr> </table>			[System Head Corresponding to a Reactor Pressure of]	<u>System</u>	<u>Flow Rate</u>	<u>Pressure of]</u>	LPCS	≥ [7115] gpm	≥ [290] psig	LPCI	≥ [7450] gpm	≥ [125] psig	HPCS	≥ [7115] gpm	≥ [445] psig	<p>[In accordance with the Inservice Testing Program</p> <p><u>OR</u></p> <p>[92 days]</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
		[System Head Corresponding to a Reactor Pressure of]															
<u>System</u>	<u>Flow Rate</u>	<u>Pressure of]</u>															
LPCS	≥ [7115] gpm	≥ [290] psig															
LPCI	≥ [7450] gpm	≥ [125] psig															
HPCS	≥ [7115] gpm	≥ [445] psig															
SR 3.5.2.6	<p>-----NOTE[S]-----</p> <p><i>[1.]Vessel injection/spray may be excluded.</i></p> <p><i>[2. Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.]</i></p> <p>-----</p> <p>Verify each required ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>															

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.3.4</p> <p>-----NOTE-----</p> <p>Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test.</p> <p>-----</p> <p>Verify, with [RCIC steam supply pressure] \leq [165] psig, the RCIC pump can develop a flow rate \geq [800] gpm [against a system head corresponding to reactor pressure].</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.5.3.5</p> <p>-----NOTE[S]-----</p> <p><i>[1.]Vessel injection may be excluded.</i></p> <p><i>[2. Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.]</i></p> <p>-----</p> <p>Verify the RCIC System actuates on an actual or simulated automatic initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.6.1.7.3 Verify each RHR containment spray subsystem automatic valve in the flow path <i>[not locked, sealed or otherwise secured in the actuated position]</i> actuates to its correct position on an actual or simulated automatic initiation signal.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.6.1.7.4 Verify each spray nozzle is unobstructed.	[At first refueling] <u>AND</u> [10 years <u>OR</u> In accordance with the Surveillance Frequency Control Program]

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.4.3.2	Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.6.4.3.3	<p><i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i></p> <p>Verify each SGT subsystem actuates on an actual or simulated initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
SR 3.6.4.3.4	[Verify each SGT filter cooler bypass damper <i>[not locked, sealed or otherwise secured in the open position]</i> can be opened and the fan started.	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]]</p>

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.1.4	[Operate each [SSW] cooling tower fan for \geq [15] minutes.	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]]
SR 3.7.1.5	-----NOTE----- Isolation of flow to individual components does not render [SSW] System inoperable. ----- Verify each [SSW] subsystem manual, power operated, and automatic valve in the flow path servicing safety related systems or components, that is not locked, sealed, or otherwise secured in position, is in the correct position.	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.1.6	[-----NOTE----- <i>Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.</i> -----] Verify each [SSW] subsystem actuates on an actual or simulated initiation signal.	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.7.2.2</p> <p style="text-align: center;">-----NOTE-----</p> <p>Isolation of flow to individual components does not render [HPCS SWS] System inoperable.</p> <p>-----</p> <p>Verify each HPCS SWS manual, power operated, and automatic valve in the flow path [servicing safety related systems or components], that is not locked, sealed, or otherwise secured in position, is in the correct position.</p>	<p>[31 days</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>
<p>SR 3.7.2.3</p> <p style="text-align: center;">-----NOTE-----</p> <p><i>[Not required to be met for automatic valves that are locked, sealed or otherwise secured in the actuated position.]</i></p> <p>-----</p> <p>Verify the HPCS SWS actuates on an actual or simulated initiation signal.</p>	<p>[[18] months</p> <p><u>OR</u></p> <p>In accordance with the Surveillance Frequency Control Program]</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.3.1	Operate each [CRFA] subsystem for ≥ 10 continuous hours with the heaters operating or (for systems without heaters) ≥ 15 minutes].	[31 days <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.3.2	Perform required [CRFA] filter testing in accordance with the [Ventilation Filter Testing Program (VFTP)].	In accordance with the [VFTP]
SR 3.7.3.3	<p><i>[-----NOTE----- Not required to be met for dampers and valves locked, sealed or otherwise secured in the actuated position. -----]</i></p> <p>Verify each [CRFA] subsystem actuates on an actual or simulated initiation signal.</p>	[[18] months <u>OR</u> In accordance with the Surveillance Frequency Control Program]
SR 3.7.3.4	Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.5.1.4

The performance requirements of the ECCS pumps are determined through application of the 10 CFR 50, Appendix K, criteria (Ref. 8). This periodic Surveillance is performed (in accordance with the ASME Code requirements for the ECCS pumps) to verify that the ECCS pumps will develop the flow rates required by the respective analyses. The ECCS pump flow rates ensure that adequate core cooling is provided to satisfy the acceptance criteria of 10 CFR 50.46 (Ref. 10).

The pump flow rates are verified against a system head that is equivalent to the RPV pressure expected during a LOCA. The total system pump outlet pressure is adequate to overcome the elevation head pressure between the pump suction and the vessel discharge, the piping friction losses, and RPV pressure present during LOCAs. These values may be established during pre-operational testing.

-----REVIEWER'S NOTE-----
If the testing is within the scope of the licensee's Inservice Testing Program, the Frequency "In accordance with the Inservice Testing Program" should be used. Otherwise, the periodic Frequency of 92 days or the reference to the Surveillance Frequency Control Program should be used.

[A 92 day Frequency for this Surveillance is in accordance with the Inservice Testing Program requirements.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.5.1.5

-----REVIEWER'S NOTES-----
Adoption of the allowance excluding automatic valves that are locked, sealed, or otherwise secured in the actuated position requires

confirmation by the licensee that movement of the automatic valves following an accident is not assumed in the safety analysis.

The ECCS subsystems are required to actuate automatically to perform their design functions. This Surveillance test verifies that, with a required system initiation signal (actual or simulated), the automatic initiation logic

BASES

SURVEILLANCE REQUIREMENTS (continued)

of HPCS, LPCS, and LPCI will cause the systems or subsystems to operate as designed, including actuation of the system throughout its emergency operating sequence, automatic pump startup, and actuation of all automatic valves to their required positions. This Surveillance also ensures that the HPCS System will automatically restart on an RPV low water level (Level 2) signal received subsequent to an RPV high water level (Level 8) trip and that the suction is automatically transferred from the CST to the suppression pool. The LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.5.1 overlaps this Surveillance to provide complete testing of the assumed safety function.

[The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the SR when performed at the 18 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

This SR is modified by [a Note that][two Notes. *Note 1*] excludes vessel injection/spray during the Surveillance. Since all active components are testable and full flow can be demonstrated by recirculation through the test line, coolant injection into the RPV is not required during the Surveillance.

[Note 2 excludes automatic valves that are locked, sealed, or otherwise secured in the actuated position because these valves were verified to be in the actuated position prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]

SR 3.5.1.6

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.5.3.5

-----REVIEWER'S NOTE-----

Adoption of the allowance excluding automatic valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the automatic valves following an accident is not assumed in the safety analysis.

The RCIC System is required to actuate automatically to perform its design function. This Surveillance verifies that with a required system initiation signal (actual or simulated) the automatic initiation logic of RCIC will cause the system to operate as designed, including actuation of the system throughout its emergency operating sequence, automatic pump startup and actuation of all automatic valves to their required positions. This Surveillance test also ensures that the RCIC System will automatically restart on an RPV low water level (Level 2) signal received subsequent to an RPV high water level (Level 8) trip and that the suction is automatically transferred from the CST to the suppression pool. The LOGIC SYSTEM FUNCTIONAL TEST performed in LCO 3.3.5.2 overlaps this Surveillance to provide complete testing of the assumed safety function.

[The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually pass the SR when performed at the 18 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----

Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.

This SR is modified by [a Note that]/two Notes. Note 1] excludes vessel injection during the Surveillance. Since all active components are testable and full flow can be demonstrated by recirculation through the

test line, coolant injection into the RPV is not required during the Surveillance.

[Note 2 excludes automatic valves that are locked, sealed, or otherwise secured in the actuated position because these valves were verified to be in the actuated position prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]

BASES

SURVEILLANCE REQUIREMENTS (continued)

-----REVIEWER'S NOTE-----

If the testing is within the scope of the licensee's Inservice Testing Program, the Frequency "In accordance with the Inservice Testing Program" should be used. Otherwise, the periodic Frequency of 92 days or the reference to the Surveillance Frequency Control Program should be used.

[The Frequency of this SR is [in accordance with the Inservice Testing Program] [92 days.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----

Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.

SR 3.6.1.7.3

-----REVIEWER'S NOTE-----

Adoption of the allowance excluding automatic valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the automatic valves following an accident is not assumed in the safety analysis.

This SR verifies that each RHR containment spray subsystem automatic valve actuates to its correct position upon receipt of an actual or simulated automatic actuation signal. Actual spray initiation is not required to meet this SR. . *[This SR is not required for valves that are locked, sealed, or otherwise secured in the actuated position because these valves were verified to be in the actuated position prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.6.3.6 overlaps this SR to provide complete testing of the safety function. [The [18] month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown that these components usually

pass the Surveillance when performed at the [18] month Frequency. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.6.4.3.2

This SR verifies that the required SGT filter testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specified test frequencies and additional information are discussed in detail in the VFTP.

SR 3.6.4.3.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR requires verification that each SGT subsystem starts upon receipt of an actual or simulated initiation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.6.2.5 overlaps this SR to provide complete testing of the safety function. [While this Surveillance can be performed with the reactor at power, operating experience has shown these components usually pass the Surveillance when performed at the [18] month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.

-----]

[SR 3.6.4.3.4

-----REVIEWER'S NOTE-----

Adoption of the allowance excluding dampers that are locked, sealed, or otherwise secured in the open position requires confirmation by the licensee that movement of the dampers following an accident is not assumed in the safety analysis.

This SR requires verification that the SGT filter cooler bypass damper can be opened and the fan started. This ensures that the ventilation mode of SGT System operation is available. *[This SR is not required for dampers that are locked, sealed, or otherwise secured in the open position because these dampers were verified to be in the open position prior to being locked, sealed, or otherwise secured, and movement following an accident is not assumed in the accident analysis.]* [While this Surveillance can be performed with the reactor at power, operating experience has shown these components usually pass the Surveillance when performed at the [18] month Frequency, which is based on the refueling cycle. Therefore, the Frequency was concluded to be acceptable from a reliability standpoint.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.1.6

-----REVIEWER'S NOTES-----

Adoption of the allowance excluding automatic valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the automatic valves following an accident is not assumed in the safety analysis.

This SR verifies that the automatic isolation valves of the [SSW] System will automatically switch to the safety or emergency position to provide cooling water exclusively to the safety related equipment during an accident event. This is demonstrated by use of an actual or simulated initiation signal. This SR also verifies the automatic start capability of the [SSW] pump and cooling tower fans in each subsystem.

[This SR is modified by a Note which excludes automatic valves that are locked, sealed, or otherwise secured in the actuated position because these valves were verified to be in the actuated position prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]

The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.5.1.6 overlaps this SR to provide complete testing of the safety function.

[Operating experience has shown that these components usually pass the SR when performed on the [18] month Frequency. Therefore, this Frequency is concluded to be acceptable from a reliability standpoint.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----

Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.

REFERENCES

1. Regulatory Guide 1.27, Revision 2, January 1976.
2. FSAR, Section [9.2.1].
3. FSAR, Table [9.2-3].

BASES

SURVEILLANCE REQUIREMENTS (continued)

A valve is also allowed to be in the nonaccident position and yet considered in the correct position, provided it can be automatically realigned to its accident position within the required time. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of potentially being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

This SR is modified by a Note indicating that isolation of the [HPCS SWS] System to components or systems may render those components or systems inoperable, but does not affect the OPERABILITY of the [HPCS SWS] System. As such, when all [HPCS SWS] pumps, valves, and piping are OPERABLE, but a branch connection off the main header is isolated, the [HPCS SWS] System is still OPERABLE.

[The 31 day Frequency is based on engineering judgment, is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
-----]

SR 3.7.2.3

-----REVIEWER'S NOTE-----
Adoption of the allowance excluding automatic valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the automatic valves following an accident is not assumed in the safety analysis.

This SR verifies that the automatic valves of the HPCS SWS will automatically switch to the safety or emergency position to provide cooling water exclusively to the safety related equipment during an accident event. This is demonstrated by use of an actual or simulated initiation signal. *[This SR is modified by a Note that excludes automatic valves that are locked, sealed, or otherwise secured in the actuated*

position because these valves were verified to be in the actuated position prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]

The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.5.1.5 overlaps this SR to provide complete testing of the safety function.

[Operating experience has shown that these components usually pass the SR when performed at the [18] month Frequency. Therefore, this Frequency is concluded to be acceptable from a reliability standpoint.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.3.3

-----REVIEWER'S NOTE-----
Adoption of the Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position requires confirmation by the licensee that movement of the dampers and valves following an accident is not assumed in the safety analysis.

This SR verifies that each [CRFA] subsystem starts and operates on an actual or simulated initiation signal. *[The SR is modified by a Note excluding dampers and valves that are locked, sealed, or otherwise secured in the actuated position. It is not necessary to test dampers and valves that are locked, sealed, or otherwise secured in the actuated position because the affected dampers and valves were verified to be in the actuated position assumed in the accident analysis prior to being locked, sealed, or otherwise secured, and because movement following an accident is not assumed in the accident analysis.]* The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.7.1.5 overlaps this SR to provide complete testing of the safety function. [The Frequency of [18] months is based on industry operating experience and is consistent with the typical refueling cycle.

OR

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

-----REVIEWER'S NOTE-----
 Plants controlling Surveillance Frequencies under a Surveillance Frequency Control Program should utilize the appropriate Frequency description, given above, and the appropriate choice of Frequency in the Surveillance Requirement.
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SR 3.7.3.4

This SR verifies the OPERABILITY of the CRE boundary by testing for unfiltered air inleakage past the CRE boundary and into the CRE. The details of the testing are specified in the Control Room Envelope Habitability Program.

The CRE is considered habitable when the radiological dose to CRE occupants calculated in the licensing basis analyses of DBA consequences is no more than [5 rem whole body or its equivalent to any part of the body] [5 rem TEDE] and the CRE occupants are protected