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1CAN081001

August 24, 2010

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

SUBJECT: License Amendment Request  
Technical Specification Change Associated with Main Feedwater Isolation  
Valves  
Arkansas Nuclear One, Unit 1  
Docket No. 50-313  
License No. DPR-51

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Entergy Operations, Inc. (Entergy) hereby requests the following amendment for Arkansas Nuclear One, Unit 1 (ANO-1). Currently, entry into Technical Specification (TS) 3.7.3, "MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves," Action E.1 is required when any two valves in a given flow path are inoperable. This includes valves parallel to one another, even if the flow path can still be isolated automatically by an operable valve. The purpose of requiring entry into Action E.1 is to ensure sufficient remedial action is initiated in the event a common mode failure exists. The proposed change will add an exception to this requirement for conditions when common mode failure is known not to exist, such as during plant startup when parallel valves may be operated in manual from the control room.

The requirement to enter TS 3.7.3 Action E.1 for parallel valves is found only in the associated TS 3.7.3 Bases. While TS Bases are normally revised by the licensee in accordance with 10 CFR 50.59, Entergy believes the proposed change results in a change to the application of TS 3.7.3 and, therefore, requires NRC approval to revise the subject Bases. A note is also proposed to be added to Action E.1 for further clarification.

An explanation of the proposed change is provided in Attachment 1. A markup of the affected TS page and TS Bases pages is contained in Attachments 2 and 3, respectively.

The proposed change has been evaluated in accordance with 10 CFR 50.91(a)(1) using criteria in 10 CFR 50.92(c) and it has been determined that the changes involve no significant hazards consideration. The bases for these determinations are included in the attached submittal.

The proposed change does not include any new commitments.

Entergy requests approval of the proposed amendment by September 1, 2011. Once approved, the amendment shall be implemented within 90 days. Although this request is neither exigent nor emergency, your prompt review is requested.

If you have any questions or require additional information, please contact Mark Giles at 479-858-4710.

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 24, 2010.

Sincerely,

***Original signed by Brad L. Berryman***

BLB/dbb

Attachments:

1. Analysis of Proposed Technical Specification Change
2. Proposed Technical Specification Change (mark-up)
3. Proposed Technical Specification Bases Change (mark-up)

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**Attachment 1**

**1CAN081001**

**Analysis of Proposed Technical Specification Change**

## **1.0 DESCRIPTION**

This letter is a request to amend Technical Specification (TS) and TS Bases associated with Operating License DPR-51 for Arkansas Nuclear One, Unit 1 (ANO-1).

The proposed change revises the TS 3.7.3 “MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves” and its associated Bases to permit manual operation of main feedwater (MFW) valves provided the associated flow path remains automatically isolable via an operable MFW valve.

## **2.0 PROPOSED CHANGE**

The proposed change will revise TS 3.7.3 “MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves” and its associated Bases. Currently, entry into Technical Specification (TS) 3.7.3, “MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves,” Action E.1 is required when any two valves in a given flow path are inoperable. This includes valves parallel to one another, even if the flow path can still be isolated automatically by an operable valve. The proposed change will add an exception to this requirement for conditions when common mode failure is known not to exist, such as during plant startup when parallel valves may be operated in manual from the control room.

A markup of the affected TS page and affected TS Bases pages is included in Attachments 2 and 3, respectively. During the modification to the TS Bases, some information is moved from one page to another. No technical changes are proposed during this re-formatting. Each page will contain the new assigned amendment number following approval of this submittal by the NRC.

## **3.0 BACKGROUND**

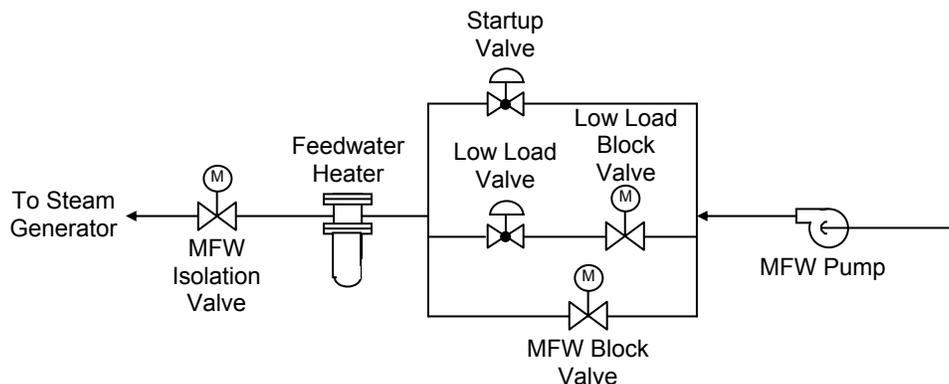
The ANO-1 TSs are consistent with NUREG-1430, Revision 1, “Standard Technical Specifications for Babcock and Wilcox Plants.” When adopting the improved technical specifications (ITS), TS 3.7.3 and its associated TS Bases were also adopted.

The Bases for TS 3.7.3 Action E.1 contains a statement that applies the conditions of Action E.1 for two inoperable valves parallel to one another in the same flow path (feedwater train). This conservative approach enhances operational safety by taking into consideration that a common mode failure may exist which could degrade further over time. To accommodate possible common mode failures, Action E.1 conservatively requires restoration of all affected valves except one to an operable status within 8 hours, or the flow path must be isolated. Isolation of a flow path would require unit shutdown.

At lower power levels, steam generator (SG) level is maintained through modulation of the Startup and Low Load Feedwater Control Valves (see simplified drawing on following page). The control valves are sequenced in operation so that the startup valve opens first, followed by the low load valve. Differential pressure across the control valves is maintained through modulation of MFW pump speed.

When feedwater demand increases to approximately 50%, the MFW block valve opens, the Startup and Low Load valve demands are held constant, and the MFW pump transfers from controlling valve differential pressure to directly controlling MFW flow. This sequence is reversed for power reductions except that the block valve closes at 45% feedwater demand.

To ensure feedwater is isolated to the SG following a Main Steam Line Break (MSLB), a predetermined pressure set-point associated with a lowering SG pressure triggers an automatic Main Steam Line Isolation signal or “MSLI” which is initiated from the Emergency Feedwater Initiation and Control (EFIC) system. The MSLI signal closes the downstream MFW Isolation Valve (MFIV). As a backup, the MSLI signal, in combination with the reactor trip signal, closes the Startup Control Valves, Low Load Control Valves, and Main Feedwater Block Valves. This backup feature functions when the associated valve controllers are in automatic and the Rapid Feedwater Reduction (RFR) signal is not bypassed.



#### 4.0 TECHNICAL ANALYSIS

The following Note is added to TS 3.7.3 Action E.1:

“Not applicable to valves in parallel except where a common mode failure exists.”

The following sentence is proposed to be added to the TS 3.7.3 Bases for Action E.1:

“However, inoperable valves in parallel flow paths, such that inoperability does not constitute a common mode failure (i.e., valves being operated in “manual” from the control room), do not require entry into ACTION E.1 provided the associated MFIV remains OPERABLE.”

TS 3.7.3 Action E.1 currently states that, with two valves in the same flow path inoperable for one or more flow paths, the flow path must be isolated within 8 hours. Note that isolation of a feedwater flow path would require unit shutdown.

The above exception is required because placing the Startup Control Valves, Low Load Control Valves, or MFW block valves in a manual or override condition from the control room will prevent the valves from automatically closing upon a reactor trip and remaining closed when a low SG pressure signal is present (note that the Low Load Block Valve will close on

reactor trip when in the override condition). In this condition, the valves are inoperable and appropriate TS 3.7.3 actions must be entered. However, this condition does not constitute a common mode failure and has no impact on the ability of the MFIV from performing its specified safety function. In addition, operators can immediately return the valve controllers to the automatic position upon a reactor trip.

As discussed in the above Background section, the Startup, Low Load, and MFW block valves serve as a backup to the MFIV for defense-in-depth purposes. The valves are not safety related, but are assumed to close upon reactor trip and remain closed when a low SG pressure signal via EFIC is present, as a backup method of isolation should the respective MFIV fail to automatically close on demand (see ANO-1 Safety Analysis Report (SAR) Section 14.2.2.1.3.1).

The proposed change will support needed periods when the Startup, Low Load, and/or MFW block valve(s) is required to be controlled manually. Manual control may be required to support preventative or corrective maintenance associated with the Integrated Control System (ICS) or other feedwater system related activities. Note that the MFIV is independent of ICS and, as such, is not affected by ICS maintenance. Such operation does not constitute a common mode failure and, therefore, the 8-hour restoration requirement of TS 3.7.3 Action E.1 is inappropriately limiting. In addition, manual operation of any of the aforementioned valves requires entry into TS 3.7.3 Actions A, B, C, or D, each limiting the period of inoperability to no more than 72 hours. Because TS entry is required, single failure criteria is assumed not to be met. The proposed change will continue to limit the time in which the plant may be operated in a configuration where single failure criteria is not met.

The proposed change will also permit avoidance of Action E.1 entry if valve inoperability can be shown to not constitute a common mode failure. As stated in the proposed wording, this only applies when the two or more valves which may be inoperable are in a parallel path to one another. Action E.1 will continue to apply to any condition where series valves are inoperable simultaneously. Because unexpected conditions may require time to perform common mode evaluations, Action E.1 may be entered and later exited, if and when a determination of no common mode failure is concluded. Absent this conclusion, the unit would remain in Action E.1.

Because Action E.1 will remain applicable to series valve failures and to any other valve combination where a common mode failure may exist, Entergy believes the intent of the current TS and TS Bases is maintained. Therefore, the proposed change does not result in a significant impact to nuclear or public safety while supporting maintenance and/or testing activities when required.

## **5.0 REGULATORY ANALYSIS**

### **5.1 No Significant Hazards Consideration**

A change is proposed to the Arkansas Nuclear One, Unit 1 (ANO-1) Technical Specifications (TSs) and TS Bases to avoid entry into unnecessarily restrictive TS Action when two or more Main Feedwater (MFW) valves in parallel flow paths are inoperable and no common mode failure reasonably exists. The proposed change would permit manual operation of certain MFW control or block valves in support of maintenance, testing, or other activities. The

proposed change would permit such operation for a period of up to 72 hours, in accordance with TS 3.7.3, "MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves", in lieu of the current 8-hour requirement contained within TS 3.7.3, Action E.1. Entergy Operations, Inc. (Entergy) has evaluated whether or not a significant hazards consideration is involved with the proposed change by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No

Revising the time in which parallel MFW valves may be inoperable is unrelated to accident initiators. Increasing the period in which parallel valves may be inoperable from 8 hours to 72 hours is not associated with the probability of an accident described in the ANO-1 Safety Analysis Report (SAR), Chapter 14. The proposed change does not involve the addition or removal of any equipment, or any design changes to the facility.

From a mitigation perspective, the MFW system is designed to permit manual operation as needed. When a common mode failure may exist, the current TS will continue to require restoration within 8 hours. When a common mode failure does not exist (manual operation from the Control Room, for example), the time in which parallel valves may remain inoperable will be limited to 72 hours in accordance with the proposed TS change. In addition, the applicability to only those valves parallel to one another ensures that a second valve in the flow path remains capable of performing the feedwater isolation function upon a reactor trip or signal from the Emergency Feedwater Initiation and Control (EFIC) system. The purpose of feedwater isolation is to prevent makeup to a Steam Generator (SG) containing a break in its associated main steam or feedwater piping.

Based on the above, the proposed change does not represent a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No

The loss of non-safety related MFW is assumed and mitigated by the Emergency Feedwater (EFW) System, which automatically actuates at pre-designated parameter setpoints to ensure secondary cooling is maintained. The isolation of MFW upon a main steam or feedwater pipe break is maintained with the proposed change, by the remaining operable series valve. In addition, the TSs currently allow all valves to be inoperable for up to 8 hours. Permitting parallel valves in a flow path to be inoperable for up to 72-hours continues to sufficiently limit the time the plant may be operated in such a condition. The proposed change does not introduce a new accident initiator, accident precursor, or accident-related malfunction mechanism. Therefore, the proposed change does not create the possibility of an accident or a different kind than previously evaluated.

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

Response: No

As discussed previously, the capability to isolate MFW to a respective SG is not prevented by the proposed change. The flow path remains isolable by the operable feedwater valve in series. The proposed change requires an evaluation or assessment to ensure a common mode failure does not reasonably exist prior to permitting a restoration time beyond 8 hours. In addition, the proposed change does not avoid TS entry, but simply extends the allowed restoration period up to 72 hours. Based on the above, this proposed change does not involve a significant reduction in a margin of safety.

## 5.2 Applicable Regulatory Requirements / Criteria

10 CFR 50, Appendix A, General Design Criterion (GDC) 29, requires, in part, that the single failure of a structure, system, or component (SSC) not result in the loss of function. The primary function of the various MFW valves is to isolate feedwater from a SG affected by a main steam or feedwater pipe break. The TSs are established to limit the time a plant may operate in a condition where single failure criteria is not met. The proposed change establishes the reasonable absence of a common mode failure when one or more parallel valves are inoperable and ensures an operable valve in the flow path to a SG is maintained. The TSs will limit the time in this configuration to 72 hours.

Therefore, 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) Issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

In conclusion, Entergy has determined that the proposed change does not require any exemptions or relief from regulatory requirements, other than the TS, and does not affect conformance with any General Design Criterion differently than described in the Safety Analysis Report.

## **6.0 ENVIRONMENTAL CONSIDERATION**

The proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent 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.

**Attachment 2**

**1CAN081001**

**Proposed Technical Specification Change (mark-up)**

MFIVs, Main Feedwater Block Valves,  
Low Load Feedwater Control Valves and  
Startup Feedwater Control Valves  
3.7.3

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One Startup Feedwater Control Valve in one or more flow paths inoperable.	D.1 Close or isolate Startup Feedwater Control Valve.  <u>AND</u>	72 hours
	D.2 Verify Startup Feedwater Control Valve is closed or isolated.	Once per 7 days
<p style="text-align: center;">-----NOTE----- Not applicable to valves in parallel except where a common mode failure exists. -----</p>		
E. Two valves in the same flow path inoperable for one or more flow paths.	E.1 Isolate affected flow path.	8 hours
F. Required Action and associated Completion Time not met.	F.1 Be in MODE 3.  <u>AND</u>	6 hours
	F.2 Be in MODE 4.	12 hours

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
SR 3.7.3.1 -----NOTE----- Only required to be performed in MODES 1 and 2. -----  Verify the isolation time of each MFIV, Main Feedwater Block Valve, Low Load Feedwater Control Valve and Startup Feedwater Control Valve is within the limits provided in the Inservice Testing Program.	In accordance with the Inservice Testing Program

**Attachment 3**

**1CAN081001**

**Proposed Technical Specification Bases Change (mark-up)**

## B 3.7 PLANT SYSTEMS

### B 3.7.3 Main Feedwater Isolation Valves (MFIVs), Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves

#### BASES

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#### BACKGROUND

The main feedwater isolation valves (MFIVs), Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves isolate main feedwater (MFW) flow to the secondary side of the steam generators. Closing the MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves effectively terminates the addition of feedwater to an affected steam generator, limiting the mass and energy release for steam line breaks (SLBs) or FWLBs inside the reactor building and reducing the cooldown effects for SLBs.

The MFIVs close on receipt of a main steam line isolation (MSLI) signal as described in LCO 3.3.11, "Emergency Feedwater Initiation and Control (EFIC) System Instrumentation." EFIC maintains the Low Load Feedwater Control Valves and Startup Feedwater Control Valves closed by sending a signal to the Rapid Feedwater Reduction (RFR) circuit of the Integrated Control System (ICS). The Main Feedwater Block Valves are independently closed by a signal from the Reactor Protection System (RPS) upon a reactor trip. The MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves can also be closed manually.

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#### APPLICABLE SAFETY ANALYSES

The design basis of the MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves is established by the analysis for the SLB as discussed in SAR Section 14.2.2.1 (Ref. 1).

Failure of an MFIV, and an associated Main Feedwater Block Valve, Low Load Feedwater Control Valve or Startup Feedwater Control Valve to close following an SLB, can result in additional mass being delivered to the steam generators, contributing to cooldown.

In MODES 1 and 2, the MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves satisfy Criterion 3 of 10 CFR 50.36 (Ref. 2). In MODE 3, the MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves satisfy Criterion 4 of 10 CFR 50.36.

With the exception of the MFIVs, the valves are non-Q and powered from non-vital sources. This is acceptable when crediting feedwater isolation during a SLB since off-site power is assumed to remain available during this event.

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## LCO

This LCO ensures that the MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves will isolate MFW flow to the steam generators following a main steam line break.

All MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves are required to be OPERABLE. For an MFIV, Main Feedwater Block Valve, Low Load Feedwater Control Valve or Startup Feedwater Control Valve to be considered OPERABLE, the isolation times must be within limits and the valve must close on an isolation actuation signal when required.

Failure to meet the LCO requirements can result in a more severe cooldown transient and in additional mass and energy being released to the reactor building following an SLB inside the reactor building.

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## APPLICABILITY

The MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves must be OPERABLE in MODES 1, 2, and 3 to ensure that, in the event of an SLB, the amount of feedwater provided to the affected steam generator is limited. Their closure terminates normal feedwater flow to limit the overcooling transient and to limit the amount of energy that could be added to the reactor building in the case of a secondary system pipe break inside the reactor building.

In MODES 4, 5, and 6, steam generator energy is low. Therefore, the MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves are not required for isolation of potential high energy secondary system pipe breaks in these MODES.

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## ACTIONS

The ACTIONS table is modified by a Note indicating that separate Condition entry is allowed for each valve.

### A.1

With one MFIV in one or more flow paths inoperable, action must be taken to restore the affected valves to OPERABLE status, or to close or isolate inoperable affected valves within 72 hours. When these valves are closed or isolated, they are performing their required safety function.

The 72 hour Completion Time takes into account the redundancy afforded by the remaining OPERABLE valves and the low probability of an event occurring during this time period that would require isolation of the MFW flow paths. The 72 hour Completion Time is reasonable to allow repairs and, if unsuccessful, to isolate the flow path.

ACTIONS (continued)

A.1 (continued)

Inoperable MFIVs that are closed or isolated, must be verified on a periodic basis that they are closed or isolated. This is necessary to ensure that the assumptions in the safety analysis remain valid. The 7 day Completion Time is reasonable in view of valve status indications available in the control room, and other administrative controls, to ensure that these valves are closed or isolated.

B.1 and B.2

With one Main Feedwater Block Valve in one or more flow paths inoperable, action must be taken to restore the affected valves to OPERABLE status, or to close or isolate inoperable affected valves within 72 hours. When these valves are closed or isolated, they are performing their required safety function.

The 72 hour Completion Time takes into account the redundancy afforded by the remaining OPERABLE associated MFIV and the low probability of an event occurring during this time period that would require isolation of the MFW flow paths.

Inoperable Main Feedwater Block Valves that are closed or isolated must be verified on a periodic basis that they are closed or isolated. This is necessary to ensure that the assumptions in the safety analysis remain valid. The 7 day Completion Time is reasonable in view of valve status indications available in the control room, and other administrative controls, to ensure that these valves are closed or isolated.

C.1 and C.2

With one Low Load Feedwater Control Valve in one or more flow paths inoperable, action must be taken to restore the affected valves to OPERABLE status, or to close or isolate inoperable affected valves within 72 hours. When these valves are closed or isolated, they are performing their required safety function.

The 72 hour Completion Time takes into account the redundancy afforded by the remaining OPERABLE associated MFIV and the low probability of an event occurring during this time period that would require isolation of the MFW flow paths.

Inoperable Low Load Feedwater Control Valves that are closed or isolated must be verified on a periodic basis that they are closed or isolated. This is necessary to ensure that the assumptions in the safety analysis remain valid. The 7 day Completion Time is reasonable in view of valve status indications available in the control room, and other administrative controls, to ensure that these valves are closed or isolated.

ACTIONS (continued)

D.1 and D.2

With one Startup Feedwater Control Valve in one or more flow paths inoperable, action must be taken to restore the affected valves to OPERABLE status, or to close or isolate inoperable affected valves within 72 hours. When these valves are closed or isolated, they are performing their required safety function.

The 72 hour Completion Time takes into account the redundancy afforded by the remaining OPERABLE associated MFIV and the low probability of an event occurring during this time period that would require isolation of the MFW flow paths.

Inoperable Startup Feedwater Control Valves that are closed or isolated must be verified on a periodic basis that they are closed or isolated. This is necessary to ensure that the assumptions in the safety analysis remain valid. The 7 day Completion Time is reasonable in view of valve status indications available in the control room, and other administrative controls, to ensure that these valves are closed or isolated.

E.1

With two inoperable valves in the same flow path there may be no redundant system to operate automatically and perform the required safety function. Although the containment can be isolated with the failure to two valves in parallel in the same flow path, the double failure can be an indication of a common mode failure in the valves of this flow path and as such is treated the same as a loss of the isolation capability of this flow path. Under these conditions, affected valves in each flow path must be restored to OPERABLE status, or the affected flow path isolated within 8 hours. [However, inoperable valves in parallel flow paths, such that inoperability does not constitute a common mode failure \(i.e., valves being operated in "manual" from the control room\), do not require entry into ACTION E.1 provided the associated MFIV remains OPERABLE.](#) The 8 hour Completion Time is reasonable to isolate the affected flow path.

F.1 and F.2

If the Required Actions and associated Completion Times are not met, the unit must be in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours and in MODE 4 within 12 hours. The allowed Completion Times are reasonable to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

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## SURVEILLANCE REQUIREMENTS

### SR 3.7.3.1

This SR verifies that the closure time of each MFIV, Main Feedwater Block Valve, Low Load Feedwater Control Valve and Startup Feedwater Control Valve is as specified in the Inservice Testing Program.

The MFIV, Main Feedwater Block Valve, Low Load Feedwater Control Valve and Startup Feedwater Control Valve isolation time is assumed in the accident and reactor building analyses. This Surveillance is normally performed prior to returning the unit to power operation, e.g., during MODE 3, following a refueling outage. The MFIVs, Main Feedwater Block Valves, Low Load Feedwater Control Valves and Startup Feedwater Control Valves are not tested at power since even a part stroke exercise increases the risk of a valve closure with the unit generating power.

This SR is modified by a Note that allows entry into and operation in MODE 3 prior to performing the SR.

The Frequency for this SR is in accordance with the Inservice Testing Program.

### SR 3.7.3.2

This SR verifies that each MFIV, Main Feedwater Block Valve, Low Load Feedwater Control Valve and Startup Feedwater Control Valve can close on an actual or simulated actuation signal. This Surveillance is normally performed upon returning the unit to operation following a refueling outage.

The Frequency for this SR is every 18 months. The 18 month Frequency for testing is based on the refueling cycle. Operating experience has shown that these components usually pass the Surveillance when performed at the 18 month Frequency. Therefore, this Frequency is acceptable from a reliability standpoint.

This SR is modified by two Notes. The first Note allows entry into and operation in MODE 3 prior to performing the SR. This allows delaying testing until MODE 3 in order to establish conditions consistent with those under which the acceptance criterion was established.

SR 3.7.3.2 is also modified by a second Note which indicates that the automatic closure capability is not required to be met when the steam generator pressure is < 750 psig. At < 750 psig, the main steam line isolation Function of EFIC may be disabled to prevent automatic actuation on low steam generator pressure during a unit shutdown.

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## REFERENCES

1. SAR, Section 14.2.2.1.
2. 10 CFR 50.36.