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OCT 3 1 2002

U. S. Nuclear Regulatory Commission
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Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED AMENDMENT NO. 251 TO LICENSE NPF-14 AND
PROPOSED AMENDMENT NO. 216 TO LICENSE NPF-22:
ADOPTION OF NRC APPROVED GENERIC CHANGES TO
IMPROVED STANDARD TECHNICAL SPECIFICATIONS
(INTERMITTENT OPENING OF ISOLATED FLOW PATHS
AND TIP ISOLATION)
PLA-5542**

**Docket Nos. 50-387
and 50-388**

Pursuant to 10 CFR 59.90, PPL Susquehanna, LLC hereby requests the following amendment to the Susquehanna Steam Electric Station (SSES) Unit 1 and Unit 2 Technical Specifications (TS). The proposed amendment would incorporate generic change TSTF-306, Revision 2 to NUREG 1433, "Standard Technical Specifications for General Electric Plants (BWR/4)," Revision 1, which has been approved by the NRC for adoption by licensees. Limiting Condition for Operation (LCO) 3.3.6.1, "Primary Containment Isolation Instrumentation," would be revised to add an ACTIONS Note allowing intermittent opening, under administrative control, of penetration flow paths that are isolated to comply with ACTIONS; and to breakout Traversing Incore Probe (TIP) System isolation as a separate isolation Function with an associated Required Action to isolate the penetration within 24 hours rather than immediately initiate a unit shutdown.

The applicable TS Bases are also revised, consistent with TSTF-306, Revision 2, to document the proposed changes and to provide supporting information. The TS Bases are revised in accordance with TS 5.5.10, "TS Bases Control Program."

The improved STS were implemented at SSES in 1998 through Amendments 178 (Unit 1) and 151 (Unit 2), using NUREG 1433, Rev. 1 as the model. The industry and the NRC staff have been working to improve the STS NUREGs, and as a result, generic changes have been developed. This proposed amendment adopts NRC approved generic change TSTF-306, Rev. 2 for use at Susquehanna.

Pool

The proposed change provides a significant benefit to the operation of SSES, in that it serves to provide consistency between the requirements for equipment and the instrumentation that supports the equipment, and additional flexibility in the performance of maintenance and repair activities.

Attachment 1 to this letter presents the Safety Assessment for the proposed change.

Attachment 2 to this letter contains the “No Significant Hazards Consideration” and “Environmental Consideration” assessments.

The proposed change relaxes Required Actions. Required Actions and their associated Completion Times are not initiating conditions for any accident previously evaluated. Further, the Required Actions in this change have been developed to provide assurance that appropriate remedial actions are taken in response to the degraded condition considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, while minimizing the risk associated with continued operation. Therefore, the relaxed Required Actions do not significantly increase the probability or consequence of any accident previously evaluated. The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or changes in methods governing normal plant operation. The Required Actions and associated Completion Times in this change have been evaluated to ensure that no new accident initiators are introduced. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated. The relaxed Required Actions do not involve a significant reduction in a margin of safety. This change has been evaluated to minimize the risk of continued operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repair or replacement of required features, and the low probability of a design basis accident occurring during the repair period. Therefore, this change does not involve a significant reduction in a margin of safety. Therefore, the proposed amendment presents no significant hazard consideration.

The “Environmental Consideration” assessment concludes that the revision conforms to the criteria for actions eligible for categorical exclusion as specified in 10 CFR 51.22 (c) (9), and will not impact the environment.

Attachment 3 contains marked-up pages of the Unit 1 and Unit 2 Technical Specifications.

Attachment 4 contains “Camera-Ready” versions of the revised Unit 1 and Unit 2 Technical Specification pages.

Attachment 5 contains, for information, mark-ups of the associated Technical Specification Bases

The proposed changes have been approved by the SSES Plant Operations Review Committee and reviewed by the Susquehanna Review Committee.

SSES requests approval of the proposed amendment by April 30, 2003. Once approved, the amendment shall be implemented within 60 days.

Should you have any questions or require additional information, please contact Mr. John Oddo at (610) 774-7596.

Sincerely,

A handwritten signature in black ink, appearing to read "B. L. Shriver". The signature is written in a cursive style with a large initial "B" and "S".

B. L. Shriver

Attachments: Affidavits

Attachment 1 – Safety Assessment

Attachment 2 – No Significant Hazards Consideration Evaluation
Environmental Consideration Assessment

Attachment 3 – Technical Specification Mark-ups (Units 1 & 2)

Attachment 4 – “Camera-Ready” Technical Specification Pages
(Units 1 & 2)

Attachment 5 – Technical Specification Bases Mark-ups (Units 1 & 2)

Copy: NRC Region I

Mr. S. Hansell, NRC Sr. Resident Inspector

Mr. R. Janati, DEP/BRP

Mr. T. G. Colburn, NRC Sr. Project Manager

**BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION**

In the Matter of _____ :

PPL Susquehanna, LLC:

Docket No. 50-387

**PROPOSED AMENDMENT NO. 251 TO LICENSE NPF-14
ADOPTION OF NRC APPROVED GENERIC CHANGES TO
IMPROVED STANDARD TECHNICAL SPECIFICATIONS
(INTERMITTENT OPENING OF ISOLATED FLOW PATHS
AND TIP ISOLATION)
UNIT NO. 1**

Licensee, PPL Susquehanna, LLC, hereby files a revision to its Facility Operating License No. NPF-14 dated July 17, 1982.

This amendment involves a revision to the Susquehanna SES Final Safety Analysis Report Specifications.



PPL Susquehanna, LLC

By:

B.L. Shriver

Sr. Vice-President and Chief Nuclear Officer

Sworn to and subscribed before me
this 31st day of October, 2002.

Notary Public

Notarial Seal
Laurie Minto, Notary Public
Salem Twp., Luzerne County
My Commission Expires July 24, 2006
Member, Pennsylvania Association of Notaries

**BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION**

In the Matter of _____ :

PPL Susquehanna, LLC:

Docket No. 50-388

**PROPOSED AMENDMENT NO. 216 TO LICENSE NPF-22
ADOPTION OF NRC APPROVED GENERIC CHANGES TO
IMPROVED STANDARD TECHNICAL SPECIFICATIONS
(INTERMITTENT OPENING OF ISOLATED FLOW PATHS
AND TIP ISOLATION)
UNIT NO. 2**

Licensee, PPL Susquehanna, LLC, hereby files a revision to its Facility Operating License No. NPF-22 dated March 23, 1984.

This amendment involves a revision to the Susquehanna SES Final Safety Analysis Report.



PPL Susquehanna, LLC

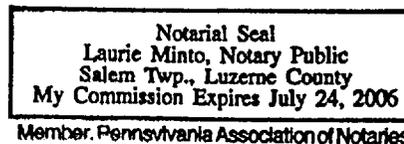
By:

B. L. Shriver

Sr. Vice-President and Chief Nuclear Officer

Sworn to and subscribed before me
this 31st day of October, 2002.

Notary Public



Attachment 1 to PLA-5542

Safety Assessment

Safety Assessment

SECTION I

SUMMARY OF PROPOSED CHANGE

In accordance with 10 CFR 50.90, PPL Susquehanna, LLC (PPL) proposes to revise the Susquehanna Steam Electric Station Units 1 and 2 (SSES) Technical Specifications (TS) to incorporate generic change TSTF-306, Revision 2 to NUREG 1433, "Standard Technical Specifications for General Electric Plants (BWR/4)," Revision 1, which has been approved by the NRC for adoption by licensees.

Limiting Condition for Operation (LCO) 3.3.6.1, "Primary Containment Isolation Instrumentation," is revised to add an ACTIONS Note allowing intermittent opening, under administrative control, of penetration flow paths that are isolated to comply with ACTIONS; and to breakout Traversing Incore Probe (TIP) System isolation as a separate isolation Function with an associated Required Action to isolate the penetration within 24 hours rather than immediately initiate a unit shutdown.

The applicable TS Bases are also revised, consistent with TSTF-306, Revision 2, to document the proposed changes and to provide supporting information. The TS Bases are revised in accordance with TS 5.5.10, "TS Bases Control Program." TS Bases mark-ups are included in Attachment 4 to this submittal for information.

TSTF-306, Revision 2, is adopted with minor exceptions. The Surveillance Requirements (SRs) associated with the TIP isolation Functions in Table 3.3.6.1-1 are modified to reflect the SSES design and current licensing basis. Additionally, the Bases statements related to identification of the Isolation Group associated with the TIP isolation Function is not incorporated. The SSES Primary Containment Isolation System design and licensing basis does not include an Isolation Group arrangement. TS Bases Table B 3.6.1.3-1 identifies for each primary containment isolation valve, which isolation Function(s) will cause the valve to actuate to its isolation position.

The proposed change provides a significant benefit to the operation of SSES, in that it serves to provide consistency between the requirements for equipment and the instrumentation that supports the equipment, and additional flexibility in the performance of maintenance and repair activities.

SECTION II

DESCRIPTION AND BASIS (BOTH LICENSING AND DESIGN) OF THE CURRENT REQUIREMENTS

The improved STS (NUREG 1433 for BWR/4s) were developed jointly by the commercial nuclear power industry, through the Nuclear Energy Institute (NEI) sponsored Technical Specification Task Force (TSTF), the reactor vendor Owners' Groups, and the NRC to standardize operational requirements and philosophies throughout the industry. PPL implemented the improved Standard Technical Specifications (STS) at SSES in 1998 through Amendments 178 (Unit 1) and 151 (Unit 2), using NUREG 1433, Rev. 1 as the model.

The TIP System ball isolation ball valves, which are only open when the TIP System is in use, receive isolation signals from the Primary Containment Isolation Function, as specified in Table 3.3.6.1-1, Functions 2.a (Reactor Vessel Water Level – Low, Level 3) and 2.d (Drywell Pressure – High). As such, an inoperability of the Primary Containment Isolation Function affecting only the TIP instrumentation would require a unit shutdown. Isolation of the TIP System penetration flow paths in a design basis event is assumed to be accomplished by manually actuating the shear (squib) valves. It should be noted, however, that the Unit 1 TIP System is powered from an auxiliary instrument bus which has an uninterruptible power supply and hence, the TIP drive mechanisms and ball valve controls will still function in the event of a loss of offsite power.

SECTION III

EVALUATION OF PROPOSED CHANGE AND BASIS

PPL has reviewed TSTF-306, Revision 2 and has determined that the proposed change and its justification are applicable to SSES. The current TS require a unit shutdown in the event of an inoperability of only the TIP instrumentation. The proposed change would allow 24 hours to isolate the affected TIP penetration flow paths, which is consistent with the requirements for manual Isolation Functions, and design basis event assumptions. As noted in the revised TS Bases, TIP System isolation in a design basis event (with loss of offsite power) would be accomplished by manual actuation of the shear valves, and the ability to manually isolate by either the normal isolation (ball) valves or the shear valves is unaffected by the inoperable instrumentation.

The proposed change has been evaluated in accordance with 10 CFR 50.92 and found to not involve a significant hazards consideration.

SECTION IV

CONCLUSION

Generic changes to the STS are part of the continuing effort to maintain and improve use of the STS. Such generic changes are proposed to the NRC by the TSTF. They are prepared and reviewed using a process developed by the TSTF and the NRC to correct and improve the STS. After approval by the NRC, generic changes are available for adoption by licensees who have implemented the improved STS.

While the current STS have been implemented at SSES as a significant improvement in TS, there remains a need to continue to improve and correct the STS as generic requirements change (e.g., due to changes in regulations, industry standards, etc). The proposed change has been approved by the NRC on a generic basis, and is in compliance with applicable regulations. PPL has evaluated the proposed change for applicability to SSES, and has determined that operation of SSES in accordance with the proposed change will not endanger the health and safety of the public.

Attachment 2 to PLA-5542

**No Significant Hazards Consideration Evaluation
Environmental Consideration Assessment**

NO SIGNIFICANT HAZARDS CONSIDERATION EVALUATION

The Commission has provided standards in 10 CFR 50.92(c) for determining whether a significant hazards consideration exists. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

PPL Susquehanna, LLC (PPL) proposes to revise the Susquehanna Steam Electric Station, Units 1 and 2 (SSES) Technical Specifications (TS) to adopt TSTF-306, Revision 2, a generic change to NUREG 1433, Standard Technical Specifications for General Electric Plants (BWR/4), Revision 1, approved by the NRC for adoption by licensees. The proposed changes involve the relaxation of the Required Actions in the current TS.

Upon discovery of failure to meet a Limiting Condition for Operation (LCO), the TS specifies Required Actions to complete for the associated TS Conditions. Required Actions of the associated Conditions are used to establish remedial measures that must be taken in response to the degraded conditions. These measures minimize the risk associated with continued operation while providing time to repair inoperable features. The proposed change (1) provides an allowance to intermittently unisolate penetration flow paths (under administrative control) that have been isolated to comply with ACTIONS, and (2) provides a separate isolation instrumentation Function for inoperable Traversing Incore Probe (TIP) System isolation instrumentation with a 24 hour Completion Time in which to isolate the penetration. This change is acceptable (1) because the administrative controls required for intermittently unisolated penetration flow paths consist of stationing a dedicated operator at the controls for the valve, who is in continuous communication with the control room, and (2) because of the low probability of an event requiring TIP penetration flow path isolation occurring during the 24 hour Completion Time. Based on this, the proposed change has been determined not to be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, PPL has evaluated the proposed TS change and determined it does not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

The proposed change relaxes Required Actions. Required Actions and their associated Completion Times are not initiating conditions for any accident previously evaluated. Further, the Required Actions in this change have been developed to provide assurance that appropriate remedial actions are taken in response to the degraded condition considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, while minimizing the risk associated with continued operation. Therefore the relaxed Required Actions do not significantly increase the probability or consequences of any accident previously evaluated.

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

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or changes in methods governing normal plant operation. The Required Actions and associated Completion Times in this change have been evaluated to ensure that no new accident initiators are introduced. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The relaxed Required Actions do not involve a significant reduction in a margin of safety. As provided in the justification, this change has been evaluated to minimize the risk of continued operation under the specified Condition, considering the operability status of the redundant systems of required features, the capacity and capability of remaining features, a reasonable time for repair or replacement of required features, and the low probability of a design basis accident occurring during the repair period. Therefore, this change does not involve a significant reduction in a margin of safety.

ENVIRONMENTAL CONSIDERATION ASSESSMENT

10 CFR 51.22(c)(9) identifies certain licensing and regulatory actions which are eligible for categorical exclusion from the requirement to perform an environmental assessment. A proposed amendment to an operating license for a facility does not require an environmental assessment if operation of the facility in accordance with the proposed amendment would not (1) involve a significant hazards consideration; (2) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite; or (3) result in a significant increase in individual or cumulative occupational radiation exposure. PPL Susquehanna, LLC has evaluated the proposed change and has determined that the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Accordingly, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with issuance of the amendment. The basis for this determination, using the above criteria, follows:

Basis

1. As demonstrated in the No Significant Hazards Consideration Evaluation, the proposed amendment does not involve a significant hazards consideration.
2. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite. The proposed change does not involve any physical alteration of the plant (no new or different type of equipment will be installed) or change in methods governing normal plant operation.
3. There is no significant increase in individual or cumulative occupational radiation exposure. The proposed change does not involve any physical alteration of the plant (no new or different type of equipment will be installed) or change in methods governing normal plant operation.

Attachment 3 to PLA-5542

Technical Specification Mark-ups

(Units 1 & 2)

3.3 INSTRUMENTATION

3.3.6.1 Primary Containment Isolation Instrumentation

LCO 3.3.6.1 The primary containment isolation instrumentation for each Function in Table 3.3.6.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.6.1-1.

ACTIONS

INSERT 1

NOTE

Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required channels inoperable.	A.1 Place channel in trip.	12 hours for Functions 2.a, 2.d, and 6.b <u>AND</u> 24 hours for Functions other than Functions 2.a, 2.d, and 6.b
B. One or more automatic Functions with isolation capability not maintained.	B.1 Restore isolation capability.	1 hour

7.a, and 7.b

(continued)

Table 3.3.6.1-1 (page 6 of 6)
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
6. Shutdown Cooling System Isolation					
a. Reactor Steam Dome Pressure - High	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≤ 108 psig
b. Reactor Vessel Water Level - Low, Level 3	3,4,5	2 ^(c)	J	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≥ 11.5 inches
c. Manual Initiation	3,4,5	1	G	SR 3.3.6.1.5	NA

(c) Only one trip system required in MODES 4 and 5 when RHR Shutdown Cooling System integrity maintained.

INSERT 2

TSTF-306, Rev. 2

INSERT 1

1. Penetration flow paths may be unisolated intermittently under administrative controls.

INSERT 2

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
7. Traversing Incore Probe Isolation					
a. Reactor Vessel Water Level – Low, Level 3	1, 2, 3	2	G	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≥ 11.5 inches
b. Drywell Pressure – High	1, 2, 3	2	G	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 1.88 psig

3.3 INSTRUMENTATION

3.3.6.1 Primary Containment Isolation Instrumentation

LCO 3.3.6.1 The primary containment isolation instrumentation for each Function in Table 3.3.6.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.6.1-1.

ACTIONS

INSERT 1

NOTE

2. Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required channels inoperable.	A.1 Place channel in trip.	12 hours for Functions 2.a, 2.d, and 6.b <u>AND</u> 7.a, and 7.b 24 hours for Functions other than Functions 2.a, 2.d, and 6.b
B. One or more automatic Functions with isolation capability not maintained.	B.1 Restore isolation capability.	1 hour

(continued)

Table 3.3.6.1-1 (page 6 of 6)
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
6. Shutdown Cooling System Isolation					
a. Reactor Steam Dome Pressure - High	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≤ 108 psig
b. Reactor Vessel Water Level - Low, Level 3	3,4,5	2(c)	J	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≥ 11.5 inches
c. Manual Initiation	3,4,5	1	G	SR 3.3.6.1.5	NA

(c) Only one trip system required in MODES 4 and 5 when RHR Shutdown Cooling System integrity maintained.

INSERT 2

TSTF-306, Rev. 2

INSERT 1

1. Penetration flow paths may be unisolated intermittently under administrative controls.

INSERT 2

FUNCTION		APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
7	Traversing Incore Probe Isolation					
a	Reactor Vessel Water Level – Low, Level 3	1, 2, 3	2	G	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≥ 11.5 inches
b	Drywell Pressure – High	1, 2, 3	2	G	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 1.88 psig

Attachment 4 to PLA-5542

“Camera-Ready” Technical Specification Pages

(Units 1 & 2)

3.3 INSTRUMENTATION

3.3.6.1 Primary Containment Isolation Instrumentation

LCO 3.3.6.1 The primary containment isolation instrumentation for each Function in Table 3.3.6.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.6.1-1.

ACTIONS

-----NOTES-----

1. Penetration flow paths may be unisolated intermittently under administrative controls.
 2. Separate Condition entry is allowed for each channel.
-

CONDITION		REQUIRED ACTION	COMPLETION
A.	One or more required channels inoperable.	A.1 Place channel in trip.	12 hours for Functions 2.a, 2.d, 6.b, 7.a, and 7.b <u>AND</u> 24 hours for Functions other than Functions 2.a, 2.d, 6.b, 7.a, and 7.b
B.	One or more automatic Functions with isolation capability not maintained.	B.1 Restore isolation capability.	1 hour

(continued)

Primary Containment Isolation Instrumentation
3.3.6.1

Table 3 3.6.1-1 (page 6 of 6)
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
6. Shutdown Cooling System Isolation					
a. Reactor Steam Dome Pressure — High	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≤ 108 psig
b. Reactor Vessel Water Level — Low, Level 3	3,4,5	2 ^(c)	J	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≥ 11.5 inches
c. Manual Initiation	3,4,5	1	G	SR 3.3.6.1.5	NA
7. Traversing Incore Probe Isolation					
a. Reactor Vessel Water Level — Low, Level 3	1,2,3	2	G	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≥ 11.5 inches
b. Drywell Pressure — High	1,2,3	2	G	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 1.88 psig

(c) Only one trip system required in MODES 4 and 5 when RHR Shutdown Cooling System integrity maintained

3.3 INSTRUMENTATION

3.3.6.1 Primary Containment Isolation Instrumentation

LCO 3.3.6.1 The primary containment isolation instrumentation for each Function in Table 3.3.6.1-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.6.1-1.

ACTIONS

-----NOTES-----

1. Penetration flow paths may be unisolated intermittently under administrative controls.
 2. Separate Condition entry is allowed for each channel.
-

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required channels inoperable.	A.1 Place channel in trip.	12 hours for Functions 2.a, 2.d, 6.b, 7.a, and 7.b <u>AND</u> 24 hours for Functions other than Functions 2.a, 2.d, 6.b, 7.a, and 7.b
B. One or more automatic Functions with isolation capability not maintained.	B.1 Restore isolation capability.	1 hour

(continued)

Primary Containment Isolation Instrumentation
3.3.6.1

Table 3.3.6.1-1 (page 6 of 6)
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
6. Shutdown Cooling System Isolation					
a. Reactor Steam Dome Pressure - High	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≤ 108 psig
b. Reactor Vessel Water Level - Low, Level 3	3,4,5	2 ^(c)	J	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≥ 11.5 inches
c. Manual Initiation	3,4,5	1	G	SR 3.3.6.1.5	NA
7. Traversing Incore Probe Isolation					
a. Reactor Vessel Water Level — Low, Level 3	1,2,3	2	G	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5	≥ 11.5 inches
b. Drywell Pressure — High	1,2,3	2	G	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.5	≤ 1.88 psig

(c) Only one trip system required in MODES 4 and 5 when RHR Shutdown Cooling System integrity maintained.

Attachment 5 to PLA-5542

Technical Specification Bases Mark-ups

(Units 1 & 2)

BASES

BACKGROUND
(continued)

6. Shutdown Cooling System Isolation

The Reactor Vessel Water Level—Low, Level 3 Function receives input from four reactor vessel water level channels. The outputs from the reactor vessel water level channels are connected to two two-out-of-two trip systems. The Reactor Vessel Pressure—High Function receives input from two channels, with each channel in one trip system using a one-out-of-one logic. Each of the two trip systems is connected to one of the two valves on each shutdown cooling penetration.

TSTF-306
INSERT BISS →

APPLICABLE
SAFETY ANALYSES,
LCO, and
APPLICABILITY

The isolation signals generated by the primary containment isolation instrumentation are implicitly assumed in the safety analyses of References 1 and 2 to initiate closure of valves to limit offsite doses. Refer to LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," Applicable Safety Analyses Bases for more detail of the safety analyses.

Primary containment isolation instrumentation satisfies Criterion 3 of the NRC Policy Statement. (Ref. 8) Certain instrumentation Functions are retained for other reasons and are described below in the individual Functions discussion.

The OPERABILITY of the primary containment instrumentation is dependent on the OPERABILITY of the individual instrumentation channel Functions specified in Table 3.3.6.1-1. Each Function must have a required number of OPERABLE channels, with their setpoints within the specified Allowable Values, where appropriate. A channel is inoperable if its actual trip setpoint is not within its required Allowable Value. The actual setpoint is calibrated consistent with applicable setpoint methodology assumptions. Each channel must also respond within its assumed response time, where appropriate.

Allowable Values are specified for each Primary Containment Isolation Function specified in the Table. Nominal trip setpoints are specified in the setpoint calculations. The nominal setpoints are selected to ensure that the setpoints do not exceed the Allowable Value between CHANNEL

(continued)

BASES

APPLICABLE
SAFETY ANALYSES,
LCO, and
APPLICABILITY

6.b. Reactor Vessel Water Level—Low, Level 3 (continued)

level to the top of the fuel. In MODES 1 and 2, another isolation (i.e., Reactor Steam Dome Pressure—High) and administrative controls ensure that this flow path remains isolated to prevent unexpected loss of inventory via this flow path.

6.c Manual Initiation

The Manual Initiation push button channels introduce signals to RHR Shutdown Cooling System isolation logic that is redundant to the automatic protective instrumentation and provide manual isolation capability. There is no specific FSAR safety analysis that takes credit for this Function. It is retained for overall redundancy and diversity of the isolation function as required by the NRC in the plant licensing basis.

There are two push buttons for the logic, one manual initiation push button per trip system. There is no Allowable Value for this Function since the channels are mechanically actuated based solely on the position of the push buttons.

Two channels of the Manual Initiation Function are available and are required to be OPERABLE in MODES 3, 4, and 5, since these are the MODES in which the RHR Shutdown Cooling System Isolation automatic Function are required to be OPERABLE.

TSTF-306
INSERT B 174

ACTIONS

TSTF-306
INSERT B 1

① Note has been provided to modify the ACTIONS related to primary containment isolation instrumentation channels. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for inoperable primary containment isolation instrumentation channels

(continued)

BASES

ACTIONS
(continued)

provide appropriate compensatory measures for separate inoperable channels. As such, a Note has been provided that allows separate Condition entry for each inoperable primary containment isolation instrumentation channel.

A.1

7.a, and 7.b

Because of the diversity of sensors available to provide isolation signals and the redundancy of the isolation design, an allowable out of service time of 12 hours for Functions 2.a, 2.d, ~~and~~ 6.b and 24 hours for Functions other than Functions 2.a, 2.d, ~~and~~ 6.b has been shown to be acceptable (Refs. 5 and 6) to permit restoration of any inoperable channel to OPERABLE status. This out of service time is only acceptable provided the associated Function is still maintaining isolation capability (refer to Required Action B.1 Bases). If the inoperable channel cannot be restored to OPERABLE status within the allowable out of service time, the channel must be placed in the tripped condition per Required Action A.1. Placing the inoperable channel in trip would conservatively compensate for the inoperability, restore capability to accommodate a single failure, and allow operation to continue with no further restrictions. Alternately, if it is not desired to place the channel in trip (e.g., as in the case where placing the inoperable channel in trip would result in an isolation), Condition C must be entered and its Required Action taken.

B.1 and B.2

Required Action B.1 is intended to ensure that appropriate actions are taken if multiple, inoperable, untripped channels within the same Function result in redundant automatic isolation capability being lost for the associated penetration flow path(s). The MSL Isolation Functions are considered to be maintaining isolation capability when sufficient channels are OPERABLE or in trip, such that both trip systems will generate a trip signal from the given Function on a valid signal. The other isolation functions are considered to be maintaining isolation capability when sufficient channels are OPERABLE or in trip, such that one trip system will generate a trip signal from the given Function on a valid signal. This ensures that one of the two PCIVs in the associated penetration flow path can receive an isolation signal from the given Function. For

(continued)

BASES

ACTIONS

F.1 (continued)

may continue if the affected penetration flow path(s) is isolated. Isolating the affected penetration flow path(s) accomplishes the safety function of the inoperable channels.

If it is not desired to isolate the affected penetration flow path(s) (e.g., as in the case where isolating the penetration flow path(s) could result in a reactor scram), Condition H must be entered and its Required Actions taken.

The 1 hour Completion Time is acceptable because it minimizes risk while allowing sufficient time for plant operations personnel to isolate the affected penetration flow path(s).

G.1

If the channel is not restored to OPERABLE status or placed in trip within the allowed Completion Time, plant operations may continue if the affected penetration flow path(s) is isolated. Isolating the affected penetration flow path(s) accomplishes the safety function of the inoperable channels. The 24 hour Completion Time is acceptable due to the fact that these Functions (Manual Initiation) are not assumed in any accident or transient analysis in the FSAR. Alternately, if it is not desired to isolate the affected penetration flow path(s) (e.g., as in the case where isolating the penetration flow path(s) could result in a reactor scram), Condition H must be entered and its Required Actions taken.

either

TSTF-306
INSERT B179
(UNIT 1)

H.1 and H.2

If the channel is not restored to OPERABLE status or placed in trip within the allowed Completion Time, or any Required Action of Condition F or G is not met and the associated Completion Time has expired, the plant must be placed in a MODE or other specified condition in which the LCO does not apply. This is done by placing the plant in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed

(continued)

TSTF-306 INSERT B 155

7. Traversing Incore Probe System Isolation

The Reactor Vessel Water Level – Low, Level 3 Isolation Function receives input from two reactor vessel water level channels. The Drywell Pressure – High Isolation Function receives input from two drywell pressure channels. The outputs from the reactor vessel water level channels and drywell pressure channels are connected into one two-out-of-two logic trip system.

When either Isolation Function actuates, the TIP drive mechanisms will withdraw the TIPs, if inserted, and close the inboard TIP System isolation ball valves when the proximity probe senses the TIPs are withdrawn into the shield. The TIP System isolation ball valves are only open when the TIP System is in use. The outboard TIP System isolation valves are manual shear valves.

TSTF-306 INSERT B 174

Traversing Incore Probe System Isolation

7.a Reactor Vessel Water Level – Low, Level 3

Low RPV water level indicates that the capability to cool the fuel may be threatened. The valves whose penetrations communicate with the primary containment are isolated to limit the release of fission products. The isolation of the primary containment on Level 3 supports actions to ensure that offsite dose limits of 10 CFR 100 are not exceeded. The Reactor Vessel Water Level – Low, Level 3 Function associated with isolation is implicitly assumed in the FSAR analysis as these leakage paths are assumed to be isolated post LOCA.

Reactor Vessel Water Level – Low, Level 3 signals are initiated from level transmitters that sense the difference between the pressure due to a constant column of water (reference leg) and the pressure due to the actual water level (variable leg) in the vessel. Two channels of Reactor Vessel Water Level – Low, Level 3 Function are available and are required to be OPERABLE to ensure that no single instrument failure can initiate an inadvertent isolation actuation. The isolation function is ensured by the manual shear valve in each penetration.

The Reactor Vessel Water Level – Low, Level 3 Allowable Value was chosen to be the same as the RPS Level 3 scram Allowable Value (LCO 3.3.1.1), since isolation of these valves is not critical to orderly plant shutdown.

7.b Drywell Pressure – High

High drywell pressure can indicate a break in the RCPB inside the primary containment. The isolation of some of the primary containment isolation valves on high drywell pressure supports actions to ensure that offsite dose limits of 10 CFR 100 are not exceeded. The Drywell Pressure – High Function, associated with isolation of the primary containment, is implicitly assumed in the FSAR accident analysis as these leakage paths are assumed to be isolated post LOCA.

High drywell pressure signals are initiated from pressure transmitters that sense the pressure in the drywell. Two channels of Drywell Pressure – High per Function are available and are required to be OPERABLE to ensure that no single instrument failure can initiate an inadvertent actuation. The isolation function is ensured by the manual shear valve in each penetration.

The Allowable Value was selected to be the same as the ECCS Drywell Pressure – High Allowable Value (LCO 3.3.5.1), since this may be indicative of a LOCA inside primary containment.

TSTF-306, Rev. 2

INSERT B1

The ACTIONS are modified by two Notes. Note 1 allows penetration flow path(s) to be unisolated intermittently under administrative controls. These controls consist of stationing a dedicated operator at the controls of the valve, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for primary containment isolation is indicated.

TSTF-306 INSERT B 179 (Unit 1)

.. or, in the case of the TIP System isolation, the TIP System penetration is a small bore (0.280 inch), its isolation in a design basis event (with loss of offsite power) would be via the manually operated shear valves, and the ability to manually isolate by either the normal isolation valve or the shear valve is unaffected by the inoperable instrumentation. It should be noted, however, that the TIP System is powered from an auxiliary instrument bus which has an uninterruptible power supply and hence, the TIP drive mechanisms and ball valve controls will still function in the event of a loss of offsite power.

TSTF-306 INSERT B 179 (Unit 2)

... or, in the case of the TIP System isolation, the TIP System penetration is a small bore (0.280 inch), its isolation in a design basis event (with loss of offsite power) would be via the manually operated shear valves, and the ability to manually isolate by either the normal isolation valve or the shear valve is unaffected by the inoperable instrumentation.

Table B 3.6.1.3-1
Primary Containment Isolation Valve
(Page 11 of 11)

7.a, 7.b

Plant System	Valve Number	Valve Description	Type of Valve	Isolation Signal LCO 3.3.6.1 Function No. (Maximum Isolation Time (Seconds))
TIP System (continued)	C51-J004 A (Ball Valve)	TIP Ball Valves	Automatic Valve	2.a, 2.d (5)
	C51-J004 B (Ball Valve)	TIP Ball Valves	Automatic Valve	2.a, 2.d (5)
	C51-J004 C (Ball Valve)	TIP Ball Valves	Automatic Valve	2.a, 2.d (5)
	C51-J004 D (Ball Valve)	TIP Ball Valves	Automatic Valve	2.a, 2.d (5)
	C51-J004 E (Ball Valve)	TIP Ball Valves	Automatic Valve	2.a, 2.d (5)

- (a) Isolation barrier remains water filled or a water seal remains in the line post-LOCA, isolation valve is tested with water. Isolation valve leakage is not included in 0.60 L_a total Type B and C tests.
- (b) Redundant isolation boundary for this valve is provided by the closed system whose integrity is verified by the Leakage Rate Test Program.
- (c) Containment Isolation Valves are not Type C tested. Containment bypass leakage is prevented since the line terminates below the minimum water level in the Suppression Chamber. Refer to the IST Program.
- (d) LCO 3.3.3.1, "PAM Instrumentation", Table 3.3.3.1-1, Function 6, does not apply since these are relief valves, check valves, manual valves or deactivated and closed.
- (e) The containment isolation barriers for the penetration associated with this valve consists of two PCIVs and a closed system. The closed system provides a redundant isolation boundary for both PCIVs, and its integrity is required to be verified by the Leakage Rate Test Program.

BASES

BACKGROUND
(continued)

6. Shutdown Cooling System Isolation

The Reactor Vessel Water Level—Low, Level 3 Function receives input from four reactor vessel water level channels. The outputs from the reactor vessel water level channels are connected to two two-out-of-two trip systems. The Reactor Vessel Pressure—High Function receives input from two channels, with each channel in one trip system using a one-out-of-one logic. Each of the two trip systems is connected to one of the two valves on each shutdown cooling penetration.

TSTF-306
INSERT B155

APPLICABLE
SAFETY ANALYSES,
LCO, and
APPLICABILITY

The isolation signals generated by the primary containment isolation instrumentation are implicitly assumed in the safety analyses of References 1 and 2 to initiate closure of valves to limit offsite doses. Refer to LCO 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," Applicable Safety Analyses Bases for more detail of the safety analyses.

Primary containment isolation instrumentation satisfies Criterion 3 of the NRC Policy Statement. (Ref. 8) Certain instrumentation Functions are retained for other reasons and are described below in the individual Functions discussion.

The OPERABILITY of the primary containment instrumentation is dependent on the OPERABILITY of the individual instrumentation channel Functions specified in Table 3.3.6.1-1. Each Function must have a required number of OPERABLE channels, with their setpoints within the specified Allowable Values, where appropriate. A channel is inoperable if its actual trip setpoint is not within its required Allowable Value. The actual setpoint is calibrated consistent with applicable setpoint methodology assumptions. Each channel must also respond within its assumed response time, where appropriate.

Allowable Values are specified for each Primary Containment Isolation Function specified in the Table. Nominal trip setpoints are specified in the setpoint calculations. The nominal setpoints are selected to ensure that the setpoints do not exceed the Allowable Value between CHANNEL

(continued)

BASES

APPLICABLE
SAFETY ANALYSES,
LCO, and
APPLICABILITY

6.b. Reactor Vessel Water Level—Low, Level 3 (continued)

level to the top of the fuel. In MODES 1 and 2, another isolation (i.e., Reactor Steam Dome Pressure—High) and administrative controls ensure that this flow path remains isolated to prevent unexpected loss of inventory via this flow path.

6.c Manual Initiation

The Manual Initiation push button channels introduce signals to RHR Shutdown Cooling System isolation logic that is redundant to the automatic protective instrumentation and provide manual isolation capability. There is no specific FSAR safety analysis that takes credit for this Function. It is retained for overall redundancy and diversity of the isolation function as required by the NRC in the plant licensing basis.

There are two push buttons for the logic, one manual initiation push button per trip system. There is no Allowable Value for this Function since the channels are mechanically actuated based solely on the position of the push buttons.

Two channels of the Manual Initiation Function are available and are required to be OPERABLE in MODES 3, 4, and 5, since these are the MODES in which the RHR Shutdown Cooling System Isolation automatic Function are required to be OPERABLE.

TSTF-306
INSERT B174

ACTIONS

TSTF-306
INSERT B1

②
⊕ Note has been provided to modify the ACTIONS related to primary containment isolation instrumentation channels. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for inoperable primary containment isolation instrumentation channels

(continued)

BASES

ACTIONS
(continued)

provide appropriate compensatory measures for separate inoperable channels. As such, a Note has been provided that allows separate Condition entry for each inoperable primary containment isolation instrumentation channel.

A.1

7.a, and 7.b

Because of the diversity of sensors available to provide isolation signals and the redundancy of the isolation design, an allowable out of service time of 12 hours for Functions 2.a, 2.d, ~~and 6.b~~ and 24 hours for Functions other than Functions 2.a, 2.d, ~~and 6.b~~ has been shown to be acceptable (Refs. 5 and 6) to permit restoration of any inoperable channel to OPERABLE status. This out of service time is only acceptable provided the associated Function is still maintaining isolation capability (refer to Required Action B.1 Bases). If the inoperable channel cannot be restored to OPERABLE status within the allowable out of service time, the channel must be placed in the tripped condition per Required Action A.1. Placing the inoperable channel in trip would conservatively compensate for the inoperability, restore capability to accommodate a single failure, and allow operation to continue with no further restrictions. Alternately, if it is not desired to place the channel in trip (e.g., as in the case where placing the inoperable channel in trip would result in an isolation), Condition C must be entered and its Required Action taken.

B.1 and B.2

Required Action B.1 is intended to ensure that appropriate actions are taken if multiple, inoperable, untripped channels within the same Function result in redundant automatic isolation capability being lost for the associated penetration flow path(s). The MSL Isolation Functions are considered to be maintaining isolation capability when sufficient channels are OPERABLE or in trip, such that both trip systems will generate a trip signal from the given Function on a valid signal. The other isolation functions are considered to be maintaining isolation capability when sufficient channels are OPERABLE or in trip, such that one trip system will generate a trip signal from the given Function on a valid signal. This ensures that one of the two PCIVs in the associated penetration flow path can receive an isolation signal from the given Function. For

(continued)

BASES

ACTIONS

F.1 (continued)

may continue if the affected penetration flow path(s) is isolated. Isolating the affected penetration flow path(s) accomplishes the safety function of the inoperable channels.

If it is not desired to isolate the affected penetration flow path(s) (e.g., as in the case where isolating the penetration flow path(s) could result in a reactor scram), Condition H must be entered and its Required Actions taken.

The 1 hour Completion Time is acceptable because it minimizes risk while allowing sufficient time for plant operations personnel to isolate the affected penetration flow path(s).

G.1

If the channel is not restored to OPERABLE status or placed in trip within the allowed Completion Time, plant operations may continue if the affected penetration flow path(s) is isolated. Isolating the affected penetration flow path(s) accomplishes the safety function of the inoperable channels. The 24 hour Completion Time is acceptable due to the fact that these Functions (Manual Initiation) are not assumed in any accident or transient analysis in the FSAR. Alternately, if it is not desired to isolate the affected penetration flow path(s) (e.g., as in the case where isolating the penetration flow path(s) could result in a reactor scram), Condition H must be entered and its Required Actions taken.

either

TSTF-306
INSERT B 179
(UNIT 2)

H.1 and H.2

If the channel is not restored to OPERABLE status or placed in trip within the allowed Completion Time, or any Required Action of Condition F or G is not met and the associated Completion Time has expired, the plant must be placed in a MODE or other specified condition in which the LCO does not apply. This is done by placing the plant in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating

(continued)

TSTF-306 INSERT B 155

7. Traversing Incore Probe System Isolation

The Reactor Vessel Water Level – Low, Level 3 Isolation Function receives input from two reactor vessel water level channels. The Drywell Pressure – High Isolation Function receives input from two drywell pressure channels. The outputs from the reactor vessel water level channels and drywell pressure channels are connected into one two-out-of-two logic trip system.

When either Isolation Function actuates, the TIP drive mechanisms will withdraw the TIPs, if inserted, and close the inboard TIP System isolation ball valves when the proximity probe senses the TIPs are withdrawn into the shield. The TIP System isolation ball valves are only open when the TIP System is in use. The outboard TIP System isolation valves are manual shear valves.

TSTF-306 INSERT B 174

Traversing Incore Probe System Isolation

7.a Reactor Vessel Water Level – Low, Level 3

Low RPV water level indicates that the capability to cool the fuel may be threatened. The valves whose penetrations communicate with the primary containment are isolated to limit the release of fission products. The isolation of the primary containment on Level 3 supports actions to ensure that offsite dose limits of 10 CFR 100 are not exceeded. The Reactor Vessel Water Level – Low, Level 3 Function associated with isolation is implicitly assumed in the FSAR analysis as these leakage paths are assumed to be isolated post LOCA.

Reactor Vessel Water Level – Low, Level 3 signals are initiated from level transmitters that sense the difference between the pressure due to a constant column of water (reference leg) and the pressure due to the actual water level (variable leg) in the vessel. Two channels of Reactor Vessel Water Level – Low, Level 3 Function are available and are required to be OPERABLE to ensure that no single instrument failure can initiate an inadvertent isolation actuation. The isolation function is ensured by the manual shear valve in each penetration.

The Reactor Vessel Water Level – Low, Level 3 Allowable Value was chosen to be the same as the RPS Level 3 scram Allowable Value (LCO 3.3.1.1), since isolation of these valves is not critical to orderly plant shutdown.

7 b Drywell Pressure – High

High drywell pressure can indicate a break in the RCPB inside the primary containment. The isolation of some of the primary containment isolation valves on high drywell pressure supports actions to ensure that offsite dose limits of 10 CFR 100 are not exceeded. The Drywell Pressure – High Function, associated with isolation of the primary containment, is implicitly assumed in the FSAR accident analysis as these leakage paths are assumed to be isolated post LOCA.

High drywell pressure signals are initiated from pressure transmitters that sense the pressure in the drywell. Two channels of Drywell Pressure – High per Function are available and are required to be OPERABLE to ensure that no single instrument failure can initiate an inadvertent actuation. The isolation function is ensured by the manual shear valve in each penetration.

The Allowable Value was selected to be the same as the ECCS Drywell Pressure – High Allowable Value (LCO 3.3.5.1), since this may be indicative of a LOCA inside primary containment.

INSERT B1

The ACTIONS are modified by two Notes. Note 1 allows penetration flow path(s) to be unisolated intermittently under administrative controls. These controls consist of stationing a dedicated operator at the controls of the valve, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for primary containment isolation is indicated.

TSTF-306 INSERT B 179 (Unit 1)

.. or, in the case of the TIP System isolation, the TIP System penetration is a small bore (0.280 inch), its isolation in a design basis event (with loss of offsite power) would be via the manually operated shear valves, and the ability to manually isolate by either the normal isolation valve or the shear valve is unaffected by the inoperable instrumentation. It should be noted, however, that the TIP System is powered from an auxiliary instrument bus which has an uninterruptible power supply and hence, the TIP drive mechanisms and ball valve controls will still function in the event of a loss of offsite power.

TSTF-306 INSERT B 179 (Unit 2)

... or, in the case of the TIP System isolation, the TIP System penetration is a small bore (0.280 inch), its isolation in a design basis event (with loss of offsite power) would be via the manually operated shear valves, and the ability to manually isolate by either the normal isolation valve or the shear valve is unaffected by the inoperable instrumentation.

Table B 3.6.1.3-1 Primary Containment Isolation Valve (Page 10 of 10)				
Plant System	Valve Number	Valve Description	Type of Valve	Isolation Signal LCO 3.3.6.1 Function No. (Maximum Isolation Time (Seconds))
RWCU (continued)	HV-244F004 (a)	RWCU Suction	Automatic Valve	5.a, 5.b, 5.c, 5.d, 5.e, 5.f, 5.g (30)
	XV-24411 A	RWCU	Excess Flow Check Valve	N/A
	XV-24411 B	RWCU	Excess Flow Check Valve	N/A
	XV-24411 C	RWCU	Excess Flow Check Valve	N/A
	XV-24411 D	RWCU	Excess Flow Check Valve	N/A
	XV-244F046	RWCU	Excess Flow Check Valve	N/A
	HV-24182 A	RWCU Return	Power Operated	N/A
	HV-24182 B	RWCU Return	Power Operated	N/A
SLCS	248F007 (a)(d)	SLCS	Manual Check	N/A
	HV-248F006 (a)	SLCS	Power Operated Check Valve	N/A
TIP System	C51-J004 A (Ball Valve)	TIP Ball Valves	Automatic Valve	2.a, 2.d (5)
	C51-J004 B (Ball Valve)	TIP Ball Valves	Automatic Valve	2.a, 2.d (5)
	C51-J004 C (Ball Valve)	TIP Ball Valves	Automatic Valve	2.a, 2.d (5)
	C51-J004 D (Ball Valve)	TIP Ball Valves	Automatic Valve	2.a, 2.d (5)
	C51-J004 E (Ball Valve)	TIP Ball Valves	Automatic Valve	2.a, 2.d (5)
TIP System (continued)	C51-J004 A (Shear Valve)	TIP Shear Valves	Squib Valve	N/A
	C51-J004 B (Shear Valve)	TIP Shear Valves	Squib Valve	N/A
	C51-J004 C (Shear Valve)	TIP Shear Valves	Squib Valve	N/A
	C51-J004 D (Shear Valve)	TIP Shear Valves	Squib Valve	N/A
	C51-J004 E (Shear Valve)	TIP Shear Valves	Squib Valve	N/A

7.a, 7.b

- (a) Isolation barrier remains filled or a water seal remains in the line post-LOCA, isolation valve is tested with water. Isolation valve leakage is not included in 0.60 L₁ total Type B and C tests.
- (b) Redundant isolation boundary for this valve is provided by the closed system whose integrity is verified by the Leakage Rate Test Program.
- (c) Containment Isolation Valves are not Type C tested. Containment bypass leakage is prevented since the line terminates below the minimum water level in the Suppression Chamber. Refer to the IST Program.
- (d) LCO 3.3.3.1, "PAM Instrumentation", Table 3.3.3.1-1, Function 6, (PCIV Position) does not apply since these are relief valves, check valves, manual valves or deactivated and closed.
- (e) The containment isolation barriers for the penetration associated with this valve consists of two PCIVs and a closed system. The closed system provides a redundant isolation boundary for both PCIVs, and its integrity is required to be verified by the Leakage Rate Test Program.