Industry/TSTF Standard Technical Specification Change Traveler

SDV Actions							
Classification:	1) Techni	cal Change	e				
Priority: 2)Me	dium						
NUREGs Affecte	d: 🗌 1	430	1431	1432	1433	1434	
Description:							

Required Action A.1 is changed to allow the associated line to be isolated. In addition, the NOTE of Required Action B.1 has been moved so that it applies to both ACTION A and B. In both cases, it is necessary to unisolate the line under administrative controls to allow draining and venting of the SDV.

Justification: Background

LCO 3.1.8. Scram Discharge Volume (SDV) Vent and Drain Valves, requires each SDV vent and drain valve to be OPERABLE. If one or more SDV vent or drain lines have a single valve inoperable, the Required Actions require its restoration within 7 days. If the valve is not restored, a plant shutdown is required. If one or more SDV vent or drain lines have both valves inoperable, the associated line must be isolated. In this condition, indefinite operation is allowed.

Need for Change

The SDV vent and drain valve actions are inconsistent as the actions for a single inoperable valve in a line are more severe than the actions with both valves in a line being inoperable.

Proposed Change

The proposed change revises the action for one or more SDV vent or drain lines with one valve inoperable to allow isolation of the associated line. A Note to Required Action B.1 which allows an isolated line to be unisolated for the purpose of draining and venting the SDV now applies to Conditions A and B and is moved to an ACTIONS Note. The Bases are revised accordingly.

Justification

With one SDV vent or drain valve inoperable in one or more lines, the isolation function would be maintained since the redundant valve in the affected line would perform its safety function of isolating the SDV. The current action statement allows 7 days to repair the inoperable valve; the proposal is to allow action to isolate the affected line and continue operation. If the affected line is not isolated within the 7 day time period, the licensee would then be required to proceed to MODE 3 in the next 12 hours. The 7 day AOT is acceptable because of the low probability of the concurrent events of a scram within the 7 days of the AOT and a failure of the redundant valve(s). Alternately, if the inoperable valve was initially closed, there is ample time and warning available to drain the SDV before the automatic scram due to SDV high level would occur.

The allowance to administratively open a line that is isolated to comply with the actions (to permit draining and venting the SDV) is allowed by Required Action B.1. This allowance is being moved to apply to all Actions based on the change proposed to Action A. This would allow any accumulated water in the line to be drained, to preclude a reactor scram on SDV high level. This allowance is acceptable, since the remaining operable SDV vent and drain valve(s) would close automatically on a scram signal to isolate the lines. Or, if both valves in a line were inoperable (and opened under this provision), the reactor coolant release could be terminated by resetting the scram from the control room, or by manually closing the valves locally. Resetting the scram automatically closes the scram outlet valves, isolating the CRD discharge path to the SDV.

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Determination of No Significant Hazards Considerations

A change is proposed to allow the affected SDV vent and drain line to be isolated when there are one or more SDV vent or drain lines with one valve inoperable instead of requiring the valve to be restored to OPERABLE status within 7 days.

In accordance with the criteria set forth in 10 CFR 50.92, the Industry has evaluated these proposed Improved Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

A change is proposed to allow the affected SDV vent and drain line to be isolated when there are one or more SDV vent or drain lines with one valve inoperable instead of requiring the valve to be restored to OPERABLE status within 7 days. Being in an ACTION is not an initiator of any accident previously evaluated. Consequently, the probability of an accident previously evaluated is not significantly increased. With one SDV vent or drain valve inoperable in one or more lines, the isolation function would be maintained since the redundant valve in the affected line would perform its safety function of isolating the SDV. Therefore, the consequences of an accident previously evaluated are not significantly increased by this change. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the 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 a change in the methods governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

A change is proposed to allow the affected SDV vent and drain line to be isolated when there are one or more SDV vent or drain lines with one valve inoperable instead of requiring the valve to be restored to OPERABLE status within 7 days. With one SDV vent or drain valve inoperable in one or more lines, the isolation function would be maintained since the redundant valve in the affected line would perform its safety function of isolating the SDV. As a result, the net change to the margin of safety is insignificant. Therefore, this change does not involve a significant reduction in a margin of safety.

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Revision His	tory				
OG Revision	0	Revision Status	Active	Next Action:	NRC
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5/19/200.

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Affected Techni				
Action 3.1.8	SDV Vent and Drain Lin	es		
	Change Description:	Actions Note		
Action 3.1.8 Bases	SDV Vent and Drain Lin	es		
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Action 3.1.8.A	SDV Vent and Drain Lin	es		
Action 3.1.8.A Bases	SDV Vent and Drain Lin	es		- Y (M. P. 1994)
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The ACTIONS table is modified by a second Note stating that an isolated line may be unisolated under administrative control to allow draining and venting of the SDV.

		SI	DV Vent and Drain Valve $3.1.$
3.1 REACTI	VITY CONTROL S	SYSTEMS	, _ , _ ,
3.1.8 Scr	am Discharge Voli	ume (SDV) Vent and Drain Valves	
LCO 3.1.8	Each SD	V vent and drain valve shall be OPERA	BLE.
APPLICABILI	TY: MODES	1 and 2.	
ACTIONS		Ś	
Separate Cor	ndition entry is allo	- NOTE - wed for each SDV vent and drain line.	
COI		REQUIRED ACTION	COMPLETION TIME
A. One or r or drain valve inc	nore SDV vent lines with one operable.	A.1 Restore valve to OPERABLE status, Isolate the associated line.	7 days
B. One or r or drain valves ir	nore SDV vent lines with both loperable.	B.1 - NOTE - An isolated line may be unisolated under administrative control to allow draining and vonting	
		of the SDV. Isolate the associated line.	8 hours
C. Required associat	d Action and ed Completion	C.1 Be in MODE 3.	12 hours

SDV Vent and	Drain	Valves
		3.1.8

TSTF-404

3.1 REACTIVITY CONTROL SYSTEMS

3.1.8	Scram Discharge Volume (SDV) Vent and Drain Valves
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LCO 3.1.8 Each SDV vent and drain valve shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

- NOTE-

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Separate Condition entry is allowed for each SDV vent and drain line.

/	CONDITION		REQUIRED ACTION	COMPLETION TIME
	A. One or more SDV or drain lines with o valve inoperable.	vent A.1 one Isolo	Restore value to OPERABLE status. He the associated line.	7 days
	B. One or more SDV or drain lines with t valves inoperable.	vent B.1	- NOTE An isolated line may be unisolated under administrative control to allow draining and venting of the SDV.	8 hours
	C. Required Action an associated Comple Time not met.	d C.1 tion	Be in MODE 3.	12 hours

	SDV Vent and Drain Valves
	TS 7F-404
BASES	
APPLICABLE S	AFETY ANALYSES (continued)
	SDV vent and drain valves satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii).
LCO	The OPERABILITY of all SDV vent and drain valves ensures that the SDV vent and drain valves will close during a scram to contain reactor water discharged to the SDV piping. Since the vent and drain lines are provided with two valves in series, the single failure of one valve in the open position will not impair the isolation function of the system. Additionally, the valves are required to open on scram reset to ensure that a path is available for the SDV piping to drain freely at other times.
APPLICABILITY	In MODES 1 and 2, scram may be required; therefore, the SDV vent and drain valves must be OPERABLE. In MODES 3 and 4, control rods are not able to be withdrawn since the reactor mode switch is in shutdown and a control rod block is applied. This provides adequate controls to ensure that only a single control rod can be withdrawn. Also, during MODE 5, only a single control rod can be withdrawn from a core cell containing fuel assemblies. Therefore, the SDV vent and drain valves are not required to be OPERABLE in these MODES since the reactor is subcritical and only one rod may be withdrawn and subject to scram.
ACTIONS Insert from next page	The ACTIONS table is modified by Note indicating that a separate Condition entry is allowed for each SDV vent and drain line. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable SDV line. Complying with the Required Actions may allow for continued operation, and subsequent inoperable SDV lines are governed by subsequent Condition entry and application of associated Required Actions.
associated line Must be isolated to contain the eactor coolant uring a scram. 7 day and the line is not isolated	A.1 When one SDV vent or drain valve is inoperable in one or more lines, the valves must be restored to OPERABLE status within days. The Completion Time is reasonable, given the level of redundancy in the lines and the low probability of a scram occurring while the valve(s) are inoperable. The SDV is still isolable since the redundant valve in the affected line is OPERABLE. During these periods, the single failure criterion may not be preserved, and a higher risk exists to allow reactor water out of the primary system during a scram.

SDV Vent and Drain Valves B 3.1.8 TSTF-404

BASES



The 8 hour Completion Time to isolate the line is based on the low probability of a scram occurring while the line is not isolated and unlikelihood of significant CRD seal leakage.

<u>C.1</u>

If any Required Action and associated Completion Time is not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours. The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

<u>SR 3.1.8.1</u>

During normal operation, the SDV vent and drain valves should be in the open position (except when performing SR 3.1.8.2) to allow for drainage of the SDV piping. Verifying that each valve is in the open position ensures that the SDV vent and drain valves will perform their intended functions during normal operation. This SR does not require any testing or valve manipulation; rather, it involves verification that the valves are in the correct position.

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

		SDV Vent and Drain Valves B 3.1.8
BASES		
APPLICABLE SA	FETY ANALYSES (continued)	
	scram (LCO 3.3.1.1, "Reactor Protection S is initiated if the SDV water level exceeds a setpoint is chosen such that all control rods has insufficient volume to accept a full scra	System (RPS) Instrumentation") a specified setpoint. The s are inserted before the SDV am.
	SDV vent and drain valves satisfy Criterion	n 3 of 10 CFR 50.36(c)(2)(ii).
LCO	The OPERABILITY of all SDV vent and dra a scram, the SDV vent and drain valves wi discharged to the SDV piping. Since the v provided with two valves in series, the sing open position will not impair the isolation fu Additionally, the valves are required to be o available for the SDV piping to drain freely	ain valves ensures that, during Il close to contain reactor water ent and drain lines are le failure of one valve in the unction of the system. open to ensure that a path is at other times.
APPLICABILITY	In MODES 1 and 2, scram may be required and drain valves must be OPERABLE. In are not able to be withdrawn since the read shutdown and a control rod block is applied controls to ensure that only a single contro during MODE 5, only a single control rod c cell containing fuel assemblies. Therefore, valves are not required to be OPERABLE i reactor is subcritical and only one rod may scram.	d, and therefore, the SDV vent MODES 3 and 4, control rods ctor mode switch is in d. This provides adequate I rod can be withdrawn. Also, an be withdrawn from a core , the SDV vent and drain n these MODES since the be withdrawn and subject to
ACTIONS sert from ? + page	The ACTIONS table is modified by Note Condition entry is allowed for each SDV ve acceptable, since the Required Actions for appropriate compensatory actions for each Complying with the Required Actions may and subsequent inoperable SDV lines are Condition entry and application of associate	indicating that a separate ent and drain line. This is r each Condition provide inoperable SDV line. allow for continued operation, governed by subsequent ed Required Actions.
	A.1 associated line must be colant during a scram.	isolated to contain the rea
7 day nd the line is of icolated	When one SDV vent or drain valve is inopervalves must be restored to OPEBABLE states Completion Time is reasonable, given the and the low probability of a scram occurring are inoperable. The SDV is still isolable sin affected line is OPERABLE. During these	erable in one or more lines, the atus within 7 days. The level of redundancy in the lines g during the time the valve(s) nce the redundant valve in the periods, the single failure
BWR/6 STS	B 3.1.8 - 2	Rev. 2, 04/30/01

SDV Vent and Drain Valves B 3.1.8 TSTF-404 BASES ACTIONS (continued) Move to criterion may not be preserved, and a higher risk exists to allow reactor previous page water out of the primary system during a scram. **B.1** If both valves in a line are inoperable, the line must be isolated to contain the reactor coolant during a scram When a line is isolated, the potential for an inadvertent scram due to high SDV level is increased. Required nsert Action B.1 is modified by a Note that allows periodic draining and venting of the SDV when a line is isolated. During these periods, the line may be unisolated under administrative control. This allows any accumulated water in the line to be drained, to preclude a reactor scram on SDV high level. This is acceptable, since the administrative controls ensure the valve can be closed quickly, by a dedicated operator, if a scram occurs with the valve open. The 8 hour Completion Time to isolate the line is based on the low probability of a scram occurring while the line is not isolated and unlikelihood of significant CRD seal leakage. C.1 If any Required Action and associated Completion Time is not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to MODE 3 within 12 hours. The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging plant systems. SURVEILLANCE SR 3.1.8.1 REQUIREMENTS During normal operation, the SDV vent and drain valves should be in the open position (except when performing SR 3.1.8.2) to allow for drainage of the SDV piping. Verifying that each value is in the open position ensures that the SDV vent and drain valves will perform their intended function during normal operation. This SR does not require any testing or valve manipulation; rather, it involves verification that the valves are in the correct position. The 31 day Frequency is based on engineering judgment and is consistent with the procedural controls governing valve operation, which ensure correct valve positions. Improper valve position (closed) would not affect the isolation function.