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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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ELECTRICAL POWER SYSTEMS

MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION AND BYPASS DEVICES

LIMITING CONDITION FOR OPERATION

3.8.4.2 The thermal overload protection and bypass devices, integral with the motor starter, of each valve listed in Table 3.8-2 shall be OPERABLE.

APPLICABILITY: Whenever the motor operated valve is required to be OPERABLE.

ACTION:

With one or more of the thermal overload protection and/or bypass devices inoperable, declare the affected valve(s) inoperable and apply the appropriate ACTION Statement(s) for the affected valve(s).

SURVEILLANCE REQUIREMENTS

4.8.4.2 The above required thermal overload protection and bypass devices shall be demonstrated OPERABLE:

- a. At least once per 18 months by the performance of a TRIP ACTUATING DEVICE OPERATIONAL TEST of the bypass circuitry for those thermal overload devices which are normally in force during plant operation and bypass under accident conditions.
- b. At least once per 18 months by the performance of a CHANNEL CALIBRATION of a representative sample of at least 25% of the MOV's with required safety functions such that each thermal overload is calibrated and each valve is cycled through at least one complete cycle of full travel with the motor operator when the thermal overload is OPERABLE and not bypassed, at least once per 6 years.

Table 3.8-2

Motor Operated Valves Thermal Overloads Protection and/or Bypass Devices

<u>Valve #</u>	<u>Function</u>	<u>Bypass Devices</u> Y/N
FCV0602A-RH	RHR Pump A Miniflow Valve	No
FCV0602B-RH	RHR Pump B Miniflow Valve	No
LCV0115B-CS	CHG Pump A Suction HDR RWST ISOL VLV	Yes
LCV0115C-CS	Volume Control Tank Outlet ISOL Valve	Yes
LCV0115D-CS	CHG Pump B Suction HDR RWST ISOL VLV	Yes
LCV0115E-CS	Volume Control Tank Outlet ISOL Valve	Yes
XVB3106A-SW	SW Booster Pump A Discharge Valve	Yes
XVB3106B-SW	SW Booster Pump B Discharge Valve	Yes
XVB3110A-SW	RBCU 1A & 2A 1C SYS Supply ISOL Valve	Yes
XVB3110B-SW	RBCU 1B & 2B 1C SYS Supply ISOL Valve	Yes
XVB3126A-SW	HVAC Chiller Condenser A SW Supply VLV	No
XVB3126B-SW	HVAC Chiller Condenser B SW Supply VLV	No
XVB3128A-SW	HVAC Chiller Cond C SW HDR A IN ISOL VLV	No
XVB3128C-SW	HVAC Chiller Cond C SW HDR B IN ISOL VLV	No
XVB9503A-CC	RHR HX A CC Inlet Valve	No
XVB9503B-CC	RHR HX B CC Inlet Valve	No
XVG1001A-EF	MTR DR EF Pump A SW A SUCT XCONN VLV	Yes
XVG1001B-EF	MTR DR EF Pump B SW A SUCT XCONN VLV	Yes
XVG1002-EF	TURB DR EF Pump SW B SUCT XCONN VLV	Yes
XVG1008-EF	TURB DR EF Pump SW A SUCT XCONN VLV	Yes
XVG1037A-EF	EF Service Water HDR A XCONN ISOL VLV	Yes
XVG1037B-EF	EF Service Water HDR B XCONN ISOL VLV	Yes
XVG2802A-MS	MS Header B EF Pump Turbine Supply VLV	Yes
XVG2802B-MS	MS Header C EF Pump Turbine Supply VLV	Yes
XVG3001A-SP	RB Spray PP A RWST Suction HDR VLV	Yes
XVG3001B-SP	RB Spray PP B RWST Suction HDR VLV	Yes
XVG3002A-SP	NAOH HDR A Supply ISOL Valve	Yes

ELECTRICAL POWER SYSTEMS

(Table 3.8-2 Cont.)

Motor Operated Valves Thermal Overloads Protection and/or Bypass Devices

<u>Valve #</u>	<u>Function</u>	<u>Bypass Devices</u> <u>Y/N</u>
XVG3002B-SP	NAOH HDR B Supply ISOL Valve	Yes
XVG3003A-SP	RB Spray Header A Supply Valve (ORC)	Yes
XVG3003B-SP	RB Spray Header B Supply Valve (ORC)	Yes
XVG3004A-SP	RB Spray Sump ISOL Valve A (IRC)	Yes
XVG3004B-SP	RB Spray Sump ISOL Valve B (IRC)	Yes
XVG3005A-SP	RB Spray Sump ISOL Valve A (ORC)	Yes
XVG3005B-SP	RB Spray Sump ISOL Valve B (ORC)	Yes
XVG3103A-SW	RBCU 1A & 2A Return Header ISOL VLV	No
XVG3103B-SW	RBCU 1B & 2B Return Header ISOL VLV	No
XVG3107A-SW	SW Pond RBCU 1A&2A Return ISOL VLV	Yes
XVG3107B-SW	SW Pond RBCU 1B&2B Return ISOL VLV	Yes
XVG3108A-SW	RB Cooling Unit 1A Inlet ISOL VLV	Yes
XVG3108B-SW	RB Cooling Unit 2A Inlet ISOL VLV	Yes
XVG3108C-SW	RB Cooling Unit 1B Inlet ISOL VLV	Yes
XVG3108D-SW	RB Cooling Unit 2B Inlet ISOL VLV	Yes
XVG3109A-SW	RB Cooling Unit 1A Outlet ISOL VLV	Yes
XVG3109B-SW	RB Cooling Unit 2A Outlet ISOL VLV	Yes
XVG3109C-SW	RB Cooling Unit 1B Outlet ISOL VLV	Yes
XVG3109D-SW	RB Cooling Unit 2B Outlet ISOL VLV	Yes
XVG3111A-SW	RBCU 1A&2A IC SYS Return ISOL VLV	Yes
XVG3111B-SW	RBCU 1B&2B IC SYS Return ISOL VLV	Yes
XVG3112A-SW	RBCU 1A&2A IC SYS Return VLV	Yes
XVG3112B-SW	RBCU 1B&2B IC SYS Return VLV	Yes
XVG6516-VU	CC Pump A Motor Cooler VU Outlet ISOL VLV	No
XVG6517-VU	CC Pump C Motor Cooler VU ALT Out ISOL VLV	No
XVG6518-VU	CC Pump C Motor Cooler VU ALT Out ISOL VLV	No
XVG6519-VU	CC Pump B Motor Cooler VU Outlet ISOL VLV	No
XVG6797-FS	Fire Service Containment Isol. Valve	Yes

Table 3.8-2 (Cont.)

## Motor Operated Valves Thermal Overloads Protection and/or Bypass Devices

Valve #	Function	Bypass Devices
		Y/N
XVG7501-AC	AC Supply Header Containment Isol. Valve	Yes
XVG7502-AC	AC Supply Header Containment Isol. Valve	Yes
XVG7503-AC	AC Return Header Containment Isol. Valve	Yes
XVG7504-AC	AC Return Header Containment Isol. Valve	Yes
XVG8106-CS	Charging Pump Miniflow Header ISOL Valve	No
XVG8107-CS	Charging Pump Discharge Header ISOL Valve	Yes
XVG8108-CS	Charging Pump Discharge Header ISOL Valve	Yes
XVG8130A-CS	Charging Pump A to C SUCT XCONN VLV	No
XVG8130B-CS	Charging Pump A to C SUCT XCONN VLV	No
XVG8131A-CS	Charging Pump B to C SUCT XCONN VLV	No
XVG8131B-CS	Charging Pump B to C SUCT XCONN VLV	No
XVG8132A-CS	Charging Pump A to C DISCH XCONN VLV	No
XVG8132B-CS	Charging Pump A to C DISCH XCONN VLV	No
XVG8133A-CS	Charging Pump B to C DISCH XCONN VLV	No
XVG8133B-CS	Charging Pump B to C DISCH XCONN VLV	No
XVG8701A-RH	RH Header A ISOL Valve (IRC)	No
XVG8701B-RH	RH Header B ISOL Valve (IRC)	No
XVG8702A-RH	RH Inlet Header A ISOL Valve	No
XVG8702B-RH	RH Inlet Header B ISOL Valve	No
XVG8706A-RH	CHG/SI Pump SUCT HDR RH HDR A Inlet VLV	No
XVG8706B-RH	CHG/SI Pump SUCT HDR RH HDR B Inlet VLV	No
XVG8801A-SI	HI Head Injection Valve	Yes
XVG8801B-SI	HI Head Injection Valve	Yes
XVG8808A-SI	SI Accumulator A Discharge Header Valve	Yes
XVG8808B-SI	SI Accumulator B Discharge Header Valve	Yes
XVG8808C-SI	SI Accumulator C Discharge Header Valve	Yes
XVG8809A-SI	Refuel WTR STG TK RH Pump A SUCT VLV	No
XVG8809B-SI	Refuel WTR STG TK RH Pump B SUCT VLV	No

(Table 3.8-2 (Cont.))

Motor Operated Valves Thermal Overloads Protection and/or Bypass Devices

<u>Valve #</u>	<u>Function</u>	<u>Bypass Devices</u> <u>Y/N</u>
XVG8811A-SI	CNTMT Sump RH Pump A SUCT ISOL VLV	Yes
XVG8811B-SI	CNTMT Sump RH Pump B SUCT ISOL VLV	Yes
XVG8812A-SI	RH Pump A Suction HDR VLV	Yes
XVG8812B-SI	RH Pump B Suction HDR VLV	Yes
XVG8884-SI	High Head to Hot Leg Inj. Header ISOL VLV	No
XVG8885-SI	High Head to Cold Leg Inj. Header ISOL VLV	No
XVG8886-SI	High Head to Hot Leg Inj. Header ISOL VLV	No
XVG8887A-SI	Low Head Inj. HDR A XCONN Valve	No
XVG8887B-SI	Low Head Inj. HDR B XCONN Valve	No
XVG8888A-SI	Cold Leg Injection Header ISOL Valve	No
XVG8888B-SI	Cold Leg Injection Header ISOL Valve	No
XVG8889-SI	Hot Leg Injection Header ISOL Valve	No
XVG9568-CC	Excess LTDN HX Inlet CC HDR ISOL Valve	Yes
XVG9600-CC	RB CC Supply Header ISOL Valve	Yes
XVG9605-CC	RB CC Return Header ISOL Valve	Yes
XVG9606-CC	RB CC Return Header ISOL Valve	Yes
XVK1633A-FW	STM GEN A CHEM Feed HDR ISOL Valve	Yes
XVK1633B-FW	STM GEN B CHEM Feed HDR ISOL Valve	Yes
XVK1633C-FW	STM GEN C CHEM Feed HDR ISOL Valve	Yes
XVT2813-MS	EF Pump TURB Steam Supply HDR Drain VLV	Yes
XVT8100-CS	RC Pump Seal Return HDR ISOL Valve (ORC)	Yes
XVT8109A-CS	Charging pump A Miniflow ISOL Valve	No
XVT8109B-CS	Charging Pump B Miniflow ISOL Valve	No
XVT8109C-CS	Charging Pump C Miniflow ISOL Valve	No
XVT8112-CS	RC Pump Seal Return HDR ISOL Valve (IRC)	Yes



## ELECTRICAL POWER SYSTEMS

### BASES

#### 3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance.

The surveillance requirements applicable to lower voltage circuit breakers provide assurance of breaker reliability by testing at least one representative sample of each manufacturer's brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

~~The OPERABILITY of the motor operated valves thermal overload protection and/or bypass devices ensures that these devices will not prevent safety-related valves from performing their function. The Surveillance Requirements for demonstrating the OPERABILITY of these devices are in accordance with Regulatory Guide 1.106, "Thermal Overload Protection for Electric Motors on Motor Operated Valves," Revision 1, March 1977.~~

The surveillance requirements of the circuit breakers for non-Class 1E cables located in trays which do not have cable tray covers and which provide protection for cables that, if faulted, could cause failure in both adjacent, redundant Class 1E cables ensures that the integrity of Class 1E cables is not compromised by the failure of protection devices to operate in the non-Class 1E cables.

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## ELECTRICAL POWER SYSTEMS

### BASES

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#### 3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance.

The surveillance requirements applicable to lower voltage circuit breakers provide assurance of breaker reliability by testing at least one representative sample of each manufacturer's brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

The surveillance requirements of the circuit breakers for non-Class 1E cables located in trays which do not have cable tray covers and which provide protection for cables that, if faulted, could cause failure in both adjacent, redundant Class 1E cables ensures that the integrity of Class 1E cables is not compromised by the failure of protection devices to operate in the non-Class 1E cables.

SAFETY EVALUATION  
FOR REMOVING THE SPECIFICATION FOR  
MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION  
AND BYPASS DEVICES FROM THE  
VIRGIL C. SUMMER NUCLEAR STATION  
TECHNICAL SPECIFICATIONS

Description of Amendment Request

The Virgil C. Summer Nuclear Station (VCSNS) Technical Specifications (TS) is being revised to remove TS 3/4.8.4.2, MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION AND BYPASS DEVICES, per the guidance of the improved Westinghouse Standardized Technical Specifications. The proposed TS change request (TSCR) will remove the Limiting Condition for Operation, the Surveillance Requirements, and Table 3.8-2; and will also revise the Bases for Electrical Power Systems.

The intent of the surveillance tests in TS 3/4.8.4.2 is to assure the operability of the motor operated valves (MOV) thermal overload protection and/or bypass devices.

This specification details the activities addressed by FSAR Appendix 3A to comply with Regulatory Guide (RG) 1.106, "Thermal Overload Protection for Electric Motors on Motor-Operated Valves", and is a repetition of material contained in plant procedures. Additionally, activities of this specification are not presented in the improved Westinghouse Standardized Technical Specifications. Therefore, the removal of this section will be consistent with the Nuclear Regulatory Commission and industry efforts to simplify TS. The removal of Table 3.8-2 is also consistent with actions described in Generic Letter 91-08, "Removal of Component Lists from Technical Specifications".

The Bases for this TS (Bases 3.4.8.4) is being revised to remove the discussion on MOV thermal overload protection and/or bypass devices.

Safety Evaluation

The proposed amendments to TS 3/4.8.4 involve no substantive changes to SCE&G's commitment in FSAR Appendix 3A to comply with RG 1.106, only format changes due to its relocation from TS to plant procedures.

The periodic testing required by RG 1.106, which is currently in TS Surveillance Requirements 4.8.4.2, will be maintained and controlled in plant procedures. Additionally, the list of MOVs with thermal overload protection and/or bypass devices currently in Table 3.8-2 will be maintained and controlled in plant procedures. Continual surveillance will ensure that the reliability of these components are maintained.

Pursuant to the above information, the proposed TSCR does not involve a reduction in margin of safety since the changes do not have an adverse impact on containment integrity, systems, or components important to safety or any other design feature. There is also no unreviewed safety question involved with the TSCR.

SIGNIFICANT HAZARDS EVALUATION  
FOR REMOVING THE SPECIFICATION FOR  
MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION  
AND BYPASS DEVICES FROM THE  
VIRGIL C. SUMMER NUCLEAR STATION  
TECHNICAL SPECIFICATIONS

Description of Amendment Request

The Virgil C. Summer Nuclear Station (VCSNS) Technical Specifications (TS) is being revised to remove TS 3/4.8.4.2, MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION AND BYPASS DEVICES, per the guidance of the improved Westinghouse Standardized Technical Specifications. The proposed TS change request (TSCR) will remove the Limiting Condition for Operation, the Surveillance Requirements, and Table 3.8-2; and will also revise the Bases for Electrical Power Systems.

The intent of the surveillance tests in TS 3/4.8.4.2 is to assure the operability of the motor operated valves (MOVs) thermal overload protection and/or bypass devices.

This specification details the activities addressed by FSAR Appendix 3A to comply with Regulatory Guide (RG) 1.106, "Thermal Overload Protection for Electric Motors on Motor-Operated Valves", and is a repetition of material contained in plant procedures. Additionally, activities of this specification are not presented in the improved Westinghouse Standardized Technical Specifications. Therefore, the removal of this section will be consistent with the Nuclear Regulatory Commission and industry efforts to simplify TS. The removal of Table 3.8-2 is also consistent with actions described in Generic Letter 91-08, "Removal of Component Lists from Technical Specifications".

The Bases for this TS (Bases 3.4.8.4) is being revised to remove the discussion on MOV thermal overload protection and/or bypass devices.

Basis for No Significant Hazards Consideration Determination

South Carolina Electric & Gas Company (SCE&G) has evaluated the proposed changes to the VCSNS TS described above against the Significant Hazards Criteria of 10 CFR 50.92 and has determined that the changes do not involve any significant hazard for the following reasons:

1. The probability or consequences of an accident previously evaluated in the FSAR is not significantly increased.

The removal of TS 3/4.8.4.2 from TS in no way impacts the accident analysis of the FSAR. Compliance of 10CFR50, as applies to Regulatory Guide 1.106, will be maintained and controlled through plant procedures with changes evaluated through 10 CFR 50.59 rather than through TS amendments. Therefore, the probability or consequences of a previously evaluated accident has not been increased.

2. The possibility of an accident or a malfunction of a different type than any previously evaluated is not created.

The proposed TSCR does not necessitate physical alteration of the plant nor changes in parameters governing normal plant operation. Therefore, the change does not create the possibility of a new or different kind of accident or malfunction.

3. The margin of safety has not been significantly reduced.

The removal of TS 3/4.8.4.2 and Table 3.8-2 will not diminish the existing thermal overload protection and/or bypass devices operability and testing requirements. They will be maintained and controlled in plant procedures, and changes will be subject to 10 CFR 50.59 review. Therefore, the margin of safety has not decreased.

Pursuant to 10CFR50.91, the preceding analyses provides a determination that the proposed TSCR poses no significant hazard as delineated by 10CFR50.92.