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Rick J. King Director Nuclear Safety & Regulatory Affairs

September 10, 1998

U.S. Nuclear Regulatory Commission Document Control Desk, OP1-37 Washington, DC 20555

Subject: River Bend Station - Unit I Docket No. 59-458 License No. NPF-47 Revision to Requests for Relief VRR-001 and VRR-002

File Nos.: G9.5, G12.5.2

RBF1-98-0225 RBG-44626

Ladies and Gentlemen:

As requested by Messrs. Dave Wigginton and John Huang of your staff in a telephone conversation in July 1998, picase find attached the revised Requests for Relief VRR-001 and VRR-002. These Requests for Relief were originally submitted in accordance with 10CFR50.55a(f)(5)(iii), in a letter dated January 6, 1998. These revisions were discussed with Messrs. Wigginton and Huang in a telephone conversation on August 31, 1998 and provide the requested clarifications.

Request for Relief, VRR-001, has been revised to indicate that the Main Steam Safety Relief valves will be tested in accordance with ASME/ANSI OM 1987, Part 1. Additionally, a clarification was added to the Basis to indicate that procurement of spare solenoids for each valve would be required to enable measurement of the stroke times during shop testing. This would be very costly and would not provide a compensating increase in the level of safety gained by the availability of stroke time measurements.

Request for Relief, VRR-002, has been revised to clarify that the requirements of ASME Section XI, 1980 Edition, paragraph IWV-3522 provide better assurance of valve operational readiness for check valves exercised with a mechanical exerciser.

A0471,

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Should you have any questions or need any additional information, please contact Rick McAdams at (504) 336-6224.

Sincerely,

RJK

RMM\mbp attachments

cc: Mr. David L. Wigginton
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River Bend Station Inservice Testing Plan for Pumps and Valves Interval 2, Revision 0

REQUEST FOR RELIEF

VRR-001

Component ID	Code Class	Category	Description	
SYSTEM: 109 - MSS - MAIN STEAM		AIN STEAM	GE CODE:	B21
B21-RVF041A	1	BC	MAIN STEAM LINE A PRESSURE RELIEF VALVE	
B21-RVF041B	1	BC	MAIN STEAM LINE B AUTO DEPRESSURIZATION SYSTEM PRESSURE RELIEF VALVE	
B21-RVF041C	1	BC	MAIN STEAM LINE C AUTO DEPRESSURIZATION SYSTEM PRESSURE RELIEF VALVE	
B21-RVF041D	1	BC	MAIN STEAM LINE D AUTO DEPRESSURIZATION SYSTEM PRESSURE RELIEF VALVE	
B21-RVF041F	1	BC	MAIN STEAM LINE B PRESSURE RELIEF VALVE	
B21-RVF041G	1	BC	MAIN STEAM LINE C PRESSURE RELIEF VALVE	
B21-RVF041L	1	BC	MAIN STEAM LINE C PRESSURE RELIEF VALVE	
B21-RVF047A	1	BC	MAIN STEAM LINE A AUTO DEPRESSURIZATION SYSTEM PRESSURE RELIEF VALVE	
B21-RVFC47B	1	BC	MAIN STEAM LINE B PRESSURE RELIEF VALVE	
B21-RVF047C	1	BC	MAIN STEAM LINE C AUTO DEPRESSURIZATION SYSTEM PRESSURE RELIEF VALVE	
821-RVF047D	1	BC	MAIN STEAM LINE D PRESSURE RELIEF VALVE	
B21-RVF047F	1	BC	MAIN STEAM LINE B PRESSURE RELIEF VALVE	
B21-RVF051B	1	BC	MAIN STEAM LINE B PRESSURE RELIEF VALVE	
B21-RVF051C	1	BC	MAIN STEAM LINE C PRESSURE RELIEF VALVE	
B21-RVF051D	1	r.C	MAIN STEAM LINE D PRESSURE RELIEF VALVE	
B21-RVF051G	1	BC	MAIN STEAM LINE C FUTO DEPRESSURIZATION SYSTEM PRESSURE RELIEF VALVE	

TEST REQUIREMENT: Stroke time measurement in accordance with ASML/ANSI OMa-1988, Part 10, Par: graph 4.2.1.4.

ALTERNATE TESTING: No s roke time measurements will be performed. The valves will be full stroke exercise tested in accordance with ASME/ANSI OMa-1988, Part 10. SRV tailpipe steam flow, reactor vessel pressure drop, or indication on the SRV tailpipe acoustic monitor will be used to provide positive indication of valve stroke. Additionally, the valves will be tested in accordance with the requirements of ASME/ANSI OM 1987, Part 1.

15TEN 00-010

BASIS:

The Safety Relief Valves are not equipped with direct position indicating devices. Additionally, the actual valve stroke times are on the order of 100 mS. Use of other



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REQUEST FOR RELIEF

VRR-001

15TCN 00-010

indicators of valve position (i.e. acoustic monitors, tailpipe temperature, vessel pressure) do not provide the accuracy required to obtain stroke times that would furnish mearingful data (i.e. degradation trending). The proper valve stem movement during actuation is verified during periodic shop testing.

Modification of the valves to provide direct position indication, or procurement of spare solenoids to be maintained with each valve during offsite testing would be costly and would not provide a compensating increase in the level of safety gained by the availability of stroke time measurements.

REFERENCES: RBC-40430

APPROVAL:

Pending NRC approval.

Relief previously granted (as VRR-72) on 11/24/95 in NRC Safety Evaluation Report (TAC No. M90975). Principal Contributor: M. Khanna River Bend Station Inservice Testing Plan for Pumps and Valves Interval 2, Revision 0

REQUEST FOR RELIEF

VRR-002

Component ID	Code Class	Category	Description	
SYSTEM: 203 -	CSH - HI	GH PRESSU	RE CORE SPRAY (HPCS)	GE CODE: E22
E22-AOVF005	1	AC	HIGH PRESSURE CORE SPRAY PUN CHECK VALVE INSIDE DRYWELL	IP DISCHARGE HEADER

Component ID	Code Class	Category	Description		
SYSTEM: 204 -	RHS - RE	SIDUAL HE	AT REMOVAL - LPCI (RHR)	GE CODE:	E12
E12-AOVF041A	1	AC	RESIDUAL HEAT REMOVAL PUMP A IN CHECK VALVE	JECTION LINE TEST	TABLE
E12-AOVF041B	1	AC	RESIDUAL HEAT REMOVAL PUMP B IN CHECK VALVE	JECTION LINE TEST	TABLE
E12-AOVF041C	1	AC	RESIDUAL HEAT REMOVAL PUMP C IN CHECK VALVE	VJECTION LINE TEST	TABLE

Component ID	Code Class	Category	Description		
SYSTEM: 205 -	CSL - LO	W PRESSUR	RE CORE SPRAY (LPCS)	GE CODE:	E21
E21-AOVF006	1	AC	LOW PRESSURE CORE SPRAY PUMP DRYWELL CHECK VALVE	INJECTION INSIDE	

Component ID	Code Class	Category	Description		
SYSTEM: 209 -	ICS - RE	ACTOR COR	E ISOLATION COOLING (RCIC)	GE CODE:	E51
E51-AOVF065	1	AC	REACTOR CORE ISOL COOLING PUMP D OUTBOARD TESTABLE CHECK VALVE	ISCHARGE LINE	
E51-AOVF066	1	AC	REACTOR CORE ISOL COOLING FUMP D INBOARD TESTABLE AOV CHECK VALVE		

TEST REQUIREMENT:

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Valve obturator movement in accordance with ASME/ANSI OMa-1988, Part 10, Paragraph 4.3.2.4(b).



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REQUEST FOR RELIFF

VRR-002

ALTERNATE TESTING: Obturator movement for the listed valves will be demonstrated in accordance with the 1980 Edition of the ASME Boiler and Pressure Vessel Code, Section XI, Paragraph IWV-3522(b), as follows:

> A mechanical exerciser shall be used to move the disk. The force or torgue delivered to the disk by the exerciser will be limited to less than 10% of the equivalent force or torque represented by the minimum emergency condition pressure differential acting on the disk, or to 200% of the actual observed force or torque required to perform the exercise on the valve when the valve is new and in good operating condition. whichever is less.

The force or torque required to full-stroke exercise the listed valves to the open position will be measured.

BASIS:

ISTEN 00-010

Demonstration of valve obturator movement in accordance with the 1980 Edition of ASME Code, Section XI will provide better assurance of valve operational readiness for the indicated check valves than the requirements delineated in ASME/ANSI Part 10, Paragraph 4.3.2.4(b). Measurement of the force or torque required to initiate movement (breakaway) alone is less definitive in confirming that the listed valves are capable of stroking to their open safety positions. Valve binding in excess of acceptable limits may occur at obturator positions beyond the point of initial movement. This mode of valve degradation is more detectable by the procedure specified in ASME Code, Section XI, 1980 Edition, Paragraph IWV-3522.

The listed valves no longer have air actuators connected to the valves. Therefore, the valve actuators cannot be used to perform the Code required exercise testing.

Exercising the listed valves with flow would require using the Emergency Core Cooling System (ECCS) pumps to inject water into the reactor due to the relatively high accident flow rates required for full stroke exercising of the valves. Additionally, the injection line nozzles associated with the Residual Heat Removal System are not equipped with internal spargers. General Electric Service Information Letter 401 identifies problems with injecting water through this flow path and the potential damage to nuclear instrumentation or fuel assemblies which could occur if this flow path were used for other than emergency conditions. For these reasons performing the Code required check valve exercise testing with flow creates a hardship without providing a compensating increase in the level of quality or safety.

Part 10 also allows check valve disassembly at refueling outages as an alternative to the valve obturator movement described in Paragraphs 4.3.2.4(a) or (b). However, check valve disassembly is not a preferred alternative.

The proposed alternate testing is in accordance with a previously approved edition of the ASME Boiler and Pressure Vessel Code and will provide an acceptable level of quality and safety.

REFERENCES: NUREG-1482, Appendix A, Question Group 3

APPROVAL: Pending NRC approval.