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 SORENSEN,G.C. Washington Public Power Supply System  
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SUBJECT: Responds to IE Bulletin 85-003, "Motor-Operated Valve Common Mode Failures During Plant Transients Due to Improper...."

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 TITLE: Bulletin Response (50 DKT)

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352

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G02-88-195  
September 9, 1988

Docket No. 50-397

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Station P1-137  
Washington, D.C. 20555

Gentlemen:

Subject: NUCLEAR PLANT NO. 2  
RESPONSE TO IE BULLETIN 85-03  
SUPPLEMENT 1

Reference: 1) Letter, G02-88-115, GC Sorensen (SS) to NRC,  
same subject, dated may 13, 1988

2) Letter, BWROG-8832, DN Grace (BWROG) to CE Rossi (NRC  
"NRC Bulletin 85-03, Supplement 1: Motor Operated  
Valve Common Mode Failures During Plant Transients  
Due to Improper Switch Settings", dated July 20, 1988

3) Letter, GE Rossi (NRC) to DN Grace (BWROG), IEB 85-03,  
dated August 8, 1988

Reference 1) notified the NRC that the WNP-2 response to the subject IE Bulletin would be submitted following the Boiling Water Reactor Owners Group (BWROG) generic submittal on the same subject. Reference 2) provided the BWROG generic report and as committed in Reference 1) this letter responds to the 30 day requirements of the supplement.

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RESPONSE TO IE BULLETIN 85-03, SUPPLEMENT 1

Of the nine valves identified by the BWROG and accepted by the Staff in Reference 3) for review per IEB 85-03 Supplement 1, three are HPCI system valves and, because WNP-2 does not have an HPCI system, are not applicable to WNP-2. The attached table summarizes the review of the design basis as requested by item a of the supplement, for the operation of the remaining six valves. This review included the maximum differential pressure expected during both opening and closing for both normal and abnormal events including inadvertent mispositioning. As a result of this reevaluation, three valves, HPCS-V-1, RCIC-V-10 and RCIC-V-68 have additional differential pressure requirements for the open direction torque switch. Requirements for the remaining valves remain unchanged. Because all safety related valves which must open, have their open torque switch bypassed and the opening circuit provided with a series limit switch the full design torque is assured. Hence the setting of the torque switch with respect to the newly identified requirements does not affect the safety related operation of these valves. As noted in the table, the RCIC V-12 operator has been deactivated and the valve locked open, hence inadvertent operation of RCIC V-12 is not possible.

As stated in Reference 1) the Supply System will complete all activities as a result of the Supplement by the end of the Spring 1989 refueling outage and submit a final report as directed by the Supplement within sixty days thereafter.

Very truly yours,

  
G. C. Sorensen, Manager  
Regulatory Programs

PLP/bk

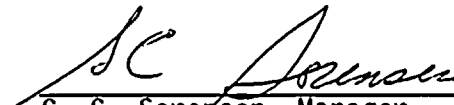
cc: JB Martin - NRC RV  
NS Reynolds - BCP&R  
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DL Williams - BPA/399  
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STATE OF WASHINGTON)  
COUNTY OF BENTON )

Subject: IEB Response 85-03

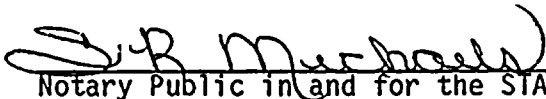
I, G. C. Sorensen, being duly sworn, subscribe to and say that I am the Manager, Regulatory Programs for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that I have full authority to execute this oath; that I have reviewed the foregoing; and that to the best of my knowledge, information and belief the statements made in it are true.

DATE 9 SEPT, 1988

  
G. C. Sorensen, Manager  
Regulatory Programs

On this day personally appeared before me G. C. Sorensen to me known to be the individual who executed the foregoing instrument and acknowledged that he signed the same as his free act and deed for the uses and purposes herein mentioned.

GIVEN under my hand and seal this 9th day of September 1988.

  
Notary Public in and for the STATE  
OF WASHINGTON

Residing at Richland, WA.  
Dec. '89

# MOTOR OPERATED VALVE COMMON MODE FAILURES

B&R Valve # (Note 1)	WNP-2 Valve #	Size/ Type	Manufacturer	Valve/Oper Model	Valve Description	Safety Function Open/Close	Diff Press Open (PSID)	Diff Press Close (PSID)	Open/Close Torque Switch	Limit Switch	Design Spec Press (PSID)
3	HPCS-V-1	14"/Gate	Anchor Darling	SMB-00-25	HPCS System Condensate Storage Tank Suction Valve	Open/Close	33.5 (Note 2)	19.0	1.0/1.0	(Note 9)	150
7	HPCS-V-23	12"/Globe	Anchor Darling	SMB-4-150	HPCS System Suppression Pool Test Return Isolation Valve	Close (Note 3)	(Note 4)	1237.0	< 2.0/< 2.0	(Note 10)	1500 (Note 5)
3	RCIC-V-10	8"/Gate	Velan	SMB-00-15	RCIC System CST Suction Valve	Open/Close	37.6 (Note 2)	63.5	1.0/1.0	(Note 11)	125
8	RCIC-V-12	6"/Gate	Velan	—	Valve Operator Deactivated and Valve Locked Open	(Note 6)	—	—	—	—	—
VI	RCIC-V-68	10"/Gate	Velan	SMB-0-15	RCIC System Turbine Exhaust Isolation Valve	Open/Close	45.0 (Note 2)	44.0	1.5/2.5	(Note 11)	45
X	RCIC-V-1	3"/Gate	Schutte-Koerting	SMB-000-2	RCIC System Trip and Throttle Valve	Open/Close	(Note 7)	(Note 8)	2.0/2.5	—	1250

(See next page for notes)



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Notes for Table:

1. Valve designations as they appear in Report No. NEDC-31322, BWR Owner's Group Report on the Operational Design Basis of Selected Safety-related Motor Operated Valves, September 1986.
2. Required differential pressure to reposition valve after valve has been inadvertently mispositioned.
3. Valve's safety function is closed. If valve were mispositioned open, a design differential pressure of 1237.0 psid would meet or exceed the differential pressure the valve would see during repositioning.
4. No safety function.
5. Valve capable of operating against 2160 PSID as supplied by the valve vendor.
6. Valve operator has been electrically deactivated and the valve locked open. This valve is used only in a manual operating mode.
7. The differential pressure across the RCIC turbine trip and throttle valve during opening of the valve in compliance with normal operating procedures is negligible. The basis for this is that, prior to resetting the RCIC turbine upstream of the trip and throttle valve, the RCIC system steam admission valve located upstream of the trip and throttle valve would first be closed. This action resets the RCIC system startup logic (i.e., the ramp generator for the RCIC turbine). The RCIC turbine trip and throttle valve above seat drain upstream of the valve will vent steam that is trapped between the closed steam admission valve and the trip and throttle valve to the turbine exhaust line drain pot. This will reduce the differential pressure across the turbine trip and throttle valve to a negligible value prior to valve opening.
8. Valve closes by spring action, not motor operator driven.
9. Opening torque switch is jumpered throughout travel. Closing torque switch is bypassed by Limit Switch No. 7 until valve is approximately 95%-98% closed.
10. Opening torque switch is bypassed by Limit Switch No. 11 until the valve is approximately 95% open. Closing torque switch is bypassed by Limit Switch No. 7 until the valve is approximately 95%-99% closed.
11. Opening torque switch is jumpered throughout travel. Closing torque switch is bypassed by Limit Switch No. 16 until valve is approximately 95%-99% closed.