

October 30, 2000
GO2-00-186

Docket No. 50-397

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Gentlemen:

Subject: **WNP-2, OPERATING LICENSE NPF-21
RELIEF REQUEST RV06 FROM ASME/ANSI
OMa-1988 Part 10 CODE REQUIREMENT**

- References:
1. Letter BWROG-00069, dated June 14, 2000, from WG Warren, (BWR Owners Group) to Office of Nuclear Reactor Regulation, "Transmittal of Approved GE Licensing Topical Report, NEDO-32977-A, Excess Flow Check Valve Testing Relaxation," dated November 1998
 2. Letter GO2-00-185 dated October 30, 2000, from DK Atkinson (Energy Northwest) to US Nuclear Regulatory Commission, "Request for Amendment Technical Specification Surveillance Requirement SR 3.6.1.3.8 Excess Flow Check Valves Test Frequency"
 3. Letter, dated October 3, 2000, Jack Cushing (NRC) to JV Parrish (Energy Northwest) "Request for Additional Information (RAI) for WNP-2, (TAC NO. MA9063)"
 4. Letter, GO2-00-177, dated October 12, 2000, PJ Inserra (Energy Northwest) to US Nuclear Regulatory Commission, "Request for Amendment To Technical Specification Surveillance Requirement SR 3.6.1.3.8 (Additional Information)"

Pursuant to Section 50.55a(a)(3)(i) of Title 10 of the Code of Federal Regulations, Energy Northwest hereby requests relief from the Code requirements for testing of Excess Flow Check Valves (EFCVs). Specifically, we are requesting approval of an alternative to ASME/ANSI OMa-1988 Part 10 valve exercising test frequency and valve position verification frequency specified in paragraphs 4.3.2.1 and 4.1 respectively for reactor instrument line EFCVs.

The attached relief request RV06 is in accord with our response (Reference 4) to the NRC request for additional information (Reference 3). This request is submitted in conjunction with a revision to Technical Specification Surveillance Requirement SR 3.6.1.3.8 for EFCVs (Reference 2) based on an industry initiative (Reference 1).

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**RELIEF REQUEST RV06 FROM ASME/ANSI
OMa-1988 Part 10 CODE REQUIREMENT
Page 2**

Energy Northwest requests that the NRC approve this relief request by January 31, 2001 to allow implementation prior to the next WNP-2 refueling outage. Should you have any questions or require additional information pertaining to this report, please contact PJ Inserra or me at (509) 377-4147.

Respectfully,



DK Atkinson
(Acting) Vice President, Operations Support/PIO
Mail Drop PE08

Attachment

cc: EW Merschoff - NRC-RIV
JS Cushing - NRC-NRR
TC Poindexter - Winston & Strawn
NRC Sr. Resident Inspector - 988C
DL Williams - BPA/1399
D Barkdoll - Chief Boiler Inspector
GM Foster - ANI(I)

**RELIEF REQUEST RV06 FROM ASME/ANSI
OMa-1988 Part 10 CODE REQUIREMENT**

Attachment
Page 1 of 3

IST Program Plan
2nd 10-Year Interval

WNP-2

Page 170a of 175
Revision 2

Relief Request -- RV06

Affected Valves	Class	Cat.	System(s) / Function	
PI-EFC-X18A, B, C, D	1	C	System(s):	Process Instrumentation for various systems connected to RPV
PI-EFC-X37E, F	1	C		
PI-EFC-X38A, B, C, D, E, F	1	C	Function:	Excess flow check valves (EFCVs) are provided in each instrument process line that is part of the reactor coolant pressure boundary. Design and installation of the excess flow check valves at WNP-2 conform to Regulatory Guide 1.11.
PI-EFC-X39A, B, D, E	1	C		
PI-EFC-X40C, D	1	C		
PI-EFC-X40E, F	2	C		
PI-EFC-X41C, D	1	C		
PI-EFC-X41E, F	2	C		
PI-EFC-X42A, B	1	C		
PI-EFC-X44A Series (Typ 12)	1	C		
PI-EFC-X44B Series (Typ 12)	1	C		
PI-EFC-X61A, B	1	C		
PI-EFC-X62C, D	1	C	Close:	The reactor instrument line EFCV close to limit the flow in the respective instrument line in the event of an instrument line break downstream of the EFCV outside containment.
PI-EFC-X69A, B, E	1	C		
PI-EFC-X70A, B, C, D, E, F	1	C		
PI-EFC-X71A, B, C, D, E, F	1	C		
PI-EFC-X72A	1	C		
PI-EFC-X73A	1	C		
PI-EFC-X74A, B, E, F	1	C		
PI-EFC-X75A, B, C, D, E, F	1	C		
PI-EFC-X78B, C, F	1	C		
PI-EFC-X79A, B	1	C		
PI-EFC-X106	1	C		
PI-EFC-X107	1	C		
PI-EFC-X108	1	C		
PI-EFC-X109	1	C		
PI-EFC-X110	1	C		
PI-EFC-X111	1	C		
PI-EFC-X112	1	C		
PI-EFC-X113	1	C		
PI-EFC-X114	1	C		
PI-EFC-X115	1	C		

ASME/ANSI OMa-1988 Part 10 Code Requirement for Which Relief is Requested

Paragraph 4.3.2.1, Exercising Test frequency.

Paragraph 4.1, Valve Position Verification.

**RELIEF REQUEST RV06 FROM ASME/ANSI
OMa-1988 Part 10 CODE REQUIREMENT**

Attachment

Page 2 of 3

IST Program Plan
2nd 10-Year Interval

WNP-2

Page 170b of 175
Revision 2

Relief Request -- RV06 (Continued)

Paragraph 4.3.2.1 requires these check valves to be exercised nominally every 3 months, except as provided by paragraph 4.3.2.2. Sub-paragraph 4.3.2.2(e) allows full-stroke testing during refueling outages, if exercising is not practicable during plant operation or cold shutdowns. Therefore, each reactor instrument line EFCV is exercise tested once every refuel outage. The WNP-2 refueling schedule is a nominal once every 2 years. Paragraph 4.1 requires verification of valve position indication at least once every 2 years. These testing requirements and frequency requirements are identical to Technical Specification SR 3.6.1.3.8.

Basis for Relief

ASME Code Part 10 requires testing of active or passive valves that are required to perform a specific function in shutting down a reactor to the cold shutdown condition, in maintaining the cold shutdown condition, or in mitigating the consequences of an accident. The EFCVs are not required to perform a specific function for shutting down or maintaining the reactor in a cold shutdown condition. Additionally, the reactor instrument lines are assumed to maintain integrity for all accidents except for the Instrument Line Break Accident (ILBA) as described in FSAR, Subsection 15.6.2. The reactor instrument lines at WNP-2 have a flow-restricting orifice upstream of the EFCV to limit reactor coolant leakage in the event of an instrument line rupture. Isolation of the instrument line by the EFCV is not credited for mitigating the ILBA. Thus a failure of an EFCV is bounded by the WNP-2 safety analysis. These EFCVs close to limit the flow of reactor coolant to the secondary containment in the event of an instrument line break and as such are included in the IST program at the Owner's discretion and are tested in accordance with the Technical Specification SR 3.6.1.3.8.

The GE Licensing Topical Report, NEDO-32977-A (Reference 2), and associated NRC safety evaluation, dated March 14, 2000, provides the basis for this relief. The report provides justification for relaxation of the testing frequency as described in the proposed Technical Specification amendment for SR 3.6.1.3.8. The report demonstrates the high degree of EFCV reliability and the low consequences of an EFCV failure. Excess flow check valves have been extremely reliable throughout the industry. Based on 15 years of testing with only one (1) failure, the WNP-2 revised Best Estimate Failure Rate is $7.9E-8$ per hour; less than the industry average of $1.01E-7$ per hour.

Failure of an EFCV, though not expected as a result of the proposed Technical Specification change, is bounded by the WNP-2 safety analysis. Based on the GE Topical report and the analysis contained in the FSAR, the proposed alternative to the required exercise frequency and valve indication verification frequency for EFCVs provide an acceptable level of quality and safety.

**RELIEF REQUEST RV06 FROM ASME/ANSI
OMa-1988 Part 10 CODE REQUIREMENT**
Attachment Page 3 of 3

IST Program Plan
2nd 10-Year Interval

WNP-2

Page 170c of 175
Revision 2

Request -- **RV06** (Continued)

Alternate Testing to be Performed

Energy Northwest requests relief pursuant to 10CFR50.55a(a)(3)(i) to test reactor instrument line excess flow check valves in accordance with the proposed Technical Specification amendment for SR 3.6.1.3.8. This SR requires verification every 24 months that a representative sample of reactor instrument line EFCVs actuate to the isolation position on an actual or simulated instrument line break signal. The representative sample consists of an approximately equal number of EFCVs such that each EFCV is tested at least once every 10 years (nominal). Valve position indication verification of the representative sample will also be performed during valve testing. Any EFCV failure will be evaluated per the WNP-2 Corrective Action Program.

References

1. FSAR 15.6.2
2. Letter BWROG-00069, dated June 14, 2000, from W.G. Warren, (BWR Owners Group) to Office of Nuclear Reactor Regulation, "Transmittal of Approved GE Licensing Topical Report NEDO-32977-A, Excess Flow Check Valve Testing Relaxation," dated November 1998