

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 RECIPIENT AFFILIATION  
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SUBJECT: Requests approval for implementation of alternative rules of ASME Section XI for Class 1 & 2 sys, it is requested that NRC provides approval per 920301.

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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

January 23, 1992  
G02-92-017

Docket No. 50-397

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

Gentlemen:

Subject: NUCLEAR PLANT NO. 2, OPERATING LICENSE NPF-21  
APPROVAL TO USE CODE CASE N-498, "ALTERNATE  
RULES FOR 10-YEAR HYDROSTATIC PRESSURE TESTING FOR  
CLASS 1 AND 2 SYSTEMS, SECTION XI, DIVISION 1"

- References: 1) ASME Boiler and Pressure Vessel Code Section XI,  
1980 Edition, Winter 1980 Addenda  
2) ASME Code Case N-498, "Alternative Rules for 10-Year  
Hydrostatic Pressure Testing for Class 1 and 2 Systems,  
Section XI, Division 1", approval date, May 13, 1991

Pursuant to 10CFR 50.55a, paragraph (g)(5)(iii), the Washington Public Power Supply System requests approval for implementation of the alternative rules of ASME Section XI Code Case N-498 for Class 1 and 2 systems (Attachment 1). These rules would be used in lieu of the 10-year hydrostatic pressure tests required by ASME Section XI Table IWB-2500-1, Category B-P, and Table IWC-2500-1, Category C-H (Reference 1).

Use of the alternative rules will result in lower total radiation exposure to personnel without any reduction in the level of quality or safety of the applicable system.

Expedited approval of relief request ISI-2-009 (Attachment 2) is requested in order to allow implementation prior to the 1992 refueling outage which is scheduled to begin April 17, 1992. It is requested that the NRC provide approval prior to March 1, 1992.

Very truly yours,

G. C. Sorensen, Manager  
Regulatory Programs

Attachments

cc: JB Martin - NRC RV  
NS Reynolds - Winston & Strawn  
PL Eng - NRC

DL Williams - BPA/399  
NRC Site Inspector - 901A

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## CASES OF ASME BOILER AND PRESSURE VESSEL CODE

Approval Date: May 13, 1991

See Numerical Index for expiration  
and any reaffirmation dates.

Case N-498  
Alternative Rules for 10-Year Hydrostatic Pressure  
Testing for Class 1 and 2 Systems  
Section XI, Division 1

*Inquiry:* What alternative rules may be used in lieu of those required by Section XI, Division 1, Table IWB-2500-1, Category B-P, and Table IWC-2500-1, Category C-H, for the 10-year hydrostatic pressure test?

*Reply:*

(a) It is the opinion of the Committee that as an alternative to the 10-year hydrostatic pressure test required by Table IWB-2500-1, Category B-P, the following rules shall be used.

(1) A system leakage test (IWB-5221) shall be conducted at or near the end of each inspection interval, prior to reactor startup.

(2) The boundary subject to test pressurization during the system leakage test shall extend to all Class 1 pressure retaining components within the system boundary.

(3) Prior to performing VT-2 visual examination, the system shall be pressurized to nominal operating pressure for at least 4 hours for insulated systems and 10 minutes for noninsulated systems. The system shall be maintained at nominal operating pressure during the performance of the VT-2 visual examination.

(4) Test temperatures and pressures shall not exceed limiting conditions for hydrostatic test curve as contained in the plant Technical Specifications.

(5) The VT-2 visual examination shall include all components within the boundary identified in (2) above.

(b) It is also the opinion of the Committee that, as an alternative to the 10-year hydrostatic pressure test required by Table IWC-2500-1, Category C-H, the following rules shall be used.

(1) A system pressure test shall be conducted at or near the end of each inspection interval or during the same inspection period of each inspection interval of Inspection Program B.

(2) The boundary subject to test pressurization during the system pressure test shall extend to all Class 2 components included in those portions of systems required to operate or support the safety system function up to and including the first normally closed valve (including a safety or relief valve) or valve capable of automatic closure when the safety function is required.

(3) Prior to performing VT-2 visual examination, the system shall be pressurized to nominal operating pressure for a minimum of 4 hours for insulated systems and 10 minutes for noninsulated systems. The system shall be maintained at nominal operating pressure during the performance of the VT-2 visual examination.

(4) The VT-2 visual examination shall include all components within the boundary identified in (2) above.

RELIEF REQUEST NO. ISI-2-009

Component or System

Class 1 and Class 2 systems except for the following previously approved exemptions in the ISI Program Plan.

1. The pressure retaining boundary will not extend past the transition from instrument piping to instrument tubing. Instrument tubing will not be subject to a visual examination during system pressure tests.
2. The main steam Class 2 system does not perform a safety related function and is capable of automatic isolation; therefore, it does not require pressure testing. See Table IWC-2500-1, Category C-H, note 7 of the reference code.
3. Leakage integrity of Class 2 containment penetration for DW, EDR, FDR and MWR systems is satisfied during the 10CFR50 Appendix J tests.

Code

All the Components in the affected systems were designed and fabricated to ASME Section III Code Class 1 or 2. The ISI pressure tests are being performed to Section XI, 1980 Edition Winter 1980 Addendum.

Section XI Requirements

1. 10-year hydrostatic pressure test required by Table IWB-2500-1, Category B-P.
2. 10-year hydrostatic pressure test required by Table IWC-2500-1, Category C-H

Alternate Examination

Use Code Case N-498 to perform the 10-year hydrostatic pressure test on Class 1 and 2 systems.

Basis

The ASME Section XI Code committee has approved the use of this code case.

Impact on Quality and Safety

Use of the alternative hydrostatic pressure test rules will reduce the testing duration and result in lower total radiation exposure to personnel without any reduction in the level of quality of safety of the applicable systems.

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