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AUTH.NAME AUTHOR AFFILIATION
PARRISH,J.V. Washington Public Power Supply System
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SUBJECT: Application for amend to license NPF-21 re primary containment leakage testing.

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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January 19, 1996
GO2-96-014

Docket No. 50-397

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

Gentlemen:

Subject: **WNP-2, OPERATING LICENSE NPF-21**
REQUEST FOR AMENDMENT TO OPERATING LICENSE NPF-21
PRIMARY CONTAINMENT LEAKAGE TESTING

References:
1) Federal Register, dated September 26, 1995, (Volume 60, Number 186), Pages 49495-49505: "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors"

2) Letter, dated April 29, 1987, DM Crutchfield (NRC) to GC Sorenson (SS), "Issuance of Exemption To A Provision of Appendix J and Amendment No. 41 to Facility Operating License No. NPF-21 (TAC No. 60740)"

3) Letter, dated December 8, 1995, JV Parrish (SS) to US Nuclear Regulatory Commission, "Request For Amendment To Technical Specifications"

In accordance with the Code of Federal Regulations, Title 10, Parts 2.101 and 50.90, the Supply System hereby submits a request for amendment to the WNP-2 Operating License NPF-21 to allow use of the revised Appendix J to 10 CFR Part 50, as issued and approved by the NRC in Reference 1.

The new 10 CFR 50 Appendix J regulation states that licensees may adopt Option B, or parts thereof, by submitting their implementation plan and a request for amendments to their Technical Specifications. The regulation also states that the submittal for Technical Specification amendments must contain justification, including supporting analyses if the licensee chooses to deviate from methods approved by the Commission and endorsed by Regulatory Guide. 1.163.

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Attachment 1 outlines the implementation plan and provides a justification for a deviation from one of the detailed recommendations included in standard ANSI/ANS 56.8-1994 which is endorsed by Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program." Additionally, a justification for changes to the basis for an exemption to Appendix J previously granted in Reference 2 is included in Attachment 1. Attachment 2 includes the marked up pages from the WNP-2 Technical Specifications defining the details of the requested amendment.

WNP-2 successfully completed an integrated containment leakage test during the 1994 spring outage, and therefore has not scheduled another Type A test for the 1996 spring outage. However, a total of 54 Type B and 144 Type C local leak rate tests are currently scheduled for the 1996 spring outage. Adoption of the Option B rule would allow deferring approximately 44 Type B and 30 Type C tests to future outages, with a resultant avoidance of an estimated 4 man-rems of exposure in 1996. The net savings are expected to be $100,000, based on an estimated cost figure of $25,000 per man-rem. Therefore, we are requesting approval of the proposed change to the WNP-2 Technical Specifications by April 8, 1996 to assist in pursuing ALARA goals in the Spring 1996 outage, scheduled to start on April 13, 1996.

The impact of adoption of Appendix J Option B on the WNP-2 In-Service Testing Program has been reviewed. As a result, the In-Service Testing Program for Pumps and Valves will be revised to maintain consistency with both the revised Appendix J and the applicable ASME codes. This action would, in any case, be necessary to support adoption of the "Improved" Technical Specifications (ITS), which were submitted by Reference 3 for staff review, and are scheduled for implementation in October 1996. A copy of ITS sections 3.6.1.1, 3.6.1.2 and 3.6.1.3 is included in Attachment 4 for information.

As discussed in Attachment 3, the Supply System has concluded that the proposed changes to the Technical Specifications do not involve a significant hazards consideration. In addition, the proposed changes do not create the potential for a significant change in the types or significant increase in the amount of any effluent that may be released offsite, nor do the changes involve an increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the criteria for a categorical exclusion as set forth in 10 CFR 51.22(c)(9). Therefore, in accordance with 10 CFR 51.22(b), an environmental assessment of this change is not required.

The proposed amendment to Operating License NPF-21 has been reviewed and approved by the WNP-2 Plant Operations Committee and the Supply System Corporate Nuclear Safety Review Board. The State of Washington has been provided with a copy of this letter in accordance with 10 CFR 50.91.

Should you have any questions or desire additional information regarding this matter, please call me or Mr. Dave A. Swank at (509) 377-4563.

Sincerely,

J.V. Parrish (Mail Drop 1023)
Vice President, Nuclear Operations

Attachments

CJF

cc: LJ Callan - NRC RIV
KE Perkins, Jr. - NRC RIV, Walnut Creek Field Office
NS Reynolds - Winston & Strawn
JW Clifford - NRC
DL Williams - BPA/399
NRC Sr. Resident Inspector - 927N
FS Adair - EFSEC

STATE OF WASHINGTON)

Subject: Request for Amendment to TS to allow use of Option B of 10 CFR 50 Appendix J

)

COUNTY OF BENTON)

I, J.V. Parrish, being duly sworn, subscribe to and say that I am the Vice President of Nuclear Operations for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that I have the 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 19 January, 1996

J. V. Parrish, Vice President, Nuclear Operations

On this day personally appeared before me J.V. PARRISH, 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 19th day of January 1996.

Notary Public in and for the STATE OF WASHINGTON

Residing at Kennewick

My Commission Expires 8/9/99


STATE OF WASHINGTON
PUBLIC
DISCLOSURE EXEMPT

Attachment 1

Bases for Changes Requested to WNP-2 Operating License NPF-21

By Reference 1, the NRC published in the Federal Register a notice of the issuance and approval of a final rule regarding primary containment leakage testing. The new rule amends 10 CFR 50, Appendix J, to provide a performance-based option for leakage rate testing of containments. The performance-based testing approach is available as an option to power reactor licensees and can be followed in lieu of the prescriptive requirements previously contained in 10 CFR 50, Appendix J. The prescriptive requirements are still considered an acceptable testing approach and are being retained in 10 CFR 50, Appendix J, as "Option A."

The safety objective for reactor containments is stated in 10 CFR 50 Appendix A, General Design Criteria For Nuclear Power Plants." General Design Criteria (GDC) 16, "Containment Design" requires an essentially leak-tight barrier against the uncontrolled release of radioactivity to the environment. The previous version of 10 CFR 50 Appendix J implemented GDC 16 through prescriptive containment leakage testing requirements that stipulated that tests should be performed, and established the schedule and reporting requirements for such testing.

The revised 10 CFR 50 Appendix J regulation retains the prescriptive leakage testing requirements [referred to as Option A], but now allows a performance-based leakage testing program [referred to as Option B] as an acceptable alternative to the prescriptive [Option A] requirements. The performance-based leakage testing approach allows test intervals to be based on system and component testing performance, thereby providing greater flexibility and cost-benefit in implementing the safety objectives of the regulation. Additionally, this performance-based approach is expected to result in a reduction in cumulative occupational radiation exposures due to reduced test frequencies.

Section V.B of Reference 1 requires licensees to incorporate into their Technical Specifications, by general reference, NRC Regulatory Guide 1.163, Revision 0, "Performance-Based Containment Leak-Test Program" or other plant specific implementing document, under the umbrella of 10 CFR Part 50, Appendix J. The Technical Specification changes being requested are consistent with the guidance of Reference 1. No changes are being requested to allowable containment leakage rates as covered in Technical Specification 3.6.1.2 or 3.6.1.3. Specifically, the changes would:

1) replace all of Technical Specification 4.6.1.2 [except 4.6.1.2.f] with a new surveillance requirement to perform containment leakage testing in accordance with the WNP-2 Primary Containment Leakage Rate Testing Program,

2) revise Technical Specification 4.6.1.2.f to allow leak testing of Main Steam Isolation Valves (MSIVs) at least every 30 months, consistent with Regulatory Guide 1.163. [MSIV testing must be performed at least every 18 months under current Technical Specification 4.6.1.2.f.]

3) revise Technical Specification 4.6.1.3 to specify that airlock leakage tests be conducted at intervals determined in accordance with the WNP-2 Primary Containment Leakage Rate Testing Program, and

4) include a new Administrative Controls section 6.8.4.f to require establishment of the WNP-2 Primary Containment Leakage Rate Testing Program.

Attachment 2 provides the marked up pages of the WNP-2 Technical Specifications showing these changes.

Regulatory Guide 1.163, section C.2, states that the interval for Type C tests for BWR feedwater, main steam, and containment purge/vent valves should be limited to 30 months, as specified in section 3.3.4 of ANSI/ANS 56.8-1994, with consideration given to operating experience and safety significance. Consistent with that statement, it is proposed that Technical Specification 4.6.1.2.f be modified to change the interval for required leak testing of MSIVs from once in at least 18 months to once in at least 30 months. The MSIVs will be included in the scope of the performance-based Primary Containment Leakage Rate Testing Program with a maximum testing interval of 30 months, with more frequent testing as warranted by actual valve leak test results. The actual MSIV leak test results in 1994 ranged between 9 and 60% of the limit provided by Technical Specification 3.6.1.2.c, and between zero and 43% of that limit in 1995, demonstrating that the actual performance of the WNP-2 MSIVs is generally well within specification. However, regardless of past performance, LLRTs will be performed in 1996 on two MSIV sets due to scheduled refurbishment of valve operators.

Requested Deviation In Regard to Test Instrument Accuracy As Specified In ANSI/ANS 56.8

The Supply System intends to implement a test methodology in accordance with Revision 0 of Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program" and Nuclear Energy Institute (NEI) 94-01, Revision 0, dated 26 July 1995, "Industry Guideline for Implementing Performance-Based Option of 10 CFR 50 Appendix J" with the exception detailed below.

NEI 94-01, Section 8.0, "Testing Methodologies for Type A, B, and C Tests" states that "Type A, Type B, and Type C tests should be performed using the technical methods and techniques specified in ANSI/ANS 56.8-1994, or other alternative testing methods that have been approved by the NRC." For penetrations not hydrostatically tested, WNP-2 utilizes two methods of local leak rate testing: the pressure decay method and the flow makeup method. Both methods are covered in ANSI/ANS 56.8-1994. A comparison of the current local leak rate test (LLRT) program and the requirements established in ANSI/ANS 56.8-1994 for Type B and C tests was performed. No deviations are being requested for tests to be performed by the pressure decay method because the WNP-2 methodology is consistent with the requirements of ANSI/ANS 56.8-1994. However, for tests involving the flow makeup method, WNP-2 takes exception to the flow meter accuracy requirements in section 4.3.2.2 of ANSI/ANS 56.8-1994.

The standard requires use of a flow meter with an accuracy of 2% of full scale. WNP-2 currently uses a mass type flow meter with an accuracy of 4% of full scale, and thus cannot readily comply with the standard. For tests performed using flow meters with inaccuracies not bounded by the 2% specified in ANSI/ANS 56.8-1994, actual readings taken during tests will be increased by the amount of the full scale inaccuracy (e.g. 4%) when assessing the overall LLRT results against the limit established in Technical Specification 3.6.1.2.b. This approach provides additional conservatism, and will be included in the Primary Containment Leakage Rate Testing Program and implementing procedures.

Requested Deviation In Regard to Exemptions Previously Approved By Reference 2

Reference 2 authorized the Supply System to perform LLRTs at intervals not to exceed 27 rather than 24 month intervals as established by Appendix J (Option A). The WNP-2 LLRT program parameters as of 1987 were submitted by the Supply System as part of the justification for the requested exemption. These parameters were reviewed by the NRC, and were considered part of the basis for authorization of the exemption. However, some of those parameters are not consistent with a performance-based leakage testing program conducted under Option B of 10 CFR 50 Appendix J. Consequently, the Supply System intends to develop a performance-based leakage testing program based on parameters and schedules established in accordance with the rules of the revised Appendix J to 10 CFR 50, which may result in different parameters than were reviewed by the NRC in granting the Reference 2 request. However, the Supply System requests continued authorization of the exemption granted by Reference 2, to retain flexibility for Type B and C testing that may continue to be performed under the rules of Option A of Appendix J.

Attachment 2

Proposed Amendments to WNP-2 Technical Specifications