



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 144 TO FACILITY OPERATING LICENSE NO. NPF-21
WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2
DOCKET NO. 50-397

1.0 INTRODUCTION

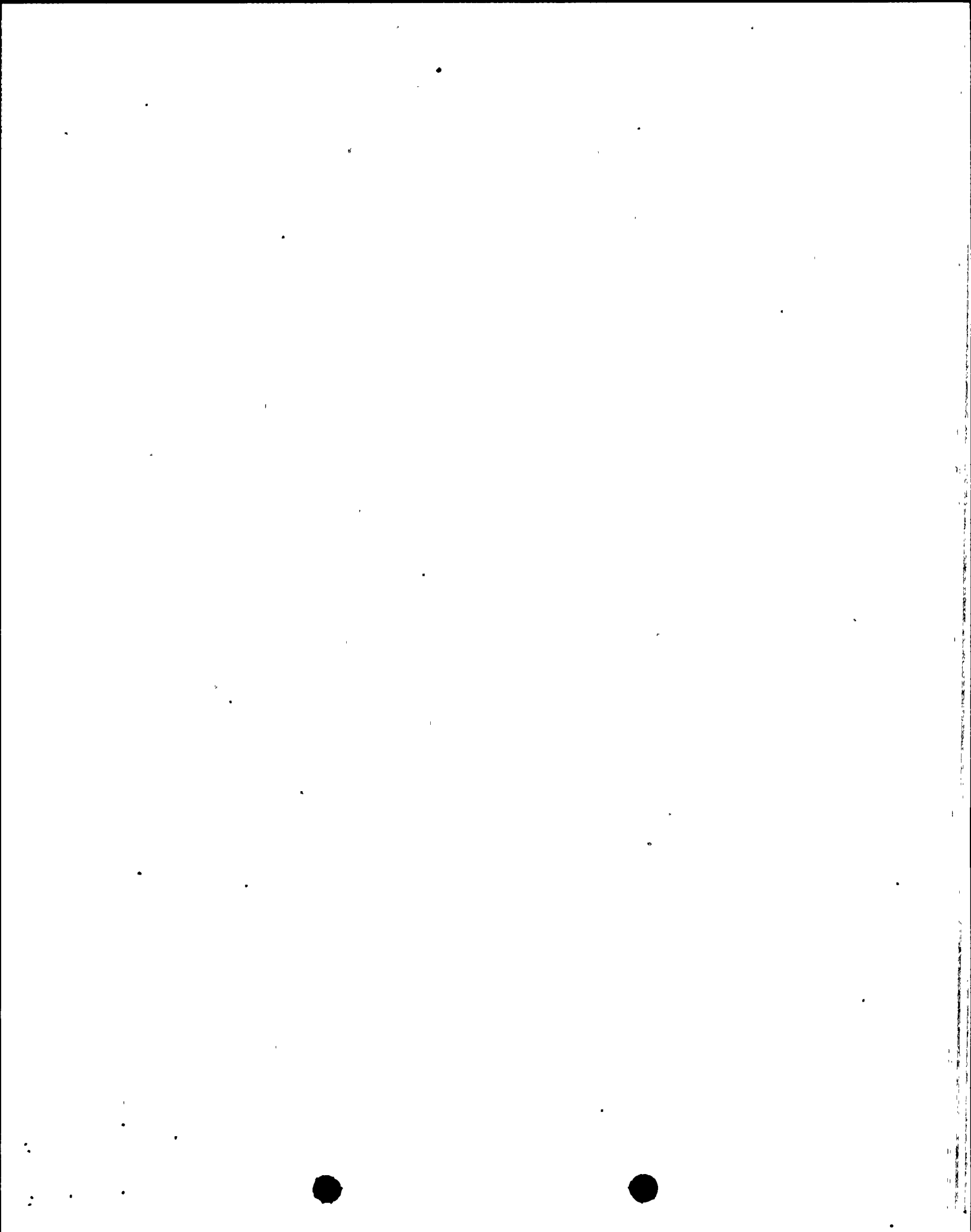
By letter dated January 19, 1996, as supplemented by letter dated March 19, 1996, the Washington Public Power Supply System (the Supply System, or the licensee) requested changes to the Technical Specifications (Appendix A to Facility Operating License No. NPF-21) for the WPPSS Nuclear Project No. 2. The amendment replaces the current specified surveillance intervals for containment leak testing with new surveillance requirements to conduct containment leak testing according to a performance-based containment leak test program. The proposed changes are based on implementation of 10 CFR Part 50, Appendix J, Option B. The licensee has established a "Containment Leakage Rate Testing Program" and proposed adding this program to the TS. The program references Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak Test Program" (September 1995), which specifies a method acceptable to the NRC for complying with Option B.

The March 19, 1996, supplemental letter provided additional clarifying information and did not change the staff's original no significant hazards consideration determination published in the Federal Register on February 14, 1996 (61 FR 5820).

2.0 BACKGROUND

Compliance with 10 CFR Part 50, Appendix J, provides assurance that the primary containment, including those systems and components which penetrate the primary containment, do not exceed the allowable leakage rate specified in the TS and Bases. The allowable leakage rate is determined so that the leakage assumed in the safety analyses is not exceeded.

On February 4, 1992, the NRC published a notice in the Federal Register (57 FR 4166) that discussed a planned initiative to begin eliminating requirements marginal to safety which impose a significant regulatory burden. The staff considered Appendix J of 10 CFR Part 50 for this initiative and undertook a study of possible changes to this regulation. The study examined the previous performance history of domestic containments and examined the effect on risk of a revision to the requirements of Appendix J. The results of this study are reported in NUREG-1493, "Performance-Based Leak-Test Program."



Based on the results of this study, the staff developed a performance-based approach to containment leakage rate testing. On September 12, 1995, the NRC approved issuance of this revision to 10 CFR Part 50, Appendix J, which was subsequently published in the Federal Register on September 26, 1995, and became effective on October 26, 1995. The revision added Option B, "Performance-Based Requirements," to Appendix J to allow licensees to voluntarily replace the prescriptive testing requirements of Appendix J with testing requirements based on both overall and individual component leakage rate performance.

The staff developed RG 1.163 to provide a method acceptable to the staff for implementing Option B. This regulatory guide states that the Nuclear Energy Institute (NEI) guidance document NEI 94-01, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," provides methods acceptable to the staff for complying with Option B with four exceptions which are described therein.

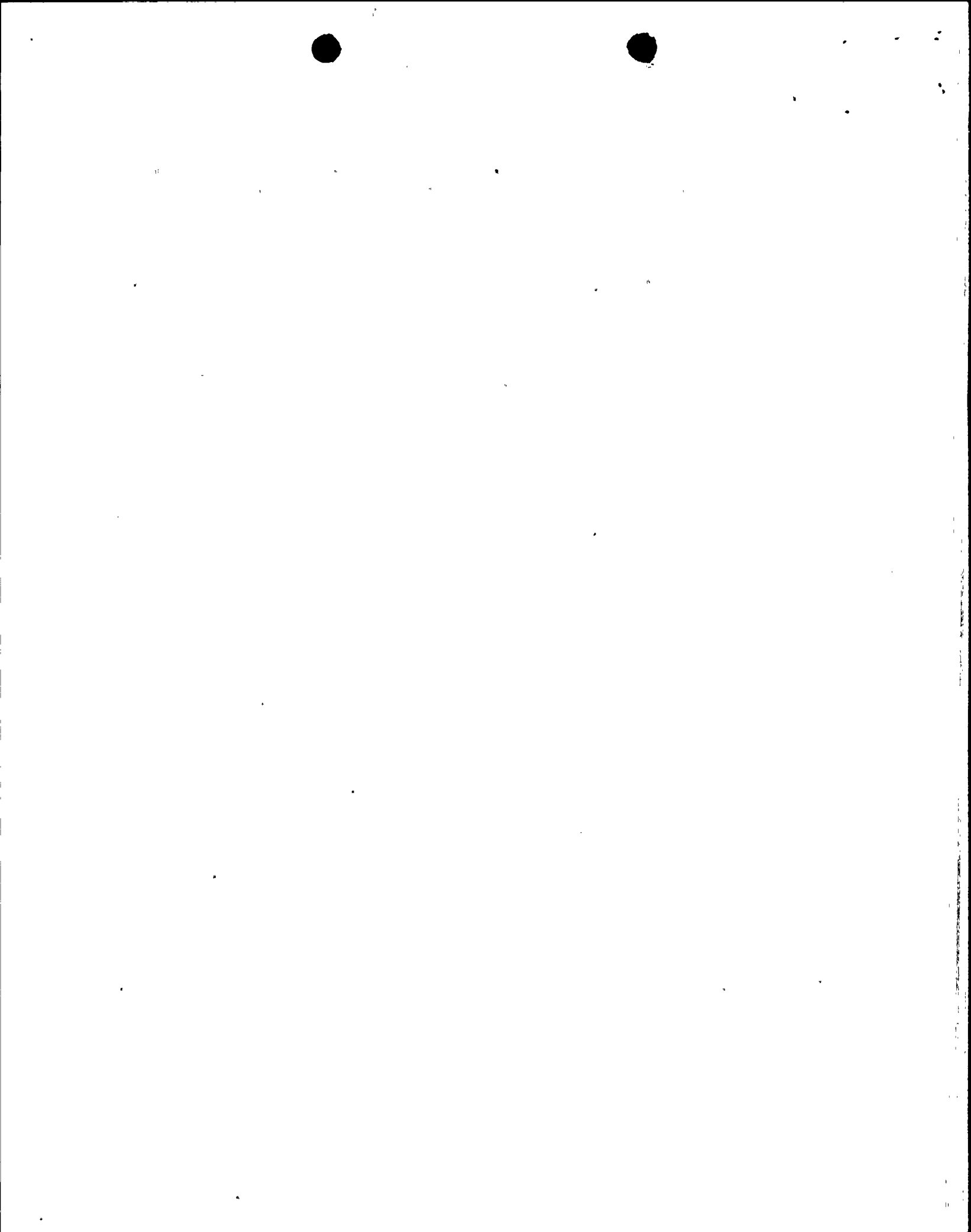
Option B requires that the RG or other implementation document used by a licensee to develop a performance-based leakage rate testing program must be included, by general reference, in the plant TS. The licensee has referenced RG 1.163 in the WNP-2 TS.

Regulatory Guide 1.163 specifies an extension in Type A test frequency to at least one test in 10 years based upon two consecutive successful tests. Type B tests may be extended up to a maximum interval of 10 years based upon completion of two consecutive successful tests and Type C tests may be extended up to 5 years based on two consecutive successful tests.

By letter dated October 20, 1995, NEI proposed generic TS to implement Option B. After some discussion, the staff and NEI agreed on final generic TS which were attached to a letter from C. Grimes (NRC) to D. Modeen (NEI) dated November 2, 1995. These TS are to serve as a model for licensees to develop plant-specific TS in preparing amendment requests to implement Option B.

To determine the performance of each component, a licensee must establish factors that are indicative of, or that affect, performance, such as an administrative leakage limit. The administrative limit is selected to be indicative of the potential onset of component degradation. Although these limits are subject to NRC inspection to assure that they are selected in a reasonable manner, they are not TS requirements. Failure to meet an administrative limit requires the licensee to return to the minimum value of the test interval.

Option B requires that the licensee maintain records to show that the criteria for Type A, B, and C tests have been met. In addition, the licensee must maintain comparisons of the performance of the overall containment system and the individual components to show that the test intervals are adequate. These records are subject to NRC inspection.



3.0 EVALUATION

The licensee's January 19, 1996, and March 19, 1996, letters to the NRC proposed to establish a "Containment Leakage Rate Testing Program" and proposed to add this program to the TS. The program references RG 1.163, which specifies a method acceptable to the NRC for complying with Option B. This requires a change to existing TS 4.6.1.2 and 4.6.1.3 and the addition of the "Containment Leakage Rate Testing Program" to Section 6.8.4.f.

Option B permits a licensee to choose Type A; or Type B and C; or Type A, B, and C; testing to be done on a performance basis. The licensee has elected to perform Type A, B, and C testing on a performance basis.

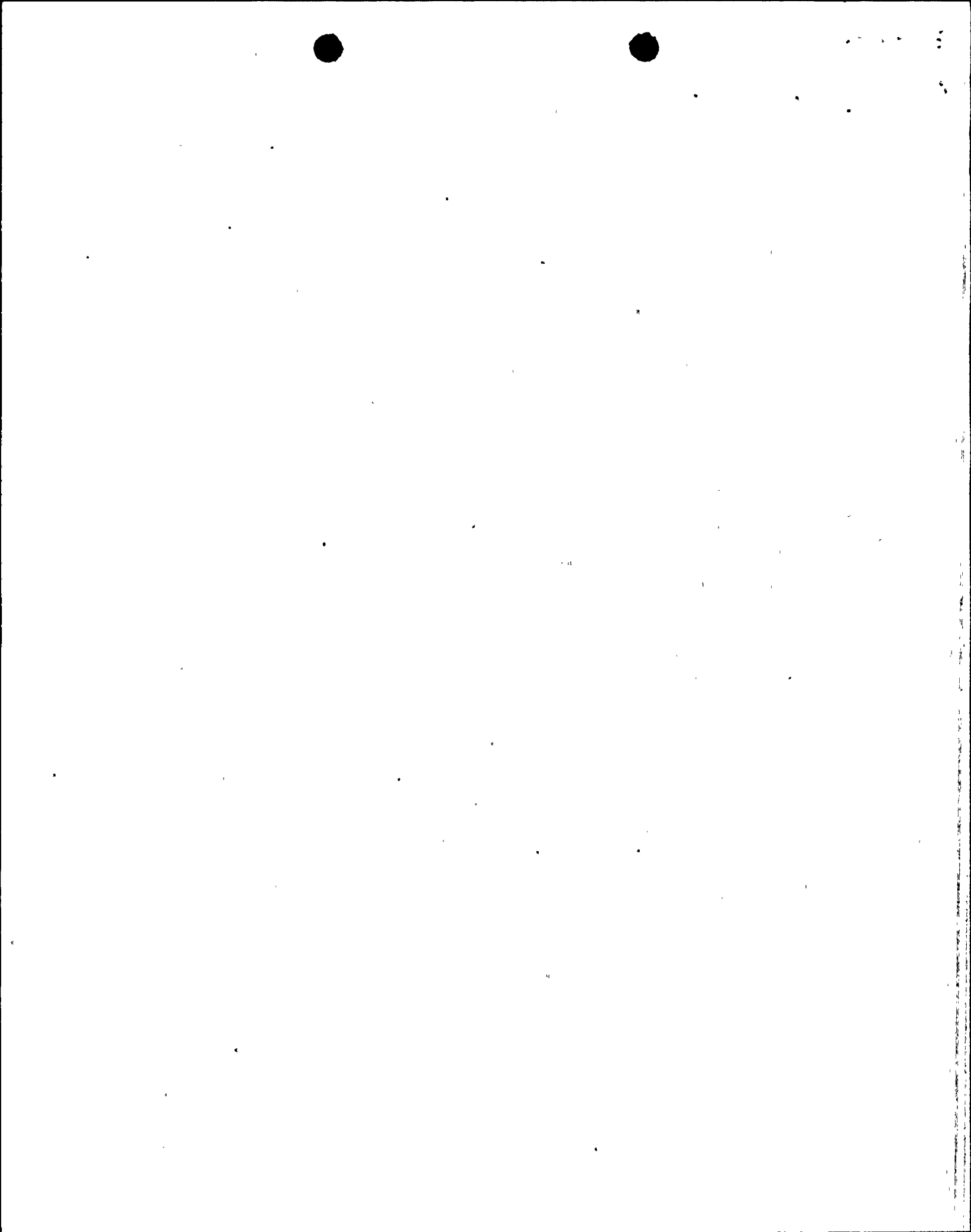
The licensee requested an exception to the ANSI/ANS Standard 56.8-1994, which contains the specific testing requirements and is referenced in NEI 94-01, Revision 0. When using the flow makeup leak detection method, the licensee proposed to use a flow meter accuracy of 4 percent rather than the 2 percent value specified in ANSI/ANS 56.8-1994. This exception was requested because the licensee's present flow meter has a 4 percent accuracy. To compensate, the licensee stated in its January 19, 1996, letter that the actual readings taken during the tests will be increased by the amount of the full scale inaccuracy when assessing the overall LLRT results against the TS limits. This is conservative and the staff finds this proposed exception acceptable. This exception is explicitly stated in the Primary Containment Leakage Rate Testing Program in Section 6.8.4.f of the technical specifications.

On April 19, 1987, the staff issued two exemptions to Appendix J for WNP-2. The exemptions permitted the licensee to meet its unique refueling requirements, based on the regional availability of hydroelectric power, which necessitated an annual refueling of WNP-2. These circumstances led the licensee to request a 27-month interval for Type B and C tests. Regulatory Guide 1.163 recommends Type B and C test intervals of 30 months. Therefore, the exemptions are no longer required.

The TS changes proposed by the licensee are in compliance with the requirements of Option B and are consistent with the guidance of RG 1.163 and the generic TS of the NRC staff's November 2, 1995, letter to NEI with the one exception discussed above which the staff finds acceptable. Therefore, the program proposed by the licensee, including the proposed changes to the technical specifications, is acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Washington State official was notified of the proposed issuance of the amendment. The State official had no comments.



5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (61 FR 5280). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). This amendment also involves changes in recordkeeping, reporting or administrative procedures or requirements. Accordingly, with respect to these items, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Richard Lobel

Date: May 8, 1996

