



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 133 TO FACILITY OPERATING LICENSE NO. NPF-21

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

NUCLEAR PROJECT NO. 2

DOCKET NO. 50-397

1.0 INTRODUCTION

In its letter dated August 8, 1994, the Washington Public Power Supply System (WPPSS or the licensee) proposed that Appendix A of Facility Operating License NPF-21 be amended to revise the WPPSS Unit No. 2 Technical Specifications (TS). Specifically, the proposed amendment would change TS 4.0.5.a, "Applicability - Surveillance Requirements," which specifies the surveillance requirements for implementation of the regulations for inservice inspection (ISI) and inservice testing (IST) in accordance with 10 CFR 50.55a. The proposed change is consistent with the revised standard technical specifications for boiling-water reactor (BWR) plants (NUREG-1433/1434).

2.0 EVALUATION

The regulations for nuclear industry codes and standards are stated in 10 CFR 50.55a. By rulemaking published June 12, 1971, effective July 12, 1971, 10 CFR 50.55a was issued to establish minimum quality standards for the design, fabrication, erection, construction, testing, and inspection of certain systems and components of boiling and pressurized water-cooled nuclear power reactor plants by requiring conformance with appropriate industry codes and standards. The regulations have been revised a number of times since first promulgated with design requirements added to ensure access for inspection and testing. Before March 15, 1976, the regulations contained no requirements for IST of pumps and valves. The ASME Code first included Subsections IWP and IWV to Section XI in the Summer 1973 Addenda. The rules, which became effective March 15, 1976 [published February 12, 1976 (41 FR 6256)], required that an operating license for a utilization facility be subject to the conditions specified in 10 CFR 50.55a(g), which included requirements for the ISI of components and the new IST of pumps and valves. The regulations provide for alternatives to the requirements if compliance would result in hardship without a compensating increase in the level of quality and safety, or if the proposed alternatives would give an acceptable level of quality and safety. Also, because a number of plants were designed before the ISI and IST requirements were imposed and therefore may not have included all the necessary access provisions, the regulations provide for relief from Code requirements if a licensee determines that conformance is

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impractical for its facility. These provisions are stated in paragraphs (a)(3)(i), (a)(3)(ii), (f)(6)(i), and (g)(6)(i) of 10 CFR 50.55a.

After publishing the rules that took effect March 15, 1976, the NRC issued letters to licensees informing them of the rule change and recommending that they propose technical specification changes for both ISI and IST with the following standard statements:

The following language should be substituted, as appropriate, into the Technical Specifications where existing surveillance requirements are superseded by ASME Section XI inservice inspection and testing requirements:

- a. Inservice inspection of ASME Code Class 1, Class 2, and Class 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a(g), except where specific written relief has been granted by the NRC pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).
- b. Inservice testing of ASME Code Class 1, Class 2, and Class 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a(g), except where specific written relief has been granted by the NRC pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

In the letters issued to plants then operating, the NRC further discussed the regulation which, at that time, required updates of the ISI programs at 40-month intervals and the IST programs at 20-month intervals. The NRC suggested that licensees submit requests for relief from ASME Code requirements as far in advance as possible of the start of any 20-month period for testing pumps and valves but at least 90 days before that period (these inspection and testing periods were later changed to 120-month intervals for both ISI and IST). The NRC stressed the need to incorporate 10 CFR 50.55a(g) by reference in TS (1) to avoid duplication of requirements, (2) to alleviate the need for TS changes whenever a testing program is updated, and (3) to simplify the process for obtaining relief from impractical ASME Code requirements.

The NRC discussed relief requests as follows in the letters to licensees:

Generally, the licensee will know well in advance of the beginning of any inspection period, whether or not a particular ASME Code requirement will be impractical for his facility. Thus, the licensee should request relief from ASME Code requirements as far as possible in advance of, but not less than 90 days before, the start of the inspection period. Early submittals are particularly important for the first 40-month inservice and 20-month pump and valve testing period because they will enable the NRC staff to evaluate the information received from all licensees and determine



which ASME Code requirements may be generally impractical for various classes of plants. Early submittals will thereby facilitate earlier feedback to licensees regarding the acceptability of their requests.

The NRC Staff recognizes that it will not be possible in all cases for a licensee to determine in advance that any particular ASME Code requirement will be impractical for his facility. In cases where, during the process of inservice testing, certain requirements are found to be impractical due to unforeseen circumstances, the licensee may request relief at that time. These occurrences are not expected to be many and are expected to result in only minor changes to an inservice testing program.

All relief from ASME Code requirements that are determined to be impractical for a facility will be granted in the form of a letter within the provisions of §50.55a(g)(6)(i). This written relief should be incorporated into the document describing the inservice inspection and testing program retained by the licensee... the written relief itself will not become an explicit part of the facility license.

While developing the revised standard TS, the NRC approved a change from the ISI and IST surveillance requirements as originally proposed in the 1976 letters to licensees. The standard TS change corrected what appeared to be a more restrictive limitation than the regulatory requirements of 10 CFR 50.55a in prohibiting the licensee from implementing relief for impractical Code requirements before obtaining approval from the NRC. The administrative section of the revised standard TS includes the following applicable requirements for the ISI and IST programs:

5.7.2.11 Inservice Inspection Program

This program provides controls for inservice inspection of ASME Code Class 1, 2, and 3 components, including applicable supports. The program shall include the following:

- a. Provisions that inservice inspection of ASME Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a;...

5.7.2.12 Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components including applicable supports. The program shall include the following:

- a. Provisions that inservice testing of ASME Code Class 1, 2, and 3 pumps, valves, and snubbers shall be

performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a;...

The revised standard TS reflect the position that the licensee must establish and implement the program in accord with 10 CFR 50.55a. For preparing an updated ISI or IST program, the regulations allow a licensee up to a full year after the beginning of the updated interval to obtain NRC approval of relief from those Code requirements that the licensee has determined are impractical for its facility and are not included in the revised ISI or IST program. The regulations state that the need for relief be demonstrated to the satisfaction of the Commission no later than 12 months from the interval start date. If later in the interval a licensee finds a specific need for relief, the licensee should submit the request for NRC approval.

The licensee proposes to delete the phrase "except where specific written relief has been granted by the Commission pursuant to 10 CFR 50, Section 50.55a(g)(6)(i)." The revised TS will also eliminate the reference to Section 50.55a(g) and reference Section 50.55a to reflect the separation between ISI and IST that was effective in the most recent rulemaking to Section 50.55a. Requirements for IST are now addressed in Section 50.55a(f) while requirements for ISI remain in Section 50.55a(g). The bases for the TS have been changed accordingly. WNP-2 TS 4.0.5 will read as follows:

Surveillance Requirements for inservice inspection and testing of ASME Code Class 1, 2, and 3 components shall be applicable as follows:

- a. Inservice inspection of ASME Code Class 1, 2, and 3 components and inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a.

For 120-month updated programs, relief requests should be submitted before the interval start date to allow a period for NRC review 12 months after the interval start date (i.e., the updated program should be submitted 3 to 6 months before the start date, or earlier). On determining that a requirement is impractical and not included in the revised inservice test or inspection program, the licensee must follow the requirements of 10 CFR 50.55a(f)(5)(iv) or (g)(5)(iv), as applicable. The change to the specification does not allow the licensee to implement alternative testing under 10 CFR 50.55a(a)(3)(i) and (a)(3)(ii) until the NRC has determined that such alternatives are authorized and has issued a safety evaluation to the licensee. However, this TS change will enable licensees to avoid situations where compliance with the current TS cannot be achieved for the period between when the licensee prepares and submits a relief request as part of a revised inservice test or inspection program during the first 12 months of the program and when the NRC issues a safety evaluation and grants the relief. This situation could occur at the beginning of a new interval.

Following implementation of the TS change, when a Code requirement is practical but an alternate method is requested, approval from the NRC is required before implementing the alternative method of testing (1) proposed to achieve levels of quality and safety equivalent to those of the Code method or (2) proposed to avoid an undue hardship without yielding a compensating increase in the level of quality and safety. Additionally, for IST, the licensee may use the guidance in Generic Letter 89-04, "Guidance on Developing Acceptable Inservice Testing Programs," for alternatives that the staff has determined are acceptable for implementation.

In the letter dated August 8, 1994, accompanying the amendment application, the licensee discussed the guidance in draft NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants." Draft NUREG-1482 was published for comment in consideration of publishing the report in final form to give guidance on IST issues. The staff is evaluating the comments received and has not published the report in final form yet. Additional staff guidance, if any, on IST and ISI issues will be published in an appropriate document at such a time as such guidance or recommendations are available. However, notwithstanding any guidance or recommendations published by the staff, NRC requirements regarding the ASME Boiler and Pressure Vessel Code are as set forth in the regulations at 10 CFR 50.55a.

The licensee also proposes to add a definition for the phrase "biennially, or every two years," as "[a]t least once per 731 days." This change is a reasonable statement of this periodicity and is acceptable.

3.0 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.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and 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 (59 FR 56558). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). 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.



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5.0 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.

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