

May 12, 1992

Docket No. 50-397

Mr. G. C. Sorensen, Manager
Regulatory Programs
Washington Public Power Supply System
3000 George Washington Way
P.O. Box 968
Richland, Washington 99352

Dear Mr. Sorensen:

SUBJECT: ISSUANCE OF AMENDMENT FOR THE WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2 (TAC NO. M79898)

The Commission has issued the enclosed Amendment No. 103 to the Facility Operating License No. NPF-21 for WPPSS Nuclear Project No. 2. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated February 25, 1991.

The amendment modifies one of the jet pump surveillance requirements contained in the Technical Specifications. Specifically, in order to conduct the surveillance, the change requires that recirculation loop flows be balanced within the limits of TS 3.4.1.3 instead of performing the surveillance with equal flow control valve positions.

A copy of the related Safety Evaluation is also enclosed. A notice of issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

Original signed by:

William M. Dean, Project Manager
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 103 to NPF-21
- 2. Safety Evaluation

cc w/enclosures:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

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A copy of the related Safety Evaluation is also enclosed. A notice of issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

A handwritten signature in cursive script that reads "William M. Dean".

William M. Dean, Project Manager
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 103 to NPF-21
2. Safety Evaluation

cc w/enclosures:
See next page

Mr.G. C.Sorensen
Washington Public Power Supply System

WPPSS Nuclear Project No. 2
(WNP-2)

cc:

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WNP-2 Plant Manager
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Richland, Washington 99352

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

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

DOCKET NO. 50-397

NUCLEAR PROJECT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 103
License No. NPF-21

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Washington Public Power Supply System (licensee) dated February 25, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-21 is hereby amended to read as follows:

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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No.103 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This amendment is effective as of the date of issuance, and must be fully implemented no later than 45 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Theodore R. Quay, Director
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 12, 1992

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO.103 TO FACILITY OPERATING LICENSE NO. NPF-21

DOCKET NO. 50-397

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE

3/4 4-4

INSERT

3/4 4-4

REACTOR COOLANT SYSTEM

JET PUMPS

LIMITING CONDITION FOR OPERATION

3.4.1.2 All jet pumps shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

ACTION:

With one or more jet pumps inoperable, be in at least HOT SHUTDOWN within 12 hours.

SURVEILLANCE REQUIREMENTS

4.4.1.2.1 Each of the above required jet pumps shall be demonstrated OPERABLE prior to THERMAL POWER exceeding 25% of RATED THERMAL POWER and at least once per 24 hours by determining recirculation loop flow, total core flow and diffuser-to-lower plenum differential pressure for each jet pump and verifying that no two of the following conditions occur when both recirculation loops are operating.

- a. The indicated recirculation loop flow differs by more than 10% from the established flow control valve position-loop flow characteristics for two recirculation loop operation.
- b. The indicated total core flow differs by more than 10% from the established total core flow value derived from two recirculation loop flow measurements.
- c. The indicated diffuser-to-lower plenum differential pressure of any individual jet pump differs from established two recirculation loop operation patterns by more than 10%.

4.4.1.2.2 During single recirculation loop operation, each of the above required jet pumps shall be demonstrated OPERABLE at least once per 24 hours by verifying that no two of the following conditions occur:

- a. The indicated recirculation loop flow in the operating loop differs by more than 10% from the established single recirculation flow control valve position-loop flow characteristics.
- b. The indicated total core flow differs by more than 10% from the established total core flow value derived from single recirculation loop flow measurements.
- c. The indicated difference-to-lower plenum differential pressure of any individual jet pump differs from established single recirculation loop patterns by more than 10%.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 103 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 February 25, 1991, Washington Public Power Supply System submitted a request for changes to the Technical Specifications (TS) for Nuclear Project No. 2. The proposed changes would revise the recirculation flow conditions that must be established to conduct a surveillance to determine jet pump operability.

2.0 EVALUATION

The licensee proposes to modify TS 4.4.1.2.1. This modification would delete the requirement that the flow control valves for the two recirculation loops be in the same position.

The licensee stated that it operates the recirculation loops to match flow rates, not flow control valve position. TS 3.4.1.3, "Recirculation Loop Flow," places limits on the amount of mismatch that can exist between recirculation loops and still consider the recirculation loops operable. It is the licensee's experience that both the recirculation pumps and flow control valves have unique operating characteristics. Compliance with TS 3.4.1.3 could be jeopardized in certain situations. The licensee notes that such a situation may occur when the recirculation pumps are operating at 60 Hz and the flow control valves are placed in the same position.

The intent of TS 4.4.1.2.1 is to determine jet pump operability under approximately balanced jet pump flow each time the surveillance is performed. The comparisons that are made to baseline values during this surveillance: individual loop flow, total core flow, and diffuser-to-lower plenum differential pressure of the jet pumps, are done to determine if any jet pump degradation has occurred. Degraded jet pump flow could indicate blockage which might affect the flow coastdown assumptions made in the accident analysis. It could also indicate jet pump beam failure which would allow the jet pump to shift which could affect reflood levels assumed in the accident analysis. Therefore, jet pump operability is required to ensure that assumptions made in the accident analysis remain valid.

The licensee indicates that since the recirculation pumps operate at a constant speed and that compliance with TS 3.4.1.3 minimizes the extent of any recirculation loop flow mismatch, then similar core conditions will be established prior to performing the parameter comparisons of this jet pump surveillance. The licensee states that the requirement for matching flow valve positions does not contribute towards meeting the intent of the surveillance, in that it may actually cause a flow mismatch greater than that allowed by TS 3.4.1.3.

The staff recognizes that compliance with TS 3.4.1.3 assures that flow mismatch between the two recirculation loops will be minimized thus providing a consistent baseline condition with which to evaluate the comparisons performed in TS 4.4.1.2.1. Since matching recirculation loop flow valve positions may actually cause excessive flow mismatch under certain conditions, the staff finds the licensee's request of February 25, 1991, 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 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 (56 FR 37593). 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.

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.

Principal Contributor: William Dean

Date: May 12, 1992