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

March 21, 1986

Docket No. 50-397

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

Dear Mr. Sorensen:

Subject: WNP-2 Operating License NPF-21 License Condition 2.C.(10)

Reference
1. Letter G02-86-104 Sorensen, WPPSS to Adensam, NRC dated January 27, 1986, same subject.
2. GE Service Information Letter (SIL), No. 380, Revision 1, dated February 10, 1984.
3. Letter, C. O. Thomas (NRC) to H. C. Pfefferlen (GE), "Acceptance for Referencing of Licensing Topical Report NEDE-24011, Rev. 6, Amendment 8, "Thermal-Hydraulic Stability Amendment to GESSAR II,"" April 24, 1985.
4. Memo., H. R. Denton to V. Stello, "Close Out Generic Issue #B-19-Thermal-Hydraulic Stability," May 21, 1985.

We have received your letter (Ref 1) in which you present the basis for the Supply System's determination that your license condition 2.C.(10), Thermal-Hydraulic Stability, has been satisfied as a result of Amendment No. 16. The Safety Evaluation for Amendment No. 16 found that operation of WNP-2 in accordance with the Amendment complies with the recommendation made by General Electric in SIL 380 (Ref 2) which the staff had previously found to be an acceptable method for meeting the Thermal-Hydraulic Stability requirements.

The staff, therefore, concurs with your determination.

Sincerely,

Elinor G. Adensam, Director
BWR Project Directorate No. 3
Division of BWR Licensing

cc: See next page

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

WPPSS Nuclear Project No. 2
(WNP-2)

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"OK'ed"
by Wayne Hodges
5 February 1986

Washington Public Power Supply System
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January 27, 1986
G02-86-104

Docket No. 50-397

Director of Nuclear Reactor Regulation
Attention: E.G. Adensam, Project Director
BWR Project Directorate No. 3
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

Subject: NUCLEAR PLANT NO. 2
OPERATING LICENSE NPF-21
LICENSE CONDITION 2.C.(10)

Reference: 1) Licensing Condition 2.C.(10), Washington Public Power Supply System, Docket No. 50-397, WPPSS Nuclear Plant No. 2, Facility Operating License, License No. NPF-21.

2) Section 4.4.4, Thermal-Hydraulic Stability Safety Evaluation Report related to the operation of WPPSS Nuclear Plant No. 2, Docket 50-397, NUREG-0892, March 1982.

License condition 2.C.(10) to the WNP-2 operating license states that "prior to startup following the first refueling outage, the licensee shall provide for NRC staff review and approval a revised stability analysis." The Supply System considers that this license condition has been satisfied.

In July, 1985, the Supply System applied for and obtained modification of the WNP-2 technical specifications to include surveillance requirements for detecting thermal-hydraulic instabilities and specifying the remedial operator actions for responding to them (License Amendment No. 16).

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APP

Criterion 12, of 10CFR50, Appendix A states, in part:

> The reactor core and associated coolant, control and protection system shall be designed to assure that power oscillations which can result in conditions exceeding specified acceptable fuel design limits are not possible or can be reliably and readily detected and suppressed.

Adoption of the stability surveillance technical specifications meets this criteria.

The Supply System has evaluated the implications of thermal-hydraulic stability based on the General Electric recommendations given in SIL 380 Rev. 1, which formed the basis for the above mentioned technical specification changes. We have determined that the implemented changes alleviate any concerns relating to the thermal-hydraulic stability of WNP-2. The NRC staff has concurred in this determination. The NRC Safety Evaluation Supporting Amendment No. 16 notes that "The WNP-2 submittal provides an improved means for maintaining thermal-hydraulic stability by restricting power level to values that depend on flow rate instead of a constant upper limit."

Based on the above discussion, there no longer exists a need for a revised stability analysis for WNP-2 because the above mentioned technical specification changes remove any areas of potential concern, thereby satisfying the intent of the subject license condition.

Very truly yours,

GC Sorensen

G. C. Sorensen (MD 280)
Manager, Regulatory Programs

WCW:jmm

cc: RC Barr - BPA
JO Bradfute - NRC
JB Martin - NRC RV
E Revell - BPA
NS Reynolds - BLCP&R
NRC Site Inspector

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

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JUL 18 1985

MEMORANDUM FOR: T. M. Novak, Assistant Director
for Licensing, DL

FROM: L. S. Rubenstein, Assistant Director
for Core and Plant Systems, DSI

SUBJECT: SER FOR WNP-2 TECH SPEC CHANGE TO ALLOW OPERATION AT GREATER THAN 50% POWER WITH ONE RECIRCULATION LOOP OUT OF SERVICE (TAC 59235)

Plant Name:	Washington Public Power Supply System Nuclear Plant No. 2
Docket Number:	50-397
NSSS Supplier:	GE
Licensing Stage:	OR
Responsible Branch:	LB #2
Project Manager:	J. Bradfute
Status:	Complete

The Core Performance Branch has reviewed the request by Washington Public Power Supply System to modify the Technical Specifications relating to operation with one recirculation loop out of service for WNP-2. Our review concentrated on assuring that the proposed Technical Specifications provide adequate detection and suppression of potential thermal-hydraulic instabilities. We have concluded in the enclosed SER that the proposed Technical Specification changes do provide such protection and are acceptable.

A SALP review is also attached.

L. S. Rubenstein, Assistant Director
for Core and Plant Systems, DSI

Enclosures:
As stated

cc: R. Bernero
H. Thompson
W. Butler
J. Bradfute

Contact: G. Schwenk, CPB:DSI
X-29421

8507290510 XA

EVALUATION OF PROPOSED TECHNICAL SPECIFICATION CHANGE TO ALLOW OPERATION AT GREATER THAN 50% POWER IN SINGLE LOOP OPERATION AT WNP-2

By Reference 1, Washington Public Power Supply System (WPPSS) proposed Technical Specification changes for WNP-2. The amendment would add a new Technical Specification Section 3/4.3.10, entitled Neutron Flux Monitoring Instrumentation and supporting licensing bases and would modify Technical Specification Section 3/4.4.1 (Recirculation Loops) to permit operation at a higher power level than is currently authorized under Single Loop Operation (SLO).

The WNP-2 submittal provides an improved means for maintaining thermal-hydraulic stability by restricting power level as a function of flow. In addition, it requires operators to monitor LPRM flux signals as well as APRM signals in order to avoid or control abnormal neutron flux oscillations. The staff has reviewed the changes proposed by WPPSS and finds them acceptable for the following reasons:

1. They meet the recommendations made by General Electric in SIL 380 (Ref. 2) which have been found by the staff (Refs. 3, 4) to be an acceptable method for meeting General Design Criteria 10 and 12 with regard to Thermal-Hydraulic Stability.

2. The proposed Technical Specification changes are very similar to those which were previously proposed by Iowa Electric for Duane Arnold. The Duane Arnold Tech Specs have been reviewed and approved by the staff in Reference 5.

REFERENCES

1. Letter, G. C. Sorensen (WPPSS) to W. R. Butler (NRC), "Nuclear Plant No. 2 Operating License NPF-21, Request for Technical Specification Amendment Under Emergency Circumstances," dated July 17, 1985.

2. GE Service Information Letter (SIL), No. 380, Revision 1, dated February 10, 1984.

3. Letter, C. O. Thomas (NRC) to H. C. Pfefferlen (GE), "Acceptance for Referencing of Licensing Topical Report NEDE-24011, Rev. 6, Amendment 8," Thermal-Hydraulic Stability Amendment to GESTAR II," April 24, 1985.

4. Memo., H. R. Denton to V. Stello, "Close Out Generic Issue #B-19-Thermal-Hydrualic Stability, May 21, 1985.

5. Letter, M. C. Thadani (NRC), to L. Lui (Iowa Electric), dated May 28, 1985.

ENCLOSURE 2

SALP EVALUATION FOR CORE PERFORMANCE BRANCH

Plant: Washington Public Power Supply System Nuclear Plant No. 2

A. Functional Areas: Licensing Activities

1. Approach to Resolution of Technical Issues from a Safety Standpoint.
The licensee has shown a clear understanding of the safety issues in our area of review. Conservatism is routinely exhibited in areas of safety significance. The licensee has proposed technically sound and thorough approaches in all cases.

Rating: Category 1

2. Responsiveness to NRC Initiatives.
The licensee has met all deadlines for submittals and has been very responsive towards timely resolution of issues.

Rating: Category 1

3. Staffing.
Positions of contact personnel in our area of review are well defined. Their authorities and responsibilities are well defined.

Rating: Category 1