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 AUTH. NAME AUTHOR AFFILIATION
 SORESENSEN, O. C. Washington Public Power Supply System
 RECIP. NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Application to amend License NPF-21, deleting License
 Condition 2. C. (16), Attachment 2, Item 3(b) requiring
 implementation of Reg Guide 1.97, Rev 2 for flux monitoring
 prior to startup following second refueling. Fee paid.

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 TITLE: OR/Licensing Submittal: Suppl 1 to NUREG-0737(Generic Ltr 82-33)

NOTES:

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INTERNAL:	ADM/LFMB	1 0	IE/DEPER/EPB	3 3
	NRR BWR ADTS	1 1	NRR PWR-B ADTS	1 1
	NRR/DSRO EMRIT	1 1	NRR/DSRO/EIB	1 1
	NRR/DSRO/RSIB	1 1	REG FILE 01	1 1
EXTERNAL:	LPDR	1 1	NRC PDR	1 1
	NSIC	1 1		

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1. The first part of the report is a general description of the project and its objectives. It includes a brief history of the project and a statement of the problem to be solved.

2. The second part of the report is a detailed description of the methodology used in the study. This includes a description of the data collection methods, the statistical methods used for data analysis, and the experimental procedures used to test the hypotheses.

3. The third part of the report is a presentation of the results of the study. This includes a description of the data collected, a presentation of the statistical results, and a discussion of the experimental results.

4. The fourth part of the report is a conclusion and a discussion of the implications of the study. This includes a summary of the findings, a discussion of the limitations of the study, and a discussion of the implications of the findings for future research.

The following table shows the results of the study. The first column shows the number of subjects in each group, the second column shows the mean score for each group, and the third column shows the standard deviation for each group.

Group	Mean	SD	N
Control	1.2	0.5	10
Experimental	1.5	0.6	10
Total	1.35	0.55	20

The following table shows the results of the study. The first column shows the number of subjects in each group, the second column shows the mean score for each group, and the third column shows the standard deviation for each group.

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Control	1.2	0.5	10
Experimental	1.5	0.6	10
Total	1.35	0.55	20

Washington Public Power Supply System

3000 George Washington Way P.O. Box 968 Richland, Washington 99352-0968 (509)372-5000

March 10, 1987
G02-87-080

Docket No. 50-397

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

Gentlemen:

Subject: NUCLEAR PLANT NO. 2
OPERATING LICENSE NPF-21, REQUEST FOR AMENDMENT
TO LICENSE CONDITION 2.C.(16), ATTACHMENT 2,
ITEM 3(b)

References: 1) Letter, G02-85-724, G. C. Sorensen (SS) to W. R.
Butler (NRC), Same Subject, dated October 14, 1985
2) Letter, G02-86-568, G. C. Sorensen (SS) to E. G.
Adensam (NRC), "License Condition 2.C.(16),
Attachment 2, Item 3(b), Neutron Flux Monitoring,
Satisfaction of", dated June 19, 1986

The subject license condition, as amended, requires the Supply System to implement the requirements of Regulatory Guide 1.97, Revision 2 for flux monitoring prior to startup following the second refueling outage. In Reference 2, on the basis of the NRC having established a precedent by their approval of a similar approach by Limerick, the Supply System determined that no further upgrade was required for the neutron monitoring equipment to meet the environmental conditions imposed by the ATWS event (the only credible accident for which long term neutron monitoring is required). Therefore, the Supply System considered the subject license condition to be satisfied. In the absence of a formal response from the NRC, however, the Supply System continued along a parallel path of attempting to obtain and qualify a neutron monitoring system that would meet all of the requirements of Regulatory Guide 1.97, Revision 2.

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REQUEST FOR AMEND. TO LIC. COND. 2.C.(16), ATTACH. 2, ITEM 3(b)

Because the development of a Category I flux monitoring system that meets all the criteria of Regulatory Guide 1.97, Revision 2 is an industry development item, and because there are unrelated systems in place to provide operators with sufficient data to assess reactor conditions (e.g., control rod position monitors, reactor vessel level and pressure monitors) in the unlikely event of an accident prior to a replacement, the Staff found the Supply System's previous request for extension to the second refueling outage to be acceptable. Those conditions remain unchanged.

To date, the Supply System has been unsuccessful in attempting to environmentally qualify a neutron monitoring system. Recently during qualification testing, on three different occasions the test assembly experienced an immediate failure. The vendor is currently analyzing these failures. The Supply System plans to have a fourth test performed in the very near future, but a failure here would severely impact our ability to procure, install, and test the equipment (Category 1, LOCA) prior to startup following the second refueling outage. However, the Supply System intends to install all qualified portions of the neutron monitoring system during the upcoming refueling outage.

For the above reasons, and in accordance with the requirements of 10CFR, Parts 50.90 and 2.101, the Supply System hereby requests that the subject license condition be amended as follows:

- (b) The Licensee shall implement (installation or upgrade) requirements of R.G. 1.97, Rev. 2 for flux monitoring prior to startup following the third refueling outage.

The Supply System has reviewed the requested amendment per 10CFR 50.59 and 50.92, and has determined that no unreviewed safety questions or significant hazards will result. Further, the proposed change will not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated because the existing instrumentation consists of four redundant safety-related channels. Additionally, there are unrelated systems in place to provide operators with sufficient data to assess reactor conditions (e.g., control rod position monitors, reactor vessel level and pressure monitors) in the unlikely event of an accident condition prior to replacement.
- 2) Create the possibility of a new or different kind of accident because no function of the flux monitor system is being changed; therefore, no new or different kind of accident is conceivable.

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REQUEST FOR AMEND. TO LIC. COND. 2.C.(16), ATTACH. 2, ITEM 3(b)

- 3) Involve a significant reduction in a safety margin as adequate instrumentation is provided to allow the operator to assess reactor conditions without this monitor in the unlikely event of an accident condition that could cause the monitor currently in place to fail prior to replacement.

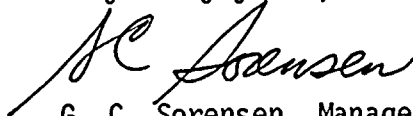
The Supply System requests that this amendment be processed on an expedited basis in order that the startup from our scheduled refueling outage not be impacted. The refueling outage is presently scheduled to begin April 10, 1987, and have a duration of approximately 60 days.

This change has been reviewed and approved by the WNP-2 Plant Operations Committee and the Supply System Corporate Nuclear Safety Review Board.

In accordance with 10CFR 50.170.12(c), an application fee of One hundred fifty dollars (\$150.00) accompanies this request. In accordance with 10CFR 50.91, the State of Washington has been provided a copy of this letter.

Should you have any questions regarding this matter, please contact Mr. P. L. Powell, Manager, WNP-2 Licensing.

Very truly yours,



G. C. Sorensen, Manager
Regulatory Programs

HLA/tmh

cc: JO Bradfute - NRC
C Eschels - EFSEC
JB Martin - NRC RV
CE Revell - BPA
NS Reynolds - BLCP&R
NRC Site Inspector

STATE OF WASHINGTON)
)
County of Benton)

Subject: Lic. Condition 2.C(16)

I, G. C. Sorensen, being duly sworn, subscribe to and say that I am the Manager, Regulatory Programs for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that I have 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.

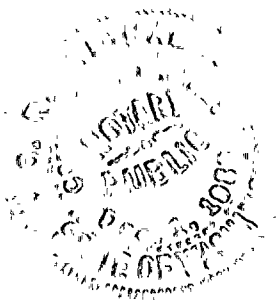
G. C. Sorensen
G. C. Sorensen, Manager
Regulatory Programs

On this day personally appeared before me G. C. Sorensen to me known to be the individual who executed the foregoing instrument and acknowledge that he signed the same as his free act and deed for the uses and purposes therein mentioned.

GIVEN under my hand and seal this 9th day of March, 1987.

S. R. Michaels
Notary Public in and for the
State of Washington

Residing at Richland, WA
Dec "89"



10/10/10