

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8803250310 DOC. DATE: 88/03/18 NOTARIZED: YES DOCKET #
 FACIL: 50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe 05000397
 AUTH. NAME: SORSENSEN, G.C. AUTHOR AFFILIATION: Washington Public Power Supply System
 RECIP. NAME: RECIPIENT AFFILIATION: Document Control Branch (Document Control Desk)

SUBJECT: Application for amend to License NPF-21, revising Tech Specs to reflect rev of DC sys battery calculations.

DISTRIBUTION CODE: A001D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 3+3
 TITLE: OR Submittal: General Distribution

NOTES:

	RECIPIENT		COPIES			RECIPIENT		COPIES		
	ID CODE/NAME		LTTR	ENCL		ID CODE/NAME		LTTR	ENCL	
	PD5 LA		1	0		PD5 PD		5	5	
	SAMWORTH, R		1	1						
INTERNAL:	ARM/DAF/LFMB		1	0		NRR/DEST/ADS7E4		1	1	
	NRR/DEST/CEB8H7		1	1		NRR/DEST/ESB 8D		1	1	
	NRR/DEST/MTB 9H		1	1		NRR/DEST/RSB 8E		1	1	
	NRR/DOEA/TSB11F		1	1		NRR/PMAS/ILRB12		1	1	
	OGC 15-B-18		1	0		<u>REG FILE</u> 01		1	1	
	RES/DE/EIB		1	1						
EXTERNAL:	LPDR		1	1		NRC PDR		1	1	
	NSIC		1	1						

*w/ check \$150
 # 13872*

TOTAL NUMBER OF COPIES REQUIRED: LTTR 21 ENCL 18

R
I
D
S
/
A
D
D
S

R
I
D
S
/
A
D
D
S



2

1

1

1

Washington Public Power Supply System

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

March 18, 1988
G02-88-065

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 TECHNICAL
SPECIFICATION 3/4.8.2, DC SOURCES

Reference: 1) Letter, JB Martin (NRC RV) to GC Sorensen
(SS), "NRC Inspection at WNP-2", dated
December 8, 1987 (NRC Inspection Report
50-397/87-19)
2) Letter, G02-88-025, GC Sorensen (SS) to NRC,
"NRC Inspection Report 87-19", dated 1/29/88

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, the Supply System hereby submits a request for amendment to the WNP-2 Technical Specifications. Specifically, the Supply System is requesting that the battery duty cycles (load profiles) for the Division 1, 2 and 3-125 Volt DC Power Systems, and the Division 1-250 Volt DC Power System, be revised per the attached page (3/4 8-13). This is being done to reflect the results of our recent revision of the DC system battery calculations.

During the period August 3 through August 28, 1987 the NRC conducted a special team Safety System Functional Inspection (SSFI) to assess the operational readiness of selected safety systems at WNP-2. As a result of that inspection, Unresolved Item No. 87-19-01, Class 1E Battery Sizing was identified. The issue dealt with specific instances of incorrectly translating the design basis for certain batteries into plant documents (Battery Calculations). The recalculation effort has now been successfully completed, and has resulted in this request for amendment to Technical Specification 3/4.8.2. Specifically, the battery load profiles contained on page 3/4 8-13 are being modified to reflect the results of the calculation revision.

8803250310 880318
PDR ADOCK 05000397
P DCD

A001
w/ check \$150
#13872



11

11

11

11

11

11

Page Two
REQUEST FOR AMENDMENT TO TS 3/4.8.2, DC SOURCES

The calculations revised are No. 2.05.01, Battery and Battery Charger Calculation (250VDC, 125VDC, and 24VDC Systems) and E/I-02-85-02 (High Pressure Core Spray DC System). The revisions utilized the calculation methodology described in IEEE Standard 485-1983 and the manufacturer's performance data for the installed cells. The load profile for each battery was redefined eliminating the inconsistencies between the one line drawing (E505), inverter loads and efficiencies, and starting currents for valve and pump motors identified during the SSFI. Additionally, factors for temperature correction (to account for the Technical Specification allowable minimum electrolyte temperature of 60°F), aging and design margin were included in the sizing calculations. All loads were reevaluated and accounted for.

The calculation revisions reconfirmed that the installed battery systems are capable of withstanding the in-rush values without exceeding the batteries' one minute ratings and are capable of meeting their respective duty cycles as well as fulfilling the operability requirements of 4.8.2.1.

The Supply System has reviewed the revision to the load profiles for the subject batteries per 10CFR50.59 and concluded that it does not involve an unreviewed safety question. The Supply System has also evaluated this request per 10CFR50.92 and provides the following in support of a finding for no significant hazards consideration. This change does not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated because no new loads are being placed on the batteries that they weren't capable of handling prior to the recalculations, nor are the revised Technical Specification duty cycles beyond the ability of the equipment.
- 2) Create the possibility of a new or different kind of accident from any previously evaluated because the batteries themselves are not being changed, nor are any changes being made to the way they were being utilized or asked to perform. The additional loads that were added from a calculation standpoint did not result in any changes to the batteries themselves, as they were still capable of fulfilling the licensing bases requirements.



Page Three
REQUEST FOR AMENDMENT TO TS 3/4.8.2, DC SOURCES

- 3) Involve a significant reduction in a margin of safety because even after adding additional conservatism to the calculations, the requirement that the battery capacity be at least 80% of the manufacturer's rating when subjected to a performance discharge test remains unchanged, as do the other requirements of 4.8.2.1. The effect of the increased duty cycle is to potentially shorten the lifetime of the battery.

As discussed above, the Supply System considers that this change does not involve a significant hazards consideration, nor is there a potential for significant change in the types or significant increase in the amount of any effluents that may be released offsite, nor does it involve a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10CFR 51.22(c)(9) and therefore, per 10CFR 51.22(b), an environmental assessment of the change is not required.

It should be noted that if the proposed change is not approved prior to the next scheduled confirmation of load profiles, the test will be performed using the summation of the most conservative requirements.

This Technical Specification change has been reviewed and approved by the WNP-2 Plant Operations Committee (POC) and the Supply System Corporate Nuclear Safety Review Board (CNSRB).

In accordance with 10CFR170.21, 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, please contact Mr. P. L. Powell, Manager, WNP-2 Licensing.

Very truly yours,



G. C. Sorensen, Manager
Regulatory Programs

HLA/bk
Attachments

cc: C Eschels - EFSEC
JB Martin - NRC RV
NS Reynolds - BCP&R
RB Samworth - NRC
DL Williams - BPA/399
NRC Site Inspector - 901A