ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9002270034 DOC.DATE: 90/02/14 NOTARIZED: NO DOCKET #
FACIL:50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe 05000397
AUTH.NAME AUTHOR AFFILIATION
SORENSEN,G.C. Washington Public Power Supply System
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Responds to request for info re 871215 application for amend to License NPF-21 re final feedwater temp reduction.

DISTRIBUTION CODE: A001D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 4
TITLE: OR Submittal: General Distribution

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD5 LA	1	1	PD5 PD	1	1
	SAMWORTH,R	5	5			
INTERNAL:	ACRS	6	6	NRR/DET/ECMB 9H	1	1
	NRR/DOEA/OTSB11	1	1	NRR/DST 8E2	1	1
	NRR/DST/SELB 8D	1	1	NRR/DST/SICB 7E	1	1
	NRR/DST/SRXB 8E	1	1	NUDOCS-ABSTRACT	1	1
	OC/LFMB	1	0	OGC/HDS2	1	0
	REG FILE 01	1	1	RES/DSIR/EIB	1	1
EXTERNAL:	LPDR	1	1	NRC PDR	1	1
	NSIC	1	1			

R I D S / A D D S

R I D S / A D D S

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 27 ENCL 25

AA-2

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352

February 14, 1990
Docket No. 50-397
G02-90-024

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 SPECIFICATIONS,
FINAL FEEDWATER TEMPERATURE REDUCTION (FFTR)

Reference: 1) Letter, G02-87-286, GC Sorensen (SS) to NRC, same subject, dated December 15, 1987
2) Letter, G02-88-198, GC Sorensen (SS) to NRC, same subject, dated September 14, 1988
3) Letter, G02-89-102, GC Sorensen (SS) to NRC, "Request for Amendment to Technical Specifications, Reload License Amendment (Cycle 5), Additional Information", dated June 1, 1989

Numerous telephone conference calls have been held with the Staff since the initial submittal of the Supply System's request (Reference 1) for generic approval of the use of Final Feedwater Temperature Reduction (FFTR). Many involved technical issues concerning the submittal itself, while others were more concerned with material questions (especially feedwater nozzles) and the impact the use of FFTR might have on them. In most cases, a response in writing was not required. However, for the following items a written response was requested.

1) Reducing feedwater temperature from 420°F to 355°F would reduce the water temperature at the beltline region an insignificant amount (from 533°F to 526.5°F).

2) The material and carbon content of the specific components of interest are as follows:

   a. Thermal Sleeve - SA336, Cl 8 (F304) material with 0.035% maximum carbon specified. Actual carbon content of 0.019% for heat #652154.

A001
1/1

b. Thermal Sleeve Extension - SB166 (Inconel alloy 600) material. Actual carbon content of 0.09% for heat #NX4116-G.

c. Reducing Tee - A240 Tp 304 material. Actual carbon content of 0.064% for heat #311566.

d. Concentric Reducer - SA182 F304 material. Actual carbon content of 0.072% for heat #71550.

e. Header Pipe(s) - SA312 Tp 304 material. Actual carbon content of 0.050% for heat #F50266 and 0.049% for heat #F41502.

f. Nozzle safe ends - SB166 (Inconel alloy 600) material.

3) The "rapid duty cycle maps" referred to in NEDC-31107, paragraph 5.2 are found in "BWR Feedwater Nozzle Sparger Final Report " dated March 1978, NEDE-21821-A (Supplement 2, February 1980), section 4.7.2.4.

4) The Supply System was asked to confirm the type of weld filler material that was used in the four (4) welds shown in Figure 121.8-1 (i.e. Inconel-82 versus Inconel-182). We assume this is related to the GE SIL No. 455, Revision 1 dated February 22, 1988.

Two of the four welds (see attachment) have been confirmed as containing Inconel-182 material, and it is assumed the other two also contain the same material. The Supply System does not believe that resolution of the Staff's Inconel-182 concerns should be germane to the Staff's approval of the Supply System's request to operate at reduced feedwater temperature at EOC for the purpose of extending the cycle. The Inconel-182 weld metal concerns are not so sensitive to final temperature that FFTR (as compared to normal, anticipated operating conditions) in itself should be a concern. However, in the interest of resolution of this issue, the Supply System agrees to ultrasonically examine the bore and inner radius of one feedwater nozzle at the refueling outage following the use of FFTR for cycle extension (if one nozzle was already scheduled for examination, that would suffice). The examination will comply with the Augmented Feedwater Nozzle Examination Program the Supply System has previously committed to in the ISI Program Plan submitted to the NRC May 29, 1985.

It is the Supply System's understanding that this resolves all outstanding issues regarding the Supply System's request for generic approval of the use of FFTR for cycle extension. Based on WNP-2's current operating performance, the Supply System could need to have this amendment in place as early as February 28, 1990, in order to avoid a reduction in power.

Very truly yours,

G. C. Sorensen, Manager
Regulatory Programs

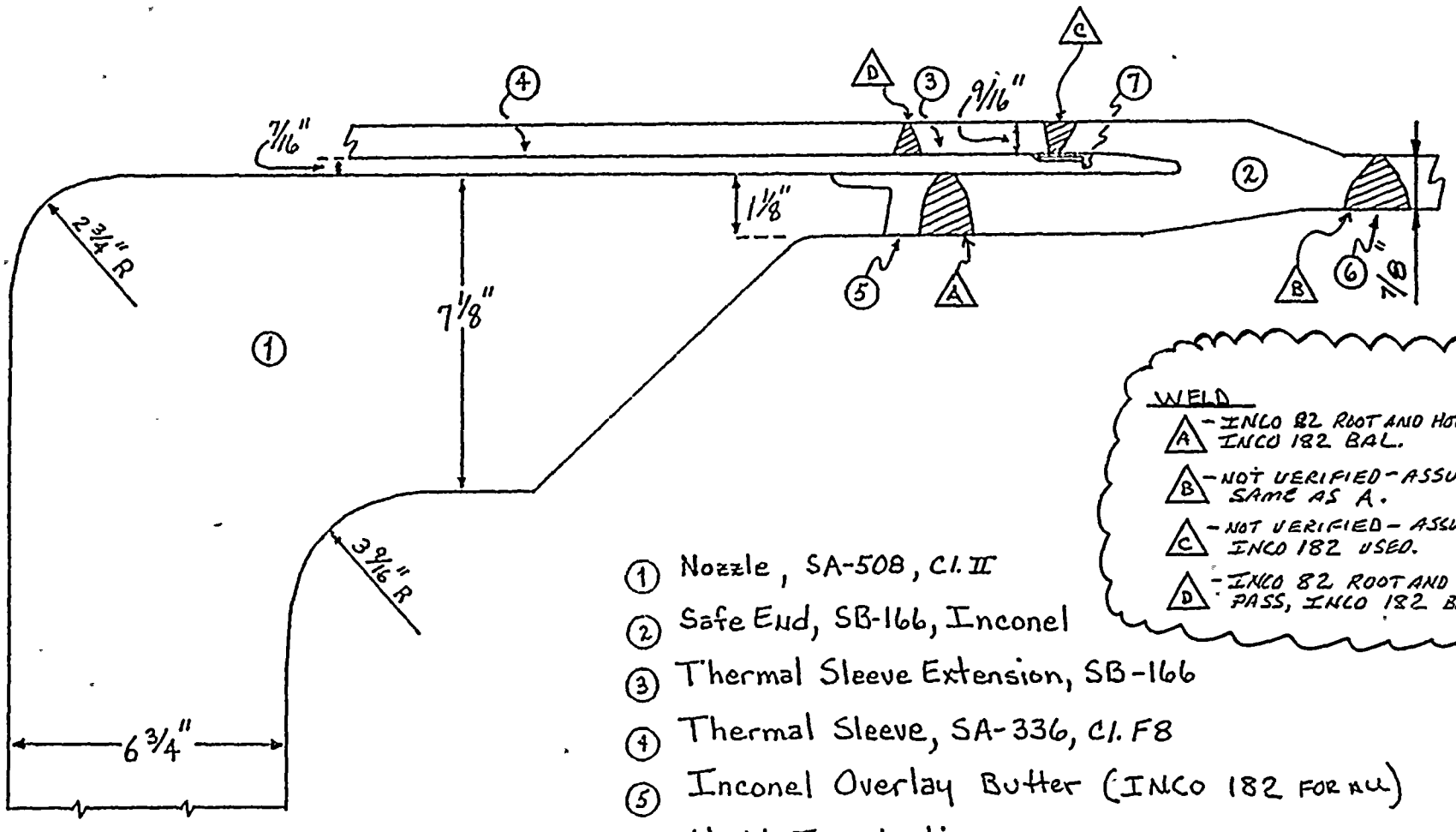
HLA/bk
Attachments

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

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2

FEEDWATER NOZZLE

FIGURE
121.8-1



1. Nozzle, SA-508, Cl. II
2. Safe End, SB-166, Inconel
3. Thermal Sleeve Extension, SB-166
4. Thermal Sleeve, SA-336, Cl. F8
5. Inconel Overlay Butter (INCO 182 FOR ALL)
6. Weld Illustration
7. Back-up Ring, SB-168

Amendment No. 5
August 1979