

CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9612180074 DOC. DATE: 96/12/09 NOTARIZED: NO DOCKET #
 FACIL: 50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe 05000397
 AUTH. NAME AUTHOR AFFILIATION
 BEMIS, P.R. Washington Public Power Supply System
 RECIP. NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Forwards util rept on FW nozzle exams performed during
 Spring 1996 refueling outage.

DISTRIBUTION CODE: IE10D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 3
 TITLE: 50 Dkt Augmented Inspection Team (AIT) Reports/Correspondence

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD4-2 PD	1 1	COLBURN, T	1 1
INTERNAL:	ACRS	1 1	AEOD/DO	1 1
	AEOD/SPD/RAB	1 1	COMMISSIONERS	5 5
	DEDRO	1 1	<u>FILE CENTER</u>	1 1
	NRR/DISP/PIPB	1 1	NRR/DRCH/HHFB	1 1
	NRR/DRPM	1 1	NRR/DRPM/PECB	1 1
	NRR/DRPM/PERB	1 1	NRR/DRPW	1 1
	NRR/DSSA/DIR	1 1	NUDOCS-ABSTRACT	1 1
	OE/DIR	1 1	OEDO	1 1
	OGC/HDS3	1 1	RGN4 FILE 01	1 1
EXTERNAL:	INPO RECORD CTR	1 1	NOAC	1 1
	NRC PDR	1 1		

NOTE TO ALL "RIDS" RECIPIENTS:
 PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,
 ROOM OWFN SD-5 (EXT. 415-2083) TO ELIMINATE YOUR NAME FROM
 DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 27 ENCL 27

C
A
T
E
G
O
R
Y

1

D
O
C
U
M
E
N
T

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • Richland, Washington 99352-0968

December 9, 1996
GO2-96-238

Docket No. 50-397

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

Gentlemen:

Subject: **WNP-2, OPERATING LICENSE NPF-21**
WNP-2 FEEDWATER NOZZLE INSPECTION REPORT

Reference: Letter GO2-95-268, dated December 8, 1995, JV Parrish (SS) to NRC, "WNP-2 Feedwater Nozzle Inspection Report"

In the response to NUREG-0619, the Supply System committed to perform certain ultrasonic examinations of the six feedwater nozzles as part of the WNP-2 Augmented Inservice Inspection Program.

The Supply System also committed to report the results of those examinations in accordance with the guidance stated in NUREG-0619.

Attached is the Supply System's report on the feedwater nozzle examinations performed during the Spring, 1996 refueling outage. This report is being submitted to comply with the reporting recommendations of NUREG-0619, Section 4.4.3.1(2).

Should you have any questions or desire additional information regarding this matter, please contact me or Ms. L. C. Fernandez at (509) 377-4147.

Respectfully,



P. R. Bemis (Mail Drop PE23)
Vice President, Nuclear Operations

Attachment

cc: LJ Callan - NRC RIV
KE Perkins, Jr. - NRC RIV, WCFO
NS Reynolds - Winston & Strawn

TG Colburn - NRR
DL Williams - BPA/399
NRC Sr. Resident Inspector - 927N

9612180074 961209
PDR ADDCK 05000397
P PDR

1/1
Le 10

WNP-2 FEEDWATER NOZZLE INSPECTION REPORT

Attachment

Page 1 of 2

This report addresses reactor vessel feedwater nozzle inspections for WNP-2 performed during the eleventh refueling outage (R11, Spring 1996). This report is requested in NUREG-0619, Section 4.4.3.1(2). This report covers the period from June 10, 1995 to May 15, 1996.

In response to NUREG-0619, the Supply System committed in the WNP-2 Inservice Inspection Program Plan to perform ultrasonic testing (UT) on at least one feedwater nozzle inner radius, bore and safe-end from the reactor outside diameter (OD) for six successive refueling outages. If no service-induced indications were found during this time period, subsequent inservice examinations of feedwater nozzles were to be performed in accordance with normal ASME Section XI requirements.

The following information is presented in the same sequence as requested in NUREG-0619 Section 4.4.3.1(2).

(a) Number of startup/shutdown cycles since the previous inspection and total number of cycles.

The plant has experienced 2 startup/shutdown cycles for this reporting period. For this report and for all future reports, the Supply System will now consider 1 startup/shutdown cycle to be one plant startup and a corresponding plant shutdown. Previous reports have addressed a plant startup and the corresponding shutdown as 2 startup/shutdown cycles. The total number of plant startup/shutdown cycles since initial heatup in April, 1984 until shutdown in April, 1996 is 59. It should also be noted that last years report (see Reference) incorrectly reported the total startup/shutdown cycles as 119 cycles. The correct number was 114, or 57 cycles based on the new definition of a startup/shutdown cycle.

(b) Summary of methods used and results of previous inspections.

The Supply System has developed an angle beam shear wave technique that is unique to the WNP-2 feedwater nozzle design. The procedure was qualified on the WNP-2 feedwater mock-up, which is a feedwater nozzle from the scrapped Douglas Point Unit 1 reactor vessel. The inner radius, zone 1, of the nozzle is scanned using a 70 degree angle transducer. The inner radius, zone 2, and bore region, zone 3, are scanned using a 25 degree angle transducer. The UT procedure used for the examinations is Supply System NDE&I Instruction QCI 6-4 "Ultrasonic Examination of Feedwater Nozzle Inner Radii." A copy of QCI 6-4 was included in last years report (see Reference). Any changes to this procedure that affect UT scanning techniques are verified on the feedwater nozzle mock-up.

Calibration data for reactor feedwater nozzle inner radius examinations have been predetermined using the WNP-2 feedwater nozzle mock-up. This allows the examiner to use the reactor vessel calibration block representing the shell course containing the feedwater nozzle for calibration. The transfer data is contained in Table I of procedure QCI 6-4.

Indications that exceed 25% full screen height (FSH) are recorded and indications that exceed 50% FSH are evaluated.

WNP-2 FEEDWATER NOZZLE INSPECTION REPORT

Attachment

Page 2 of 2

All previous feedwater nozzle inner radius examinations resulted in no unacceptable indications being detected.

(c) Changes in feedwater system or operating procedures that will affect feedwater flow or temperature.

There have been no changes to the system or the way it is operated since the last report that could potentially increase the tendency for nozzle cracking. A recently installed digital feedwater control system does not change feedwater flow or temperature parameters in a manner that would increase the tendency for nozzle cracking.

(d) Inspection results.

During WNP-2 refueling outage R11, the Supply System performed ultrasonic examination of one reactor feedwater nozzle inner radius, bore and nozzle-to-safe-end weld at azimuth 30 from the vessel outside diameter (OD).

The examinations were performed by Supply System and General Electric examiners certified to either Level II or Level III UT.

As with all previous feedwater nozzle inner radius examinations, no unacceptable indications were found.

(e) Leakage monitoring.

WNP-2 does not have on-line leakage monitoring for the RFW sparger.

(f) Information regarding all UT crack-like indications and any subsequent PT information.

No crack-like indications have been observed.

Next scheduled examination.

The next examination is scheduled for the twelfth refueling outage in the Spring, 1997.