

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

SUBJECT: Forwards relief request 2ISI-20,proposing alternate exam expected to reduce dose significantly & still provide adequate safety & quality re ISI program plan.Request addresses all pumps in category C-G.

NOTES:

RECIPIENT		COPIES		RECIPIENT		COPIES	
ID CODE/NAME		LTTR	ENCL	ID CODE/NAME		LTTR	ENCL
PD4-2 LA		1	1	PD4-2 PD		1	1
POSLUSNY, C		1	1				
INTERNAL: ACRS		1	1	AEOD/SPD/RAB		1	1
FILE CENTER 01		1	1	NRR/DE/ECGB		1	1
NUDOCS-ABSTRACT		1	1	OGC/HDS3		1	0
RES/DET/EIB		1	1	RES/DET/EMMEB		1	1
EXTERNAL: LITCO ANDERSON		1	1	NOAC		1	1
NRC PDR		1	1				

MICROFILMED

PLEASE HELP US TO REDUCE WASTE. TO HAVE YOUR NAME OR ORGANIZATION REMOVED FROM DISTRIBUTION LISTS OR REDUCE THE NUMBER OF COPIES RECEIVED BY YOU OR YOUR ORGANIZATION, CONTACT THE DOCUMENT CONTROL DESK (DCD) ON EXTENSION 415-2083

TOTAL NUMBER OF COPIES REQUIRED: LTTR 14 ENCL 13

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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

February 22, 1999
GO2-99-035

Docket No. 50-397

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

Gentlemen:

Subject: **WNP-2 OPERATING LICENSE NPF-21
INSERVICE INSPECTION PROGRAM PLAN RELIEF REQUEST
2ISI-20**

Reference: Letter dated August 18, 1997, WH Bateman (NRC) to JV Parrish (SS),
"Evaluation of Second Ten-Year Interval Inservice Inspection Program Plan
Relief Request 2ISI-15 for the Washington Public Power Supply System WNP-2
(TAC NO. M93905)

ASME Section XI requires a surface examination of the pump casing of one pump within the Code Category C-G groups of pumps once each 10 year inspection interval. WNP-2 submitted relief request 2ISI-15 to perform the required category C-G, item C6.10 welds (there is no access to these welds from the outside surface) when the pumps are disassembled for maintenance. The NRC authorized this request in the above referenced letter.

During the planning for disassembly of a category C-G pump for maintenance, it was determined that the radiological dose received from performing the Code required surface examination will be substantial. An alternate examination is proposed in Attachment 1 that is expected to reduce the dose significantly and still provide adequate safety and quality.

It is anticipated that other pumps in category C-G will also require a substantial expenditure of dose to perform the Code required surface examination. Therefore this relief request addresses all the pumps in category C-G.

Enclosed with the relief request are three sketches of the subject pumps.

9903030335 990222
PDR ADOCK 05000397
G PDR

A047

INSERVICE INSPECTION PROGRAM PLAN RELIEF REQUEST 2ISI-20

Page 2

Relief is requested under 10 CFR 50.55a(a)(3)(ii) in that the expected high dose for performing the surface examination presents a hardship to WNP-2 without a compensating increase in the level of quality and safety. The use of a VT-1 examination for category C-G pump casing welds in support of the ALARA program has previously been approved for the Limerick Generating Station, Unit 2.

The attached relief request will be used to support ALARA dose reduction efforts during upcoming planned pump maintenance. If you require additional information, please contact PJ Inserra at (509) 377-4147.

Respectfully,



RL Webring

Vice President, Operations Support/PIO

Mail Drop PE08

Attachments

cc: EW Merschoff - NRC RIV
LJ Smith - NRC RIV
C Poslusny, Jr. - NRR
NRC Sr. Resident Inspector - 927N
DL Williams - BPA/1399
PD Robinson - Winston & Strawn

ATTACHMENT 1
RELIEF REQUEST 2ISI-20

Welds for Which Relief is Requested

ASME Section XI Examination Category C-G, Code item number C6.10, pressure retaining welds in pumps and valves.

<u>Ident. No.</u>	<u>Description</u>	<u>Item No.</u>	<u>ISI Diagram No.</u>
RHR-P-2A			
RHR-P-2AC-1	PMP CAS/CIR WLD ¹	C6.10	RHR-213
RHR-P-2AC-2	PMP CAS/CIR WLD	C6.10	RHR-213
RHR-P-2AC-3	PMP CAS/CIR WLD	C6.10	RHR-213
RHR-P-2AN-1	PMP NOZZLE WELD	C6.10	RHR-213
RHR-P-2AN-2	PMP NOZZLE WELD ²	C6.10	RHR-213
RHR-P-2AL-1	PMPCAS/LONG.WLD ³	C6.10	RHR-213
RHR-P-2AL-2	PMPCAS/LONG.WLD	C6.10	RHR-213
RHR-P-2B			
RHR-P-2BC-1	PMP CAS/CIR WLD	C6.10	RHR-213
RHR-P-2BC-2	PMP CAS/CIR WLD	C6.10	RHR-213
RHR-P-2BC-3	PMP CAS/CIR WLD	C6.10	RHR-213
RHR-P-2BN-1	PMP NOZZLE WELD	C6.10	RHR-213
RHR-P-2BN-2	PMP NOZZLE WELD	C6.10	RHR-213
RHR-P-2BL-1	PMPCAS/LONG.WLD	C6.10	RHR-213
RHR-P-2BL-2	PMPCAS/LONG.WLD	C6.10	RHR-213
RHR-P-2BL-3	PMPCAS/LONG.WLD	C6.10	RHR-213
RHR-P-2C			
RHR-P-2CC-1	PMP CAS/CIR WLD	C6.10	RHR-213
RHR-P-2CC-2	PMP CAS/CIR WLD	C6.10	RHR-213
RHR-P-2CC-3	PMP CAS/CIR WLD	C6.10	RHR-213
RHR-P-2CN-1	PMP NOZZLE WELD	C6.10	RHR-213
RHR-P-2CN-2	PMP NOZZLE WELD	C6.10	RHR-213
RHR-P-2CL-1	PMPCAS/LONG.WLD	C6.10	RHR-213
RHR-P-2CL-2	PMPCAS/LONG.WLD	C6.10	RHR-213

¹ Pump casing circumferential weld

² Pump nozzle weld

³ Pump casing longitudinal weld

ATTACHMENT 1
RELIEF REQUEST 2ISI-20

RHR-P-2CL-3	PMPCAS/LONG.WLD	C6.10	RHR-213
HPCS-P-1			
HPCS-P-1C-1	PMP CAS/CIR WLD	C6.10	HPCS-206-1
HPCS-P-1C-2	PMP CAS/CIR WLD	C6.10	HPCS-206-1
HPCS-P-1C-3	PMP CAS/CIR WLD	C6.10	HPCS-206-1
HPCS-P-1C-5	PMP CAS/CIR WLD	C6.10	HPCS-206-1
HPCS-P-1C-7	PMP CAS/CIR WLD	C6.10	HPCS-206-1
HPCS-P-1N-1	PMP NOZZLE WELD	C6.10	HPCS-206-1
HPCS-P-1N-2	PMP NOZZLE WELD	C6.10	HPCS-206-1
HPCS-P-1L-1	PMPCAS/LONG.WLD	C6.10	HPCS-206-1
HPCS-P-1L-2	PMPCAS/LONG.WLD	C6.10	HPCS-206-1
HPCS-P-1L-3	PMPCAS/LONG.WLD	C6.10	HPCS-206-1
LPCS-P-1			
LPCS-P-1C-1	PMP CAS/CIR WLD	C6.10	LPCS-208-1
LPCS-P-1C-2	PMP CAS/CIR WLD	C6.10	LPCS-208-1
LPCS-P-1C-3	PMP CAS/CIR WLD	C6.10	LPCS-208-1
LPCS-P-1N-1	PMP NOZZLE WELD	C6.10	LPCS-208-1
LPCS-P-1N-2	PMP NOZZLE WELD	C6.10	LPCS-208-1
LPCS-P-1L-1	PMPCAS/LONG.WLD	C6.10	LPCS-208-1
LPCS-P-1L-2	PMPCAS/LONG.WLD	C6.10	LPCS-208-1
LPCS-P-1L-3	PMPCAS/LONG.WLD	C6.10	LPCS-208-1

ASME Section XI Requirements

ASME Section XI, 1989 Edition, Table IWC-2500-1, Examination Category C-G, items C6.10 requires a surface examination of 100% of the pressure retaining pump casing welds and adjacent base metal of one (1) pump in each group of multiple pumps (of similar design, size, function, service) during the inspection interval. The examination can be performed from either the inside or outside of the pump casing.

Relief Request 2ISI-15 Requirements

The pump casings are embedded in a pump pit which does not allow access to the outside surface of the above listed welds. The upper flange is at floor level. The welds are accessible for examination from the internal surface. In accordance with Relief Request 2ISI-15, when the pump is disassembled for maintenance, an examination of the casing welds will be performed in accordance with Category C-G, Item Number C6.10.

ATTACHMENT 1
RELIEF REQUEST 2ISI-20

Code Requirement from Which Relief is Requested

Examination of the pump welds by a surface method.

Basis for Relief

Relief from the above requirement is requested under 10 CFR 50.55a(a)(3)(ii), in that the high dose from performing these examinations will present a hardship to WNP-2.

Alternative Examinations

In support of WNP-2's ALARA program, a remote VT-1 examination may be performed on the internal surface of the pump casing welds in lieu of the surface examination. The examination method, either a surface or VT-1, will be determined by WNP-2 based on radiation data at the time welds become accessible for examination.

Justification for the Granting of Relief

In order to perform the surface examination it is necessary that an individual enter the pump casing. The VT-1 examination can be performed remotely with personnel standing outside the pump casing. The diameter of the pump casing for the Low Pressure Core Spray (LPCS) and Residual Heat Removal (RHR) pumps is 36 inches and 54 inches for the High Pressure Core Spray (HPCS) pump. The approximate pump casing lengths are RHR 9-1/2 feet, LPCS 10-1/2 feet and HPCS 12 feet. As of February, 1999, the pump with the highest dose estimate is RHR-P-2B. The estimated dose rates while examining this pump are 500 mrem/hour inside the pump casing and 50 mrem at floor level at the top of the pump casing. Estimated dose rates for the other pumps in this Code Category, as of February, 1999, are lower than for RHR-P-2B. Cleaning and surface examination of the welds is estimated to take five (5) hours. The expected dose for performing the surface examination of the RHR-P-2B welds, including the surface preparation is approximately 2500 mrem. Performing the surface preparation and remote VT-1 examination of these same welds is estimated to take three (3) hours and has an expected dose of 150 mrem.

This relief request should be granted for the following reasons:

1. The alternate examination will be used when the dose to perform the surface examination is substantial. The alternate examination will only be used if justified by an ALARA review at the time the welds are made accessible.
2. The VT-1 examination method is the Code method for the reactor pressure vessel internal attachment welds (Code Category B-N-2). The VT-1 method provides, in the situation where substantial dose creates a hardship to perform the Code specified surface examination of the Code Category C-G pump welds, adequate safety and quality.



10-10-10

10-10-10

10-10-10

10-10-10

10-10-10

10-10-10

ATTACHMENT 1
RELIEF REQUEST 2ISI-20

Implementation Schedule

Once approved this relief request is to be effective for the second ISI Inspection Interval.

Bibliography

1. WNP-2 Inservice Inspection Program Plan - Interval 2
2. Boiler and Pressure Vessel Code Section XI, 1989 Edition, no Addenda
3. Limerick Generating Station 2 ISI Program, Appendix A-7, "Relief Request No. RR-07"
4. Letter, Walter R Butler, NRC to Mr. George J. Beck, Philadelphia Electric Company, "First Ten Year Interval Inservice Inspection Program, Limerick Generating Station Unit 2 (TAC No. 76091)", dated April 23, 1991, Attachment TER pages 21-23.

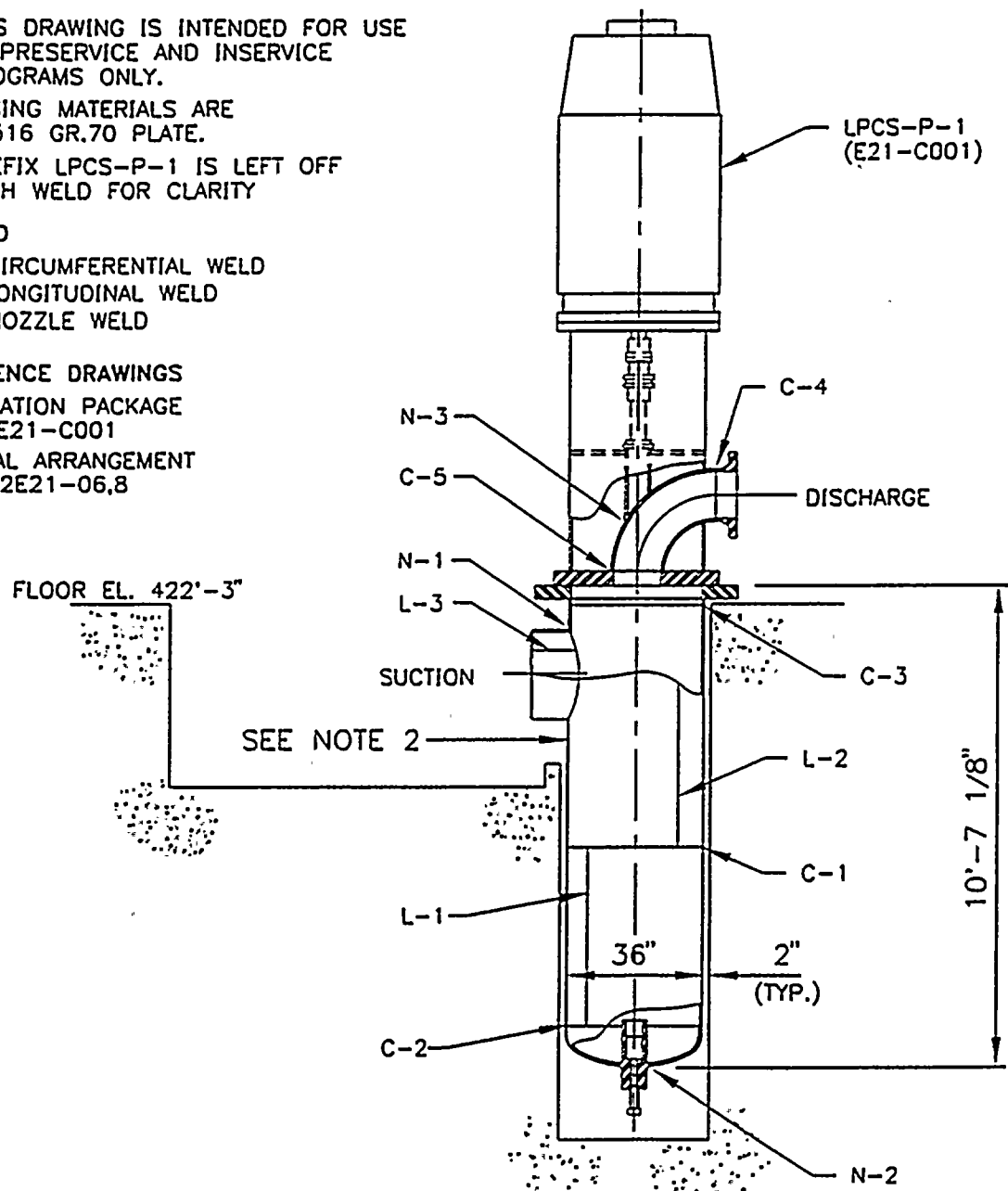
NOTES:

1. THIS DRAWING IS INTENDED FOR USE IN PRESERVICE AND INSERVICE PROGRAMS ONLY.
2. CASING MATERIALS ARE SA516 GR.70 PLATE.
3. PREFIX LPCS-P-1 IS LEFT OFF EACH WELD FOR CLARITY

LEGEND

C - CIRCUMFERENTIAL WELD
L - LONGITUDINAL WELD
N - NOZZLE WELD

REFERENCE DRAWINGS
FABRICATION PACKAGE
MPL# E21-C001
GENERAL ARRANGEMENT
CVI# 02E21-06,8



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

REV	DATE	DESCRIPTION	DWN CHK	APVD	WELD AND COMPONENT IDENTIFICATION DIAGRAM LPCS-P-1 (E21-P001)		
0	9-1-95	NEW ISSUE DRAWING	DLE DPA	CAL			
DRAWN	DATE	CHECKED	DATE	APPROVED	DATE	OWG NO.	REV.
O.L. EHR	9-1-95	DPA	1-22-95	CAL	1-22-95	LPCS-208-1 SH 1 OF 1	0

POS2-AV RO (8/94)

FILE NAME

NOTES:

1. THIS DRAWING IS INTENDED FOR USE IN PRESERVICE AND INSERVICE INSPECTION PROGRAMS ONLY.
2. CASING MATERIALS ARE SA516 GR.70 PLATE.
3. PREFIX HPCS-P-1 IS LEFT OFF EACH WELD NUMBER FOR CLARITY.

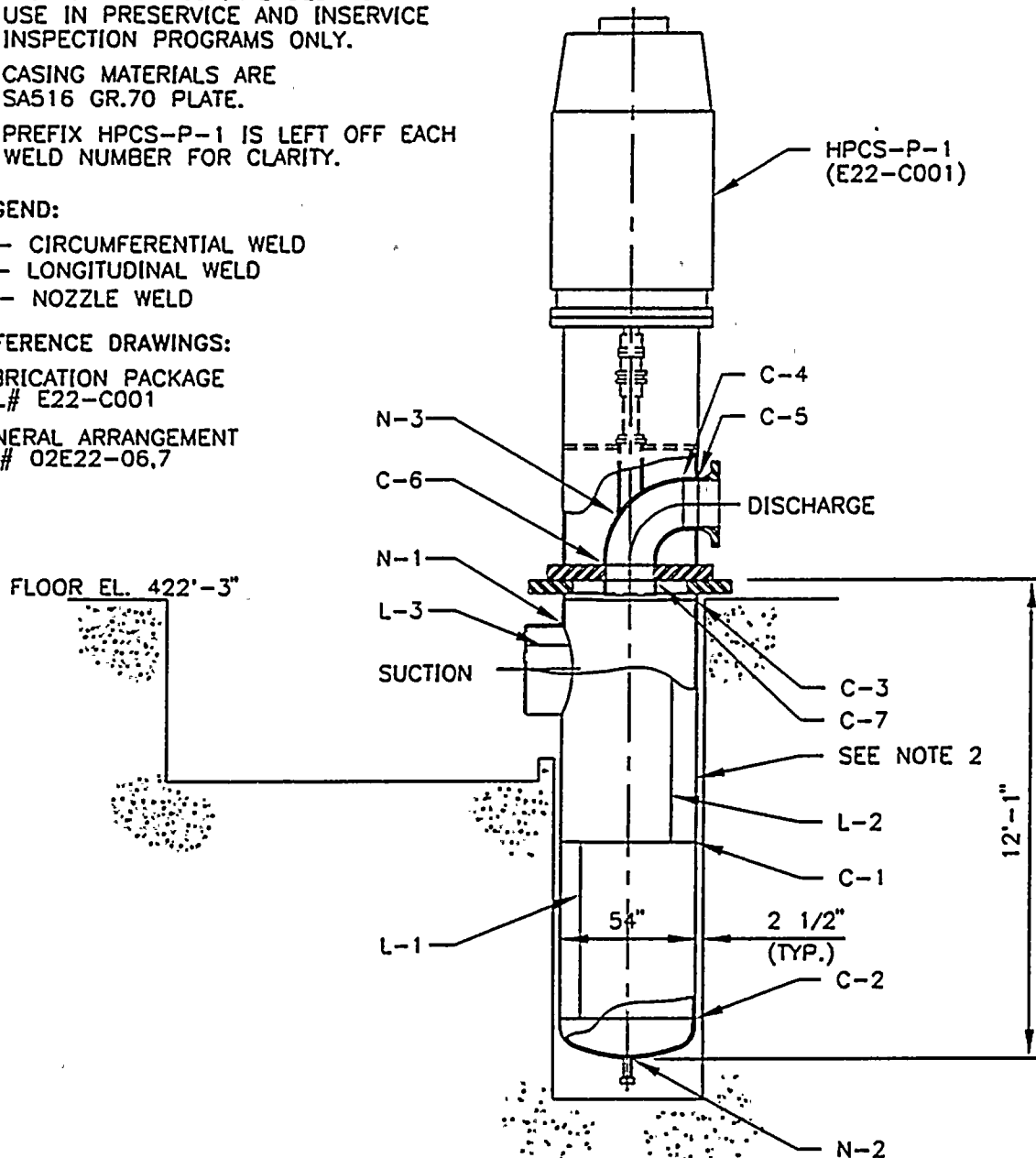
LEGEND:

C - CIRCUMFERENTIAL WELD
L - LONGITUDINAL WELD
N - NOZZLE WELD

REFERENCE DRAWINGS:

FABRICATION PACKAGE
MPL# E22-C001

GENERAL ARRANGEMENT
CVI# 02E22-06.7



WASHINGTON PUBLIC POWER
SUPPLY SYSTEM

REV	DATE	DESCRIPTION	OWN CHK	APVD	WELD AND COMPONENT IDENTIFICATION DIAGRAM HPCS-P-1 (E22-C001)
0	9-1-95	NEW ISSUE DRAWING	DLE DPR	C. K.	
DRAWN O.L. EHR	DATE 9-1-95	CHECKED DPR	DATE 9-22-95	APPROVED C. K.	DATE 9/2/95
DWG NO. HPCS-206-1 SH 1 OF 1					REV. 0

