

**WPPSS
NUCLEAR PROJECT
NO. 2**

**PRESERVICE INSPECTION
PROGRAM PLAN**

VOLUME 4

SUMMARY REPORT

COPY NUMBER 16

**WASHINGTON PUBLIC POWER
SUPPLY SYSTEM**

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

Nuclear Project

No. 2

PRESERVICE INSPECTION

SUMMARY REPORT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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PRESERVICE INSPECTION SUMMARY REPORT
FOR THE

WPPSS NUCLEAR PROJECT NO. 2

OWNER: Washington Public Power Supply System

3000 George Washington Way

Richland, Washington 99352

PLANT: WNP-2, located 11 miles north of Richland, Washington on the
U. S. Department of Energy Hanford Reservation

COMMERCIAL SERVICE DATE: February, 1984 (projected)

CAPACITY: 1,094 MWe; 3,400 MWt

REACTOR PRESSURE VESSEL: Manufacturer: CBIN
State No.: N/A

Serial No.: T-45
Nat'l Bd. No.: CBIN-8

Prepared by:

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4-5-83
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Date

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4/27/83
Date

INTRODUCTION

This report summarizes the results of the Preservice Inspection (PSI) of ASME Class 1, 2 and 3 components of the Washington Public Power Supply System's Nuclear Project No. 2. These examinations are specified in ASME Section XI and required by 10CFR50.55a. This report also covers augmented examinations of the Reactor Feedwater (RFW) nozzles, Emergency Core Cooling System (ECCS) and pipe break exclusion areas imposed by the NRC. The PSI examinations comply with ASME Section XI, 1974 Edition, Summer 1975 Addenda and Appendix III of the Winter 1975 Addenda. Some examinations comply with the ASME Section XI, 1977 Edition, Summer 1978 addenda as noted in Volume 1, Section 6 of the PSI Program Plan.

This summary covers examinations accomplished between November, 1976 and March 1, 1983. The examination boundaries are defined in Volume 1, Section 7 and detailed in Section 8 of the Preservice Inspection Program Plan.

Documentation supporting this Summary Report is located in the PSI Program Plan or the Operations Vault. The volume and section numbers listed below refer to the PSI Program Plan and the DIC number is the Operations Vault file index number.

<u>Volume</u>	<u>Contents</u>	<u>Section/DIC No.</u>
1.	Commitments	5
	PSI Program Plan Description	6
	Boundary Diagrams	7
1 & 2	Weld Identification Diagrams	8
	Weld Schedules Tables	8
2.	Visual Program	9
	Procedures	10
3.	Procedures (Contd.)	10 (Contd)
	Calibration Block Drawings	11
4.	Summary Report	N/A
	Summary Report Supplement	N/A

<u>Volume</u>	<u>Contents</u>	<u>Section/DIC No.</u>
5.	Result Summary Tables	N/A
N/A	NES RPV Report	1103.1 (DIC No.)
N/A	Material Certifications	1108.3 (DIC No.)
N/A	Equipment Certifications	1108.3 (DIC No.)
N/A	Personnel Qualifications	1108.1 (DIC No.)
N/A	Calibration Standards	
N/A	Certifications	1108.4 (DIC No.)
N/A	NES-2 Data Reports For Repair/	
	Replacements	1103.3 (DIC No.)
N/A	Comparison of LMT and NES RPV	
N/A	Examinations	1103.2 (DIC No.)

The following items have not been completed as of the issuance of this report. They will be covered in a supplement to this summary report to be issued after commercial operations.

- o 1988 Volume and surface exams on piping (listed in Table 1)
- o Visual exams/Component Support exams
- o NES-2 Data Reports completed after March 31, 1983 and before commercial operation
- o UT results from the reactor feedwater nozzle augmented examinations

ACCESS CRITERIA

Access for the purpose of inservice inspection is defined as the design of the plant with the proper clearances for examination personnel and/or equipment to perform ISI examinations. The Supply System has complied with ASME Section XI 1974 Edition Summer 1975 Addenda requirements for access to the maximum extent practical. The Supply System, with the assistance of a consultant, Southwest Research Institute (SwRI), jointly reviewed and included in the construction specifications access provisions for ISI. Only a few areas, as described in Appendix A, "Requests for Relief", could not be examined in full compliance with the code requirements.

REQUESTS FOR RELIEF

During the conduct of the PSI examinations some welds could not be fully examined per ASME Section XI requirements due to design restraints. A limited or alternate exam was conducted on these welds. The welds that did not receive complete ASME Section XI examination requirements are listed in Appendix A of this report, "Request for Relief No. PSI-2-001". A total of 30 welds received a partial ASME Section XI exam. Thirteen (13) are in category B-A and seventeen (17) are in categories B-J and C-F.

In category B-A, 9 of the 13 partially obstructed welds are on the bottom head and are obstructed by the CRD housings. The other 4 welds partially obstructed are on the shell and are obstructed by key lugs.

A walkdown of the remaining circumferential and longitudinal welds yet to be examined indicates that no additional welds will need to be added to the Request for Relief in Appendix A. Since welded attachments (lugs) are still being installed, there exists the possibility that a few may not be fully examined. This will be addressed in the supplement to this report. Therefore, Request for Relief PSI-2-001 contains all circumferential and longitudinal welds with limited examinations.

REACTOR PRESSURE VESSEL EXAMINATIONS

Manual preservice ultrasonic examinations were completed on essentially 100% of the WNP-2 Reactor Pressure Vessel (RPV) circumferential, longitudinal, nozzle-to-vessel, vessel support welds, and nozzle inner radius in February 1977. Those examinations were performed prior to the installation of the vessel while it was resting in its shipping cradle (horizontal) in storage at the plant site. The examinations were performed by Nuclear Energy Services (NES) to a program plan prepared by NES and approved by the Supply System. The program was prepared in accordance with the 1971 Edition of ASME Section XI with Addenda through Winter 1971, with additional evaluations performed per the requirements of the

1974 Edition of ASME Section XI with Addenda through Summer 1975. The top and bottom heads and the nozzle-to-vessel welds were examined manually by Lambert, MacGill, and Thomas, Inc. (LMT) in 1981. No examinations were done on those portions of the bottom head welds which are inaccessible due to the CRD penetrations. (See Appendix B "Request for Relief PSI-2-001"). The manual exam of the RPV revealed a very "clean" vessel. There were no angle beam reflectors greater than 50% DAC. The straight beam technique found mid-plate segregates in seven locations. With this information, the Supply System decided it would serve no purpose to perform another complete baseline using mechanized techniques. Instead, the Supply System performed a limited examination which demonstrated that the equipment was usable and that the mechanized technique produced results equivalent in sensitivity and repeatability to the manual technique.

Before examinations began, a fit and function was done of all mechanized equipment that would be used in service (1). This fit and function proved that all vessel examination tracks had been installed correctly and that the examination equipment would operate correctly from each track.

The following mechanized examinations were completed:

- a) All nozzle-to-vessel welds.
- b) All areas where NES found indications during the manual examination.
- c) Major repair area in the beltline region
- d) Portion of one longitudinal weld including the vessel diameter transition.
- e) Portion of one circumferential weld.

During manual RPV examinations by NES between November, 1976, to February, 1977, ultrasonic indications due to midplate segregates were located in seven general areas. Table 2 lists the areas where the midplate segregates were found and summarizes the results. Geometric indications recorded by NES are summarized in Table 3.

The limited scope mechanized examinations performed by LMT resulted in 582 ultrasonic indications due to midplate segregates in the same general area as that NES found them. They are summarized in Table 2. Table 3 summarizes the geometric indications LMT found.

The seven areas containing indications due to midplate segregates found by NES were also found by LMT using Supply System mechanized equipment which was manufactured by SWRI. The Supply System correlated the data used from NES and LMT and found the results of the examinations to be essentially identical. A copy of this comparison is attached as Appendix C.

An NRC (I&E) concern, during the mechanized examinations, was maintaining good transducer contact on the transition from the first to second shell courses. During the mechanized examinations LMT determined that UT contact existed at the diametral transition between the first and second shell courses. Based on observing the signals reflected from the ID surface of the vessel (from 00, 450, 600) it is concluded that UT coupling is maintained over approximately 75% of the transition.

BALANCE OF PLANT EXAMINATIONS

Surface and volumetric examinations of Code Class 1 and 2 piping and components as required by ASME Section XI and NRC augmented requirements were completed except for the examinations listed in Table 1.

Surface examinations resulted in numerous rejectable indications which were determined to be piping base metal anomalies. These indications were outside the Section III area of interest and not discovered during Section III examination. Since the piping systems had not completed all Section III requirements, the welds were returned to the contractor who removed the indications by grinding and in a few cases re-welding as required.

Re-examination of the welds resulted in no unacceptable indications.

Magnetic particle (MT) examination of the RHR-P-2B casing ID resulted in a rejectable linear indication that was removed by grinding. No welding was required. Re-examination by MT was acceptable. All other surface examination results were acceptable.

Volumetric examinations resulted in 270 significant geometric indications. They are summarized in Table 4.

Many visual examinations performed on ASME Class 1, 2 and 3 component supports will be performed after fuel load as discussed in Section 9.0 of the WNP-2 PSI Program Plan.

Results of all visual examinations will be included in a supplement to this report to be issued after commercial operations.

AUGMENTED EXAMINATIONS

In response to feedwater nozzle cracking concerns (NRC question 121.8) the Supply System committed to the following PSI examinations of the reactor feedwater (RFW) nozzles:

- o. RFW nozzle inner radius examination by special UT technique qualified by the Supply System
- o. PT examination of accessible areas of RFW nozzle inner radius surfaces.

Dye penetrant (RT) examination of the inner radius surfaces performed by LMT during PSI examination showed no unacceptable indications.

Results of the UT examination of the RFW nozzle bore, inner radius and safe end regions using a procedure and technique qualified on the WNP-2 RFW nozzle mock-up (calibration block UT-122) will be reported in the supplement.

An augmented ISI Program was committed to by the Supply System on high energy Class 1 piping systems greater than 1 inch which penetrate containment for which the effects of pipe break are not acceptable. The program consisted of examining welds greater than 1 inch NPS by UT except that a PT examination was performed on the 2 inch Main Steam lines, which are socket welded.

There are 213 welds in this augmented program, of which 143 are within the jurisdiction of ASME Section XI (see Table 5) and do not require additional examination outside Section XI requirements. The remaining 70 welds (also listed in Table 5) are outside Section XI jurisdiction and were examined by either UT or PT. No unacceptable indications were found in the 44 welds completed to date. The examination results of the remaining 26 welds (listed in Table 1) will be reported in the supplement to this report.

The Supply System committed to an augmented examination program for 10% of the welds in the Class 2 Emergency Core Cooling System (ECCS). The results of the examinations will be reported in the supplement.

EVALUATION OF RESULTS

All evaluations for specific examinations done by LMT or the Supply System are attached to the appropriate data sheets and are contained in file number 1101 physically located in the WNP-2 Plant Operations vault. The evaluations for NES examinations of the RPV are included in NES report "Manual Ultrasonic Pre-Service Examination of WNP-2 Reactor Pressure Vessel - Final Report" located in file number 1103 in the WNP-2 Plant Operation Vault.

All indications have been evaluated. Those which were unacceptable per ASME Section XI code criteria have been repaired and re-examined as necessary. All re-examinations are acceptable.

REPAIR/REPLACEMENT PROGRAM

The repair, replacement or modification of ASME Section III stamped components and systems was accomplished under the rules of ASME Section XI, as governed by WNP-2, Section XI Repair Programs.

Section XI Repair Programs are controlled by the Owner and addresses only repairs made by welding. Repairs accomplished by grinding (such as arc strike removal) was done under a contractor procedure approved by the Supply System and the Supply System's ANI(I). Such surface repairs by grinding are considered cosmetic in nature and do not warrant the preparation of individual repair programs. The procedural controls stated above provide adequate control and documentation of the results.

This report covers repairs whose NIS-2 forms were completed before March 31, 1983. The supplement to this report, issued after commercial operations, will include all repairs whose NIS-2 forms were completed between March 31, 1983 and commercial operations.

Repairs due to PSI

A number of unacceptable PT indications were found on Class 1 and 2 piping welds during PSI examinations. These indications were determined to be piping anomalies as previously discussed. The piping installation contractor removed the indications by grinding. Since the piping systems were still under the jurisdiction of ASME Section III at this time of the PSI examinations, the repairs were done under Section III. Re-examination results were acceptable.

ISI surface preparations resulted in several hundred cases of minimum wall thickness being violated. All piping which had been prepared for ISI has had the wall thickness of each weld checked. The results of this program were analyzed by the Architect-Engineer. Some of the welds required rework which was done by the Section III piping installation contractor. All reworked welds were reexamined.

An indication was found on the RHR-P-2B pump casing ID during MT examination. Since the component was code stamped and turned over to the Supply System, the indication was removed by grinding under a Supply System approved repair program. After repair was made re-examination by MT examination showed no unacceptable indication. A UT thickness measurement was also acceptable.

Other Repairs/Replacements

There were many other components which required repair or modification. These conditions were discovered by various means such as field walk-downs, design verification studies, system or component redesign after Section III requirements had been met.

The components listed in Appendix B were repaired and/or replaced by welding. The appropriate NIS-2 forms are found in Appendix B.

Notes:

- (1) As of the date of this report the following fit and function activities have not been completed:
 - o Fit and function of pole device with pole tracks on the upper 12% shell course.
 - o Fit and function of bottom head device and bottom head tracks.
 - o Fit and function of inner radius device.

TABLES

1. List of Volume/Surface Exams not Covered by This Report

2. RPV Indications - NES/LMT

3. RPV Geometric Indications - NES/LMT

4. Significant Indications - BOP

5. Welds in Augmented High Energy Class 1 Pipe Break Exclusion Area

5a. Welds not in ASME Section XI Jurisdiction.

5b? Welds in ASME Section XI Jurisdiction.

TABLE 1
REMAINING SURFACE & VOLUMETRIC EXAMS

Weld Ident. No.	Drawing No.	Description	Section XI Exam.	Exam Meth.
N4-30-NB	RPV-101	FW NZ Bore @ 30	B-D	Vol
N4-90-NB	RPV-101	FW NZ Bore @ 90	B-D	Vol
N4-150-NB	RPV-101	FW NZ Bore @ 150	B-D	Vol
N4-210-NB	RPV-101	FW NZ Bore @ 210	B-D	Vol
N4-270-NB	RPV-101	FW NZ Bore @ 270	B-D	Vol
N4-330-NB	RPV-101	FW NZ Bore @ 330	B-D	Vol
N7-IR	RPV-102	HD SP NZ-HD IR	B-A	Vol
N8-IR	RPV-102	HD VN NZ-HD IR	B-A	Vol
N18-IR	RPV-102	Spare NZ-TOP HD	B-D	Vol
6RCIC(1)-17	RCIC-102	Pen to Pipe	B-J	Sur
6RCIC(1)-19	RCIC-102	E1 to Pipe	B-J	Vol
6RCIC(1)-19	RCIC-102	E1 to Pipe	B-J	Sur
4RCIC(13)-20	RCIC-201	Valve to Pipe	Augment	Vol
4RCIC(13)-21	RCIC-201	Pipe to E1	Augment	Vol
4RCIC(13)-22	RCIC-201	E1 to Pipe	Augment	Vol
4RCIC(13)-23	RCIC-201	Pipe to E1	Augment	Vol
4RCIC(13)-24	RCIC-201	E1 to Pipe	Augment	Vol
16HPCS(3)-27	HPCS-202	Pipe to E1	N/A	Vol
16HPCS(1)-31	HPCS-202	Pipe to E1	N/A	Vol
16HPCS(1)-35	HPCS-202	E1 to Pipe	N/A	Vol
16HPCS(1)-36	HPCS-202	Pipe to E1	N/A	Vol
16HPCS(1)-37	HPCS-202	E1 to Pipe	N/A	Vol
16HPCS(1)-50	HPCS-202	Pipe to Red	N/A	Vol
LPCS-61(W)	LPCS-101	8 Welded Lugs	B-K-1	Vol
16LPCS(1)-5	LPCS-202	Pipe to E1	N/A	Sur
16LPCS(1)-30	LPCS-202	Pipe to E1	N/A	Sur
16LPCS(1)-35	LPCS-202	Flange to E1	N/A	Sur
12LPCS(1)-1A	LPCS-202	Red to Valve	N/A	
RHR-604(W)	RHR-201	10 Welded Lugs	C-E-1	Sur
RHR-603(W)	RHR-201	Welded Support	C-E-1	
RHR-600(W)	RHR-201	2 Welded Attach	C-E-1	Sur
18RHR(1)A-32A	RHR-201	Pipe to Pipe	C-F	Sur
RHR-360(W)	RHR-201	Welded Saddle	C-E-1	Sur
RHR-263(W)	RHR-201	4 Welded Lugs	C-E-1	Sur
RHR-268(W)	RHR-201	2 Welded Lugs	C-E-1	Sur
RHR-241(W)	RHR-201	8 Welded Lugs	C-E-1	Sur
RHR-253(W)	RHR-202	4 Welded Lugs	C-E-1	Sur
18RHR(4)A-22	RHR-203	Pipe to E1	C-F	Sur
RHR-75(W)	RHR-205	8 Welded Lugs	C-E-1	Sur
RHR-63(W)	RHR-205	8 Welded Lugs	C-E-1	Sur
RHR-58	RHR-205	Anchor	C-E-1	Sur
RHR-136(W)	RHR-205	4 Welded Lugs	C-E-1	Sur
RHR-128(W)	RHR-206	8 Welded Lugs	C-E-1	Sur
RHR-132(W)	RHR-206	8 Welded Lugst	C-E-1	Sur
RHR-53(W)	RHR-207	4 Welded Lugs	C-E-1	Sur
RHR-184(W)	RHR-207	4 Welded Lugs	C-E-1	Sur
24RHR(3)B-1	RHR-209	Valve to Pipe	C-F	Sur

Weld Ident. No.	Drawing No.	Description	Section XI Exam.	Exam Meth.
24RHR(3)B-2	RHR-209	Pipe to El	C-F	Sur
RHR-117(W)	RHR-209	4 Welded Lugs	C-E-1	Sur
RHR-83(W)	RHR-209	8 Welded Lugs	C-E-1	Sur
RHR-81(W)	RHR-209	1 Welded Lug	C-E-1	Sur
24RHR(2)B-8	RHR-209	Pipe to Pump	C-F	Sur
18RHR(4)-15	RHR-210	Tee to Red.	N/A	Sur
14RHR(1)C-1	RHR-210	Red. to Pipe	N/A	Sur
14RHR(1)C-15	RHR-210	El to Pipe	N/A	Sur
26MS(1)B-5	MS-102	Pipe to Pipe	B-J	Sur
24RFW(1)A-1	RFW-101	Pipe to Wol.	B-J	Vol
5RFW(11)-4	RFW-101	Sleeve - Sleeve	B-J	Vol
5RFW(11)A-1	RFW-101	Sleeve - Sleeve	B-J	Vol
24RFW(1)B-1A	RFW-102	Pipe to Valve	Augment	Vol
24RFW(1)B-1	RFW-102	Pipe to Wol.	B-J	Vol
5RFW(11)-4	RFW-102	Sleeve - Sleeve	B-J	Vol
5RFW(11)B-1	RFW-102	Sleeve - Sleeve	B-J	Vol
24RFW(1)B-3	RFW-102	Valve to Pene.	B-J	Vol
RFW-178(W)	RFW-103	4 Welded Lugs	B-K-1	Vol
4RFW(1)A-2	RFW-103	Pipe to El	B-J	Sur
4RFW(11)B-3	RFW-103	El to Pipe	B-J	Sur
4RFW(11)B-4	RFW-103	Pipe to El	B-J	Sur
2RWCU(4)-1	RWCU-101	Valve to Pipe	B-J	Sur
2RWCU(4)-4	RWCU-101	Pipe to Wol.	B-J	Sur
RWCU-1C-4PS(W)	RWCU-101	8 Welded Lugs	B-K-1	Vol
6RWCU(3)-28	RWCU-301	Valve to Ell	Augment	Vol
6RWCU(3)-29	RWCU-301	Ell to Pipe	Augment	Vol
6RWCU(3)-30	RWCU-301	Pipe to Tee	Augment	Vol
6RWCU(3)-31	RWCU-301	tee to Reducer	Augment	Vol
6RWCU(3)-32	RWCU-301	Tee to Reducer	Augment	Vol
4RWCU(3)A-1	RWCU-301	Reducer to Pipe	Augment	Vol
4RWCU(3)A-2	RWCU-301	Pipe to Pipe	Augment	Vol
4RWCU(3)A-3	RWCU-301	Pipe to Ell	Augment	Vol
4RWCU(3)A-4	RWCU-301	Ell to Pipe	Augment	Vol
4RWCU(3)B-1	RWCU-301	Reducer to Ell	Augment	Vol
4RWCU(3)B-2	RWCU-301	Ell to Pipe	Augment	Vol
6RWCU(2)-1	RWCU-303	Pipe to Ell	Augment	Vol
6RWCU(2)-2	RWCU-303	Ell to Pipe	Augment	Vol
6RWCU(2)-3	RWCU-303	Pipe to Valve	Augment	Vol
6RWCU(2)-4	RWCU-303	Valve to Pipe	Augment	Vol
6RWCU(2)-5	RWCU-303	Pipe to FE	Augment	Vol
6RWCU(2)-6	RWCU-303	Fe to Pipe	Augment	Vol
6RWCU(2)-7	RWCU-303	Pipe to Tee	Augment	Vol
6RWCU(2)-8	RWCU-303	Tee to Flange	Augment	Vol
6RWCU(2)-9	RWCU-303	Tee to Valve	Augment	Vol

10-1.2

TABLE 2

SUMMARY OF RECORDABLE RPV INDICATIONS (1,2,3,4,5)

<u>Weld Number</u>	<u>NES Results</u>	<u>LMT Results</u>
<u>AB</u>	Many spot non-recordable laminar indications. One Recordable spot indication shows no dimension.	No recordable indications
<u>BD</u>	Four spot indications between 10% - 50% DAC. No dimensions.	No recordable indications
<u>BH</u>	Numerous spot indications. No dimensions.	53 indications due to mid plate segregates.
<u>BK</u>	Area of BK and N4-150 mid-plate segregates.	See weld N4-150 for LMT's results.
<u>N1-0</u>	Numerous laminar indications. No dimensions	910 indications due to midplate segregates.
<u>N1-180</u>	No recordable indications	5 indications due to midplate segregates.
<u>N2-30</u>	Numerous spot indications	175 indications due to midplate segregates.
<u>N2-240</u>	Numerous non-recordable laminar indications	368 indications due to midplate segregates.
<u>N2-270</u>	Numerous non-recordable laminar indications	12 indications due to midplate segregates
<u>N2-300</u>	Numerous non-recordable laminar indications	3 indications due to midplate segregates
<u>N3-72</u>	No indications	50 indications due to midplate segregates
<u>N3-108</u>	No indications	110 indications due to midplate segregates
<u>N3-252</u>	No indications	10 indications due to midplate segregates

Note 1 NES Recording Level: 50% DAC
 Note 2 LMT Recording Level: 20% DAC
 Note 3 When LMT has recorded indications but NES has not, the indications are below 50% DAC.
 Note 4 Underlined welds - Welds NES found recordable indications in.
 Note 5 All indications found by 00 beam unless otherwise indicated.

10-2.1

TABLE 2 Continued

<u>Weld Number</u>	<u>NES Results</u>	<u>LMT Results</u>
N3-288	No indications	328 indications due to midplate segregates
N4-30	No indications	Spot indication, 45° beam, 25% DAC.
N4-90	No indications	158 indications due to midplate segregates.
<u>N4-150</u>	300 small (are 1/8" dia.) Laminar type reflectors appear in large clusters 1/2 wall thickness	153 indications due to midplate segregates.
N4-210	No indications	7 indications due to midplate segregates.
N5-120	No indications	4 indications due to midplate segregates.
N6-45	No indications	2 indications due to midplate segregates.
N9-105	Non-recordable lamination indications over entire area scanned.	No indications
N9-285	Numerous non-recordable lamination indications	Numerous lamination indications equal to or greater than the remaining back reflector.
N16-240	No indications	Spot indication, 60° beam 30% DAC.
MPR-1	No indications	209 indications due to mid-plate segregates.

Notes to Tables 3 and 4

Tables 3 and 4 summarize the indications resulting from the WNP-2 PSI. The tables list the weld identification number, examination method, ISI drawing number, examination data sheet number, examination results and remarks. The examination results are grouped into four categories as shown in Attachment I.

When a volumetric examination (VOL) is specified a 0, 45 or 60 will appear in the appropriate indication column. This designation correlates to the type of examination which detected the indication (e.g. 0 - 0° L-wave, 45 - 45° shear wave and 60 - 60° shear wave).

When a surface examination (SUR) is specified a "REJ" or "ACC" will appear under the appropriate indication column to signify whether the results were acceptable or rejectable.

Abbreviations used in these tables are listed in Attachment II.

Notes to Tables 3 and 4 Attachment 1

	<u>NES RPV EXAM</u>	<u>LMT RPV (REMOTE) EXAM</u>	<u>LMT PIPING EXAM</u>
1. No Indication	No indication greater than 50% DAC	No indication greater than 50% DAC	No indication greater than 50% DAC
2. Insignificant Indication	Indication between 50% - 100% DAC	Indication between 50% - 100% DAC only (See Note 1)	Indication between 50% - 100% DAC
3. Significant Indication Geometry	Greater than 100% DAC due to geometry	Greater than 100% DAC due to geometry	Greater than 100% DAC due to geometry
4. Significant Indication other than Geometry	Greater than 100% DAC due to other than geometry	Greater than 100% DAC due to other than geometry	Greater than 100% DAC due to other than geometry

Note 1: Indications between 20% and 50% DAC have been recorded and included in the Result Summary Table which is Volume 5 of the PSI Program Plan.

ATTACHMENT II

LIST OF ABBREVIATIONS USED ON NDE RESULT SUMMARY TABLE

@ = At
ACC = Accept(ed)
ADJ = Adjacent
ALD = Long Weld Downstream (Nozzles)
ALU = Long Weld Upstream (Nozzles)
AMP = Amperage
APP = Approximately
AVE = Average
AUGMT = Augmented

BD = Flange Bolting
BDY = Body
BLT = Bolting (Valve)
BNDRY = Boundary
BTM = Bottom

CAL = Calibration
CB = Counterbore
CCW = Counter Clockwise
CIR or CIRC = Circumferential
CL = Centerline
CONF = Configuration
CONT'D = Continued
CRD = Control Rod Drive
CW = Clockwise
CS Carbon Steel
CAT = Category

DAC = Distance Amplitude Curve
DEG = Degree(s)
DIA = Diameter
DIMS = Dimension(s)
DIV = Division(s)
DOL = Dollar
DS = Downstream

ELL = Elbow
E.S. = Elbow Side
EVAL = Evaluation
EXT = Extend or Extent
EXAM = Examination
EA = Each

FD = Finger Damps
FL or FLG = Flange
FRE = From Ref. Edge, Ext. 360°
FW = Feedwater

GEO = Geometry or Geometric
= Greater Than

HD = Head
HGR = Hanger
HPCS = High Pressure Core Spray

" = Inches
ID = Inside Diameter
INACC = Inaccessible
IND = Indication(s)
INFO = Information
IR = Inner Radius
INSIGN = Insignificant
INSTL = Installed
INSTR = Instrument
INT = Intermittent
IWC = Index (Transducer) to Weld
Centerline Distance
INC = Inconel

JP = Jet Pump

KNKL = Knuckle

LAM = Lamination
LCR = Lug Corner Reflector
LD = Long Weld Downstream
LDI = Long Weld Downstream Inside
LDO = Long Weld Downstream Outside
LIN = Linear
LK = Leak
LOC = Leak Off Connection
LONG = Longitudinal
LTD = Limited
LU = Long Weld Upstream
LUI = Long Weld Upstream Inside
LUO = Long Weld Upstream Outside
LW or L-WAVE = Longitudinal Wave
= Less Than
LPCS = Low Pressure Core Spray

LIST OF ABBREVIATIONS USED
ON NDE RESULT SUMMARY TABLE

- = Minus or To
MAX = Maximum
MP = Metal Path
MR = Mechanical Reflector
MRD = Meridian
MULT = Multiple(s)
MS = Main Steam
MRP = Major Repair Area

N = Node (in RSLT Remark)
NES = Nuclear Energy Services
NR = Node Response
N or NZ = Nozzle(s)

OPP = Opposite

+ = PLUS
% = Percentage
PDS = Pipe Downstream
PENT, PEN, PENE, or PN = Penetration
PR = Pipe Restraint
PREP = Preparation
PRESS = Pressure
P.S. = Pipe Side
PVC = Polyvinyl Chloride
PWR = Pipe Whip Restraint
PWS = Pipe Whip Support
PB = Pressure Boundary

RED = Reducer
REDIRECT = Redirection
REF = Reference
REQ'D = Required
RESP = Response
REV = Required Examination Volume
RPT(s) = Report(s)
R.S. = Reducer Side
RSLT = Result(s)
RPV = Reactor Pressure Vessel
RRC = Reactor Recirculation

SC = Scan(s) or Shell Course
SCH = Schedule
SE = Safe End
SEG = Segregate(s)
SIGN = Significant
SIMUL = Simultaneous
SKRT = Skirt
SLC = Stand-by Liquid Control
SN = Snubbers
SOL = Sock-O-Let
SP = Spare
SPG = Spring
STD = Standard
STM = Steam
SUC = Suction
SUP = Support
SWL = Sweep-O-Let
SS = Stainless Steel
SUR = Surface

- = To or Minus
T = Tee
"T" = Thickness
TC = Thermocouple(s)
T.S. = Tee Side
TYP = Typical(ly)
T-MATL = Test Material

US = Upstream
UTCB = Ultrasonic Calibration Block
UT = Ultrasonic Test
UTP = Ultrasonic Test Procedure

V, VES, or VESS = Vessel
VLV = Valve
VN = Vent
VRT = Vertical
V.S. = Valve Side
VT = Visual
VOL. Volumetric

LIST OF ABBREVIATIONS USED ON NDE RESULT SUMMARY TABLE

W = Weld
WCG = Weld Crown Geo.
WD = Weld
WOL = Weld-O-Let
WPG = Weld Prep. Geometry
WRG = Weld Root Geometry
WRR = Weld Radius Reflector
WC = Weld Crown
WCL = Weld Centerline

XDUCER = Transducer

ATTACHMENT III

NOTES TO NDE
RESULT SUMMARY TABLE

- NOTE 1: This weld did not receive full coverage from both sides. It did receive full coverage from one side and meets code requirements.
- NOTE 2: This weld did not receive full Section XI Code exam.

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	INSIGN. SIGNIFICANT			REMARKS
			NO IND.	IND.	GEOMET OTHER	
AA	RPV-101	1210-32	0			NES EXAM. THICKNESS CHANGE TOWARD VES TOP 12" FROM WELD AA 7" WIDE. TC 16" FROM WELD AA TOWARD VES BTM & 5" APART, @ 0-135-370 DEG, ALSO 1" IN DIA. GEO 0.
BA	RPV-101	1210-28		0		NES EXAM. ALL LONG SEAMS HAVE A THICKNESS CHANGE TOWARD VES TOP, 12" FROM AA, 7" WIDE. GEO 0.
BA	RPV-101	1210-41		60		NES EXAM. THICKNESS CHANGE 12" UP FROM AA. GEO 60.
BB	RPV-101	1210-28		0		NES EXAM. ALL LONG SEAMS HAVE A THICKNESS CHANGE TOWARD VES TOP, 12" FROM AA, 7" WIDE. GEO 0.
BB	RPV-101	1210-41		60		NES EXAM. THICKNESS CHANGE 12" UP FROM AA. GEO 60.
BC	RPV-101	1210-31		0		NES EXAM. THICKNESS CHANGE TOWARD VES TOP, 12" FROM AA & 7" WIDE. GEO 0.

10-3.2 TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	NO IND.	INSIGN. IND.	SIGNIFICANT GEOMET OTHER	REMARKS
BD	RPV-101	1210-41		60		NES EXAM. THICKNESS CHANGE 12" UP FROM AA. GEO 60.
BF	RPV-101	1210-12		0		NES EXAM. A THICKNESS CHANGE OF + 1/2" WAS NOTED 70" FROM WELD AB. 7" WIDE IN BF-BG WELDS. GEO 0.
BF	RPV-101	1210-18		45		NES EXAM. THICKNESS CHANGE, AS NOTED ON 0 DEG SC, WAS OBSERVED. GEO 45.
BG	RPV-101	1210-12		0		NES EXAM. A THICKNESS CHANGE OF + 1/2" WAS NOTED 70" FROM WELD AB. 7" WIDE IN BF-BG WELDS. GEO 0.
BH	RPV-101	RPA-090	60	0	45	INSIGN-16 MID-PLATE SEGREGATES. SIGN-3 AREAS ID GEO (1-45 DEG).
N1-0	RPV-101	RPA-052		0,45,60		0/0 DEG, 910 MID-PLATE SEGREGATES. 2-45 DEG, 39 AREAS ID GEO. 2-60 DEG, 2 AREAS ID GEO. SC 0,45,60 DEG; INCREMENTS 22 TO 30 & 46 TO 50, PAD OBSTRUCTION. REFER TO DWG RPV-105.

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	NO IND.	INSIGN. IND.	SIGNIFICANT GEOMET OTHER	REMARKS
N1-180	RPV-101	1210-30		0		NES EXAM. ONE SIDE EXAM. ALSO @ THE WELD EDGE THERE IS A THINNER THICKNESS CHANGE OF 1/8" @ "T". GEO 0.
N1-180	RPV-101	RPA-055		0,45,60		00/0 DEG, 5 MID-PLATE SEGREGATES. 2-45 DEG, 3 AREAS ID GEO. 2-60 DEG, 8 AREAS ID GEO. REFER TO DWG RPV-105.
N2-60	RPV-101	1210-28		0		NES EXAM. ONE SIDE EXAM. @ THE WELD EDGE THERE IS A THINNER THICKNESS CHANGE OF 1/8" @ "T". GEO 0.
N2-90	RPV-101	1210-28		0		NES EXAM. ONE SIDE EXAM. @ THE WELD EDGE THERE IS A THINNER THICKNESS CHANGE OF 1/8" @ "T". GEO 0.
N2-90	RPV-101	RPA-028	0	45, 60		2-45 DEG, 30 AREAS ID GEO. 2-60 DEG, 3 AREAS ID GEO. REFER TO DRAWING RPV-106.
N2-120	RPV-101	1210-28		0		NES EXAM. ONE SIDE EXAM. @ THE WELD EDGE THERE IS A THINNER THICKNESS CHANGE OF 1/8" @ "T". GEO 0.

10-3,11

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	INSIGN. SIGNIFICANT			REMARKS
			NO IND.	IND.	GEOMET OTHER	
N2-120	RPV-101	RPA-033		0,45,60		REFER TO DWG RPV-106.00/0 DEG,35 MID-PLATE SEG.2-45 DEG,1 AREA ID GEO.2-60 DEG,4 AREAS. ID GEO.
N2-150	RPV-101	1210-28		0		NES EXAM.ONE SIDE EXAM.@ THE WELD EDGE THERE IS A THINNER THICKNESS CHANGE OF 1/8" @"T".GEO 0.
N2-150	RPV-101	RPA-034	45	0, 60		REFER TO DWG RPV-106.00/0 DEG,1 MID-PLATE SEGREGATES.2-60 DEG,1 AREA ID GEO.
N2-210	RPV-101	1210-30		0		NES EXAM.ONE SIDE EXAM.ALSO @ THE WELD EDGE THERE IS A THINNER THICK NESS CHANGE OF 1/8" @"T".GEO 0.
N2-210	RPV-101	RPA-037		0,45,60		REFER TO DWG RPV-106.00/0 DEG,79 MID-PLATE SEG.2-45 DEG,34 AREAS ID GEO.2-60 DEG,7 AREAS ID GEO.
N2-240	RPV-101	1210-31		0		NES EXAM.ONE SIDE EXAM.@ WELD EDGE THERE'S A THINNER THICKNESS CHANGE OF 1/8" @"T".THERE ARE NUMEROUS NON-RECORDABLE IND.GEO 0.

10-3,10

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	NO IND.	INSIGN. IND.	SIGNIFICANT GEOMET OTHER	REMARKS
N2-240	RPV-101	RPA-040		0,45,60		REFER TO DWG RPV-106.00/0 DEG,368 MID-PLATE SEG.2-45 DEG,5 AREAS ID GEO.2-60 DEG,3 AREAS ID GEO.
N2-270	RPV-101	1210-31		0		NES EXAM.ONE SIDE EXAM.@ WELD EDGE THERE'S A THINNER THICKNESS CHANGE OF 1/8" @ "T".THERE ARE NUMEROUS NON-RECORDABLE IND.GEO 0.
N2-270	RPV-101	RPA-043		0,45,60		REFER TO DWG RPV-106.00/0 DEG,12 MID-PLATE SEG.2-45 DEG,16 AREAS ID GEO.2-60 DEG,18 AREAS ID GEO.2-60 DEG,SPOT IND,MAX.AMP.25%DAC @ X10, Z350.
N2-300	RPV-101	1210-31		0		NES EXAM.ONE SIDE EXAM.@ WELD EDGE THERE'S A THINNER THICKNESS CHANGE OF 1/8" @ "T".THERE ARE NUMEROUS NON-RECORDABLE IND.GEO 0.
N2-330	RPV-101	1210-25	0			NES EXAM.ONE SIDE EXAM.A THINNER THICKNESS CHANGE OF 1/8" WAS NOTED @ WELD EDGE @ "T".GEO 0.
N2-330	RPV-101	RPA-051		0,45,60		REFER TO DWG RPV-106.00/0 DEG,117 MID-PLATE SEG.2-45 DEG,4 AREAS ID GEO.2-60 DEG,1 AREA ID GEO.

10-7'13

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	INSIGN.		SIGNIFICANT GEOMET OTHER	REMARKS
			NO IND.	IND.		
N3-72	RPV-101	1210-3		60		NES EXAM.SOUND BEAM ENCOUNTERING THE NZ IR.GEOMETRICS 360-0 DEG COMING UP @"T".ALSO ONE SIDE EXAM. ONLY.GEO 60.
N3-72	RPV-101	RPA-067		0,45,60		REFER TO DWG RPV-107.00/0 DEG,50 MID-PLATE SEG.2-45 DEG,37 AREAS ID GEO.2-60 DEG,8 AREAS ID GEO.
N3-108	RPV-101	1210-3		60		NES EXAM.SOUND BEAM ENCOUNTERING THE NZ IR.GEOMETRICS 360-0 DEG COMING UP @"T".ALSO ONE SIDE EXAM ONLY.GEO 60.
N3-108	RPV-101	RPA-064		0,45,60		REFER TO DWG RPV-107.00/0 DEG,110 MID-PLATE SEG.2-45 DEG,34 AREAS ID GEO.2-60 DEG,15 AREAS ID GEO.
N3-108	RPV-101	RPA-J65	60	45		REFER TO DWG RPV-107.4-45 DEG,2 AREAS ID GEO.INCREMENTS #1 & #2, 0-100 COUNTS,DUE TO OBSTR BY WALL FOLLOWER ARM.
N3-252	RPV-101	1210-3		60		NES EXAM.SOUND BEAM ENCOUNTERING THE NZ IR.GEOMETRICS 360 TO 0 DEG COMING UP @"T".ALSO ONE SIDE EXAM ONLY.GEO 60.

10-3.12

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	NO IND.	INSIGN. IND.	SIGNIFICANT GEOMET OTHER	REMARKS
N3-252	RPV-101	RPA-061		0,45,60		REFER TO DWG RPV-107.00/0 DEG,10 MID-PLATE SEG.2-45 DEG,36 AREAS ID GEO.2-60 DEG,19 AREAS ID GEO.
N3-252	RPV-101	RPA-062	60	45		REFER TO DWG RPV-107.4-45 DEG,2 AREAS ID GEO.INCREMENTS #1 & #2, 0-100 COUNTS,OBSTRUCTED BY WALL FOLLOWER ARM.
N3-288	RPV-101	1210-3		60		NES EXAM.SOUND BEAM ENCOUNTERING THE NZ IR.GEOMETRICS 360 TO 0 DEG COMING UP @"T".ALSO ONE SIDE EXAM ONLY.GEO 60.
N3-288	RPV-101	RPA-058	60	45		REFER TO DWG RPV-107.4-45 DEG,2 AREAS ID GEO.INCREMENTS #1 & #2,0- 100 COUNTS,OBSTR BY WALL FOLLOWER ARM.
N3-288	RPV-101	RPA-060		0,45,60		REFER TO DWG RPV-107.00/0 DEG,328 MID-PLATE SEG.2-45 DEG,36 AREAS ID GEO.2-60 DEG,17 AREAS ID GEO.
N4-301	RPV-101	1210-5		0		NES EXAM.THICKNESS CHANGE OF 3/8" NOTED DUE TO WELD CONF @"T".THIS WAS A NEGATIVE CHANGE.GEO 0.

10-3.12

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	INSIGN. SIGNIFICANT			REMARKS
			NO IND.	IND.	GEOMET OTHER	
N4-30	RPV-101	1210-7		45		NES EXAM. GEOMETRICAL REFLECTORS 360 DEG @ "T". GEO 45.
N4-30	RPV-101	1210-8		60		NES EXAM. ONE SIDE EXAM ONLY. ID GEO COMING UP @ "T" FROM 0 TO 360 DEG. GEO 60.
N4-30	RPV-101	RPA-010	60	45		4-45 DEG, 9 AREAS ID GEO. REFER TO DRAWING RPV-108.
N4-30	RPV-101	RPA-011	60	45		3-45 DEG, 6 AREAS ID GEO. REFER TO DRAWING RPV-108.
N4-30	RPV-101	RPA-012	0	45, 60		REFER TO DWG RPV-108. 2-45 DEG, SPOT IND, MAX. AMP. 25% DAC @ X600, Z250. 2- 45 DEG, 9 AREAS ID GEO. 2-60 DEG, 5 AREAS ID GEO.
N4-90	RPV-101	1210-5A		0		NES EXAM. THICKNESS CHANGE OF 3/8" NOTED DUE TO WELD CONF @ "T". THIS WAS A NEGATIVE CHANGE. GEO 0.

10-3.14

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	INSIGN. NO IND.	SIGNIFICANT IND. GEOMET OTHER	REMARKS
N4-90	RPV-101	1210-11		45	NES EXAM. ONE SIDE EXAM. THERE WAS A GEOMETRIC IND COMING UP @ "T", ADJ TO WELD EDGE. GEO 45.
N4-90	RPV-101	1210-17		60	NES EXAM. NATURAL REFLECTORS ORIGINATING FROM NZ BORE WHEN SEARCH UNIT APPROACHES CURVATURE OF NZ. GEO 60.
N4-150	RPV-101	1210-17		60	NES EXAM. NATURAL REFLECTORS ORIGINATING FROM NZ BORE WHEN SEARCH UNIT APPROACHES CURVATURE OF NZ. GEO 60.
N4-210	RPV-101	1210-4		0	NES EXAM. GEO 0.
N4-210	RPV-101	1210-7		45	NES EXAM. GEOMETRICAL REFLECTORS 360 DEG @ "T". GEO 45.
N4-210	RPV-101	1210-17		60	NES EXAM. NATURAL REFLECTORS ORIGINATING FROM NZ BORE WHEN SEARCH UNIT APPROACHES CURVATURE OF NZ. GEO 60.

END OF TABLE 3

10-3.16 TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	NO IND.	INSIGN. IND.	SIGNIFICANT GEOMET OTHER	REMARKS
N4-210	RPV-101	RPA-019		0,45,60		REFER TO DWG RPV-108.00/0 DEG,7 MID-PLATE SEG.2-45 DEG,23 AREAS ID GEO.2-60 DEG,10 AREAS ID GEO.
N4-210	RPV-101	RPA-020	60	45		4-45 DEG,15 AREAS ID GEO.REFER TO DRAWING RPV-108.
N4-210	RPV-101	RPA-021	60	45		3-45 DEG,13 AREAS ID GEO.REFER TO DRAWING RPV-108.
N4-270	RPV-101	1210-6		0		NES EXAM.GEO 0.
N4-270	RPV-101	1210-7		45		NES EXAM.GEOMETRICAL REFLECTORS 360 DEG 3" T".GEO 45.
N4-270	RPV-101	1210-17		60		NES EXAM.NATURAL REFLECTORS ORIGINATING FROM NZ BORE WHEN SEARCH UNIT APPROACHES CURVATURE OF NZ. GEO 60.

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	NO IND.	INSIGN. IND.	SIGNIFICANT GEOMET OTHER	REMARKS
N4-270	RPV-101	RPA-016	0	45, 60		REFER TO DWG RPV-108. 2-45 DEG, 7 AREAS ID GEO. 2-60 DEG, 4 AREAS ID GEO.
N4-270	RPV-101	RPA-017	60	45		4-45 DEG, 5 AREAS ID GEO. REFER TO DRAWING RPV-108.
N4-270	RPV-101	RPA-018	60	45		3-45 DEG, 9 AREAS ID GEO. REFER TO DRAWING RPV-108.
N4-330	RPV-101	1210-5		0		NES EXAM. THICKNESS CHANGE OF 3/8" NOTED DUE TO WELD CONF @ "T". THIS WAS A NEGATIVE CHANGE. GEO 0.
N4-330	RPV-101	1210-7		45		NES EXAM. GEOMETRICAL REFLECTORS 360 DEG @ "T". GEO 45.
N4-330	RPV-101	1210-8		60		NES EXAM. ONE SIDE EXAM ONLY. ID GEO COMING UP @ "T" FROM 0 TO 360 DEG. GEO 60.

10-3.17

10-3-18 TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	INSIGN. SIGNIFICANT				REMARKS
			NO IND.	IND.	GEOMET	OTHER	
N4-330	RPV-101	RPA-013	0	45, 60			REFER TO DWG RPV-108. 2-45 DEG, 21 AREAS ID GEO. 2-60 DEG, 7 AREAS ID GEO.
N4-330	RPV-101	RPA-014	60	45			4-45 DEG, 3 AREAS ID GEO. REFER TO DRAWING RPV-108.
N4-330	RPV-101	RPA-015	60	45			3-45 DEG, 4 AREAS ID GEO. REFER TO DRAWING RPV-108.
N5-120	RPV-101	1210-5A		0			NES EXAM. THICKNESS CHANGE OF 3/8" NOTED DUE TO WELD CONF @ "T". THIS WAS A NEGATIVE CHANGE. GEO 0.
N5-120	RPV-101	1210-11		45			NES EXAM. ONE SIDE EXAM. THERE WAS A GEOMETRIC IND COMING UP @ "T", ADJ TO WELD EDGE. GEO 45.
N5-120	RPV-101	1210-17		60			NES EXAM. NATURAL REFLECTORS ORIGINATING FROM NZ BORE WHEN SEARCH UNIT APPROACHES CURVATURE OF NZ. GEO 60.

10-3.18

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	INSIGN. SIGNIFICANT			REMARKS
			NO IND.	IND.	GEOMET OTHER	
N5-120	RPV-101	RPA-070		0,45,60		REFER TO DWG RPV-109.00/0 DEG,4 MID-PLATE SEG.2-45 DEG,10 AREAS ID GEO.2-60 DEG,7 AREAS ID GEO.
N6-45	RPV-101	1210-12		0		NES EXAM.THICKNESS CHANGE WAS NOTED @ WELD EDGE=3/8"THINNER COMING UP @"T".GEO 0.
N6-45	RPV-101	RPA-073		0,45,60		REFER TO DWG RPV-110.00/0 DEG,2 MID-PLATE SEG.2-45 DEG,3 AREAS ID GEO.2-60 DEG,15 AREAS ID GEO.
N6-135	RPV-101	1210-12		0		NES EXAM.THICKNESS CHANGE WAS NOTED @ WELD EDGE=3/8"THINNER COMING UP @"T".GEO 0.
N6-135	RPV-101	RPA-007	0	45, 60		REFER TO DWG RPV-110.2-45 DEG,10 AREAS ID GEO.2-60 DEG,6 AREAS ID GEO.
N6-135	RPV-101	RPA-008	60	45.		REFER TO DWG RPV-110.4-45 DEG,4 AREAS ID GEO.

10-3.19

TABLE 3.
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	NO IND.	INSIGN. IND.	SIGNIFICANT GEOMET OTHER	REMARKS
N6-315	RPV-101	1210-12	0			NES EXAM. THICKNESS CHANGE WAS NOTED @ WELD EDGE=3/8" THINNER COMING UP @ "T". GEO 0.
N6-315	RPV-101	RPA-079	0	45, 60		REFER TO DWG RPV-110.2-45 DEG, 30 AREAS ID GEO. 2-60 DEG, 9 AREAS ID GEO.
N9-105	RPV-101	1210-28		0		NES EXAM. ONE SIDE EXAM. @ THE WELD EDGE THERE IS A THINNER THICKNESS CHANGE OF 1/8" @ "T". GEO 0.
N9-285	RPV-101	1210-31		0		NES EXAM. ONE SIDE EXAM @ WELD EDGE THERE'S A THINNER THICKNESS CHANGE OF 1/8" @ "T". THERE ARE NUMEROUS NON-RECORDABLE IND. GEO 0.
N10-180	RPV-101	1210-4		0		NES EXAM. GEO 0.
N10-180	RPV-101	1210-7		45		NES EXAM. GEOMETRICAL REFLECTORS 360 DEG @ "T". GEO 45.

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT #	DRAWING #	DATA SHEET #	INSIGN. SIGNIFICANT			REMARKS
			NO IND.	IND.	GEOMET OTHER	
N10-180	RPV-101	1210-17		60		NES EXAM. NATURAL REFLECTORS ORIGINATING FROM NZ BORE WHEN SEARCH UNIT APPROACHES CURVATURE OF NZ. GEO 60.
N16-240	RPV-101	1210-6		0		NES EXAM. GEO 0.
N16-240	RPV-101	1210-7		45		NES EXAM. GEOMETRICAL REFLECTORS 360 DEG @ "T". GEO 45.
N16-240	RPV-101	1210-17		60		NES EXAM. NATURAL REFLECTORS ORIGINATING FROM NZ BORE WHEN SEARCH UNIT APPROACHES CURVATURE OF NZ. GEO 60.
N16-240	RPV-101	RPA-076	0	45, 60		REFER TO DWG RPV-109. 2-45 DEG, 20 AREAS ID GEO. 2-60 DEG, SPOT IND, MAX AMP. 30% DAC @ X-2, Z126. 2-60 DEG, 8 AREAS ID GEO.

TABLE 3
RPV GEOMETRIC INDICATIONS

WELD IDENT, #	DRAWING #	DATA SHEET #	INSIGN. NO IND.	INSIGN. IND.	SIGNIFICANT GEOMET OTHER	REMARKS
AJ	RPV-102	RPV-097			45	SC 4 ID IND, MAX. AMP. 75% DAC, MP=9.42 LOCATED .5" ABOVE WELD CL, EXT FROM 270 DEG REF TO 0 DEG REF, SHROUD SUP GEO. AREA EXAMINED AJ FROM 270 TO 360 DEG.
AJ	RPV-102	RPV-098			45	SC 3 ID IND, MAX. AMP. 160% DAC, MP=8.73, LOCATED @ 8.25" BELOW WELD AJ CL, & 8" CCW FROM DG WCL (0 DEG SIDE) CRD HOUSING GEO. THIS REPORT COVERS 0 DEG TO 360 DEG.
AJ	RPV-102	RPV-096			45	SC 4 ID IND, MAX. AMP. 70% DAC, MP=9.63 LOCATED .5" ABOVE CL, EXT FROM 0 REF TO 270 REF, SHROUD SUP GEO. COVERS EXAM OF AJ FROM 0 TO 270 DEG ONLY. SEE RPT RPU-097, COVERS FROM 270 TO 360 DEG.
DG	RPV-102	RPV-094				(0"), CRD HOUSING GEO. SEE NOTE #2. 20" TO 215" OBSTRUCTED BY CRD HOUSINGS.
DR	RPV-102	RPV-095			45	SC 6 ID IND, MAX. AMP. 120% DAC, MP=5.95, LOCATED @ DR CL, @ 222.25 FROM REF. (0"), CRD HOUSING GEO. SEE NOTE #2. AREAS EXAMINED: 0" TO 20" & 215" TO 235". 20" TO 215" OBSTRUCTED BY CRD HOUSINGS.
DR	RPV-102	RPV-127			60	SC 6 ID IND, MAX. AMP. 155% DAC, MP=6.59, LOCATED @ 222" & 1.75" CW FROM WELD DR CL, CRD HOUSING GEO. SEE NOTE #2. AREAS EXAMINED: 0" TO 20", 215" TO 235", & 20" TO 215" - OBSTR BY CRD HOUSINGS.

10-3.22

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM. DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
12HPCS(1)-3	HPCS-101	VOL	HPU-017		45	45	SC 3 (SIGN) ID IND MAX.AMP.100%DAC, IWC=1 1/8 MP=.98,EXT 360,CB. SC 4 (INSIGN) ID IND MAX.AMP.88%DAC,IWC=1 1/2 MP=1.08,EXT 360. SC 4 ID IND MAX.AMP.88%DAC,IWC=5/8 MP=1.14,EXT 360 INT.
12HPCS(1)-4	HPCS-101	VOL	HPU-008		45	45	SC 4 (INSIGN) ID IND, MAX.AMP. 80% DAC, IWC=3/4 MP=1.07, EXT 360 INT. SC 4 ID IND, MAX.AMP. 90% DAC, IWC=2 1/4 MP=3.20, EXT 360 INT. SC 3 (SIGN) ID IND, MAX.AMP. 100% DAC, IWC=3/4 MP=1, ...CONT'D -
12HPCS(1)-5	HPCS-101	VOL	HPU-021		45	45	SC 3 95%DAC ID,EXT 350-60 & SPOT @ 300.IWC=7/8 MP=1.25.85%DAC @ 1.5 NODE. SC 4 105%DAC ID,EXT 360.IWC=1 1/4 MP=1.26.85%DAC @ 1.5 NODE.ID GEO-COUNTERBORE.SC 4 95%DAC ID,EXT 360 INT.IWC=1/2 MP=1.12.CONT'D
12HPCS(1)-6	HPCS-101	VOL	HPU-010		45	45	SC 3 (INSIGN) ID IND,MAX.AMP. 95% DAC, IWC=1 1/8 MP=1.5,EXT 360 INT. SC 3 (SIGN) ID IND,MAX.AMP. 130% DAC, IWC=3 1/4 MP=4.1,EXT 360 INT. COUNTERBORE GEO. SEE RPT HPU-007 FOR SC 4 SUMMARY.
4HPCS(1)-2	HPCS-101	VOL	HPU-027			45	SC 4 50%DAC ID,SPOT @ 120.IWC=3/8 MP=.51,105%DAC @ 1.5N,IWC=1 1/4 MP=1.68,EXT CONTINUOUS @ < 50%DAC. ID WRG. NO SCANS ON WOL SIDE OF WELD. NO SC 4 FROM 60-120 DEG DUE TO N STAMP PLATE.
4HPCS(1)-1	HPCS-101	VOL	HPU-039		45	45	INSIGN-SC 3 95%DAC IND,IWC=1.19 MP=1.47,360 INT.SC 4 73%DAC IND, IWC=.31 MP=.55,360 INT.SC 4 85%DAC IND,IWC=.63 MP=2.47,360 INT.FD ON PIPE CAP.SIGN-SC 3 125%DAC IND,IWC=.5 MP=.53,360 INT,....CONT'D

TABLE 14
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM. DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
12LPCS(1)-2	LPCS-101	VOL	LPU-023		45	45	SC 4 120%DAC ID, EXT 360. IWC=2 1/4 MP=1.72. 60%DAC @ 1.5 NODE. ID GEO-WELD PREP BEVEL. SC 4 85%DAC OD, EXT 360. IWC=1 1/2 MP=1.75. FD. NO SC 3 FROM 240-315, DUE TO INTER-FERENCE BY PERMANENT RESTRAINT
12LPCS(1)-3	LPCS-101	VOL	LPU-021			45	SC 3 115%DAC ID, EXT 270-135 (360, TYP<50%DAC), IWC=2 MP=1.50. 75%DAC @ 1.5 NODE. ID GEO-CB. SC 3 120%DAC OD EXT 90-300, IWC=2 5/8 MP=2.09, FD. MODE CONVERSION OFF COUNTERBORE TO OD.
LPCS-13(W)	LPCS-101	VOL	LPU-037	0	45	45	SC 5 75%DAC, IWC=.95 MP=2.55, WRR. SC 6 100%DAC, IWC=1.8 MP=4.98, LCR. SC 6 110%DAC, IWC=.90 MP=2.38, WRR. SC 5 180%DAC, IWC=1.7 MP=4.88, LCR. ALL-LUGS #1-4. NO SC 7 DUE TO INSTALLED HANGER. SEE NOTE #1.
12LPCS(1)-4	LPCS-101	VOL	LPU-017		45	45	SC 3 90%DAC ID, EXT 360. IWC=3/4 MP=1.05. 75%DAC @ 1.5 NODE. SC 4 100%DAC ID SPOT @ 270 + 1". IWC=1/2 MP=1.08. 50%DAC @ 1.5 NODE. ALSO SPOTS >50%DAC @ 240 & 300. ID GEO-WELD ROOT.
12LPCS(1)-6	LPCS-101	VOL	LPU-015		45	45	SC 3 105%DAC ID, EXT 360 INT. IWC=1 MP=0.99. ID GEO-COUNTERBORE. SC 4 95%DAC ID, EXT 360. IWC=3/4 MP=1.10. SC 4 65%DAC ID, EXT 360 TYP <50%DAC IWC=1 1/4 MP=1.12. SCAN 3 LTD TO 1 3/4" FROM WELD CL -ADJ WELD
12LPCS(1)-8	LPCS-101	VOL	LPU-014		45	45	SC 4 (INSIGN) ID IND, MAX.AMP. 70% DAC, IWC=1 1/4 MP=1.38. SC 4 (SIGN) OD IND, MAX.AMP. 105% DAC, IWC=1 1/2 MP=2.49, MP=2.33 -1/4, MP=2.81 +3/8. EXT 135-170 DEG. WELD CROWN GEO. SC 4 OD IND, MAX.AMP....CONT'D

10-4.2

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
12LPCS(1)-9	LPCS-101	VOL	LPU-008	0		45	SC 3 ID IND, MAX.AMP. 112%DAC, IWC=1 1/4, +OR-1/8, 360 EXT. SC 3 ID IND, MAX.AMP. 100%DAC, IWC=1 3/4, +1/4, -3/16, 360 EXT. WELD PREP GEO. PLOT & EVAL NOT REQD. SEE EVAL SHEET FOR JUSTIFICATION. - DRW.
12LPCS(1)-9	LPCS-101	VOL	LPU-013			45	SC 3 110%DAC ID IND, IWC=1 MP=1.57, EXT 225 THRU 0 TO 80 DEG. ID GEO. SC 3 115%DAC OD IND, IWC=1 MP=2.25, EXT 360 INT. F DON WELD CROWN. BEAM REDIRECTION DUE TO ID TAPER. SC 4 110%DAC OD IND, ...CONT'D -
LPCS-909N(W)	LPCS-101	VOL	LPU-038	0	45	45	SC 5 75%DAC, IWC=1 MP=2.4, LUGS 1-8, WRR. SC 6 100%DAC, IWC=.95 MP=2.47, LUGS 1-8, WRR. SC 6 100%DAC, IWC=1.8 MP=4.81, LUGS 1-8, LCR. SC 5 110%DAC, IWC=2 MP=4.7, LUGS 1-8, LCR. NO SC 7&8 DUE TO INSTL HGR, SEE NOTE #1.
12LPCS(1)-16	LPCS-101	VOL	LPU-005		45	45	SC 3 (INSIGN) ID IND, MAX.AMP. 75% DAC, IWC=5/8 MP=1.07, EXT 270 TO 90 DEG INT. SC 4 (SIGN) ID IND, MAX.AMP. 100% DAC, IWC=1 MP=1.07, EXT 10 TO 70 DEG. WELD ROOT GEO.
4LPCS(1)-1	LPCS-101	VOL	LPU-030			45	SC 4 115% DAC ID, EXT 25-340, (360 EXCEPT WHERE NO SCAN). IWC=1/2 MP=.65, 100% DAC @ 1.5 NODE & 2.5 NODE. ID WRG. NO SCANS ON FL SIDE OF WELD. NO SC 4 FROM 340 TO 25 DUE TO WELDED N STAMP PLATE.
MS-HA-1(W)	MS-101	VOL	MSU-654	0		45	SIGN-SC 5 MAX.AMP. 400%DAC, IWC=2.20 MP=6.30, LUGS #1-4, LCR. SC 6 MAX.AMP 500%DAC, IWC=2.40 MP=6.60, LUGS #1-4 LUG CORNER REFLECTOR. NO SC 8 DUE TO INSTALLED HGR. SEE NOTE #1.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM. DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
MS-HA-2(W)	MS-101	VOL	MSU-648	0	45	45	SIGN-SC 5 MAX.AMP.500%DAC,IWC=2.20 MP=6.26,LUGS #1-4,LCR.SC 6 MAX.AMP 400%DAC,IWC=2.20 MP=6.31,LUGS #1-4 LUG CORNER REFLECTOR.INSIGN-SC 6 MAX.AMP.50%DAC,IWC=1.10 MP=4.32, LUGS #2 & #4.CONT'D -
MS FLUED HEAD A	MS-101	VOL	MSU-634			0	SC 5 ID IND, MAX.AMP.105%DAC, MP= 3.08, 2 1/2" FROM REF.EDGE, EXT 360 DEG. COMPONENT CONFIGURATION GEO.
MS FLUED HEAD A	MS-101	VOL	MSU-631		60	60	INSIGN-SC 9 ID IND,MAX.AMP.100%DAC MP=8.99,4 1/4"FROM REF.EDGE(=FRE, ABBREV),EXT 360.SIGN-SC 8 ID IND, MAX.AMP.400%DAC,MP=6.22,3 1/2"FRE; 200%DAC,MP=5.26,2 1/8"FRE,EXT 360. COMPONENT CONFIGURATION GEO.
MS FLUED HEAD A	MS-101	VOL	MSU-626			45	SC 6 ID IND,MAX.AMP.150%DAC,MP= 7.61,3 3/4"FROM REF.EDGE,EXT 360 (=FRE).SC 6 ID IND,MAX.AMP.125%DAC MP=6.84,5 1/4"FRE.SC 6 ID IND,MAX. AMP.100%DAC,MP=4.45,6"FRE.SC 6 ID IND,MAX.AMP.120%DAC,....CONT'D-
MS-HB-1(W)	MS-102	VOL	MSU-655	0		45	SIGN-SC 5 MAX.AMP.400%DAC,IWC=2.20 MP=6.21,LUGS #1-4,LCR.SC 6 MAX.AMP 600%DAC,IWC=2.10 MP=6.47,LUGS #1-4 LUG CORNER REFLECTOR.NO SC 8 DUE TO INSTALLED HANGER.SEE NOTE #1.
MS-HB-3(W)	MS-102	VOL	MSU-649	0	45	45	SC 5(SIGN)MAX.AMP.600%DAC,IWC=2.30 MP=6.35,LUGS. 1-4,LCR. SC 6(SIGN) MAX.AMP.450%DAC,IWC=2.20 MP=6.22, LUGS 1-4,LCR. SC 5(INSIGN)MAX.AMP. 60%DAC,IWC=1 MP=4.27,LUG #1,LUG WELD RADIUS REFLECTOR.NO SC 8.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
MS FLUED HEAD B	MS-102	VOL	MSU-632			60	SC 8 ID IND, MAX.AMP. 300% DAC, MP=4.92, 1 3/4" FRE; 300% DAC, MP=6.35, 3 1/4" FRE; 110% DAC, MP=8.55, 5" FRE. SC 9 ID IND, MAX.AMP. 300% DAC, MP=11.43, 2 1/4" FRE. COMPONENT CONFIGURATION GEO.
MS FLUED HEAD B	MS-102	VOL	MSU-627			45	SC 6 ID IND, MAX.AMP. 300% DAC, MP=8.19, 5 3/4" FRE; 320% DAC, MP=6.33, 2" FRE. SC 7 ID IND, MAX.AMP. 500% DAC, MP=8.07, 5 1/2" FRE; 200% DAC, MP=6.77, 1/2" FRE. COMPONENT CONFIGURATION GEO.
MS FLUED HEAD B	MS-102	VOL	MSU-622		0	0	SC 3 (INSIGN) ID IND, MAX.AMP. 95% DAC MP=1.28, LOCATED 5.5" FROM EDGE, EXT 360 DEG. SC 3 (SIGN) ID IND, MAX.AMP. 110% DAC, MP=10.03, LOCATED 2 3/4" FROM EDGE, EXT 360 DEG. COMPONENT CONFIGURATION GEO.
MS-HC-1(W)	MS-103	VOL	MSU-652	0		45	SC 5 (SIGN) MAX.AMP. 600% DAC, IWC=2.25 MP=6.25, LUGS #1-4. LCR. SC 6 (SIGN) MAX.AMP. 550% DAC, IWC=2.40 MP=6.52, LUGS #1-4. LCR. NO SC 8 DUE TO INSTALLED HANGER. SEE NOTE #1.
MS-HC-3(W)	MS-103	VOL	MSU-651	0		45	SC 5 MAX.AMP. 500% DAC, IWC=2.20 MP=6.32, LUGS 1-4, LCR. SC 6 MAX.AMP. 400% DAC, IWC=2.35 MP=6.47, LUGS 1-4, LCR. NO SC 8 DUE TO INSTALLED HGR. SEE NOTE #1.
MS FLUED HEAD C	MS-103	VOL	MSU-637		0	0	SC 3 (INSIGN) ID IND, MAX.AMP. 100% DAC, MP=1.24, 4 1/2" FROM REF. EDGE, EXT 360. SC 3 (SIGN) ID IND, MAX.AMP. 110% DAC, MP=10.04, 2 1/4" FROM REF. EDGE, EXT 360. COMPONENT CONFIGURATION GEOMETRY.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
MS FLUED HEAD C	MS-103	VOL	MSU-629			60	SC 8 ID IND,MAX.AMP.400%DAC,MP=6.03,2 3/4"FROM REF.EDGE,EXT 360. SC 9 ID IND,MAX.AMP.200%DAC,MP=7.68,4 3/4"FROM REF.EDGE,EXT 360. COMPONENT CONFIGURATION GEOMETRY.
MS FLUED HEAD C	MS-103	VOL	MSU-628		45	45	INSIGN-SC 6 ID IND,MAX.AMP.60%DAC,MP=4.30,6"FRE. SIGN-SC 6 ID IND,MAX.AMP.125%DAC,MP=5.11,3/8"FRE.SC 6 ID IND,MAX.AMP.225%DAC,MP=5.45,1 7/8"FRE.SC 6 ID IND,MAX.AMP.160%DAC,MP=7.00,5 3/8"FRE...CONT'D
MS-HD-1(W)	MS-104	VOL	MSU-653	0		45	SC 5(SIGN) MAX.AMP. 450% DAC, IWC=2.20 MP=6.16, LUGS #1-4. LCR. SC 6(SIGN) MAX.AMP. 500% DAC, IWC=2.45 MP=6.58, LUGS #1-4. LCR. NO SC 8 DUE TO INSTALLED HANGER. SEE NOTE #1.
26MS(1)D-11	MS-104	VOL	MSU-480			45	SC 3 110%DAC IND @ 0 DEG -5".IWC=1 1/8 MP=1.88,50%DAC IND 360 DEG,MP=1.83 & 1.95 IWC=+OR-1/16. SC 4 97%DAC @ 300 DEG IWC=1 MP=1.60,50%DAC IND 360 MP=1.46 & 1.69 IWC=+OR-1/8. WELD ROOT GEO(CONCAVITY)
MS-HD-2(W)	MS-104	VOL	MSU-650	0		45	SC 5(SIGN) MAX.AMP. 600% DAC, IWC=2.20 MP=6.26, LUGS #1-4. LCR. SC 6(SIGN) MAX.AMP. 500% DAC, IWC=2.40 MP=6.52, LUGS #1-4. LCR. NO SC 8 DUE TO INSTALLED HANGER. SEE NOTE #1.
MS FLUED HEAD D	MS-104	VOL	MSU-633		0	0	SC 5 ID IND,MAX.AMP.105%DAC,MP=2.96,2 1/4"FROM REF.EDGE,EXT 360. SC 5 (INSIGN)ID IND,MAX.AMP.100%DAC,MP=4.46,7"FROM REF.EDGE,EXT 360. COMPONENT CONFIGURATION GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
MS FLUED HEAD D	MS-104	VOL	MSU-630			60	SC 8 ID IND,MAX.AMP.350%DAC,MP=5.02,2 1/8"FRE.SC 8 ID IND,MAX.AMP.350%DAC,MP=6.23,3 1/4"FRE.SC 9 ID IND,MAX.AMP.200%DAC,MP=6.61,5 1/2" FRE. COMPONENT CONFIGURATION GEO.
MS FLUED HEAD D	MS-104	VOL	MSU-625			45	SC 7 ID IND,MAX.AMP.300%DAC,MP=8.19,5 3/4"FRE.SC 7 ID IND,MAX.AMP.225%DAC,MP=7.16,3 3/4"FRE.SC 7 ID IND,MAX.AMP.140%DAC,MP=5.41,2"FRE. SC 7 ID IND,MAX.AMP.225%DAC,MP=3.61,1/4"FRE. ...CONTINUED -
26MS(1)A-21	MS-201	VOL	MSU-512	0		45	SC 3 ID IND,MAX.AMP.100%DAC,IWC=1.25 MP=1.62,EXT 300-30 DEG,& SPOT @ 270 DEG PLUS 1". SC 4 ID IND,MAX AMP.100%DAC,IWC=1.25 MP=1.53,EXT 315-45 DEG. WELD PREP GEOMETRY.
30MS(1)A-6	MS-201	VOL	MSU-292	0	45	45	INSIGN-SC 3 ID IND,MAX.AMP.95%DAC, IWC=1 5/8 MP=1.98,EXT 360.SC 4 ID IND,MAX.AMP.85%DAC,IWC=2 MP=5.29, EXT 0 TO 90 DEG. SIGN-SC 4 ID IND, MAX.AMP.100%DAC,IWC=1 1/2 MP=1.94, EXT 360....CONT'D -
30MS(1)A-16	MS-201	VOL	MSU-565	0	45	45	INSIGN-SC 4 ID IND,MAX.AMP.90%DAC, IWC=3 5/8 MP=5.68,EXT 360 INT. SIGN-SC 3 ID IND,MAX.AMP.100%DAC, IWC=1 1/4 MP=2.11,EXT 360 INT.WELD PREP/ROOT GEO.SC 3 ID IND,MAX.AMP. 100%DAC,IWC=4 1/4CONT'D-
30MS(1)A-17LD	MS-201	VOL	MSU-318	0		45	SC 12 OD IND,MAX.AMP.105%DAC,IWC=2.75 MP=3.76,EXT 0"-12".OD WELD CROWN GEOMETRY.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
18MS(1)A-4	MS-201	VOL	MSU-402	0	45	45	SC 3 100% DAC ID, EXT 360. IWC=1 1/2 MP=1.42. 1.5 NODE RESP IS 80% DAC, WELD ROOT GEO. SC 4 75% DAC ID, EXT 360. IWC=3/8 MP=1.40.
18MS(1)A-6	MS-201	VOL	MSU-671		45	45	SC 3 80%DAC ID IND, IWC=1.5 MP=1.58 EXT 360. SC 4 100%DAC ID IND, IWC=1.25 MP=1.42, EXT 360. ID WELD PREP GEO. BEST EFFORT SC 4 DUE TO IN-SIDE RADIUS OF ELBOW. SEE NOTE #1.
18MS(1)A-7	MS-201	VOL	MSU-670		45	45	SC 3 100%DAC ID IND, IWC=1.5 MP=1.43, 360 INT, WITH A 180%DAC MULT. IWC=4 MP=4.43, 360 INT. ID COUNTERBORE GEO. SC 4 80%DAC ID IND, IWC=1.25 MP=1.43, 360 INT, WITH A 50-80% DAC MULT. IWC=3 MP=3.86, 360 INT
30MS(1)A-21LU	MS-201	VOL	MSU-442	0	45	45	SC 7 100%DAC ID, EXT THRU, IWC=1 MP=2.17, ID GEO. SC 8 55%DAC OD, EXT 4" TO 12", IWC=2 1/2 MP=3.88, FD.
28MS(1)A-1	MS-201	VOL	MSU-723		45	45	SC 4 105%DAC IND, IWC=2.62 MP=2.92, EXT 360 INT. MODE CONVERSION OFF ID COUNTERBORE. SC 4 75%DAC IND, IWC=1.37 MP=1.74, EXT 360 INT.
26MS(1)B-19A	MS-202	VOL	MSU-154	0		45	SC 3 75%DAC IND, IWC=1 MP=1.78, 360 INT. SC 4 100%DAC IND, IWC=1 1/2 MP=1.82, 360 INT. WELD ROOT GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM. DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
26MS(1)B-21	MS-202	VOL	MSU-153	0	45	45	SC 3 65%DAC ID, IWC=1 MP=1.9, EXT 360 INT. SC 4 80%DAC ID, IWC=1 MP=1.71, EXT 360. 1.5NR IS 55%DAC @ IWC=3 1/2. 60%DAC ID, IWC=1 5/8 MP=1.78 EXT 360. WELD ROOT/COUNTERBORE GEO.
26MS(1)B-22	MS-202	VOL	MSU-518			45	SC 3 100%DAC IND, IWC=1 1/4 MP=1.70 +1/8, MP=1.82, -1/8, MP=1.67, EXT FROM 265 DEG TO 240 DEG INT. WELD PREP GEO. SC 3 50%DAC IND, IWC=1 1/4 MP=2.96, EXT 265 DEG TO 240 DEG INT.
30MS(1)B-3	MS-202	VOL	MSU-088		45	45	INSIGN-SC 3 ID IND, MAX. AMP. 85%DAC, IWC=7/8 MP=1.71, EXT 360 INT. SC 4 ID IND, MAX. AMP. 90%DAC, IWC=1.7/8 MP=1.90, EXT 360 INT. SC 5 ID IND, MAX. AMP. 70%DAC, IWC=1.1 (WELD CL) MP=1.96, ... CONT'D -
30MS(1)B-4LU	MS-202	VOL	MSU-172	0		45	SC 8 65%DAC IND, IWC=2 MP=2.24, EXT FROM 2" TO 4". SC 8 110%DAC IND, IWC=2 MP=4.00, +1/4, MP=4.24, -3/4, MP=3.56, LOCATED @ 9", 1/2" LONG. 0D WELD CROWN GEO.
30MS(1)B-6LUO	MS-202	VOL	MSU-235	0		45	SC 8 100%DAC IND, IWC=2 1/2 MP=1.55 +3/16, MP=1.75, -1/16, MP=1.52, SPOT LOCATED @ 40". ID BASE METAL GEO. SC 8 55%DAC IND, IWC=2 MP=1.97, 1/2" LONG LOCATED @ 19".
30MS(1)B-6	MS-202	VOL	MSU-661	0		45	SC 4 90%DAC ID IND, IWC=1.5 MP=1.80 EXT 360 INT. WELD PREP GEO. SC 4 100%DAC MULT, IWC=3.5 MP=5.54, EXT 0 TO 180 DEG. WELD PREP GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM. DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
30MS(1)B-9LD	MS-202	VOL	MSU-502			45	SC 11 110%DAC IND, IWC=2 5/8 MP=4.10, +1/4, MP=4.31, -3/8, MP=3.82, 1 1/2" LONG LOCATED @ 5 1/2". OD WELD CROWN GEO.
30MS(1)B-10	MS-202	VOL	MSU-258	0		45	SC 4 100% DAC ID, EXT 190 TO 270 (360 @ < 50% DAC). IWC=1 1/2 MP=1.97. ID GEO, @ OR WITHIN 1/4" OF WELD ROOT.
30MS(1)B-11	MS-202	VOL	MSU-261	0		45	SC 3 100%DAC ID, EXT 360, IWC=1 1/2 MP=2.01, 1.5 NODE RESPONSE IS 50% DAC. WELD ROOT GEO. SC 4 100%DAC ID, EXT 360, IWC=1 1/2 MP=1.98, 1.5 NODE RESPONSE IS 80%DAC. WELD ROOT GEO.
18MS(1)B-4	MS-202	VOL	MSU-326		45	45	SC 3 100%DAC ID, IWC=1 1/2 MP=1.33, EXT 360 INT. 1.5 NODE RESPONSE IS 85%DAC. IND IS @ ID, 1/2" FROM WELD ROOT. WELD PREP GEO. SC 4 85%DAC ID IWC=1 MP=1.20, EXT 360 INT.
30MS(1)B-23	MS-202	VOL	MSU-148	0	45	45	INSIGN-SC 4 ID IND, MAX. AMP. 75%DAC, IWC=1 MP=1.98, EXT 360. SC 4 OD IND, MAX. AMP. 75%DAC, IWC=1 MP=3.18, EXT 360. FD ON OD. SIGN-SC 3 ID IND, MAX AMP. 100%DAC, IWC=1 1/2 MP=2.18, EXT 360. WELD ROOT GEO.
28MS(1)B-1	MS-202	VOL	MSU-722		45	45	SC 4 100% DAC IND, IWC=2.5 MP=3.02 EXT 360 INT. DUE TO MODE CONVERSION OFF OF THE ID COUNTERBORE. SC 4 60% DAC IND, IWC=1.25 MP=1.91, EXT 360 INT.

TABLE 4
SIGNIFICANT INDICATIONS.

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
26MS(1)C-19LD	MS-203	VOL	MSU-339			45	SC 12 OD IND, MAX. AMP. 100% DAC, IWC=2.25 MP=3.67, EXT 0"-12". WELD CROWN GEOMETRY.
30MS(1)C-2	MS-203	VOL	MSU-089		45	45	INSIGN-SC 4 ID IND, MAX. AMP. 87% DAC, IWC=1 1/8 MP=1.89, EXT 360 INT. SIGN-SC 3 ID IND, MAX. AMP. 100% DAC, IWC=2 MP=2.09, EXT 360 INT. WELD PREP GEO, CB. SC 4 ID IND, MAX. AMP. 100% DAC, IWC=4.5 MP=6.22, EXT 360 INT. WRG.
30MS(1)C-5LD	MS-203	VOL	MSU-390			45	SC 12 OD IND, MAX. AMP. 130% DAC, IWC=2 1/4 MP=3.88, EXT 0"-12". OD WELD CROWN GEOMETRY.
30MS(1)C-8	MS-203	VOL	MSU-099		45	45	SC 4 ID IND, MAX. AMP. 95% DAC, (100% ON MULT), IWC=1 1/2 MP=1.87, EXT 360 DEG. WELD ROOT GEO. SC 3 ID IND, MAX AMP. 75% DAC, IWC=1 3/8 MP=2.05, EXT 360 DEG, (INSIGN GEO).
30MS(1)C-10LDO	MS-203	VOL	MSU-255		45	45	SIGN-SC 12 ID IND, MAX. AMP. 100% DAC, IWC=1 3/8 MP=2.05, EXT 0"-48". WELD ROOT GEO. INSIGN-SC 12 ID IND (MULT OF SIGN IND), MAX. AMP. 80% DAC, IWC=4 1/4 MP=5.95, EXT 0"-48".
30MS(1)C-11LUO	MS-203	VOL	MSU-256	0		45	SC 8 ID IND, MAX. AMP. 100% DAC, IWC=1 MP=2.01, EXT 0"-48". WELD ROOT GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
30MS(1)C-11	MS-203	VOL	MSU-766	0		45	SC 3 120%DAC ID IND, IWC=1.5 MP=2.08, MAX.DAC @ 35 DEG. IND IS 360 DEG INT. WELD ROOT GEO.
30MS(1)C-11LD	MS-203	VOL	MSU-378	0		45	SC 11 ID IND, MAX.AMP.105%DAC, IWC=1 1/4 MP=2.45, EXT 0"-12". WELD ROOT GEO. SC 12 ID IND, MAX.AMP.100%DAC, IWC=1 MP=2.33, EXT 0"-12". WELD ROOT GEO.
30MS(1)C-16	MS-203	VOL	MSU-401	0		45	SC 3 100%DAC ID, EXT 360. IWC=1 1/2 MP=1.99. 1.5 NODE RESPONSE IS 100% DAC. WELD ROOT GEO. SC 4 100%DAC ID, EXT 360. IWC=1 1/4 MP=1.93. 1.5 NODE RESPONSE IS 100%DAC. WELD ROOT GEO.
30MS(1)C-18LU	MS-203	VOL	MSU-499		45	45	INSIGN-SC 8 ID IND, MAX.AMP.75%DAC, IWC=1 1/2 MP=2.41, EXT 4"-12". SIGN-SC 8 OD IND, MAX.AMP.100%DAC, IWC=1 1/2 MP=3.93, EXT 8.75"-11.75". WELD CROWN GEO.
30MS(1)C-21	MS-203	VOL	MSU-265	0		45	SC 3 ID IND, 100%DAC, IWC=1 3/4 MP=1.98, EXT 360. WPG. SC 3 OD IND, MAX.AMP.100%DAC, IWC=1 1/2 MP=3.45, EXT 360. SOUND REDIRECT DUE TO WPG. SC 4 ID IND, MAX.AMP.105%DAC, IWC=1 MP=2.05, EXT 360. WELD PREP GEO.
30MS(1)C-22	MS-203	VOL	MSU-149	0	45	45	INSIGN-SC 3 ID IND, MAX.AMP.85%DAC, IWC=1 1/4 MP=1.88, EXT 360. SIGN-SC 4 ID IND, MAX.AMP.110%DAC, IWC=4 1/4 MP=6.04, EXT 360. WELD ROOT GEOMETRY.

10-4.12

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM. DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
30MS(1)C-24	MS-203	VOL	MSU-475	0		45	SC 3 125%DAC IND, IWC=2 1/4 MP=3.68 50%DAC POINTS MP=3.54 & MP=3.87, IWC=+OR-1/4. WCG. SC 4 1NR <50%, 2NR 135%DAC IND, IWC=3 3/4, +OR-3/8, MP= 6.95 @ MAX, 6.72 & 7.20 @ 50%DAC. SOUND REDIRECT DUE TO ID GEO.
30MS(1)C-25LD	MS-203	VOL	MSU-478		45	45	INSIGN-SC 11 ID IND, MAX. AMP. 95%DAC IWC=1 1/4 MP=2.24, EXT 0"-12". SC 12 ID IND, MAX. AMP. 75%DAC, IWC=1.25 MP= 2.20, EXT 0"-12". SIGN-SC 11 OD IND, MAX. AMP. 100%DAC, IWC=2.5 MP=3.9, EXT 5"-12". OD WELD CROWN GEO.
26MS(1)D-19	MS-204	VOL	MSU-087			45	SC 3 100%DAC IND, IWC=1 1/4, +OR-1/4 MP=1.68, TAKEN @ 180 DEG, EXT 360 INT. WELD ROOT GEO. SC 4 95%DAC IND IWC=3/4, +1/4, -1/8, MP=1.76, TAKEN @ 180 DEG, EXT 360 INT.
26MS(1)D-20	MS-204	VOL	MSU-215	0		45	SC 3 100%DAC IND, IWC=1 MP=1.81, +1/4, MP=1.84, -3/16, MP=1.69, EXT 360 INT. ID WELD ROOT GEO/MISMATCH. SC 4 90%DAC IND, IWC=1 1/2 MP=1.81, EXT 360 INT, WITH A 90%DAC MULT.
30MS(1)D-5	MS-204	VOL	MSU-225	0	45	45	SC 3 95% DAC ID, EXT 360 INT, IWC= 1 1/4 MP=1.90. SC 4 100% DAC ID, EXT 360 INT, IWC=1 1/8 MP=2.09. 95% DAC @ 1.5 NODE. WELD ROOT GEO.
30MS(1)D-6LD	MS-204	VOL	MSU-298	0		45	SC 11 100%DAC OD IND, IWC=2 MP=4.04 +3/16, MP=4.25, -1/4, MP=3.94, SPOT @ 6". OD WELD CROWN GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
30MS(1)D-9ALD	MS-204	VOL	MSU-245	0		45	SC 11 100% DAC OD, EXT THRU. IWC=2 MP=4.02. WELD CROWN GEO.
18MS(1)D-3	MS-204	VOL	MSU-321			45	SC 3 100%DAC ID IND, IWC=7/8 MP=1.49, +1/2, MP=1.71, -1/4, MP=1.27, EXT 360 INT. WELD ROOT GEO/MISMATCH. SC 4 85%DAC ID IND, IWC=5/8 MP=1.42, EXT 360 INT, WITH A 65%DAC MULT.
18MS(1)D-8	MS-204	VOL	MSU-682			45	SC 3 100% DAC SPOT IND, IWC=2.5 MP=4.21, DAMPS NEAR EDGE OF WELD. NO SC 4 DUE TO WOL GEO. SEE NOTE #1.
30MS(1)D-23	MS-204	VOL	MSU-762	0	45	45	SC 3 80%DAC ID IND, IWC=1.5 MP=2.07 EXT 360 INT. SC 3 80%DAC ID IND, IWC=4 MP=6.08, EXT 360 INT. SC 4 80% DAC ID IND, IWC=1.5 MP=2.04, EXT 360 INT. SC 4 110%DAC ID IND, IWC=4 MP=5.86, EXT 360 INT. WRG MULT.
30MS(1)D-24LU	MS-204	VOL	MSU-498			45	SC 8 ID IND, MAX. AMP. 100%DAC, IWC=1 3/8 MP=2.11, EXT 0"-12". WELD ROOT GEOMETRY.
28MS(1)D-1	MS-204	VOL	MSU-728		45	45	SC 4 110% DAC IND, IWC=2.5 MP=2.84 EXT 360 INT. DUE TO MODE CONVERSION OFF OF THE ID COUNTERBORE. SC 4 50% DAC IND, IWC=1.5 MP=1.89, EXT 360 INT.

10-4.14

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
10RCIC(12)-6	RCIC-101	VOL	RIU-069		45	45	SC 3 65%DAC ID,EXT 2" @ 0. IWC=3/8 MP=.91. SC 4 100%DAC ID,EXT 360. IWC=1 MP=.99. ID GEO, COUNTERBORE. SC 4 100%DAC OD,EXT 360. IWC=1 5/8 MP=1.84. FD. OD GEO. SC 4 LTD BY BRANCH CONNECTION @ 270.
10RCIC(12)-7	RCIC-101	VOL	RIU-067		45	45	SC 3 100% DAC ID, EXT 360. IWC=1 MP=1.36. SC 3 100% DAC ID, EXT 360. IWC=1 1/8 MP=1.43. BOTH ID GEO. DUE TO ELL/PIPE FIT-UP. SC 3 LTD BY BRANCH CONNECTION @ 270.
10RCIC(12)-8	RCIC-101	VOL	RIU-104		45	45	SC 4 141%DAC IND,IWC=.63 MP=1.23, 360 INT,WRG. SC 4 65%DAC IND,IWC=2.25 MP=3.61,360 INT. SC 3 90%DAC IND,IWC=1 MP=1.25,360 INT.SC 3 65% DAC IND,IWC=2.5 MP=3.38,360 INT.
4RCIC(13)-3	RCIC-101	VOL	RIU-015		45	45	SC 4 100%DAC ID,IWC=3/8 MP=.55,EXT 360 INT. 1.5 NODE RESPONSE IS 100% DAC. ID GEO-MISMATCH.
4RCIC(13)-4	RCIC-101	VOL	RIU-014			45	SC 100%DAC ID,EXT 1 1/2" @ 290, IWC=0 MP=.57. 100%DAC @ 1.5 NODE & 2.5 NODE. ID GEO: PROBABLE GRIND MARK.
4RCIC(13)-5	RCIC-101	VOL	RIU-013			45	SC 3 150%DAC ID,IWC=-3/8 MP=.55, EXT 360 INT. 200%DAC @ 1.5 NODE, 150%DAC @ 2.5 NODE. ID GEO. SC 4 125%DAC ID,IWC=5/8 MP=.55,EXT 360 INT. 125%DAC @ 1.5 NODE. ID GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM. DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
4RCIC(13)-5A	RCIC-101	VOL	RIU-012			45	SC 3 110%DAC ID, IWC=3/8 MP=.56, EXT 360 INT. 125%DAC @ 1.5 NODE & 2.5 NODE. WELD ROOT GEO. SC 4 100%DAC ID, IWC=3/8 MP=.50, EXT 360 INT. 100%DAC @ 1.5 NODE & 2.5 NODE. WELD ROOT GEO.
4RCIC(13)-6	RCIC-101	VOL	RIU-011			45	SC 3 100%DAC ID, IWC=1/2 MP=.50, EXT 360 INT. 100%DAC @ 1.5 & 2.5 NODE. WELD ROOT GEO. SC 4 100%DAC ID, IWC=3/8 MP=.50, EXT 360 INT. 100%DAC @ 1.5 & 2.5 NODE. WELD ROOT GEO.
4RCIC(13)-7	RCIC-101	VOL	RIU-010			45	SC 4 100%DAC ID, IWC=1/4 MP=.50, EXT 360 INT. 100%DAC @ 1.5 & 2.5 NODE. WELD ROOT GEO.
4RCIC(13)-9	RCIC-101	VOL	RIU-001			45	SC 3 150%DAC ID, IWC=1/4 MP=.59, EXT 170-225 & 270-45. 147%DAC @ 1.5 NODE. WELD ROOT GEO. SC 4 125%DAC ID, IWC=1/4 MP=.58, EXT 10-60 & 280-320. 156%DAC @ 1.5 NODE. WELD ROOT GEO.
4RCIC(13)-10	RCIC-101	VOL	RIU-029		45	45	SC 3 85%DAC ID, IWC=1/4 MP=.64, EXT 360 INT. SC 4 100%DAC ID, IWC=1/2 MP=.54, EXT 360. 100%DAC @ 1.5 & 2.5 NODE. WELD ROOT GEO.
RCIC-59(W)	RCIC-101	VOL	RIU-087	0	45	45	INSIGN-SC 6 MAX. AMP. 75%DAC, IWC=.6 MP=1.46, LUGS#1-4, WRR. SIGN-SC 5 MAX. AMP. 125%DAC, IWC=.55 MP=1.39, LUGS#1-4, WRR. SC 5 MAX. AMP. 150%DAC, IWC=.65 MP=2.36, LUGS#1-4, LCR. SC 6 MAX. AMP. 100%DAC, ...CONT'D -

10-4.16

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
4RCIC(13)-12	RCIC-101	VOL	RIU-028			45	SC 3 ID IND, MAX. AMP. 115% DAC, IWC=1/4 MP=.56, EXT 360 INT, WRG. SC 4 ID IND, MAX. AMP. 100% DAC, IWC=1/4 MP=.51, EXT 360 INT, WRG.
RCIC-1C-14(W)	RCIC-101	VOL	RIU-088	0		45	SIGN-SC 5 MAX. AMP. 150% DAC, IWC=.5 MP=2.41, LUGS #1-8, LCR. SC 6 MAX. AMP. 125% DAC, IWC=.55 MP=2.43, LUGS #1-8, LCR. LUGS #1-4: NO SC 8 DUE TO INSTALLED HGR. LUGS #5-8: NO SC 7 DUE TO INSTALLED HGR. SEE NOTE #1.
4RCIC(13)-13	RCIC-101	VOL	RIU-002		45	45	SC 3 (SIGN) ID IND, MAX. AMP. 116% DAC IWC=1 MP=1.63, EXT 1/2" @ 315 DEG & SPOT @ 80 DEG, WRG. SC 4 (INSIGN) ID IND, MAX. AMP. 75% DAC, IWC=1 MP=.5, EXT 360 INT.
4RCIC(13)-17	RCIC-101	VOL	RIU-006		45	45	SC 3 110% DAC ID, IWC=1/4 MP=.54, EXT 180-270. ID GEO, MISMATCH OR WELD ROOT GEO. SC 4 95% DAC ID (1.5 NODE RESPONSE), IWC=1 MP=1.53, EXT 0-90 & 225-250.
4RCIC(13)-18	RCIC-101	VOL	RIU-007		45	45	SIGN-SC 3 ID IND, MAX. AMP. 100% DAC, IWC=3/8 MP=.5, EXT 360 INT, WRG. INSIGN-SC 4 ID IND, MAX. AMP. 95% DAC, IWC=1/4 MP=.52, EXT 180 TO 25 DEG.
6RHR(10)-1	RCIC-102	VOL	RIU-031			45	SC 4 75% DAC ID, IWC=0 MP=.71, EXT 360 INT. 105% DAC @ 1.5 NODE, 100% DAC @ 2.5 NODE. ID GEO-MISMATCH. NO SCANS ON VALVE SIDE OF WELD.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
6RCIC(1)-1	RCIC-102	VOL	RIU-027			45	SC 4 95% DAC IND, IWC=.75 MP=.73, LOCATED @ 0 DEG. 3" LONG AND HAS A 80% & 100% DAC MULTIPLE. PROBABLE SOUND REDIRECTION DUE TO CB.
6RCIC(1)-4	RCIC-102	VOL	RIU-024			45	SC 3 100%DAC ID,EXT 0-90.IWC=1/2 MP=.71.80%DAC @1.5N,100%DAC @2.5N. WRG,SC 4 90%DAC ID SPOT @80.IWC=0 MP=.64.110%DAC@1.5N.ID GEO-MR@1/2" FROM WELD CL.SC 4 120%DAC ID,1.5NR SPOT @0.IWC=1 1/2 MP=2.20.WRG.
6RCIC(1)-4	RCIC-102	VOL	RIU-117		45	45	SIGN-SC 3 105%DAC IND,IWC=.63 MP=.72,360 INT,WELD ROOT GEO.INSIGN-SC 3 60%DAC IND,IWC=1.5 MP=1.96, 360 INT.FD ON W EDGE.SC 4 80%DAC IND,IWC=0 MP=.64,360 INT.SC 4 50% DAC IND,IWC=1.75 MP=2.65,@ 0.
6RCIC(1)-5	RCIC-102	VOL	RIU-023			45	SC 3 100%DAC ID,IWC=1/2 MP=.67,EXT 360 INT.100%DAC @1.5 NODE.WELD ROOT GEO.SC 4 100%DAC ID,IWC=3/8 MP=.70,EXT 360 INT.100%DAC @1.5 NODE & 2.5 NODE.WELD ROOT GEO.
6RCIC(1)-5	RCIC-102	VOL	RIU-116		45	45	INSIGN-SC 3 95%DAC IND,IWC=1.5 MP=1.88,360 INT.SIGN-SC 4 130%DAC IND IWC=.25 MP=.70,360 INT.SC 4 105% DAC IND,IWC=1.06 MP=1.84,360 INT. SC 4 105%DAC IND,IWC=1.19 MP=2.03, 360 INT.WELD TO ELL TRANSITION
6RCIC(1)-7	RCIC-102	VOL	RIU-022		45	45	SC 3 100%DAC ID,IWC=3/8 MP=.66,EXT 360 INT. 55%DAC @ 1.5 NODE. WELD ROOT GEO. SC 4 90%DAC ID,IWC=1/2 MP=.78,EXT 360 INT.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
6RCIC(1)-9	RCIC-102	VOL	RIU-109		45	45	SIGN-SC 4 160%DAC IND,IWC=2 MP=3.11,360 INT.WELD ROOT GEO.INSIGN-SC 4 90%DAC IND,IWC=.5 MP=.68,360 INT.WELD ROOT GEO.NO SC 3 DUE TO VALVE CONF.SEE NOTE #1.
6RCIC(1)-11	RCIC-102	VOL	RIU-018		45	45	SC 3 100%DAC ID,IWC=1/8 MP=.75,EXT 45-315 INT.100%DAC @ 1.5N.ID GEO-CB. SC 4 60%DAC ID(1.5),IWC=1 3/8 MP=1.94,EXT 270-0 INT.80%DAC @ 2.5 NODE.NO SC 3 FROM 315-45 DUE TO CONF,TEE IR.SEE NOTE #1.
6RCIC(1)-21A	RCIC-102	VOL	RIU-121		45	45	SIGN-SC 4 180%DAC IND,IWC=2.06 MP=3.08,360 INT,WRG.SC 4 110%DAC IND,IWC=1.25 MP=1.90,360 INT,WELD ROOT GEO.INSIGN-SC 4 85%DAC IND,IWC=.38 MP=.71,360 INT.SC 3 70%DAC IND,IWC=.13 MP=.70,360 INT....CONT'D
6RCIC(1)-33	RCIC-102	VOL	RIU-096			45	SC 3 100%DAC ID IND,IWC=.75 MP=.73 EXT 0-90 DEG & 270-0 DEG INT. HAS 100%DAC MULT,IWC=1.25 MP=2.66,WRG REDIRECTION. SC 4 100%DAC ID IND,IWC=.75 MP=.72,EXT 0-45 DEG & 270-0 DEG INT, WRG REDIRECTION.
6RCIC(1)-35	RCIC-102	VOL	RIU-072		45	45	SC 3 65%DAC ID(1.5 NODE),IWC=1 5/8 MP=1.88,EXT 180-270. SC 4 85%DAC ID,IWC=3/8 MP=.64,EXT 180-225.125% DAC @ 1.5 NODE.ID GEO-WELD ROOT OR PIPE/ELL MISMATCH.
RCIC-931N(W)	RCIC-102	VOL	RIU-090	0	45	45	INSIGN-SC 5 MAX.AMP.60%DAC,IWC=.45 MP=1.79,WRR.SC 5 MAX.AMP.100%DAC,IWC=1.2 MP=2.87,LCR.SC 6 MAX.AMP.90%DAC,IWC=1.10 MP=2.71,LCR. SIGN-SC 6 MAX.AMP.120%DAC,IWC=.50 MP=1.84,WRR.....CONT'D -

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
6RCIC(1)-44	RCIC-102	VOL	RIU-107		45	45	SC 3 50%DAC IND,IWC=2.25 MP=2.10, 360 INT,FD OD.SC 3 130%DAC IND, IWC=1.25 MP=.74,360 INT.WELD ROOT GEO.NO SC 4 DUE TO FLANGE CONF. SEE NOTE #1.
24RFW(1)A-6	RFW-101	VOL	FWU-028			45	SC 4 155% DAC OD IND, EXT 360 INT. IWC=2 7/8 MP=5.01, FD, WELD CROWN GEO. SC 3 LTD TO 3" FROM WELD CL BY PWR, FROM 240 TO 120.
24RFW(1)A-7	RFW-101	VOL	FWU-029		45	45	SC 3 85%DAC ID,EXT,0-100 & 190-225 IWC=2 3/8 MP=2.59.57%DAC OD,EXT 0-100,IWC=2 1/2 MP=3.64,FD.110%DAC OD,EXT 360 INT,IWC=2 7/8 MP=5.04, FD. WELD CROWN GEO.
24RFW(1)A-13	RFW-101	VOL	FWU-196			45	SC 4 110%DAC IND,IWC=2 MP=5.03,EXT 20-160 DEG.FD ON WELD 2.25" FROM INDEX.SOUND REDIRECTION TO OD DUE TO ID TAPER.
24RFW(1)A-14	RFW-101	VOL	FWU-114		45	45	SIGN-SC 3 OD IND,MAX.AMP.160%DAC, IWC=3 MP=4.22,EXT 360,FD ON OD. SOUND REDIRECTION TO OD CAUSED BY ID COUNTERBORE. INSIGN-SC 3 ID IND MAX.AMP.75%DAC,IWC=1 1/2 MP=2.74, EXT SPOT @ 2 1/2"CCW FROM 315.
RFW-156(W)	RFW-101	VOL	FWU-183	0		45	SC 5&6: 100%DAC IND,INDEX TO LUG= 1.88 MP=3.18.FD ON WELD,OPP SIDE OF LUG.TYP ALL LUGS.WELD RADIUS REFLECTORS. SC 7 LTD BY INSTL SUP. SEE NOTE #1.NO SC 4 @ US END OF LUGS.INSTL SUP COVERS AREA.

10-4,19

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
12RFW(1)AC-6	RFW-101	VOL	FWU-203			45	SC 4 120%DAC ID IND, IWC=3 MP=4.70, EXT 0-180 DEG INT. SOUND REDIRECT TO ID CAUSED BY OD CONTOUR.
RFW-157(W)	RFW-101	VOL	FWU-199	0		45	SC 5&6 120%DAC IND, INDEX-LUG=2 MP= 3.48, FD ON OPP WELD CROWN. TYP ON ALL 4 LUGS. WRR. SC 5&6 120%DAC IND INDEX-LUG=3.25 MP=4.97, FD ON OPP WELD CROWN. TYP ON ALL 4 LUGS. WRR. SC 4 LIMITED ON CLAMP...CONT'D
RFW-155(W)	RFW-101	VOL	FWU-181	0		45	SC 5&6: 100%DAC IND, INDEX TO LUG= 2.13 MP=4.2. FD ON OPP WELD CROWN. TYP FOR ALL LUGS. WELD RADIUS RE- FLECTOR.
12RFW(1)AB-1	RFW-101	VOL	FWU-197		45	45	SC 4 85%DAC IND, IWC=.88 MP=1.60, EXT 90-315 DEG. SC 4 160%DAC IND, IWC=2.63 MP=4.18, EXT 90-315 DEG. WELD ROOT GEO MULTIPLE.
12RFW(1)AB-2	RFW-101	VOL	FWU-017			45	SC 4 100% DAC ID IND, EXT 360 INT. IWC=1 5/8 MP=1.81, 245% DAC MULT FROM THE ID @ IWC=3 1/2 MP=5.37, ID GEO, WELD PREP COUNTERBORE.
12RFW(1)AB-5	RFW-101	VOL	FWU-026		45	45	SC 3 106%DAC ID IND, IWC=1 MP=1.56, EXT 360 INT, WELD ROOT GEO. SC 4 95% DAC ID IND, IWC=1 1/4 MP=1.58, EXT 360.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
12RFW(1)AB-8	RFW-101	VOL	FWU-022		45	45	SC 3 100% DAC ID IND, EXT 350 TO 210. IWC=7/8 MP=1.5, WELD ROOT GEO SC 4 95% DAC ID IND, EXT 360 INT. IWC=1 5/8 MP=1.42
18RFW(1)A-4	RFW-101	VOL	FWU-084			45	SC 4 100%DAC OD IND, IWC=4 1/2 MP=3.80, EXT 360. FD 2" FROM WELD CL. OD IND CAUSED BY BEAM REDIRECTION FROM ID COUNTERBORE.
12RFW(1)AA-6	RFW-101	VOL	FWU-068			45	SC 3 ID IND, MAX. AMP. 100%DAC, IWC=1 MP=1.63, EXT 90-0 DEG. SC 4 ID IND, MAX. AMP. 100%DAC, IWC=1 MP=1.63, EXT 225-315 DEG. WELD ROOT GEO.
24RFW(1)B-5	RFW-102	VOL	FWU-005		45	45	SC 3 54%DAC ID, EXT 360. SC 4:1) 53% DAC ID, 360. 2) 100%DAC OD, 360 INT. IWC=3 MP=3.5. FD NEAR WELD EDGE. SC 3 CONTACT LTD BY VALVE GEO. SC 4 LTD TO 4" FROM WELD CL PWR 225-135.
24RFW(1)B-6	RFW-102	VOL	FWU-004			45	SC 4 190% DAC OD IND, EXT 360 INT. IWC=2 3/4 MP=5. FD. DAMPS ON CROWN GEO. SC 3 LTD TO 3 FROM WELD CL BY PWR FROM 225 TO 135.
RFW-182(W)	RFW-102	VOL	FWU-190	0		45	SC 5&6:100%DAC MAX. IND, INDEX-LUG=4 MP=6.02. FD ON WELD ON OPP SIDE OF LUG. TYP ALL LUGS. WELD RADIUS REFLECTOR. SC 8 LTD BY INSTL SUP. SEE NOTE #1. NO SC 4 @ DS END OF LUGS. INSTL SUP COVERS AREA.

10-4.21

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
24RFW(1)B-10	RFW-102	VOL	FWU-088			45	SC 4 ID IND, MAX. AMP. 100% DAC, IWC=1 3/4 MP=2.57, EXT 360 DEG. WELD ROOT GEOMETRY.
24RFW(1)B-13	RFW-102	VOL	FWU-030			45	SC 4 115% DAC SPOT OD IND @ 285. IWC=3 5/8 MP=5.38, FD, CROWN GEO.
RFW-175(W)	RFW-102	VOL	FWU-185	0		45	SC 5&6 100% DAC IND, INDEX TO LUG=1.75 MP=3.02. FD ON WELD ON OPP SIDE OF LUG. TYP ADD LUGS, WRR. SC 7 LTD BY INSTALLED SUP. SEE NOTE #1. NO SC 4 @ UPSTREAM END OF LUGS, INSTALLED SUP COVERS AREA.
RFW-185(W)	RFW-102	VOL	FWU-200	0		45	SC 5&6-100% DAC IND, INDEX TO LUG=2.13, MP=3.54. FD ON OPP SIDE WELD CROWN. TYP ON ALL 4 LUGS, WRR. SC 4 LTD ON CLAMP SIDE OF LUGS. SC 7 LTD ON US SIDE OF LUGS. SEE NOTE #1
18RFW(1)B-1	RFW-102	VOL	FWU-075			45	SIGN-SC 3 ID IND, MAX. AMP. 115% DAC, IWC=1 1/4 MP=2.01; MP=2.43, +5/8, MP=1.95, -1/8, EXT 315-45 DEG. SC 4 ID IND, MAX. AMP. 100% DAC, IWC=1 1/2 MP=2.28; MP=2.42, +1/4, MP=2.10, -3/16, EXT 315-45 INT. WELD ROOT GEO.
12RFW(1)BE-5	RFW-102	VOL	FWU-025			45	SC 3 100% DAC ID IND, EXT 110 TO 280. IWC=7/8 MP=1.56, WRG. SC 4 98% DAC ID IND, EXT 360. IWC=7/8 MP=1.54. 115% DAC MULT @ IWC=2 7/8 MP=4.35. WRG.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM	OTHER	REMARKS
RFW-183(W)	RFW-102	VOL	FWU-201	0		45		SC 5&6 100%DAC IND, INDEX TO LUG=2 MP=3.24. FD ON OPP SIDE WELD CROWN. TYP FOR ALL 4 LUGS. WELD RADIUS REFLECTOR. SC 4 LTD ON CLAMP SIDE OF LUGS. SC 7 LTD ON UPSTREAM SIDE OF LUGS. SEE NOTE #1.
12RFW(1)BD-6	RFW-102	VOL	FWU-077		45	45		SC 3 100% DAC ID IND, EXT 250 TO 60 IWC=1 3/4 MP=1.51. 60% DAC MULTIPLE @ IWC=3 1/2 MP=4.43. ID GEO/CB. SC 4 95% DAC ID IND, EXT 360 INT. IWC=5/8 MP=1.55.
12RFW(1)BD-10	RFW-102	VOL	FWU-143			45		SC 4 OD IND, MAX. AMP. 100%DAC, IWC=2 1/8 MP=2.67, EXT 360 INT. FD ON OD SOUND REDIRECTION TO OD CAUSED BY ID TAPER.
6RFW(11)-1	RFW-103	VOL	FWU-213			45		SC 4 110%DAC IND, IWC=.5 MP=.84, 360 INT. WELD ROOT GEO. SC 4 110%DAC IND IWC=1.75 MP=2.50, EXT BETWEEN 270 & 0 DEG INT. WELD ROOT GEO. NO SC 3 DUE TO VALVE CONF. SEE NOTE #1.
6RFW(11)-2	RFW-103	VOL	FWU-214		45	45		SIGN-SC 4 100%DAC IND, IWC=.5 MP=.88, 360 INT, WELD ROOT GEO. INSIGN-SC 4 90%DAC IND, IWC=1.13 MP=1.71, 360 INT. SC 4 95%DAC IND, IWC=1 MP=2.44, 360 INT. SC 4 75%DAC IND, IWC=1.81 MP=.75, SPOT IND...CONT'D-
6RFW(11)-3	RFW-103	VOL	FWU-215		45	45		SC 3 105%DAC IND, IWC=1 MP=1.56, EXT 180-0 DEG. FD ON WCL. OD IND DUE TO SOUND REDIRECT FROM ID TRANSITION. SC 3 97%DAC IND, IWC=1.38 MP=1.98, 360 INT. SC 3 80%DAC IND, IWC=1.88 MP=2.45, 360 INT. FD ON W EDGE.

10-4.23

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
6RFW(11)-4	RFW-103	VOL	FWU-061			45	SC 3 140% DAC ID IND (1.5 NODE RETURN), EXT 360 INT. IWC=1 1/4 MP=1.89. 2.5 NODE RETURN, 135% DAC WELD ROOT GEO.
6RFW(11)-5	RFW-103	VOL	FWU-062			45	SC 3 110% DAC ID IND, EXT 1" @ 350 IWC=3/8 MP=.74. WELD ROOT GEO.
6RFW(11)-6	RFW-103	VOL	FWU-063		45	45	SC 3 100%DAC ID IND, IWC=1/4 MP=.71 EXT 360. 1.5 NODE RETURN, 100%DAC. WELD ROOT GEO. SC 4 85%DAC ID IND, IWC=1/4 MP=.68, EXT 360 INT.
6RFW(11)-7	RFW-103	VOL	FWU-064			45	SC 3 105% DAC ID IND, EXT 360. IWC=1/8 MP=.80. WELD ROOT GEO. SC 4 100% DAC ID IND, EXT 360 INT. IWC=3/8 MP=.71. 1.5 NODE RETURN, 100% DAC. WELD ROOT GEO.
6RFW(11)-8	RFW-103	VOL	FWU-065			45	SC 4 ID IND, MAX. AMP. 100%DAC, IWC=.4 MP=.73, EXT 360 INT. WELD ROOT GEO.
4RFW(11)A-1	RFW-103	VOL	FWU-059			45	SC 4 105% DAC ID IND, EXT 360 INT. IWC=3/8 MP=.48. WELD ROOT GEO. NO SCANS ON TEE SIDE. SEE NOTE #1.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
4RFW(11)A-2	RFW-103	VOL	FWU-219		45	45	SC 4 70%DAC IND,IWC=.69 MP=1.72, 360 INT.ELL TO PIPE TRANSITION.SC 4 100%DAC IND,IWC=1.5 MP=2.26,360 INT.ELL TO PIPE TRANSITION.SC 4 130%DAC IND,IWC=.19 MP=.55,360 INT ELL TO PIPE GEO.
4RFW(11)A-3	RFW-103	VOL	FWU-060		45	45	INSIGN-SC 3 ID IND,MAX.AMP.75%DAC, IWC=3/8 MP=.45,EXT 360 INT.SC 4 OD IND,MAX.AMP.50%DAC,IWC=1 1/4 MP=1.15,EXT 360 INT. SIGN-SC 3 OD IND MAX.AMP.115%DAC,IWC=1 MP=1.25,MP=1.44,+1/4,MP=.92,-1/4,.CONT'D-
4RFW(11)B-2	RFW-103	VOL	FWU-056		45	45	SIGN-SC 3 ID IND,MAX.AMP.115%DAC, IWC=3/8 MP=.59,EXT 360 INT.WELD ROOT GEO. INSIGN-SC 4 ID IND,MAX. AMP.95%DAC,IWC=1/2 MP=.45,EXT 360 INT.
4RFW(11)B-3	RFW-103	VOL	FWU-057		45	45	SC 3 85%DAC ID,IWC=1/2 MP=.48,EXT 360 INT.1.5 NODE RETURN,95%DAC.2.5 NODE RETURN,110%DAC.ID GEO,WELD PREP/ROOT.SC 4 85%DAC ID,IWC=1/4 MP=.53,EXT 360 INT.
4RFW(11)B-4	RFW-103	VOL	FWU-058			45	SC 4 115%DAC IND,IWC=5/8 MP=.50, +1/16,MP=.55,-1/8,MP=.38,360 INT. WELD ROOT GEO. SC 4 115%DAC IND, IWC=1/2 MP=.84,+1/8,MP=.87,-1/4, MP=.74,360 INT.WELD CROWN GEO.
4RFW(11)B-5	RFW-103	VOL	FWU-094			45	SC 3 95%DAC IND,IWC=5/8 MP=1.14, 360 INT. SC 3 100%DAC IND,IWC=1/2 MP=.54,+1/4,MP=.70,-1/4,MP=.38,EXT 360 INT.COUNTERBORE GEO. SC 4 95% DAC IND,IWC=3/8 MP=.38,360 INT.

10-4.25

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	FXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
RHR-528(W)	RHR-101	VOL	RHU-190	0		45	SC 5 MAX.AMP.100%DAC,IWC=1 3/8 MP=3.76.SC 5 MAX.AMP.200%DAC,IWC=2.5 MP=4.66.SC 6 MAX.AMP.115%DAC,IWC=1.25 MP=2.74.SC 6 MAX.AMP.250%DAC,IWC=2.25 MP=4.76.ALL-WELD RADIUS REFLECTOR & LUGS #1-4.
14LPCI(1)A-12	RHR-101	VOL	RHU-027			45	SC 3 125% DAC OD IND, EXT 360 INT. IWC=1 1/2 MP=3.0, WELD CROWN GEO.
14LPCI(1)A-15	RHR-101	VOL	RHU-059		45	45	SC 3 ID IND,50%DAC SPOT @ 330.IWC=2 5/8 MP=1.45.80%DAC,EXT 360 INT, IWC=1 MP=1.22.SC 4 ID IND,100%DAC, IWC=.7 MP=1.21,EXT 360,ID GEO DUE TO ID MISMATCH.85%DAC OD IND,IWC=2 MP=2.28,EXT 360.
12LPCI(1)A-4	RHR-101	VOL	RHU-124		45	45	SC 3 80%DAC ID IND,EXT 360 INT, IWC=3/4 MP=1.18.SC 4 100%DAC ID IND,EXT 360 INT,IWC=3/4 MP=1.18, WELD ROOT GEO.
12LPCI(1)A-6	RHR-101	VOL	RHU-169	0		45	SC 3 ID IND, MAX.AMP.125%DAC, IWC=+1/2 MP=1.71, EXT 360. CLADDING TO BM GEO. NOTE 1-SC 4 NOT FEASIBLE DUE TO LACK OF PENETRATION OF UTCB
RHR-483(W)	RHR-102	VOL	RHU-216	0	45	45	SC 5&6 105%DAC IND,INDEX TO LUGS=.75 MP=2.35,FD ON OPP WC,TYP,WRR; 90%DAC IND,INDEX TO LUGS=1.75 MP=4.63,FD ON OPP WC,WRR.SC 7 LTD ON US SIDE OF LUGS.SC 4 LTD DUE TO IN STALLED CLAMP.SEE NOTE #1.

10-4.26

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
14LPCI(1)B-5	RHR-102	VOL	RHU-133		45	45	SIGN-SC 4 ID IND,MAX.AMP.100%DAC, IWC=1 3/8 MP=1.17,EXT 360.COUNTER- BORE REFLECTOR. INSIGN-SC 3 ID IND MAX.AMP.97%DAC,IWC=1 MP=1.25,EXT 270-30 DEG.SC 3 OD IND,MAX.AMP.75% DAC,IWC=1 1/2 MP=3.33,..CONT'D
RHR-388(W)	RHR-102	VOL	RHU-215	0		45	SC 5&6 110%DAC IND,INDEX TO LUG= 1.25 MP=2.42.FD ON WELD ON OPP SIDE OF LUG.TYP ALL LUGS,WRR. SC 8 LTD BY INSTALLED SUP. SEE NOTE #1. SC 4 LTD @ DOWNSTREAM END OF LUGS, INSTALLED SUP COVERS AREA.
RHR-522(W)	RHR-102	VOL	RHU-214	0		45	SC 5&6 110%DAC IND,INDEX TO LUG= 1.25 MP=2.09.FD ON WELD ON OPP SIDE OF LUG.TYP ALL LUGS,WRR. SC 7 LTD BY INSTALLED SUP. SEE NOTE #1. NO SC 4 @ UPSTREAM END OF LUGS INSTALLED SUP COVERS AREA.
14LPCI(1)B-11	RHR-102	VOL	RHU-093		45	45	SC 4 75% DAC ID IND, EXT 180 TO 0 INT. IWC=7/8 MP=1.43 SC 4 130% DAC OD IND, EXT 360 INT. IWC=1 1/2 MP=3.85. FD OD GEO.
RHR-524(W)	RHR-103	VOL	RHU-219	0	45	45	SC 5&6 50%DAC IND,INDEX TO PLATE EDGE=2.25 MP=3.45. FD ON NEAR WELD CROWN. TYP ALL 4 LUGS,WRR. SC 5&6 100%DAC IND,INDEX TO PLATE EDGE= .75 MP=2.50. FD ON OPP WELD CROWN. TYP ON 4 LUGS,WRR.
RHR-286(W)	RHR-103	VOL	RHU-218	0	45	45	SC 5&6 50% DAC IND, INDEX TO PLATE EDGE=2.25 MP=3.45. FD ON NEAR WELD CROWN. TYP ALL 4 LUGS. SC 5&6 100% DAC IND, INDEX TO PLATE EDGE=.75 MP=2.50. FD ON OPPOSITE WELD CROWN TYP ALL 4 LUGS. WRR.

10-4.27

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
14LPCI(1)C-13	RHR-103	VOL	RHU-026		45	45	SC 3 83%DAC ID IND, EXT 360 INT, IWC=1 MP=1.2. SC 4 100%DAC ID IND, EXT 360 INT, IWC=1 MP=1.2, WELD ROOT GEOMETRY.
14LPCI(1)C-19	RHR-103	VOL	RHU-064		45	45	SIGN-SC 4 ID IND, MAX. AMP. 110%DAC, IWC=1 MP=1.08, EXT 360 DEG. SC 4 OD IND, MAX. AMP. 100%DAC, IWC=1 1/4 MP= 1.63, EXT 360 DEG. VALVE GEO. INSIGN SC 3 ID IND, MAX. AMP. 85%DAC, IWC=5/8 MP=1.12, ... CONT'D -
14LPCI(1)C-20	RHR-103	VOL	RHU-061		45	45	SC 3 95% DAC ID IND, EXT 360. SC 3 100% DAC OD IND, EXT 360. 3.6 DIV TO 8 DIV. FD. OD GEO. SC 4 60% DAC ID IND, EXT 360. IWC=1 1/8 MP=1.10 SC 4 70% DAC ID IND, EXT 360 INT. IWC=2 1/2 MP=1.19
14LPCI(1)C-25	RHR-103	VOL	RHU-125		45	45	SC 3 100% DAC ID IND, EXT 360 INT. IWC=1/2 MP=1.12, WELD ROOT GEO. SC 4 85% DAC ID IND, EXT 360 INT. IWC=1 1/4 MP=1.03
20RHR(2)-4	RHR-104	VOL	RHU-128			45	SC 3 ID IND, MAX. AMP. 100%DAC, IWC= 1 1/4 MP=1.55, EXT 1 1/2" LONG @40, WRG. SC 4 ID IND, MAX. AMP. 100%DAC, IWC=7/8 MP=1.85, EXT 315-90 INT, WELD ROOT GEO.
20RHR(2)-5	RHR-104	VOL	RHU-127			45	SC 3 ID IND, MAX. AMP. 110% DAC, IWC=1 3/8 MP=1.96, EXT 360 INT, WELD ROOT GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
12RHR(1)A-5	RHR-105	VOL	RHU-053		45	45	SC 3 110%DAC ID,EXT 180-0,IWC=5/8 MP=1.08,WELD ROOT GEO.SC 3 65%DAC OD,EXT 360 INT,IWC=1 1/2 MP=2.19, FD.SC 4 110%DAC ID,EXT 360 INT, IWC=1 MP=1.18,WELD ROOT GEO.
RHR-SA-39(W)	RHR-105	VOL	RHU-192	0	45	45	SC 5 MAX.AMP.200%DAC,IWC=2.25 MP= 5.81.SC 6 MAX.AMP.220%DAC,IWC=2.25 MP=5.77,LCR.SC 5 MAX.AMP.80%DAC, IWC=1.5 MP=2.93.SC 6 MAX.AMP.60% DAC,IWC=1.5 MP=2.86,WRR.ALL 8 LUGS NO SC 7 OR 8.SEE NOTE #1.
RHR-SB-39(W)	RHR-106	VOL	RHU-193	0	45	45	SC 6 MAX.AMP.200%DAC,IWC=2 1/16 MP =5.08,LCR.SC 5 MAX.AMP.80%DAC,IWC= 2 MP=3.21,WRR.SC 5 MAX.AMP.100%DAC IWC=3.25 MP=5.39,LCR.SC 6 MAX.AMP. 100%DAC,IWC=1.75 MP=3.17,WRR.ALL- 8 LUGS.NO SC 7OR8.SEE NOTE #1.
12RHR(1)B-10	RHR-106	VOL	RHU-073			45	SC 4 ID IND, MAX.AMP. 110%DAC, IWC=1 1/2 MP=1.86, EXT 360 DEG. ID COUNTERBORE GEO.
12RHR(1)B-11	RHR-106	VOL	RHU-074		45	45	SC 3 85%DAC ID,EXT 360, & 105%DAC OD,EXT 360. IWC=1.75 MP=2.12,FD.OD GEO DUE TO ID CONTOUR. SC 4 85%DAC OD EXT 190-315, IWC=1.25 MP=2.18. WELD SLOPE LIMITS XDUCCER CONTACT, 180 TO 315 FOR SC 3 & 4.
AC-4	RHR-214	VOL	RHU-155		45	45	INSIGN-SC 4 OD IND,MAX.AMP.90%DAC, IWC=4.5 MP=4.25,EXT 360 INT. SIGN- SC 4 ID IND,MAX.AMP.100%DAC,IWC=6 MP=1.99,EXT 360 INT. IMPINGEMENT SUP ASSEMBLY WELD TO HEAD GEO. SC 4 OD IND,MAX.AMP. ...CONT'D -

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
AN-3	RHR-214	VOL	RHU-168			60	SC 13 MAX.AMP.300%DAC, IWC=1 MP=5.49, EXT 360 INT. GEO REFLECTOR CAUSED BY THE ID SURFACE OF THE NZ
BC-1	RHR-214	VOL	RHU-156			45	SC 7 OD IND 110% DAC, IWC=1 7/8 MP=3.38, MP=3.57 +3/8, MP=3.26 -1/4. EXT FROM 2" CW FROM 180 DEG TO 9 1/2" FROM 180 DEG. OD GEO, CAUSED BY ID CONTOUR.
BN-3	RHR-214	VOL	RHU-165			60	SC 13 MAX.AMP.300%DAC, IWC=1 MP=5.49, EXT 360 INT. GEO REFLECTOR CAUSED BY THE ID SURFACE OF THE NZ
BH	RPV-101	VOL	RPA-090	60	0	45	INSIGN-16 MID-PLATE SEGREGATES. SIGN-3 AREAS ID GEO (1-45 DEG).
AJ	RPV-102	VOL	RPU-097			45	SC 4 ID IND, MAX.AMP.75%DAC, MP=9.42 LOCATED .5" ABOVE WELD CL, EXT FROM 270 DEG REF TO 0 DEG REF, SHROUD SUP GEO. AREA EXAMINED AJ FROM 270 TO 360 DEG.
AJ	RPV-102	VOL	RPU-098			45	SC 3 ID IND, MAX.AMP.160%DAC, MP=8.73, LOCATED @8.25" BELOW WELD AJ CL, & 8" CCW FROM DG WCL (0 DEG SIDE) CRD HOUSING GEO. THIS REPORT COVERS 0 DEG TO 360 DEG.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
AJ	RPV-102	VOL	RPU-096			45	SC 4 ID IND, MAX. AMP. 70% DAC, MP=9.63 LOCATED .5" ABOVE CL, EXT FROM 0 REF TO 270 REF, SHROUD SUP GEO. COVERS EXAM OF AJ FROM 0 TO 270 DEG ONLY. SEE RPT RPU-097, COVERS FROM 270 TO 360 DEG.
DG	RPV-102	VOL	RPU-094			45	SC 5 ID IND, MAX. AMP. 140% DAC, MP= 6.78, LOCATED 5" CCW FROM WELD DG CL & 15" FROM REF. (0"), CRD HOUSING GEO SC 6 ID IND, MAX. AMP. 280% DAC, MP= 5.31, LOCATED .5" CCW FROM WELD DG CL & 223.25" FROM REF...CONT'D
DR	RPV-102	VOL	RPU-095			45	SC 6 ID IND, MAX. AMP. 120% DAC, MP= 5.95, LOCATED @ DR CL, @ 222.25 FROM REF. (0"), CRD HOUSING GEO. SEE NOTE #2. AREAS EXAMINED: 0" TO 20" & 215" TO 235". 20" TO 215" OBSTRUCTED BY CRD HOUSINGS.
DR	RPV-102	VOL	RPU-127			60	SC 6 ID IND, MAX. AMP. 155% DAC, MP= 6.59, LOCATED @ 222" & 1.75" CW FROM WELD DR CL, CRD HOUSING GEO. SEE NOTE #2. AREAS EXAMINED: 0" TO 20", 215" TO 235", & 20" TO 215" - OBSTR BY CRD HOUSINGS.
24RRC(2)A-6	RRC-101	VOL	RRU-235	0		45	SC 4 175% DAC OD IND, IWC=5 1/2 MP= 5.41, EXT 360, FD. TEE OD GEO.
24RRC(2)A-7LUI	RRC-101	VOL	RRU-199			45	SC 8 100% DAC ID IND, IWC=1.75 MP= 2.96, +3/16, MP=3.18, -3/16, MP=2.78, EXT 15". WELD ROOT GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
24RRC(2)A-7	RRC-101	VOL	RRU-201	0	45	45	SC 3 240% DAC OD IND, EXT 360. IWC=5 MP=5.25, FD ON FITTING (TEE) CORNER. TEE OD GEO. 50% DAC OD IND EXT 360. IWC=3 MP=3.99, FD ON WELD CROWN.
24RRC(2)A-11	RRC-101	VOL	RRU-099	0	45	45	SC 4 65% DAC ID IND, EXT 360 INT. IWC=2 MP=2.23. SC 4 105% DAC OD IND, EXT 360 INT. IWC=3 3/8 MP=4.8 OD GEO.
24RRC(1)A-17	RRC-101	VOL	RRU-164	0		45	SC 3 100%DAC ID SPOT @ 170, EXCEEDS 50%DAC @ 170 & 225, EXT 360 TYP < 50%DAC. IWC=1 MP=2.38. WELD ROOT GEO
24RRC(1)A-20/12	RRC-101	VOL	RRU-352		45	45	SC 4 54% DAC OD IND, EXT 80-120. IWC=1 3/4 MP=2.69, FD. 200% DAC ID IND, EXT 130-170. IWC=1 1/2 MP=1.6 DIRECT RETURN FROM PIPE ID. SEE NOTE #1. SC 3 COVERAGE 100%. XDOUCER CONTACT LTD, OD GEO, FOR SC 4.
16RRC(1)A-2	RRC-101	VOL	RRU-029			45	SC 4 OD IND, MAX. AMP. 120%DAC, IWC=2 MP=2.4, EXT 360 INT. SOUND REDIRECT TO OD DUE TO CAP ID TAPER.
12RRC(1)-H2A-6	RRC-101	VOL	RRU-514			45	SC 4 130%DAC IND, IWC=.75 MP=1.48, EXT 360 INT. WELD ROOT GEO. SC 4 LTD TO APP 1 1/8" DOWNSTREAM FROM WELD CL. SEE NOTE #1. SEE RPT RRU-486, FOR SC 3, 5, & 6.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
12RRC(1)-N2B-6	RRC-101	VOL	RRU-515			45	SC 4 115%DAC IND, IWC=1.25 MP=1.6, EXT 360 INT. WELD ROOT GEO. SC 4 LTD TO 1 3/8" DOWNSTREAM FROM WELD CL. SEE NOTE #1. SEE RPT RRU-482 FOR SC 3,5,&6.
12RRC(1)-N2C-6	RRC-101	VOL	RRU-483			45	SC 3 119% DAC IND, IWC=.81 MP=1.99 360 INT. INC/CS INTERFACE GEOMETRY SEE RPT RRU-516 FOR SC 4.
12RRC(1)-N2C-6	RRC-101	VOL	RRU-516			45	SC 4 210%DAC IND, IWC=1.5 MP=1.19, EXT 360 INT. (BM-BUTTERING INTER- FACE). SC 4 LTD TO 1 1/2" DS FROM WELD CL. SEE NOTE #1. SEE RPT RRU- 483 FOR SC 3,5,&6.
12RRC(1)-N2D-6	RRC-101	VOL	RRU-517			45	SC 4 120%DAC IND, IWC=.63 MP=1.56, EXT 360 INT. WELD ROOT GEO. SC 4 LTD BY GEO OF NZ DOWNSTREAM FROM WELD CL. SEE NOTE #1. SEE RPT RRU-491 FOR SC 3,5,&6.
12RRC(1)-N2E-6	RRC-101	VOL	RRU-484		45	45	SC 3 115% DAC IND, IWC=.75 MP=1.81, 360 INT. INC/CS INTERFACE GEOMETRY SC 3 50% DAC IND, IWC=2 MP=2.78, 360 INT. SS/INC INTERFACE GEOMETRY. SEE RPT RRU-518 FOR SC 4.
RRC-HB-1(W)	RRC-102	VOL	RRU-529		0	0	LUG 45 DEG: 50% DAC IND, .25" WIDE, 1.5" LONG. LUG 315 DEG: 60% DAC IND MP=2.03, .25" WIDE, 1.5" LONG. LUG 135 DEG: 125% DAC IND, MP=2.03, .38" WIDE 2" LONG. LUG 225 DEG: 125% DAC IND, MP=2.03, .25" WIDE, 2" LONG.

10-4.33

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
24RRC(2)B-6LU	RRC-102	VOL	RRU-247	0	45	45	SIGN-SC 7 MAX.AMP.100%DAC,IWC=4.25 MP=5.54,EXT THROUGHOUT WELD.MODE CONVERSION OF SHEAR WAVE TO L-WAVE DUE TO ID CONTOUR. INSIGN-SC 7 MAX AMP.95%DAC,IWC=2.50 MP=2.04,EXT THROUGHOUT WELD INT....CONT'D-
24RRC(2)B-6	RRC-102	VOL	RRU-244	0	45	45	SC 3 50%DAC IND,IWC=2 MP=2.12,EXT 360,FD. 100%DAC MULT,IWC=4.5 MP=5.52,EXT 360. FD SAME PLACE AS 50% DAC SIGNAL. SOUND REDIRECTION TO WELD CROWN DUE TO COUNTERBORE.
24RRC(2)B-9	RRC-102	VOL	RRU-110	0		45	SC 4 125% DAC OD IND, EXT 360 INT. IWC=3 1/4 MP=4.77, WELD CROWN GEO.
24RRC(1)B-18/12	RRC-102	VOL	RRU-237	0		45	SC 3 100% DAC IND, EXT 360 INT. IWC=-2 MP=2.14, SWL ID GEO.
16RRC(1)B-3/12R	RRC-102	VOL	RRU-257	0	45	45	SC 3 100%DAC,IWC=-1.5 MP=3.42,EXT 360,REFLECTOR DUE TO IR CONTOUR OF SWL.SC 4 95%DAC,IWC=3 MP=4.01,EXT 360 INT;50%DAC OD,IWC=1.12 MP=2.99 EXT 360 INT;75%DAC,IWC=.25 MP=1.02 EXT 360 INT.
16RRC(1)B-3/12R	RRC-102	VOL	RRU-256	0		45	SC 4 100%DAC OD IND,IWC=1.75 MP=3.01,EXT 360 INT,FD. SC 4 OD IND, IWC=1.75 MP=4.29,EXT 360 INT,FD. SOUND REDIRECTION TO OD SURFACE DUE TO ID CONTOUR OF SWL.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO . IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
12RRC(1)-N2F-6	RRC-102	VOL	RRU-519			45	SC 4 170%DAC IND, IWC=1 MP=1.40, EXT 360 INT. WELD ROOT GEO. SC 4 LTD TO 1.5" DOWNSTREAM FROM WELD CL. SEE NOTE #1. SEE RPT RRU-485 FOR SC 3, 5, & 6.
12RRC(1)-N2G-6	RRC-102	VOL	RRU-487			45	SC 3 118% DAC IND, IWC=1.2 MP=1.65 360 INT. (WELD/BUTTERING INTERFACE) SEE RPT RRU-520 FOR SC 4.
12RRC(1)-N2G-6	RRC-102	VOL	RRU-520			45	SC 4 200%DAC IND, IWC=1 MP=1.59, EXT 360 INT. WELD ROOT GEO. SC 4 LTD TO 1.5" DOWNSTREAM FROM WELD CL. SEE RPT RRU-487 FOR SC 3, 5, & 6. SEE NOTE #1.
12RRC(1)-N2H-6	RRC-102	VOL	RRU-521			45	SC 4 120%DAC IND, IWC=.88 MP=1.39, EXT 360 INT. WELD ROOT GEO. SC 4 LTD TO 1 1/2" DOWNSTREAM FROM WELD CL. SEE RPT RRU-488 FOR SC 3, 5, & 6. SEE NOTE #1.
12RRC(1)-N2K-6	RRC-102	VOL	RRU-523			45	SC 4 110%DAC IND, IWC=1 MP=1.68, EXT 360 INT. WELD ROOT GEO. SC 4 105%DAC IND, IWC=.25 MP=.78, 360 INT. (BUTTERING-BM INTERFACE). SC 4 LTD, 1 1/2" DS FROM WELD CL. SEE RPT RRU-490 FOR SC 3, 5 & 6. SEE NOTE #1.
RRC-1C-1(W)	RRC-104	VOL	RRU-540			60	SC 5 & 6 200%DAC IND, IWC=.50 MP=1.97 FD: ON OPPOSITE WELD CROWN. TYP FOR ALL 8 LUGS. WELD RADIUS REFLECTORS.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
20RRC(6)-1	RRC-105	VOL	RRU-186	0		45	SC 4 ID IND, MAX. AMP. 100% DAC, IWC=3 MP=1.45, EXT 315 TO 0 TO 210. ID CB GEO REFLECTOR. SEE NOTE #1. SC 4 100% DAC COVERAGE. SC 3 NOT FEASIBLE
20RRC(6)-2	RRC-105	VOL	RRU-192	0	45	45	INSIGN-SC 4 OD IND, MAX. AMP. 95% DAC, IWC=2 MP=2.93, EXT 360 INT. SC 4 OD IND, MAX. AMP. 80% DAC, IWC=2 MP=4.08, EXT 360 INT. SIGN-SC 4 ID IND, MAX. AMP. 125% DAC, IWC=2 1/4 MP=1.68, EXT 360 INT. ID CB GEO REFLECTOR.
20RRC(6)-2LDI	RRC-105	VOL	RRU-193	0		45	SC 11 OD IND, MAX. AMP. 100% DAC, IWC=3 MP=3.40, EXT 0"-16". SC 12 OD IND, MAX. AMP. 105% DAC, IWC=3 MP=3.38, EXT 0"-16". WELD CROWN GEO.
20RRC(6)-2LDO	RRC-105	VOL	RRU-191	0		45	SC 11 OD IND, MAX. AMP. 150% DAC, IWC=3 MP=3.41, EXT 0"-32". SC 12 OD IND, MAX. AMP. 125% DAC, IWC=3 1/4 MP=3.39, EXT 0"-32". WELD CROWN GEO.
20RRC(6)-3LUI	RRC-105	VOL	RRU-194	0		45	SC 7 OD IND, MAX. AMP. 100% DAC, IWC=3 MP=3.4, EXT 0"-16". SC 8 OD IND, MAX. AMP. 100% DAC, IWC=3 MP=3.4, EXT 0"-16". WELD CROWN GEO.
20RRC(6)-3LUO	RRC-105	VOL	RRU-190	0		45	SC 7 OD IND, MAX. AMP. 150% DAC, IWC=3 1/4 MP=3.52, EXT 0"-32". SC 8 OD IND, MAX. AMP. 125% DAC, IWC=3 1/2 MP=3.47, EXT 0"-32". WELD CROWN GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
20RRC(6)-3LD	RRC-105	VOL	RRU-195	0	45	45	SIGN-SC 11 ID IND,MAX.AMP.180%DAC, IWC=1 1/8 MP=1.5,EXT 0"-13",WELD ROOT GEO. INSIGN-SC 12 OD IND,MAX. AMP.50%DAC,IWC=2 1/4 MP=2.95,EXT 0"-13".
RRC-1(W)	RRC-105	VOL	RRU-454	0	45	45	SIGN-SC 5 MAX.AMP.150%DAC,IWC=2.3 MP=4.55,LUG#1,LCR.INSIGN-SC 6 MAX. AMP.50%DAC,IWC=1.8 MP=3.28.SC 6 MAX.AMP.75%DAC,IWC=2.3 MP=4.58, LUGS#1-4.LUGS#1-4:NO SC 8 DUE TO INSTALLED HGR. SEE NOTE #1.
20RRC(6)-4LDI	RRC-105	VOL	RRU-180			45	SC 11 OD IND,MAX.AMP.125%DAC,IWC= 2 3/4 MP=3.40,EXT 0"-13",FD ON WELD CROWN.SC 12 OD IND,MAX.AMP. 110%DAC,IWC=2 1/2 MP=3.28,EXT 0"- 13",FD ON WELD CROWN. WELD CROWN GEO.
20RRC(6)-4LD0	RRC-105	VOL	RRU-185		45	45	INSIGN-SC 11 OD IND,MAX.AMP.84%DAC IWC=3 MP=3.62,EXT 0"-30". SIGN- SC 12 OD IND,MAX.AMP.140%DAC,IWC= 3 1/4 MP=3.65,EXT 0"-30".WELD CROWN GEO.
20RRC(6)-5LUI	RRC-105	VOL	RRU-181			45	SC 7 OD IND,MAX.AMP.140%DAC,IWC=3 MP=3.39,EXT 0"-13",FD ON WELD CROWN.SC 8 OD IND,MAX.AMP.120%DAC, IWC=2 3/4 MP=3.44,EXT 0"-13",FD ON WELD CROWN. WELD CROWN GEO.
20RRC(6)-5LU0	RRC-105	VOL	RRU-182			45	SC 7 OD IND,MAX.AMP.135%DAC,IWC=3 MP=3.51,EXT 0"-30".FD ON OD WELD CROWN.SC 8 OD IND,MAX.AMP.160%DAC, IWC=2 3/4 MP=3.70,EXT 0"-30".FD ON OD WELD CROWN. WELD CROWN GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
20RRC(6)-5	RRC-105	VOL	RRU-173	0		45	SC 3 100% DAC ID IND, EXT 360 INT. IWC=1 MP=1.39. WELD ROOT GEO.
20RRC(6)-6	RRC-105	VOL	RRU-176	0	45	45	INSIGN-SC 3 ID IND, MAX.AMP.80%DAC, IWC=2 1/4 MP=1.50, EXT 225-260 DEG. SC 3 OD IND, MAX.AMP.50%DAC, IWC= 1 3/4 MP=3.03, EXT SPOT @ 315 DEG. SC 4 ID IND, MAX.AMP.55%DAC, IWC=2 MP=1.55, EXT SPOT @ 300..CONT'D
20RRC(6)-6LDI	RRC-105	VOL	RRU-170	0	45	45	SC 11 OD IND, MAX.AMP.170%DAC, IWC= 2 1/2 MP=2.88, EXT 0"-7".FD WELD CROWN.WELD CROWN GEO. INSIGN-SC 12 OD IND, MAX.AMP.87%DAC, IWC=2 MP=2.9 EXT 0"-7".FD WELD CROWN.
20RRC(6)-6LD0	RRC-105	VOL	RRU-184			45	SC 11 OD IND, MAX.AMP.150%DAC, IWC= 2 1/2 MP=3.11, EXT 0"-15".FD ON WELD CROWN.WELD CROWN GEO. SC 12 OD IND, MAX.AMP.160%DAC, IWC=2 1/2 MP=3.10, EXT 0"-15".FD ON WELD CROWN.WELD CROWN GEO.
20RRC(6)-7LUI	RRC-105	VOL	RRU-169	0		45	SC 7 OD IND, MAX.AMP.175%DAC, IWC= 2 1/4 MP=3.01, EXT 0"-7".FD ON WELD CROWN.WELD CROWN GEO. SC 8 OD IND, MAX.AMP.160%DAC, IWC=2 1/8 MP=2.8, EXT 0"-7".FD WELD CROWN.WELD CROWN GEO.
20RRC(6)-7LU0	RRC-105	VOL	RRU-183			45	SC 7 OD IND, MAX.AMP.140%DAC, IWC= 2 1/8 MP=3.18, EXT 0"-15".FD ON CROWN AREA.WELD CROWN GEO. SC 8 OD IND, MAX.AMP.160%DAC, IWC=3 1/8 MP= 3.10, EXT 0"-15".FD ON CROWN AREA. WELD CROWN GEO.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
12RRC(7)A-2	RRC-106	VOL	RRU-031	0	45	45	SC 4 (INSIGN) OD IND, MAX.AMP. 80% DAC, IWC=1 5/8 MP=1.47, EXT 360 INT. PROBABLE OD GEO, FD. SC 4 (SIGN) OD IND, MAX.AMP. 105% DAC, IWC=1 7/8 MP=2.07, EXT 360 INT. PROBABLE OD GEO, FD.
12RRC(7)A-3	RRC-106	VOL	RRU-505	0		45	SC 3 100% DAC IND, IWC=2 MP=2.24, 360 DEG INT ID/OD GEOMETRY.
12RRC(7)B-5	RRC-107	VOL	RRU-042	0		45	SC 3 OD IND, MAX. AMP. 110% DAC (ON MULTIPLE), IWC=2 MP=1.65, EXT 360 INT. PROBABLE COUNTERBORE, MODE CONVERSION.
4RRC(4)A-5	RRC-108	VOL	RRU-019			45	SC 3 ID IND, MAX.AMP. 100% DAC, IWC=1 MP=1.65 (7DIV), EXT 360 INT. ID WELD PREP GEO.
4RRC(4)A-10	RRC-108	VOL	RRU-221			45	SC 4 ID IND, MAX.AMP. 85% DAC, (WITH 110% MULT) IWC=3/4 MP=.45, EXT 360 INT. ID CB REFLECTOR. SC 4 OD IND, MAX.AMP. 150% DAC, IWC=1 1/8 MP=.88, EXT 360 INT, FD. SOUND REDIRECT TO OD SURFACE DUE TO ID CB.
4RRC(4)B-11	RRC-109	VOL	RRU-092			45	SC 4 115% DAC ID IND, EXT 90-200. IWC=-1/2 MP=.54, SE CB OR SE TO PIPE MISMATCH. 200% DAC OD IND, EXT 360, IWC=-1/8 MP=.92, FD. SE OD GEO. 300% DAC IND, EXT 360. IWC=1 1/8 MP=2.65. CONTINUED -

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TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
4RWCU(4)-2	RWCU-101	VOL	RTU-021			45	SC 3 MAX.AMP.150%DAC,IWC=1/2,-1/8, +1/16,MP=.58,EXT 360(MULT @ 6 & 9.5 DIV).WELD ROOT GEO. SC 4 MAX. AMP.175%DAC,IWC=1/8,+ OR -1/16,MP= .55,EXT 360(MULT @ 6.5 DIV).WELD ROOT GEO.
4RWCU(4)-4	RWCU-101	VOL	RTU-020			45	SC 3 MAX.AMP.115%DAC,IWC=3/8,-1/8, +1/16,MP=.56,EXT 180-90(MULT @ 6 & 9.5 DIV).WELD ROOT GEO. SC 4 MAX. AMP.150%DAC,IWC=3/8,+ OR -1/16,MP= .64,EXT 360(MULT @ 6 & 9.5 DIV). WELD ROOT GEO.
4RWCU(4)-5	RWCU-101	VOL	RTU-019			45	SC 3 ID IND,MAX.AMP. 165% DAC,IWC= 3/8 MP=.61,EXT 225-90 DEG, WRG. SC 4 ID IND,MAX.AMP. 150% DAC,IWC= 3/4 MP=.63,EXT 315-135 DEG, ID CB. SC 4 OD IND,MAX.AMP. 235% DAC,IWC= 1 3/8 MP=2.18,EXT 360, WCG.
6RWCU(4)-1	RWCU-101	VOL	RTU-050			45	SC 4 ID IND,MAX.AMP.105%DAC,IWC= 1/2 MP=.66,EXT 360 INT(100% & 200% MULT).WELD ROOT & COUNTERBORE GEO.
6RWCU(4)-2	RWCU-101	VOL	RTU-014		45	45	SC 3 110% DAC ID @ 270 DEG, EXT 1" @ 0, SPOT @ 90, SPOT @ 135, 1/2" @ 270.IWC=1/8 MP=.69. 83% DAC @ 1.5N 50% DAC @ 2.5N. ID WRG. SC 4 60% DAC OD, EXT 270-315. FD. SC 4 100% DAC ID, ... CONTINUED -
6RWCU(4)-3	RWCU-101	VOL	RTU-015		45	45	INSIGN-SC 4 ID IND,MAX.AMP.50%DAC, IWC=3/8 MP=.79,EXT 1"@ 0 DEG,SPOT @ 90 & @ 150 DEG. SIGN-SC 3 ID IND MAX.AMP.120%DAC,IWC=3/8 MP=.65,EXT 2"@ 90 & 1"@ 180 DEG.WELD ROOT GEO

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
6RWCU(4)-4	RWCU-101	VOL	RTU-016			45	SC 3 ID IND,MAX.AMP.110%DAC,IWC=1/2 MP=.66,EXT 135-315 & SPOT @ 45 WRG. SC 4 ID IND,MAX.AMP.154%DAC,IWC=1/4 MP=.75,EXT 10-300.WRG. SEE NOTE #1.SC 3 COVERS 100%.SC 4 LTD BY ELL IR FROM 45-135.
6RWCU(4)-5	RWCU-101	VOL	RTU-017		45	45	SC 3 MAX.AMP.108%DAC,2.3 DIV(MULT @ 7 DIV)IWC=1/2 @ MAX,-1/8,+3/16,EXT 350-90.ID GEO DUE TO WELD PREP BEVEL. SC 4 MAX.AMP.50%DAC,2.3 DIV (MULT @ 6 DIV)IWC=3/8 @ MAX +OR-0" EXT 10-80.(INSIGN IND)
4RWCU(3)-1	RWCU-101	VOL	RTU-030			45	SC 4 MAX.AMP.100%DAC,IWC=5/8 MP=.53,EXT 360 DEG,(TWO MULT).WELD PREP GEO.SC 3 NOT FEASIBLE DUE TO VALVE CONFIGURATION.
4RWCU(3)-5	RWCU-101	VOL	RTU-034			45	SC 4 ID IND,MAX.AMP.100%DAC,IWC=.4 MP=.65,EXT 315 TO 0 DEG.WELD ROOT GEO. SEE NOTE #1. SC 4 100% COVERAGE. SC 3 NOT FEASIBLE.
4RWCU(3)-6	RWCU-101	VOL	RTU-035		45	45	SIGN-SC 3 ID IND,MAX.AMP.100%DAC,IWC=1/4 MP=.490,EXT 360 INT.WELD ROOT GEO. INSIGN-SC 4 OD IND,MAX.AMP.80%DAC,IWC=7/8 MP=.93,EXT 360 INT.
4RWCU(3)-7	RWCU-101	VOL	RTU-036			45	SC 4 ID IND,MAX.AMP.180%DAC,IWC=.5 MP=.52,EXT 360 DEG.WELD ROOT/PREP GEO. SC 3 NOTE #1,DUE TO VALVE CONFIGURATION.

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
4RWCU(3)-8	RWCU-101	VOL	RTU-041			45	SC 4 ID IND, MAX.AMP.140%DAC, IWC=1/4 MP=.62, EXT 45 TO 315 DEG, MULT @ IWC=1 1/8". WELD ROOT GEO. SC 4 315 TO 45 DEG NOT FEASIBLE DUE TO TEE INNER RADIUS AREA.
4RWCU(3)-9	RWCU-101	VOL	RTU-040			45	SC 4 SPOT IND, MAX.AMP.60%DAC, IWC=3/8 MP=.66, MULT @ IWC=1 MP=1.8, MAX AMP.120%DAC. WELD ROOT/MISMATCH GEO COMBINATION, SC 3 315 TO 45 DEG & 135 TO 225 DEG NOT FEASIBLE DUE TO TEE INNER RADIUS AREAS.
4RWCU(3)-12	RWCU-101	VOL	RTU-038			45	SC 4 125%DAC IND, IWC=0 MP=.55, EXT 0 TO 45. REDUCER TO PIPE GEOMETRY, DUE TO THICKNESS TRANSITION.
6RWCU(3)-2	RWCU-101	VOL	RTU-043			45	SC 4 ID IND, MAX.AMP.95%DAC, IWC=1/2 MP=.73, EXT SPOT @100 DEG. THE ABOVE IND HAS MULT OF MAX.AMP.100%, IWC=1 1/2 MP=2.17, EXT 45-150 & 315-0. WELD ROOT GEO. SC 4 ID IND, MAX.AMP 150%DAC, IWC=1 3/4 ...CONT'D -
6RWCU(3)-3	RWCU-101	VOL	RTU-047			45	SC 3 ID IND, MAX.AMP.100%DAC, IWC=5/8 MP=.80, EXT 0 TO 180. SC 4 ID IND, MAX.AMP.100%DAC, IWC=3/8 MP=.68 EXT 360 INT. WELD ROOT GEOMETRY.
6RWCU(3)-4	RWCU-101	VOL	RTU-044			45	SC 3 ID IND, MAX.AMP.95%DAC, (MULT 130%DAC) IWC=1/4 MP=.73, EXT SPOTS @170 & 260. WELD ROOT GEO. SC 4 ID IND, MAX.AMP.75%DAC (MULT 140%DAC) IWC=3/8 MP=.76, EXT 180-340 & SPOT @135. WELD ROOT GEO....CONT'D -

TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
6RWCU(3)-6	RWCU-101	VOL	RTU-045			45	SC 3 ID IND,MAX.AMP.110%DAC,IWC=1/2 MP=.70,EXT 270-90 DEG. WELD ROOT GEOMETRY.
6RWCU(3)-11	RWCU-101	VOL	RTU-018			45	SC 3 ID IND,MAX.AMP.100%DAC,IWC=3/8 MP=.59,EXT 360 INT. SC 4 ID IND,MAX.AMP.105%DAC,IWC=1/2 MP=.59 EXT 360 INT. WELD ROOT GEO.
RWCU-142	RWCU-101	VOL	RTU-067	0	45	45	SC 5 MAX.AMP.200%DAC,IWC=1 5/8 MP=2.84,LCR.SC 5 MAX.AMP.100%DAC,IWC=7/8 MP=1.64,WRR.SC 6 MAX.AMP.95% DAC,IWC=5/8 MP=1.48.SC 6 MAX.AMP.100%DAC,IWC=1 3/8 MP=2.51.ALL LUGS #1-4.NO SC 7,INSTL HGR.NOTE #1
6RWCU(3)-12	RWCU-101	VOL	RTU-006		45	45	INSIGN-SC 3 ID IND,MAX.AMP.60%DAC,IWC=1/4 MP=.53,EXT 340-90.SC 4 ID IND,MAX.AMP.92%DAC,IWC=1/2 MP=.64,EXT 270-135. SIGN-SC 4 ID IND,MAX.AMP.120%DAC,IWC=1 3/16 MP=2.01,EXT 270-135.ID MISMATCH GEO.
6RWCU(3)-12A	RWCU-101	VOL	RTU-053		45	45	INSIGN-SC 3 ID IND,MAX.AMP.70%DAC,IWC=3/8 MP=.62,EXT 360 INT. SIGN-SC 4 ID IND,MAX.AMP.90%DAC,IWC=3/8 MP=.63,EXT 360 INT.IND HAS 150% & 105%DAC MULTIPLES.WELD ROOT GEO.
6RWCU(3)-13	RWCU-101	VOL	RTU-052		45	45	SC 3(SIGN) ID IND,MAX.AMP. 95% DAC WITH MULT @ 100% DAC, IWC=1/2 MP=.63, EXT 360 INT. ID WRG. SC 4 (INSIGN) ID IND,MAX.AMP. 90% DAC, IWC=1/2 MP=.62, EXT 360 INT.

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TABLE 4
SIGNIFICANT INDICATIONS

WELD IDENT. #	DRAWING #	EXAM METH	EXM.DATA SHEET #	NO IND	INSIG IND	SIGNIFICANT GEOM OTHER	REMARKS
6RWCU(3)-13	RWCU-101	VOL	RTU-007		45	45	INSIGN-SC 4 ID IND,MAX.AMP.58%DAC, IWC=5/8 MP=.62,EXT 90 TO 270 DEG. SIGN-SC 3 ID IND,MAX.AMP.100%DAC, IWC=1/4 MP=.62,EXT 360 INT. WELD ROOT GEOMETRY.
6RWCU(3)-13B	RWCU-101	VOL	RTU-051		45	45	SC 3(INSIGN) ID IND, MAX.AMP. 85% DAC, IWC=1/2 MP=.63, EXT 360. SC 4(SIGN) ID IND, MAX.AMP. 65% DAC, (WITH 70% & 105% DAC MULT), IWC=3/8 MP=.59, EXT 360 INT, ROOT GEOMETRY.
RWCU-1C-3	RWCU-101	VOL	RTU-068	0	45	45	SC 5 MAX.AMP.200%DAC,IWC=.75 MP=2.22,WRR.SC 5 MAX.AMP.180%DAC,IWC=.75 MP=2.57,WRR.SC 6 MAX.AMP.220% DAC,IWC=1 MP=2.50,WRR.SC 6 MAX.AMP 60%DAC,IWC=.75 MP=1.92.ALL LUGS #1-4.NO SC 8,INSTL HGR.NOTE #1.
RWCU-1C-4	RWCU-101	VOL	RTU-069	0	45	45	SC 5 MAX.AMP.200%DAC,IWC=.75 MP=2.22,WRR.SC 5 MAX.AMP.180%DAC,IWC=7/8 MP=2.57,WRR.SC 6 MAX.AMP.220% DAC,IWC=1 MP=2.50,WRR.SC 6 MAX.AMP 60%DAC,IWC=.75 MP=1.92.ALL LUGS #1-4.NO SC 7,INSTL HGR.NOTE #1.
6RWCU(3)-14	RWCU-101	VOL	RTU-064			45	SC 3 125% DAC ID (1.5NR), EXT 270 TO 90 INT. IWC=1 1/4 MP=1.71. 100% DAC @ 1.5 NODE, ID GEO. NO SCANS ON FLANGE SIDE OF WELD. SEE NOTE #1.
6RWCU(3)-16	RWCU-101	VOL	RTU-024		45	45	INSIGN-SC 3 ID IND,MAX.AMP.95%DAC, IWC=3/4 MP=.65,EXT 130-270.SC 4 ID IND,MAX.AMP.95%DAC,IWC=1/4 MP=.66, EXT 45-315. SIGN-SC 3 ID IND(MULT) MAX.AMP.120%DAC,IWC=1 1/2 MP=1.7, EXT 130-270 DEG.CONT'D -



TABLE 5A
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS NOT IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
26MS(1)A-19/3V-20	DRAIN CONN	MS-201	AUGMT	SUR	PTP-1	IWC-2510
2MS(20)A-1	SOL TO PIPE	MS-201	AUGMT	SUR	PTP-1	
2MS(20)A-2	PIPE TO EL	MS-201	AUGMT	SUR	PTP-1	
2MS(20)A-3	EL TO PIPE	MS-201	AUGMT	SUR	PTP-1	
2MS(20)A-4	PIPE TO TEE	MS-201	AUGMT	SUR	PTP-1	
2MS(20)A-5	TEE TO RED	MS-201	AUGMT	SUR	PTP-1	
2MS(20)A-6	TEE TO PIPE	MS-201	AUGMT	SUR	PTP-1	
2MS(20)A-7	PIPE TO SOL	MS-201	AUGMT	SUR	PTP-1	
26MS(1)B-20/3V-20	DRAIN CONN	MS-202	AUGMT	SUR	PTP-1	IWC-2510
2MS(20)B-1	SOL TO PIPE	MS-202	AUGMT	SUR	PTP-1	
2MS(20)B-2	PIPE TO EL	MS-202	AUGMT	SUR	PTP-1	
2MS(20)B-3	EL TO PIPE	MS-202	AUGMT	SUR	PTP-1	
2MS(20)B-4	PIPE TO TEE	MS-202	AUGMT	SUR	PTP-1	
2MS(20)B-5	TEE TO RED	MS-202	AUGMT	SUR	PTP-1	
2MS(20)B-6	TEE TO PIPE	MS-202	AUGMT	SUR	PTP-1	
2MS(20)B-7	PIPE TO SOL	MS-202	AUGMT	SUR	PTP-1	
26MS(1)C-20/3V-20	DRAIN CONN	MS-203	AUGMT	SUR	PTP-1	IWC-2510
2MS(20)C-1	SOL TO PIPE	MS-203	AUGMT	SUR	PTP-1	

TABLE 5A
WFLDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS NOT IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
2MS(20)C-2	PIPE TO EL	MS-203	AUGMT	SUR	PTP-1	
2MS(20)C-3	EL TO PIPE	MS-203	AUGMT	SUR	PTP-1	
2MS(20)C-4	PIPE TO EL	MS-203	AUGMT	SUR	PTP-1	
2MS(20)C-5	EL TO PIPE	MS-203	AUGMT	SUR	PTP-1	
2MS(20)C-6	PIPE TO TEE	MS-203	AUGMT	SUR	PTP-1	
2MS(20)C-7	TEE TO RED	MS-203	AUGMT	SUR	PTP-1	
2MS(20)C-8	TEE TO PIPE	MS-203	AUGMT	SUR	PTP-1	
2MS(20)C-9	PIPE TO SOL	MS-203	AUGMT	SUR	PTP-1	
26MS(1)D-19/3V-20	DRAIN CONN	MS-204	AUGMT	SUR	PTP-1	IWC-2510
2MS(20)D-1	SOL TO PIPE	MS-204	AUGMT	SUR	PTP-1	
2MS(20)D-2	PIPE TO EL	MS-204	AUGMT	SUR	PTP-1	
2MS(20)D-3	EL TO PIPE	MS-204	AUGMT	SUR	PTP-1	
2MS(20)D-4	PIPE TO TEE	MS-204	AUGMT	SUR	PTP-1	
2MS(20)D-5	TEE TO RED	MS-204	AUGMT	SUR	PTP-1	
2MS(20)D-6	TEE TO PIPE	MS-204	AUGMT	SUR	PTP-1	
2MS(20)D-7	PIPE TO SOL	MS-204	AUGMT	SUR	PTP-1	
3MS(20)-1	VALVE TO PIPE	MS-206	AUGMT	VOL	UTP-10	
3MS(20)-2	PIPE TO EL	MS-206	AUGMT	VOL	UTP-10	

TABLE 5A
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS NOT IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
3MS(20)-3	EL TO PIPE	MS-206	AUGMT	VOL	UTP-10	
3MS(20)-4	PIPE TO CAP	MS-206	AUGMT	VOL	UTP-10	
4RCIC(13)-20	VLV TO PIPE	RCIC-201	AUGMT	VOL	UTP-10	
4RCIC(13)-21	PIPE TO EL	RCIC-201	AUGMT	VOL	UTP-10	
4RCIC(13)-22	EL TO PIPE	RCIC-201	AUGMT	VOL	UTP-10	
4RCIC(13)-23	PIPE TO EL	RCIC-201	AUGMT	VOL	UTP-10	
4RCIC(13)-24	EL TO PIPE	RCIC-201	AUGMT	VOL	UTP-10	
24RFW(1)A-1A	PIPE TO VALVE	RFW-101	AUGMT	VOL	UTP-10	
24RFW(1)B-1A	PIPE TO VLV	RFW-102	AUGMT	VOL	UTP-10	
6RWCU(3)-28	VLV TO ELL	RWCU-301	AUGMT	VOL	UTP-10	
6RWCU(3)-29	ELL TO PIPE	RWCU-301	AUGMT	VOL	UTP-10	
6RWCU(3)-30	PIPE TO TEE	RWCU-301	AUGMT	VOL	UTP-10	
6RWCU(3)-31	TEE TO REDUCER	RWCU-301	AUGMT	VOL	UTP-10	FITTING TO FITTING
6RWCU(3)-32	TEE TO REDUCER	RWCU-301	AUGMT	VOL	UTP-10	FITTING TO FITTING
4RWCU(3)A-1	REDUCER TO PIPE	RWCU-301	AUGMT	VOL	UTP-10	
4RWCU(3)A-2	PIPE TO PIPE	RWCU-301	AUGMT	VOL	UTP-10	
4RWCU(3)A-3	PIPE TO ELL	RWCU-301	AUGMT	VOL	UTP-10	
4RWCU(3)A-4	ELL TO PIPE	RWCU-301	AUGMT	VOL	UTP-10	

TABLE 5A
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS NOT IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
4RWCU(3)B-1	REDUCER TO ELL	RWCU-301	AUGMT	VOL	UTP-10	FITTING TO FITTING
4RWCU(3)B-2	ELL TO PIPE	RWCU-301	AUGMT	VOL	UTP-10	
6RWCU(2)-1	PIPE TO ELL	RWCU-303	AUGMT	VOL	UTP-10	
6RWCU(2)-2	ELL TO PIPE	RWCU-303	AUGMT	VOL	UTP-10	
6RWCU(2)-3	PIPE TO VLV	RWCU-303	AUGMT	VOL	UTP-10	
6RWCU(2)-4	VLV TO PIPE	RWCU-303	AUGMT	VOL	UTP-10	
6RWCU(2)-5	PIPE TO FE	RWCU-303	AUGMT	VOL	UTP-10	
6RWCU(2)-6	FE TO PIPE	RWCU-303	AUGMT	VOL	UTP-10	
6RWCU(2)-7	PIPE TO TEE	RWCU-303	AUGMT	VOL	UTP-10	
6RWCU(2)-8	TEE TO FLANGE	RWCU-303	AUGMT	VOL	UTP-10	FITTING TO FITTING
6RWCU(2)-9	TEE TO VLV	RWCU-303	AUGMT	VOL	UTP-10	FITTING TO FITTING
TOTAL COUNT =			65			

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
26MS(1)A-15	PIPE TO VALVE	MS-101	B-J	VOL	UTP-10	AUGMT
26MS(1)A-15	PIPE TO VALVE	MS-101	B-J	SUR	PTP-1	AUGMT
26MS(1)A-16	VALVE TO PENE	MS-101	B-J	VOL	UTP-10	AUGMT
26MS(1)A-16	VALVE TO PENE	MS-101	B-J	SUR	PTP-1	AUGMT
MS FLUED HEAD A	FLUED HEAD WELD	MS-101	B-K-1	VOL	UTP-33	SEE DWG. #MS-101-3, AUGMT
MS FLUED HEAD A	FLUED HEAD WELD	MS-101	B-K-1	SUR	MTP-1	SEE DWG. #MS-101-3, AUGMT
26MS(1)A-17	PENE TO VALVE	MS-101	B-J	VOL	UTP-10	AUGMT
26MS(1)A-17	PENE TO VALVE	MS-101	B-J	SUR	PTP-1	AUGMT
MS-V-28A/2MS(9)-4	DRAIN CONN	MS-101	B-J	SUR	PTP-1	AUGMT
26MS(1)B-16	PIPE TO VALVE	MS-102	B-J	VOL	UTP-10	AUGMT
26MS(1)B-16	PIPE TO VALVE	MS-102	B-J	SUR	PTP-1	AUGMT
26MS(1)B-17	VALVE TO PENE	MS-102	B-J	VOL	UTP-10	AUGMT
26MS(1)B-17	VALVE TO PENE	MS-102	B-J	SUR	PTP-1	AUGMT
MS FLUED HEAD B	FLUED HEAD WELD	MS-102	B-K-1	VOL	UTP-10	SEE DWG. #MS-101-3, AUGMT
MS FLUED HEAD B	FLUED HEAD WELD	MS-102	B-K-1	SUR	MTP-1	SEE DWG. #MS-101-3, AUGMT
26MS(1)B-18	PENE TO VALVE	MS-102	B-J	VOL	UTP-10	AUGMT
26MS(1)B-18	PENE TO VALVE	MS-102	B-J	SUR	PTP-1	AUGMT
MS-V-28B/2MS(9)-4	DRAIN CONN	MS-102	B-J	SUR	PTP-1	AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
26MS(1)C-16	PIPE TO VALVE	MS-103	B-J	VOL	UTP-10	AUGMT
26MS(1)C-16	PIPE TO VALVE	MS-103	B-J	SUR	PTP-1	AUGMT
26MS(1)C-17	VALVE TO PENE	MS-103	B-J	VOL	UTP-10	AUGMT
26MS(1)C-17	VALVE TO PENE	MS-103	B-J	SUR	PTP-1	AUGMT
MS FLUED HEAD C	FLUED HEAD WELD	MS-103	B-K-1	VOL	UTP-10	SEE DWG. #MS-101-3, AUGMT
MS FLUED HEAD C	FLUED HEAD WELD	MS-103	B-K-1	SUR	MTP-1	SEE DWG. #MS-101-3, AUGMT
26MS(1)C-18	PENE TO VALVE	MS-103	B-J	VOL	UTP-10	AUGMT
26MS(1)C-18	PENE TO VALVE	MS-103	B-J	SUR	PTP-1	AUGMT
MS-V-28C/2MS(9)-4	DRAIN CONN	MS-103	B-J	SUR	PTP-1	AUGMT
26MS(1)D-15	PIPE TO VALVE	MS-104	B-J	VOL	UTP-10	AUGMT
26MS(1)D-15	PIPE TO VALVE	MS-104	B-J	SUR	PTP-1	AUGMT
26MS(1)D-16	VALVE TO PENE	MS-104	B-J	VOL	UTP-10	AUGMT
26MS(1)D-16	VALVE TO PENE	MS-104	B-J	SUR	PTP-1	AUGMT
MS FLUED HEAD D	FLUED HEAD WELD	MS-104	B-K-1	VOL	UTP-10	SEE DWG. #MS-101-3, AUGMT
MS FLUED HEAD D	FLUED HEAD WELD	MS-104	B-K-1	SUR	MTP-1	SEE DWG. #MS-101-3, AUGMT
26MS(1)D-17	PENE TO PIPE	MS-104	B-J	VOL	UTP-10	AUGMT
26MS(1)D-17	PENE TO PIPE	MS-104	B-J	SUR	PTP-1	AUGMT
MS-V-28D/2MS(9)-4	DRAIN CONN	MS-104	B-J	SUR	PTP-1	AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
26MS(1)A-18	VALVE TO PIPE	MS-201	C-F	VOL	UTP-10	AUGMT
26MS(1)A-18	VALVE TO PIPE	MS-201	C-F	SUR	PTP-1	AUGMT
26MS(1)A-19	PIPE TO PIPE	MS-201	C-F	VOL	UTP-10	AUGMT
26MS(1)A-19	PIPE TO PIPE	MS-201	C-F	SUR	PTP-1	AUGMT
26MS(1)B-19	VALVE TO PIPE	MS-202	C-F	VOL	UTP-10	AUGMT
26MS(1)B-19	VALVE TO PIPE	MS-202	C-F	SUR	PTP-1	AUGMT
26MS(1)B-19A	PIPE TO PIPE	MS-202	C-F	VOL	UTP-10	AUGMT
26MS(1)B-19A	PIPE TO PIPE	MS-202	C-F	SUR	PTP-1	AUGMT
26MS(1)B-20	PIPE TO PIPE	MS-202	C-F	VOL	UTP-10	AUGMT
26MS(1)B-20	PIPE TO PIPE	MS-202	C-F	SUR	PTP-1	AUGMT
26MS(1)C-19	VALVE TO PIPE	MS-203	C-F	VOL	UTP-10	AUGMT
26MS(1)C-19	VALVE TO PIPE	MS-203	C-F	SUR	PTP-1	AUGMT
26MS(1)C-20	PIPE TO PIPE	MS-203	C-F	VOL	UTP-10	AUGMT
26MS(1)C-20	PIPE TO PIPE	MS-203	C-F	SUR	PTP-1	AUGMT
26MS(1)D-18	VALVE TO PIPE	MS-204	C-F	VOL	UTP-10	AUGMT
26MS(1)D-18	VALVE TO PIPE	MS-204	C-F	SUR	PTP-1	AUGMT
26MS(1)D-19	PIPE TO PIPE	MS-204	C-F	VOL	UTP-10	AUGMT
26MS(1)D-19	PIPE TO PIPE	MS-204	C-F	SUR	PTP-1	AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
10RCIC(12)-1	SWL TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-1	SWL TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-2	PIPE TO EL	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-2	PIPE TO EL	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-3	EL TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-3	EL TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-4	PIPE TO VLV	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-4	PIPE TO VLV	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-5	VALVE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-5	VALVE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-5A	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-5A	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-6	PIPE TO EL	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-6	PIPE TO EL	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-7	EL TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-7	EL TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-8	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-8	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
10RCIC(12)-9	PIPE TO EL	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-9	PIPE TO EL	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-10	EL TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-10	EL TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-10A	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-10A	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-11	PIPE TO TEE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-11	PIPE TO TEE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-12	TEE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-12	TEE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-13	PIPE TO EL	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-13	PIPE TO EL	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-14	EL TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-14	EL TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-15	PIPE TO PEN	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-15	PIPE TO PEN	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-16	PEN TO EL	RCIC-101	B-J	VOL	UTP-10	FITTING TO FITTING, AUGMT
10RCIC(12)-16	PEN TO EL	RCIC-101	B-J	SUR	PTP-1	FITTING TO FITTING, AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
10RCIC(12)-17	EL TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
10RCIC(12)-17	EL TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
10RCIC(12)-18	EL TO VALVE	RCIC-101	B-J	VOL	UTP-10	FITTING TO FITTING, AUGMT
10RCIC(12)-18	EL TO VALVE	RCIC-101	B-J	SUR	PTP-1	FITTING TO FITTING, AUGMT
4RCIC(13)-1	TEE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-1	TEE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-2	PIPE TO EL	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-2	PIPE TO EL	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-3	EL TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-3	EL TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-4	PIPE TO EL	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-4	PIPE TO EL	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-5	EL TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-5	EL TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-5A	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-5A	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-6	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-6	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
4RCIC(13)-7	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-7	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-8	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-8	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-9	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-9	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-10	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-10	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-11	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-11	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-12	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-12	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-13	PIPE TO PEN	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-13	PIPE TO PEN	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-14	PEN TO EL	RCIC-101	B-J	VOL	UTP-10	FITTING TO FITTING, AUGMT
4RCIC(13)-14	PEN TO EL	RCIC-101	B-J	SUR	PTP-1	FITTING TO FITTING, AUGMT
4RCIC(13)-15	EL TO PIPE	RCIC-101	B-J	VOL	UTP-30	AUGMT
4RCIC(13)-15	EL TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
4RCIC(13)-16	PIPE TO EL	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-16	PIPE TO EL	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-17	EL TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-17	EL TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-18	PIPE TO PIPE	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-18	PIPE TO PIPE	RCIC-101	B-J	SUR	PTP-1	AUGMT
4RCIC(13)-19	PIPE TO VLV	RCIC-101	B-J	VOL	UTP-10	AUGMT
4RCIC(13)-19	PIPE TO VLV	RCIC-101	B-J	SUR	PTP-1	AUGMT
24RFW(1)A-1	VALVE TO PIPE	RFW-101	B-J	VOL	UTP-10	AUGMT
24RFW(1)A-1	VALVE TO PIPE	RFW-101	B-J	SUR	PTP-1	AUGMT
24RFW(1)A-1/5RFW(11)-4	PIPE TO WOL	RFW-101	B-J	VOL	UTP-10	AUGMT
24RFW(1)A-1/5RFW(11)-4	PIPE TO WOL	RFW-101	B-J	SUR	PTP-1	AUGMT
5RFW(11)A-2	SLEEVE TO WOL	RFW-101	B-J	VOL	UTP-10	AUGMT
5RFW(11)A-2	SLEEVE TO WOL	RFW-101	B-J	SUR	PTP-1	AUGMT
5RFW(11)A-1	SLEEVE - SLEEVE	RFW-101	B-J	VOL	UTP-10	AUGMT
5RFW(11)A-1	SLEEVE - SLEEVE	RFW-101	B-J	SUR	PTP-1	AUGMT
24RFW(1)A-2	PIPE TO VALVE	RFW-101	B-J	VOL	UTP-10	AUGMT
24RFW(1)A-2	PIPE TO VALVE	RFW-101	B-J	SUR	PTP-1	AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
24RFW(1)A-3	VALVE TO PENE	RFW-101	B-J	VOL	UTP-10	AUGMT
24RFW(1)A-3	VALVE TO PENE	RFW-101	B-J	SUR	PTP-1	AUGMT
24RFW(1)A-4	PENE TO VALVE	RFW-101	B-J	VOL	UTP-10	AUGMT
24RFW(1)A-4	PENE TO VALVE	RFW-101	B-J	SUR	PTP-1	AUGMT
24RFW(1)A-5	VALVE TO PIPE	RFW-101	B-J	VOL	UTP-10	AUGMT
24RFW(1)A-5	VALVE TO PIPE	RFW-101	B-J	SUR	PTP-1	AUGMT
24RFW(1)B-1	VALVE TO PIPE	RFW-102	B-J	VOL	UTP-10	AUGMT
24RFW(1)B-1	VALVE TO PIPE	RFW-102	B-J	SUR	PTP-1	AUGMT
24RFW(1)B-1/5RFW(11)-4	PIPE TO WOL	RFW-102	B-J	VOL	UTP-10	AUGMT
24RFW(1)B-1/5RFW(11)-4	PIPE TO WOL	RFW-102	B-J	SUR	PTP-1	AUGMT
5RFW(11)B-2	SLEEVE TO WOL	RFW-102	B-J	VOL	UTP-10	AUGMT
5RFW(11)B-2	SLEEVE TO WOL	RFW-102	B-J	SUR	PTP-1	AUGMT
5RFW(11)B-1	SLEEVE-SLEEVE	RFW-102	B-J	VOL	UTP-10	FILLET WELD, AUGMT.
5RFW(11)B-1	SLEEVE-SLEEVE	RFW-102	B-J	SUR	PTP-1	FILLET WELD, AUGMT.
24RFW(1)B-2	PIPE TO VALVE	RFW-102	B-J	VOL	UTP-10	AUGMT
24RFW(1)B-2	PIPE TO VALVE	RFW-102	B-J	SUR	PTP-1	AUGMT
24RFW(1)B-3	VALVE TO PENE	RFW-102	B-J	VOL	UTP-10	AUGMT
24RFW(1)B-3	VALVE TO PENE	RFW-102	B-J	SUR	PTP-1	AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
24RFW(1)B-4	PENE TO VALVE	RFW-102	B-J	VOL	UTP-10	AUGMT
24RFW(1)B-4	PENE TO VALVE	RFW-102	B-J	SUR	PTP-1	AUGMT
24RFW(1)B-5	VALVE TO PIPE	RFW-102	B-J	VOL	UTP-10	AUGMT
24RFW(1)B-5	VALVE TO PIPE	RFW-102	B-J	SUR	PTP-1	AUGMT
6RFW(11)-1	VALVE TO PIPE	RFW-103	B-J	VOL	UTP-10	AUGMT
6RFW(11)-1	VALVE TO PIPE	RFW-103	B-J	SUR	PTP-1	AUGMT
6RFW(11)-2	PIPE TO EL	RFW-103	B-J	VOL	UTP-10	AUGMT
6RFW(11)-2	PIPE TO EL	RFW-103	B-J	SUR	PTP-1	AUGMT
6RFW(11)-3	EL TO PIPE	RFW-103	B-J	VOL	UTP-10	AUGMT
6RFW(11)-3	EL TO PIPE	RFW-103	B-J	SUR	PTP-1	AUGMT
6RFW(11)-4	PIPE TO EL	RFW-103	B-J	VOL	UTP-10	AUGMT
6RFW(11)-4	PIPE TO EL	RFW-103	B-J	SUR	PTP-1	AUGMT
6RFW(11)-5	EL TO PIPE	RFW-103	B-J	VOL	UTP-10	AUGMT
6RFW(11)-5	EL TO PIPE	RFW-103	B-J	SUR	PTP-1	AUGMT
6RFW(11)-6	PIPE TO EL	RFW-103	B-J	VOL	UTP-10	AUGMT
6RFW(11)-6	PIPE TO EL	RFW-103	B-J	SUR	PTP-1	AUGMT
6RFW(11)-7	EL TO PIPE	RFW-103	B-J	VOL	UTP-10	AUGMT
6RFW(11)-7	EL TO PIPE	RFW-103	B-J	SUR	PTP-1	AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
6RFW(11)-8	PIPE TO TEE	RFW-103	B-J	VOL	UTP-10	AUGMT
6RFW(11)-8	PIPE TO TEE	RFW-103	B-J	SUR	PTP-1	AUGMT
4RFW(11)A-1	TEE TO PIPE	RFW-103	B-J	VOL	UTP-10	AUGMT
4RFW(11)A-1	TEE TO PIPE	RFW-103	B-J	SUR	PTP-1	AUGMT
4RFW(11)A-2	PIPE TO EL	RFW-103	B-J	VOL	UTP-10	AUGMT
4RFW(11)A-2	PIPE TO EL	RFW-103	B-J	SUR	PTP-1	AUGMT
4RFW(11)A-3	EL TO SLEEVE	RFW-103	B-J	VOL	UTP-10	AUGMT
4RFW(11)A-3	EL TO SLEEVE	RFW-103	B-J	SUR	PTP-1	AUGMT
6RFW(11)-9	TEE TO PIPE	RFW-103	B-J	VOL	UTP-10	AUGMT
6RFW(11)-9	TEE TO PIPE	RFW-103	B-J	SUR	PTP-1	AUGMT
6RFW(11)-10	PIPE TO REDUCER	RFW-103	B-J	VOL	UTP-10	AUGMT
6RFW(11)-10	PIPE TO REDUCER	RFW-103	B-J	SUR	PTP-1	AUGMT
4RFW(11)B-1	REDUCER TO PIPE	RFW-103	B-J	VOL	UTP-10	AUGMT
4RFW(11)B-1	REDUCER TO PIPE	RFW-103	B-J	SUR	PTP-1	AUGMT
4RFW(11)B-2	PIPE TO EL	RFW-103	B-J	VOL	UTP-10	AUGMT
4RFW(11)B-2	PIPE TO EL	RFW-103	B-J	SUR	PTP-1	AUGMT
4RFW(11)B-3	EL TO PIPE	RFW-103	B-J	VOL	UTP-10	AUGMT
4RFW(11)B-3	EL TO PIPE	RFW-103	B-J	SUR	PTP-1	AUGMT

TABLE 5B
WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
4RFW(11)B-4	PIPE TO EL	RFW-103	B-J	VOL	UTP-10	AUGMT
4RFW(11)B-4	PIPE TO EL	RFW-103	B-J	SUR	PTP-1	AUGMT
4RFW(11)B-5	EL TO SLEEVE	RFW-103	B-J	VOL	UTP-10	AUGMT
4RFW(11)B-5	EL TO SLEEVE	RFW-103	B-J	SUR	PTP-1	AUGMT
6RWCU(3)-20	PIPE TO VALVE	RWCU-101	B-J	VOL	UTP-10	AUGMT
6RWCU(3)-20	PIPE TO VALVE	RWCU-101	B-J	SUR	PTP-1	AUGMT
6RWCU(3)-21	VALVE TO PIPE	RWCU-101	B-J	VOL	UTP-10	AUGMT
6RWCU(3)-21	VALVE TO PIPE	RWCU-101	B-J	SUR	PTP-1	AUGMT
6RWCU(3)-22	PIPE TO PENE	RWCU-101	B-J	VOL	UTP-10	AUGMT
6RWCU(3)-22	PIPE TO PENE	RWCU-101	B-J	SUR	PTP-1	AUGMT
6RWCU(3)-23	PENE TO EL	RWCU-101	B-J	VOL	UTP-10	AUGMT
6RWCU(3)-23	PENE TO EL	RWCU-101	B-J	SUR	PTP-1	AUGMT
6RWCU(3)-24	EL TO PIPE	RWCU-101	B-J	VOL	UTP-10	AUGMT
6RWCU(3)-24	EL TO PIPE	RWCU-101	B-J	SUR	PTP-1	AUGMT
6RWCU(3)-25	PIPE TO EL	RWCU-101	B-J	VOL	UTP-10	AUGMT
6RWCU(3)-25	PIPE TO EL	RWCU-101	B-J	SUR	PTP-1	AUGMT
6RWCU(3)-26	EL TO PIPE	RWCU-101	B-J	VOL	UTP-10	AUGMT
6RWCU(3)-26	EL TO PIPE	RWCU-101	B-J	SUR	PTP-1	AUGMT

TABLE 5B
 WELDS IN AUGMENTED HIGH ENERGY CLASS 1 PIPE BREAK EXCLUSION AREA
 WELDS IN ASME SECTION XI JURISDICTION

WELD IDENT #	DESCRIPTION	DRAWING #	SECT. XI EX	EXAM METH	PROCEDURE	NOTES
6RWCU(3)-27	PIPE TO VALVE	RWCU-101	B-J	VOL	UTP-10	AUGMT
6RWCU(3)-27	PIPE TO VALVE	RWCU-101	B-J	SUR	PTP-1	AUGMT

TOTAL COUNT = 218

10-5B.13

APPENDIX

- A - Request for Relief No. PSI-2-001
- B - NIS-2 Reports

APPENDIX A
Request for Relief No.
PSI-2-001

REQUEST FOR RELIEF NO. PSI-2-001

Component
or System

ASME Class 1, Section XI Category B-A* pressure retaining welds
in reactor pressure vessel. List attached.

ASME Class 1, Section XI Category B-J pressure retaining welds in
piping. List attached.

ASME Class 2, Section XI Category C-F pressure retaining welds in
piping. List attached.

Code

All of the subject welds were designed and fabricated to ASME
Section III Class 1 or 2. The Preservice Inspection is to be
performed to the 1974 Edition Summer 1975 Addenda of ASME
Section XI and Appendix III of the Winter 1975 Addenda.

Number
of Welds

<u>Category</u>	<u>No.</u>
B-A*	13
B-J	10
C-F	4

Section XI
Requirements

Section XI requires examination of 100% of the pressure retaining
welds in Categories B-A*, B-J and C-F be performed completely as a
Preservice Inspection before initial plant startup. The following
examinations are required:

B-A*

All pressure retaining welds in Reactor vessel.

Volumetric

B-J

Circumferential and longitudinal piping welds.
Branch pipe connection welds exceeding 6-inch
diameter.
Branch pipe connection welds 6-inch diameter
and smaller.
Socket welds.

Volumetric
Volumetric

Surface

Surface

C-F

Circumferential butt welds.
Longitudinal welds joints in fittings.
Branch pipe-to-pipe welds joints.

Volumetric
Volumetric
Volumetric

Basis for
Requesting
Relief

Relief is required from ASME Section XI examination requirements
on the basis of partial inaccessibility of the weld due to plant
design. The specific inaccessibility problem for each weld is
explained under remarks on the attached tables.

Alternative Examinations The welds (except for the following) in this request for relief are partially inaccessible to all examination methods.

20 RHR(1) A-4 (RHR-201)
20 RHR(1) B-4 (RHR-207)

These two welds will be examined by UT in the areas where PT was not possible.

Impact on
Plant Quality
and Safety

There will be no adverse impact on plant quality and safety by doing only a partial code examination of these welds.

1. The Class 1 piping welds have passed radiographic and dye penetrant examinations in accordance with Section III.
2. The Class 2 piping welds have passed radiographic examination in accordance with Section III.
3. The Class 1 RPV welds have passed radiographic, magnetic particle and ultrasonic examinations in accordance with Section III.
4. All of the identified welds will be subject to a system pressure test in accordance with Section XI Class 1 or 2 requirements.
5. Leak detection systems identify significant leakage in the areas of the subject piping welds. Appropriate operator action would occur due to leak detection system alarms.
6. Alternate systems can bring the reactor to a safe shutdown.
7. Other similar welds in the vessel or same piping run will receive full code examinations. The integrity of the pressure boundary can thus be verified by sampling.

*Category B-A per 1977 Edition Summer 1978 Addenda, this includes both Category B-A and B-B welds per 1974 Edition, Summer 1975 Addenda. Category B-A and B-B have been combined into B-A in later codes. The WNP-2 PSI Program considers these Category B-A so the PSI Program will be consistent with the ISI Program.

NOTES TO FOLLOWING WELD TABLES

- A. Isometric drawing numbers (Iso. No.) which start with a "1" such as MS-101 are Code Class 1 and Section XI Category B-J.
- B. Isometric drawing numbers (Iso No.) which start with a "2" such as MS-201 are Code Class 2 and Section XI Category C-F.
- C. The entire reactor pressure vessel (RPV) was completely examined except for the small areas identified under remarks on the following RPV (category B-A) weld tables.

CATEGORY B-A

ISO. NO.	WELD NUMBER	DATA SHEET	DESCRIPTION	SECTION III EXAM	REMARKS
RPV-101	AE	1210-1, 1A, 2, 2A, 3	Vessel to Flange	MT, UT, RT	Thermocouples at 135°, 270° and 360°
RPV-101	AD	1210-13, 14, 15, 5, 9, 7, 8, 16	#3-#4 SC-CRC WD	MT, UT, RT	7 2-foot long key lugs obstruct weld at 45° intervals
RPV-101	BJ	1210-5, 7, 8	#3 SC VRT WD at 50°	MT, UT, RT	Key lug at weld AD intersection.
RPV-101	BK	1210-6, 46, 16, 21	#3 SC VRT WD at 170°	MT, UT, RT	Key lug at weld AD intersection.
RPV-102	DA	1210-35, 38, 42	BTM HD MRD at 272	MT, UT, RT	Thermocouples at weld AA intersection
<p align="right">Note: The above UT exams were done by NES before the vessel was installed.</p>					
RPV-102	DG	RPU-085, 075, 094, 126	BOT HD DOL at 270°	MT, UT, RT	See Note 1
RPV-102	DR	RPU-086, 076, 095, 127	BOT HD DOL at 90°	MT, UT, RT	See Note 1
RPV-102	DA	RPU-088, 116, 078, 110, 104, 106	BOT HD MRD at 272°	MT, UT, RT	See Note 2
RPV-102	DB	RPU-089, 117, 079, 111, 099, 107	BOT HD MRD at 332°	MT, UT, RT	See Note 2

CATEGORY B-A

ISO. NO.	WELD NUMBER	DATA SHEET	DESCRIPTION	SECTION III EXAM	REMARKS
RPV-102	DC	RPU-090, 118 080, 112, 100, 108	BOT HD MRD at 32	MT, UT, RT	See Note 2
RPV-102	DD	RPU-091, 119 081, 113, 101, 109	BOT HD MRD at 92	MT, UT, RT	See Note 2
RPV-102	DE	RPU-092, 120 082, 114, 102, 122	BOT HD MRD at 152	MT, UT, RT	See Note 2
RPV-102	DF	RPU-093, 121 083, 115, 103, 123	BOT HD MRD at 212		See Note 2

Note 1: Only 12" to 23" on each end of the weld, starting from the intersection of weld AJ, can be examined due to CRD penetrations and housings.

Note 2: Only 21" starting from the intersection of weld AA and 14" starting from the intersection of weld AJ can be examined due to vessel support skirt. (Approximately one foot is not being examined on each weld.)

CATEGORY B-J and C-F

ISO. NO.	WELD NUMBER	DATA SHEET NUMBER	SEC. XI EXAM	DESCRIPTION	SECTION III EXAM	REMARKS
RHR-201	20 RHR(1) A-4	RHP-190	PT	Pipe to Reducer	RT	No surface exam 330°-300° due to permanent obstruction (6" not examined). Alternate exam UT from 1 side.
RHR-207	18 RHR(1) B-7/ 6 RHR(7)-2	RHP-154	PT	Branch Connector	RT	1-1/2" around 0° not examined due to permanent (welded hanger) interference.
RHR-207	20 RHR(1) B-4	RHP-201	PT	Pipe to Elbow	RT	No surface exam 330°-0°-300° due to permanent obstruction (6" not examined). Alternate exam UT from 1 side..
RHR-207	18 RHR(1) B-42	RHP-201	PT	Pipe to Elbow	RT	No exam 4" around 180° obstructed by permanent hanger.
RFW-101	18 RFW(1) A-4	FWP-046	PT	Pipe to Reducer	RT/PT	2-1/2" around 0° not examined-welded "N" stamp.
RHR-106	12 RHR(1) B-11LDO	RHU-075	UT	Elbow Seam	RT/PT	No exam 4" to 5-1/2" due to branch connection (1-1/2" not examined).
RRC-101	24 RRC(2) A-8LDI	RRU-101	UT	Elbow Seam	RT/PT	No exam 18" to 19" due to instrument line interference (1" not examined).
RRC-101	24 RRC(2)A-8LDO	RRU-101	UT	Elbox Seam	RT/PT	No exam 38" to 40" due to branch connection (2" not examined).
RRC-102	24 RRC(1) B-6LDI	RRU-112	UT	Tee Seam	RT/PT	No exam 17" to 18" due to fitting (1" not examined).
RRC-104	4 RRC(51)-5	RRU-508 RRP-170	UT PT	Elbow to Pipe	RT/PT	4 lugs within 0.25" of weld edge. Code requires 0.337". Weld volume fully examined by UT.
LPCS-101	4 LPCS(1)-1	LPU-030	UT	Flange to Pipe	RT/PT	UT exam limited by welded "N" stamp, 340° to 25°. PT exam covered entire weld.

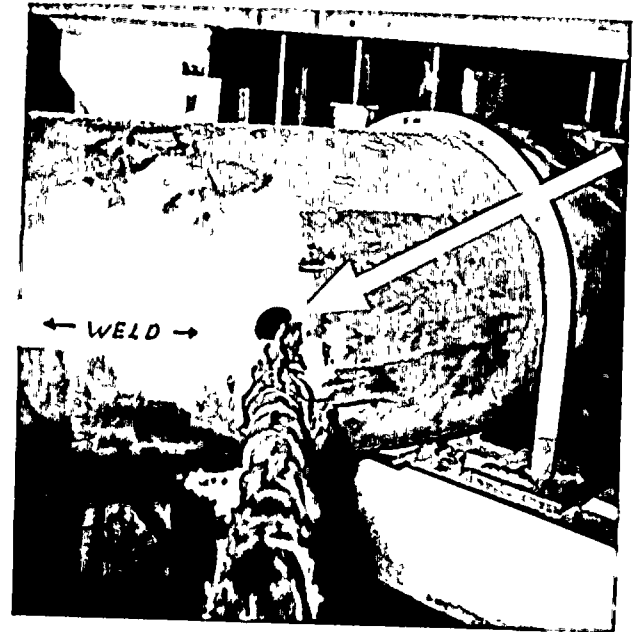
CATEGORY B-J and C-F

ISO. NO.	WELD NUMBER	DATA SHEET NUMBER	SEC. XI EXAM	DESCRIPTION	SECTION III EXAM	REMARKS
HPCS-101	4 HPCS(1)-1	HPU-026	UT	Flange to Pipe	RT/PT	UT exam limited by welded "N" stamp, 60° to 120°. PT exam covered entire weld.
HPCS-101	4 HPCS(1)-2	HPU-027	UT	Pipe to WOL	RT/PT	UT exam limited by welded "N" stamp 60° to 120°. PT exam covered entire weld.
RPV-101	4 JP(NZ)B-2	RPU-437	UT	SE to Fitting	RT/PT	UT limited due to geometry of SE to fitting weld. PT covered entire weld.

Pictures Depicting Access Problems



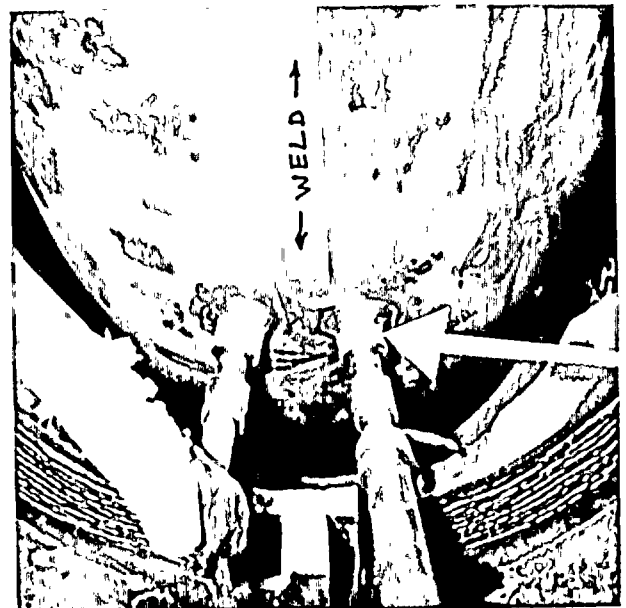
18 RFW(1) A-4



12 RHR(1) B-11LD0

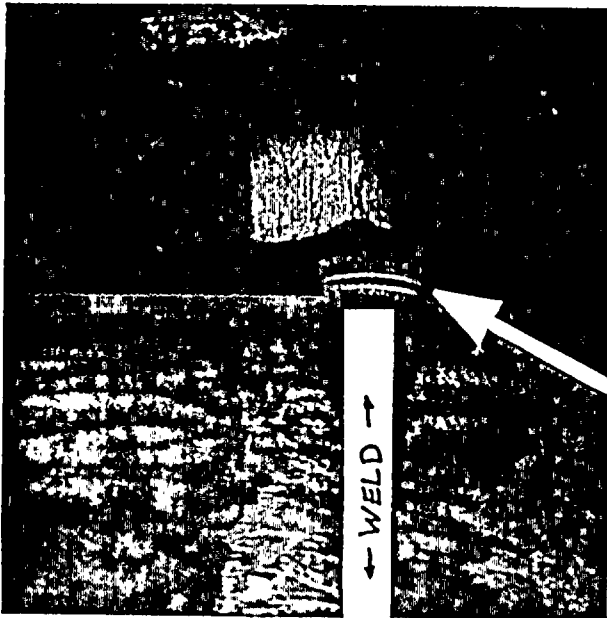


24RRC(2)A-8LDI



24RRC(2)A-8LD0

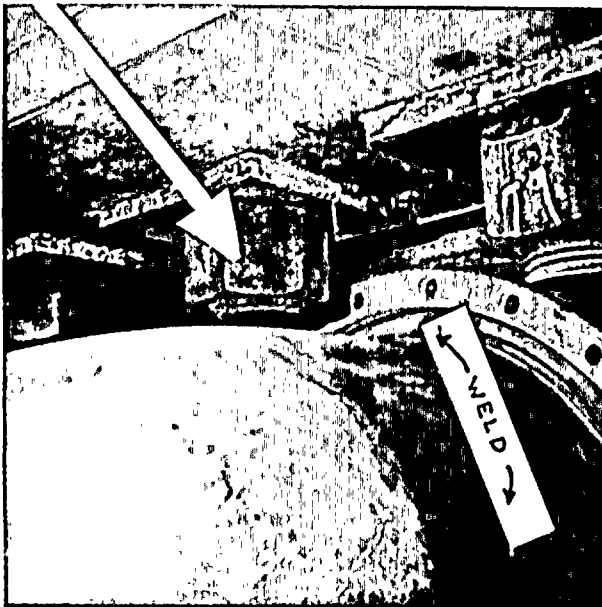




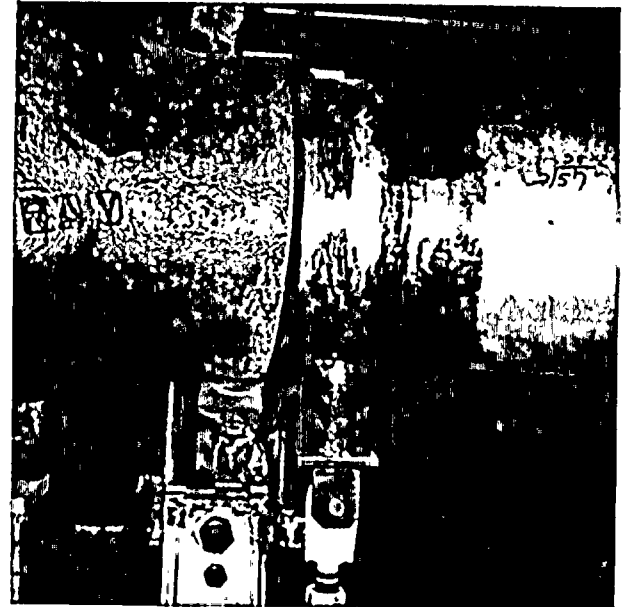
20 RHR (1) A-4



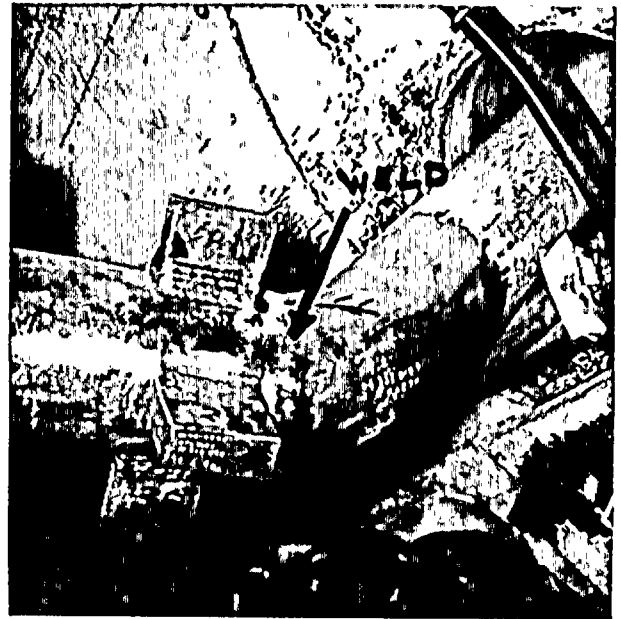
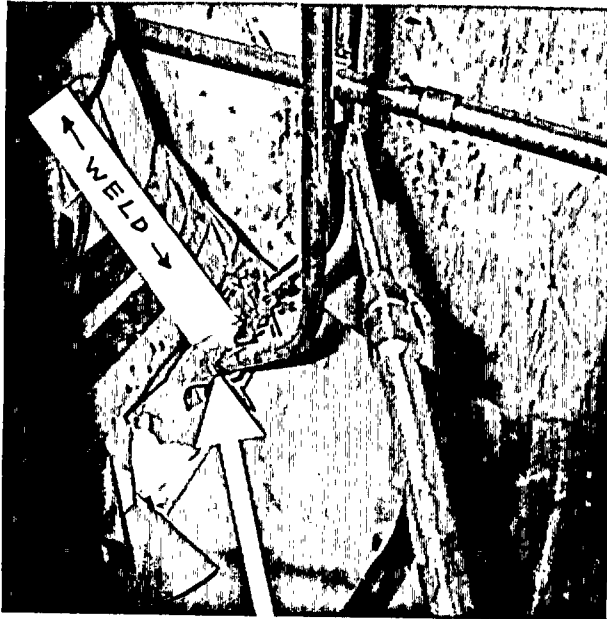
18 RHR (1) B-7/6 RHR (7)-2



20 RHR(1) B-4



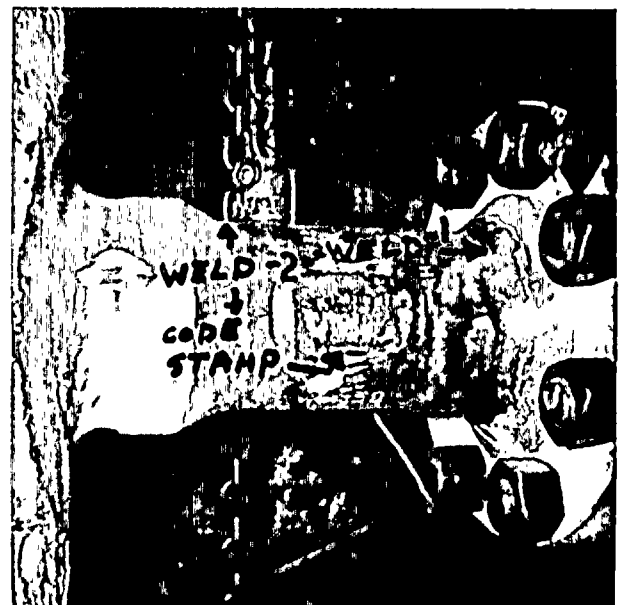
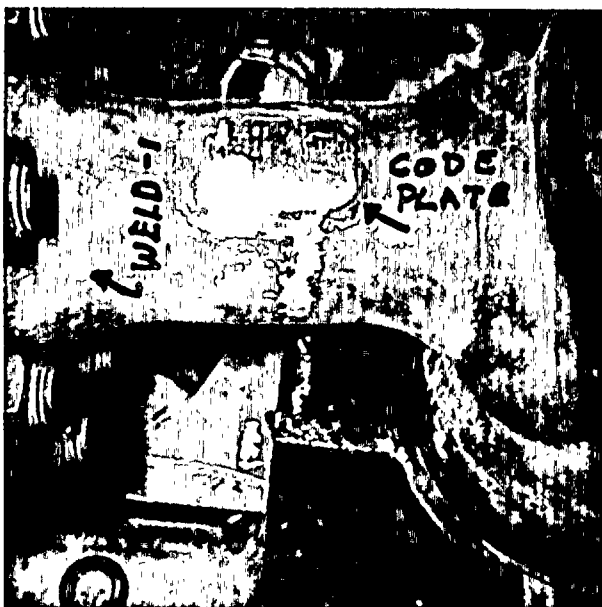
18 RHR(1) B-42



4 RRC(51)-5

24 RRC(1)B-6 LDI

4 RRC(51)-5



4 LPCS(1)-1

-2 4 HPCS(1)- -1

4 LPCS(1)-1

4 HPCS(1)-1

11-A.12



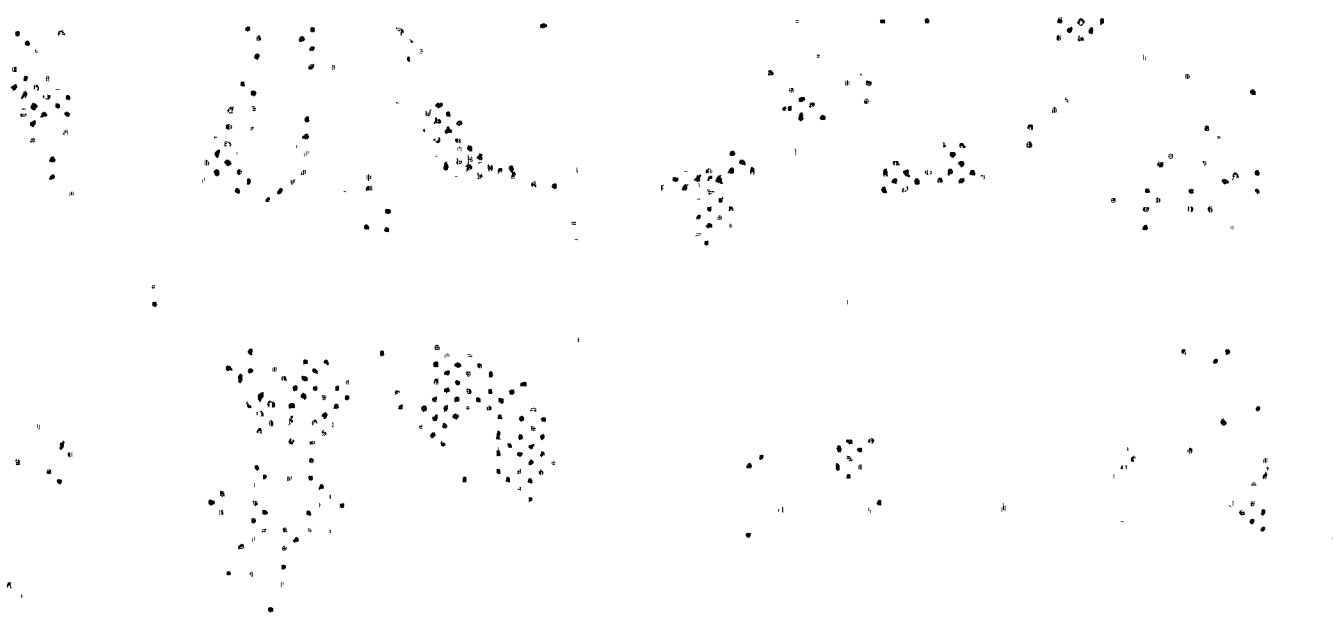
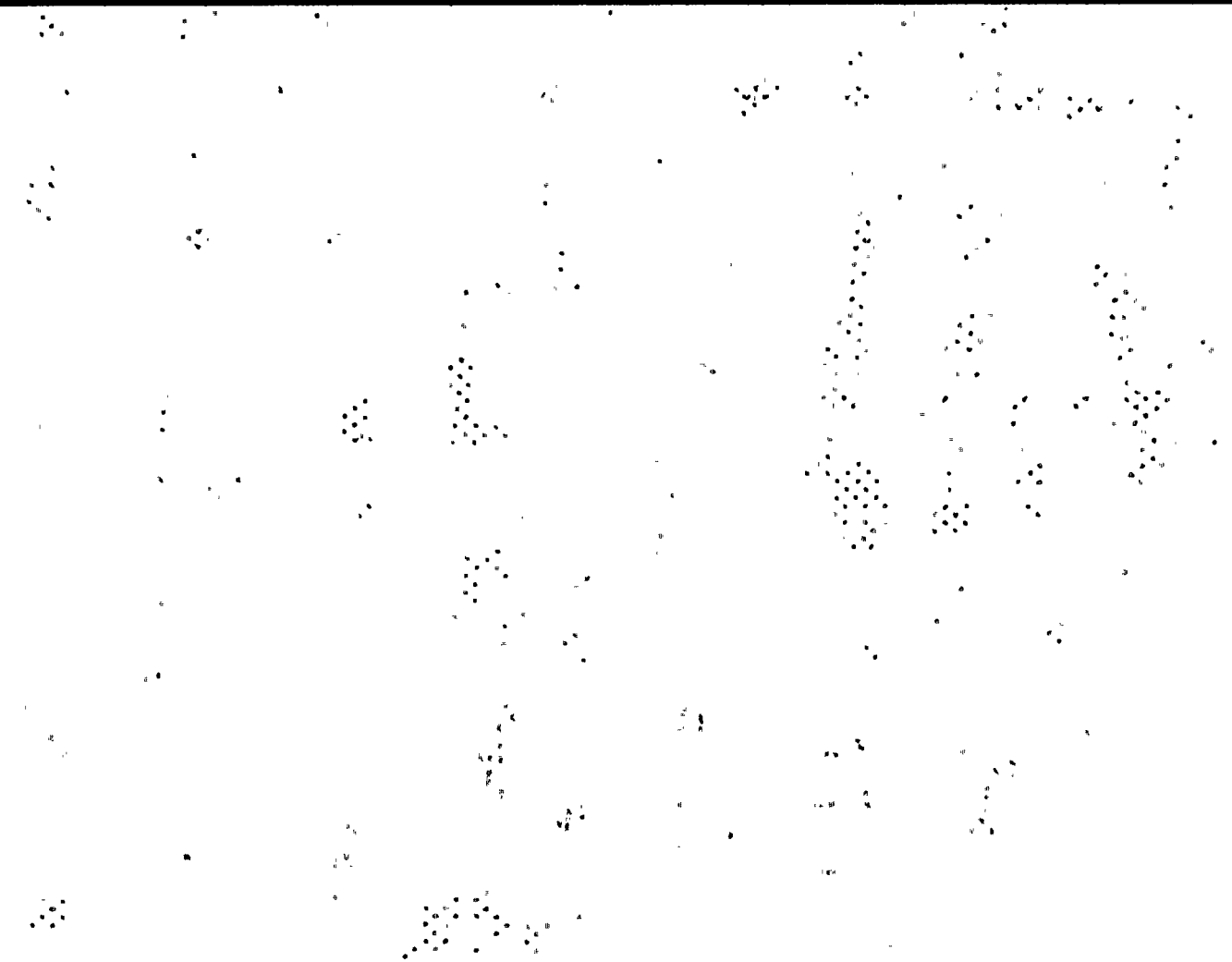
-2 4 HPCS(1)- -1

4 HPCS(1)-2



4 JP(NZ)B-2

4 JP(NZ)B-2



APPENDIX B

NIS-2 Owner's Reports

<u>NIS-2 /</u> <u>Number/Program Number</u>	<u>Description</u>
2-0001	Replacement of RPV Safe Ends. Nozzles N2-A through N2-K.
2-0002	RHR-V-27A, RHR-V-27B
2-0015	SLC-TK-1 nozzle N-10
2-0016	RRC-V-60A, RRC-V-60B
2-0017	RFW-V-32B
2-0018	RHR-V-123A
2-0019	MS-LS-24B
2-0020	RHR-V-24A
2-0021	RFW-V-32A
2-0022	RHR-V-123B
2-0023	RHR-V-113
2-0025	HPCS-V-24
2-0026	RHR-V-46B
2-0034	Containment Vessel
2-0037	Containment Vessel
2-0039	RFW-V-65A
2-0040	HPCS-P-1
2-0041	SW-V-104D
2-0042	SW-V-57A
2-0048	RHR-V-73A, RHR-V-73B, RHR-V-74A, RHR-V-74B, RHR-V-134A, RHR-V-134B
2-0049	RHR-V-3A
2-0054	Containment Vessel
2-0056	Containment Vessel

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date _____
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 34
 2. Plant WNP-2 (Address) Unit N/A
Hanford Reservation, Benton County, WA
 3. Work Performed by GE 1 & SE GE/NED P.O. # 205-AL876 (for safe-ends)
9530 E. Flair Dr., El Monte, CA Repair Organization P.O. No., Job No., etc. 91734
 4. Identification of System Reactor Pressure Vessel
 5. (a) Applicable Construction Code Sec. III 19 74 Edition, S76 Addenda, Code Cases None
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 19 74 S 75* Addenda, Code Cases N-308
 6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Appurtenances								
N2-A-SE 30°	Murdock	MI-096	N/A	N/A	N/A	1979	Replacement	Yes
N2-B-SE 60°	Murdock	MI-092	N/A	N/A	N/A	1979	Replacement	Yes
N2-C-SE 90°	Murdock	MI-093	N/A	N/A	N/A	1979	Replacement	Yes
N2-D-SE 120°	Murdock	MI-098	N/A	N/A	N/A	1979	Replacement	Yes
N2-E-SE 150°	Murdock	MI-099	N/A	N/A	N/A	1979	Replacement	Yes
(Continued on Sheet 2)								

7. Description of Work The WNP-2 Reactor Recirculation inlet nozzle safe ends and thermal sleeves were replaced prior to plant startup because of concerns with the design and material of the original safe ends. The Inconel recirculation inlet nozzle safe ends and associated 304 stainless steel extensions were replaced with a one piece safe end of the tuning fork design. No stainless steel safe end extensions are used in this design. The replacement safe ends and thermal sleeves are made of 316L stainless steel. The primary objective of the replacement was to improve plant reliability. After replacement, the pressure boundary welds were examined by Radiographic (RT), Liquid Penetrant (PT), Ultrasonic (UT) and Visual (VT) methods. No unacceptable indications were found.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 Test Pressure 1217 psi Test Temp 168 °F Component Design Pressure 1500 Temp. 575 °F

9. Remarks The originally designed and fabricated Inconel recirculation inlet nozzle safe ends had a crevice condition at the thermal sleeve attachment weld. This design has been found to be susceptible to intergranular stress corrosion cracking (IGSCC). The new material, lack of crevice, and significantly lower stresses associated with the new safe ends provide a high confidence in an anticipated forty (40) year service life for the subject components.

* The Pressure test was done to the ASME Section XI 1980 Edition Winter 1980 Addenda.

11-B.2

INFORMATION ONLY

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this replacement conforms to Section XI of the ASME Code.

Signed B. A. DeLuberg Proj. Eng. Mgr., WNP-2 1/21 19 83
(Owner or Owner's designee) title (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of WASHINGTON, employed by LUMBERMEN'S MUTUAL CAS. CO. of D.L.L. have inspected the REPLACEMENT described in this Report on 1-71, 19 83
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 1-31-83 A. M. Fendt Commissions 7486 W
(Inspector) (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8½ in. X 11 in., (2) information in Items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

Date:
Sheet 2 of 34

1. Owner: Washington Public Power Supply System
3000 George Washington Way
Richland, Washington 99352
2. Plant: WNP-2
3. Work Performed By: General Electric Installation & Service Engineering
9530 E. Flair Drive
El Monte, California 91734

Purchase Order for Safe-ends: GE/NED P.O. #205-AL876

4. Identification of System: Reactor Pressure Vessel

6. Continued

<u>Name of Appurtenances</u>	<u>Name of Manufacturer</u>	<u>Mfrs. Ser. No.</u>	<u>Year Built</u>	<u>Repaired Replaced or Replacement</u>	<u>ASME Code Stamped (Yes or No)</u>
N2-F-SE 210 ⁰	Murdock Ind.	MI-097	1979	Replacement	Yes
N2-G-SE 240 ⁰	Murdock Ind.	MI-100	1979	Replacement	Yes
N2-H-SE 270 ⁰	Murdock Ind.	MI-095	1979	Replacement	Yes
N2-J-SE 300	Murdock Ind.	MI-101	1979	Replacement	Yes
N2-K-SE 330	Murdock Ind.	MI-094	1979	Replacement	Yes

11-B.4

INFORMATION ONLY

FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provisions of the ASME Code

NIS-2 No. 2-0001

Sheet 3 of 34

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd., Compton, CA 90220
(Name and address of Manufacturer of part)
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave., San Jose, CA 9512
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part MI 092 Nat'l Id. No. N/A
- (a) Constructed According to Drawing No. 112D2704 Rev.1 ECN-NH03747 Drawing Prepared by General Electric Co.
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 1976, Case No. N/A Class 1
3. Remarks: Recirculating Inlet Nozzle for Reactor Vessel
(Brief description of service for which component was designed)
- Forging SA 182 F316L 9.920 - .015 I.D./14.25 - .00 O.D.

Identification as per NA 8312

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date MAY 23 19 79 Signed MURDOCK, INC. By R. O. Callahan
(Manufacturer)

Certificate of Authorization Expires January 5, 1982 Certificate of Authorization No. N-1290

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State Reg. No.

Stress analysis report certified by N/A Prof. Eng. State Reg. No.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by LMC** of Long Grove, Illinois have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on 5 - 23 - 1979, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 5 - 23 - 1979

Mahendran N. Contractor
Inspector's Signature M.N. Contractor

Commissions

Calif. 1408

National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-2 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3, "Remarks".

**Lumbermens Mutual Casualty Company

11-B-5
FOR INFORMATION ONLY

FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PARTS AND APPURTENANCES*

As required by the Provisions of the ASME Code Rules

NIS-2 No. 2-0001

Sheet 4 of 34

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd., Compton, CA 90220
(Name and address of Manufacturer of part)
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave., San Jose, CA 95125
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part MI 093 Nat'l Id. No. N/A
112D2704 Rev.1 ECN-NH03747
- (a) Constructed According to Drawing No. 112D2704 Rev.1 Drawing Prepared by General Electric Co.
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 1976, Case No. N/A Class 1
3. Remarks: Recirculating Inlet Nozzle for Reactor Vessel
(Brief description of service for which component was designed)
- Forging SA 182 F316L 9.920 - .015 I.D./14.25 +.06 - .00 O.D.

Identification as per NA 8312

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date May 2 1979 Signed MURDOCK, INC. By W. B. Parker
(Manufacturer)

Certificate of Authorization Expires January 5, 1982 Certificate of Authorization No. N-1290

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State Reg. No.

Stress analysis report certified by N/A Prof. Eng. State Reg. No.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by LMC**
of Long Grove, Illinois have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on 4-26- 1979, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 5-2- 1979

Mahender N. Contractor
Inspector's Signature M.N. Contractor

Commissions Calif. 1408
National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in Items 1-2 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3, "Remarks".

**Lumbermens Mutual Casualty Company

- (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd., Compton, CA 90220
(Name and address of NPT Certificate Holder)
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave., San Jose, CA 95125
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification: Certificate Holder's Serial No. of Part MI 094 Nat'l Bd. No. N/A
112D2704 Rev. 1 ECN-NHO3747
- (a) Constructed According to Drawing No. _____ Drawing Prepared by General Electric Co.
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 1976, Case No. N/A Class 1
3. Remarks: Recirculating Inlet Nozzle for Reactor Vessel
(Brief description of service for which component was designed)
Forging SA 182 F316L 9.920 ^{+0.000} _{-.015} I.D./14.25 ^{+0.06} _{-.00} O.D.
Rework: See Attachments 1 (2 sheets) and 2 (2 sheets)
Identification as per NA 8312

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date July 7 19 79 Signed MURDOCK, INC. By W. B. Smith
(NPT Certificate Holder)
Certificate of Authorization Expires January 5, 1982 Certificate of Authorization No. N-1290

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State _____ Reg. No. _____

Stress analysis report certified by N/A Prof. Eng. State _____ Reg. No. _____

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by LMC**
of Long Grove, Illinois have inspected the part of a pressure vessel described in this
Partial Data Report on July 9th 19 79 and state that to the best of my knowledge
and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date July 9th 19 79

Mahendran N. Contractor Commissions Calif. 1408
Inspector's Signature M.N. Contractor National Board (State, Province and No.)

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

*Lumbermens Mutual Casualty Company
(10/77)

This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

FOR INFORMATION ONLY

11-B.7

Attachment 1

Page 1 of 2

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220
(b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 094
Nat'l Bd. No. N/A
(a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.
(b) Description of Part Inspected Safe End
(c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976, Case No. N/A Class 1

Remarks: See LP Report No. GEJ 0715

Date: July 7, 1979 MURDOCK, INC. Signed [Signature]
Manufacturer

Date July 7th 1979

Mahendra N. Contractor Commissions Calif. 1408
Inspector's Signature (M.N. Contractor)



11-B.8

FOR INFORMATION ONLY

CUSTOMER <i>General Electric</i>	WORK ORDER NO. <i>2-6523-01</i>	DATE <i>7-2-79</i>	REPORT NO. <i>CEJ0715</i>	NAME OF ITEM OR DESCRIPTION <i>SAFE END</i>			
SURFACE CONDITION <i>Smooth</i>	INSPECTION STANDARDS USED <i>QP-204 Rev. NIC</i>		ACCEPTANCE STANDARD <i>QP204 Rev. NIC</i>		NDE PROCEDURE NO. <i>QP-204 Rev. NIC</i>		
TYPE OF LIQUID PENETRANT MATERIALS USED <i>Spotcheck Penetrant SKLHF/SKLS Batch # 6M018</i> <i>Spotcheck Cleaner SKCS Batch # 79A003</i> <i>Spotcheck Developer SKDS Batch # 798048</i>			<input checked="" type="checkbox"/> POST EMULSIFIED <input checked="" type="checkbox"/> SOLVENT REMOVABLE	<input type="checkbox"/> WATER WASHABLE <input type="checkbox"/> FLUORESCENT	<input checked="" type="checkbox"/> VISIBLE		
TYPE OF WORK <i>Rework</i>			TYPE OF MATERIAL <i>SIS & INCONEL</i>		PENETRANT DWELL TIME <i>20 MIN.</i>		
DRAWING OR ITEM NO. <i>112 D2704 Def-1</i>			SERIAL NO. <i>M1094</i>		TYPE OF DEFECT CODE: C-CRACK, P-POROSITY, NF-NONFUSION, LT-LINEAR INDICATION, S-SLAG, LA-LAMINATION, OTHERS-SPECIFY		
WELD NO.	ACC	REJ	DEFECT CODE	TRAVELER SER. NO.	TRAVELER OPER. NO.	DATE	DMD/REMARKS & STAMP
<i>INSP REMACHING AREA ON WELD PTP JT#1</i>	<i>0</i>	<i>1</i>	<i>LT</i>	<i>5730R1</i>	<i>40</i>	<i>7/2/79</i>	<i>REF DMD# 9195</i> <i>RE-AMATCH</i> <i>U010</i> <i>7-2-79</i>
<i>GROUND OUT DEFECTS</i>	<i>1</i>	<i>0</i>	<i>N/A</i>	<i>5730C1</i>	<i>40B</i>	<i>7-2-79</i>	<i>(S)</i>
<i>REPAIRED DEFECTS</i>	<i>X</i>	<i>0</i>	<i>N/A</i>	<i>5730R1</i>	<i>40D</i>	<i>7-4-79</i>	<i>WOL</i> <i>2</i>

MURDOCK, INC. APPROVAL, NDE STAMP & LEVEL

CUSTOMER APPROVAL

FL/ANI REVIEW:

NIS-2 No. 2-000
Sheet 7 of 34

11-B.9

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220
(b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 094
Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.
 - (b) Description of Part Inspected Safe End
 - (c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976, Case No. N/A Class 1

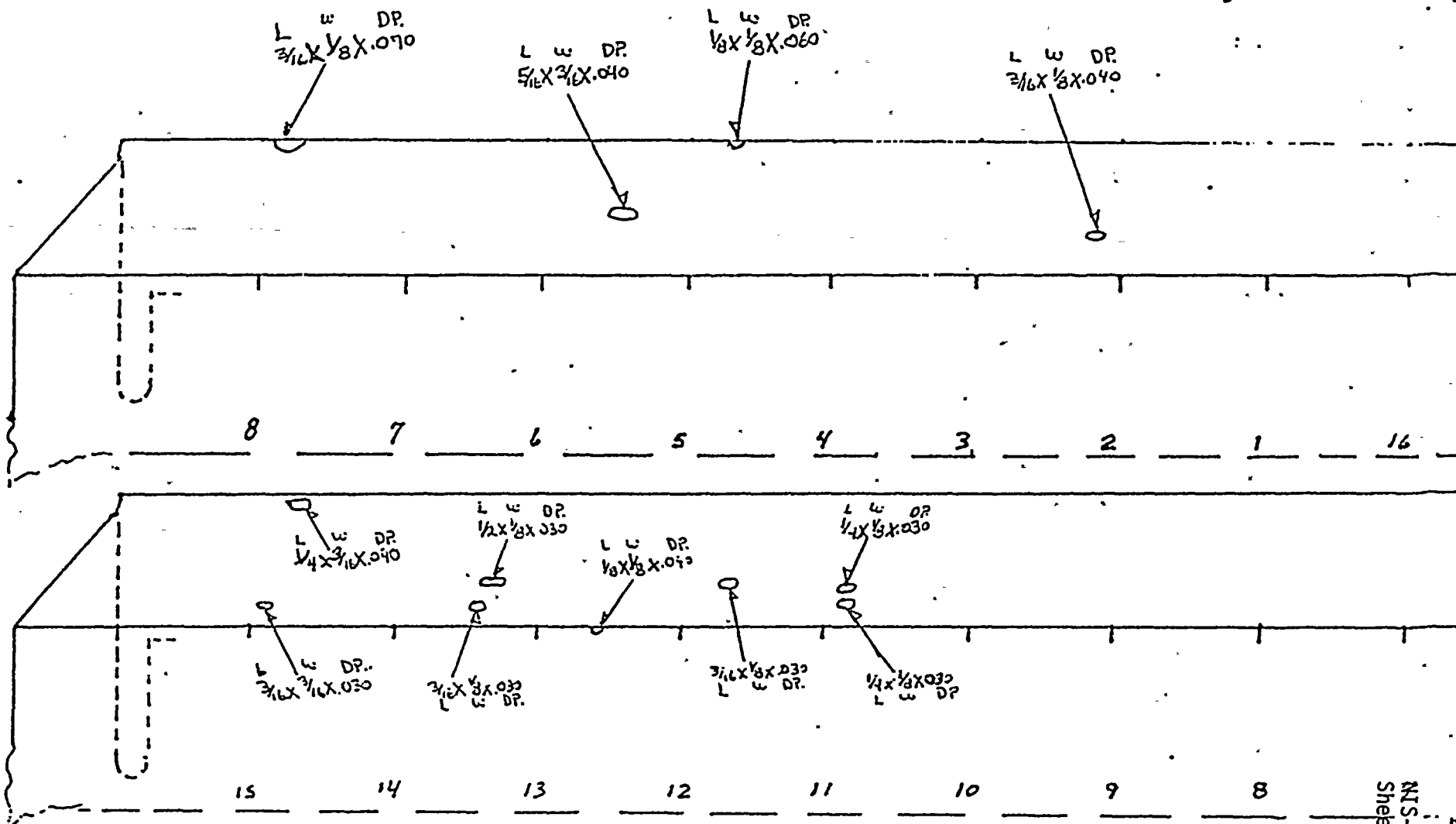
Remarks: See Sketch

Date: July 7, 1979 MURDOCK, INC. Signed W.B.P.
Manufacturer

Date July 9th 1979

Mahendran N. Contractor. Commissions Calif. 1408
Inspector's Signature (M.N. Contractor)





OUTSIDE DIAMETER ROLLED INTO FLAT PATTERN - NUMBERS REPRESENT X RAY REFERENCE

S.O.B. # 2-6523-C1
 TRAIL # 5730 R1
 CP # 11
 DATE 5-2-06

NAME SHIFF LN
 SIN MI 094
 DWG 112 22704
 DIAD =

CA-5
 7-7-79 (R)

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd., Compton, CA 90220
(Name and address of NPT Certificate Holder)
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave., San Jose, CA 95125
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holder's Serial No. of Part MI 095 Nat'l Bd. No. N/A
112D2704 Rev. 1 ECN-NHO3747
- (a) Constructed According to Drawing No. _____ Drawing Prepared by General Electric Co.
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 1976, Case No. N/A Class 1
3. Remarks: Recirculating Inlet Nozzle for Reactor Vessel
(Brief description of service for which component was designed)
Forging SA 182 F316L 9.920 \pm .000 \pm .06
Rework: See Attachments 1 (2 sheets) and 2 (2 sheets)
Identification as per NA 8312

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date July 7 1979 Signed MURDOCK, INC. By W. B. F.
(NPT Certificate Holder)

Certificate of Authorization Expires January 5, 1982 Certificate of Authorization No. N-1290

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State _____ Reg. No. _____

Stress analysis report certified by N/A Prof. Eng. State _____ Reg. No. _____

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by LMC**
of Long Grove, Illinois have inspected the part of a pressure vessel described in this
Partial Data Report on July 9th 1979 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date July 9th 1979

Mahendran N. Contractor Commissions
Inspector's Signature M.N. Contractor

Calif. 1408

National Board (State, Province and No.)



* Supplemental sheets in form of flats, sketches or drawings may be used provided (1) also is 8 1/2" x 11", (2) information in items 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

** Lumbermens Mutual Casualty Company
(10/77)

This form 1E000401 may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

FOR INFORMATION ONLY

11-B.12

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220
(b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 095
Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.
 - (b) Description of Part Inspected Safe End
 - (c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976, Case No. N/A Class 1

Remarks: See LP Report No. GEJ 0717

Date: July 7, 1979 MURDOCK, INC. Signed W. B. P.
Manufacturer

Date July 9th 1979

Mahendran N. Contractor. Commissions Calif. 1408
Inspector's Signature (M.N. Contractor).



Page 2 of 2

NIS-2 No. 12-000
Sheet 12 of 34

AI/ANI REVIEW:

[illegible]

11-B.14

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220
(b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 095
Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.
 - (b) Description of Part Inspected Safe End
 - (c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976, Case No. N/A Class 1

Remarks: See Sketch

Date: July 7, 1979 MURDOCK, INC.
Manufacturer

Signed [Signature]

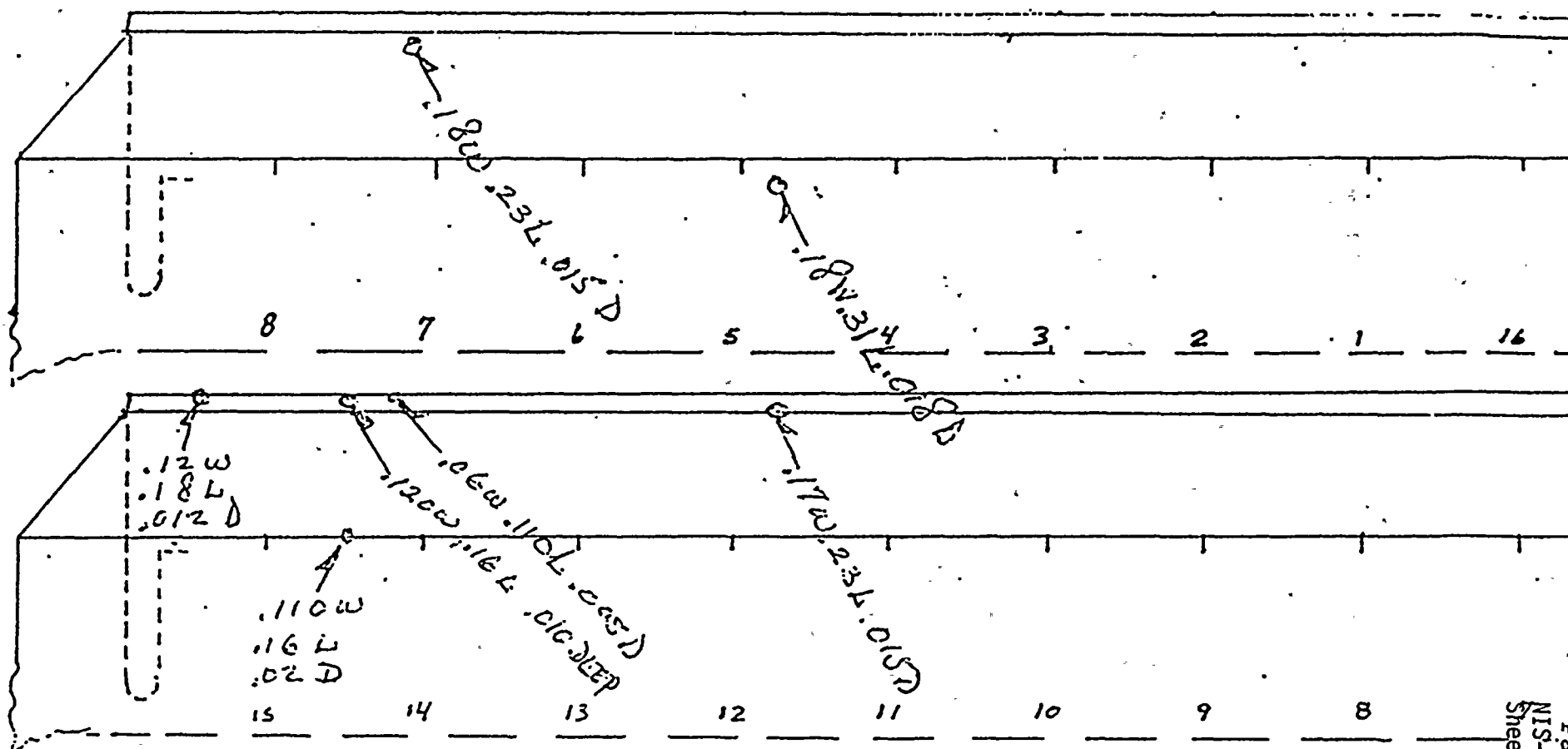
Date July 9th 1979

Melvin N. Contractor.
Inspector's Signature (M.N. Contractor)

Commissions

Calif. 1408





OUTSIDE DIAMETER ROLLED INTO FLAT PATTERN - NUMBERS REPRESENT X RAY REFERENCE

JOB # 2-6523-31
 TRAP 5729 R1
 CP# 40
 DATE 7-2-9

NAME SAFE END
 SIN MI C.9.5
 DWG 112 D 2702
 DMD#

DATE
 JWH
 7-7-79 (B)

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd., Compton, CA 90220
(Name and address of NPT Certificate Holder)
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave., San Jose, CA 95125
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holder's Serial No. of Part MI 096 Nat'l Bd. No. N/A
112D2704 Rev. 1 ECN-NHO3747
- (a) Constructed According to Drawing No. _____ Drawing Prepared by General Electric Co.
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 1976, Case No. N/A Class 1
3. Remarks: Recirculating Inlet Nozzle for Reactor Vessel
(Brief description of service for which component was designed)
- Forging SA 182 F316L 9.920 ^{+0.000} _{-0.015} I.D./14.25 ^{+0.06} _{-0.00} O.D.
- Rework: See Attachments 1 (2 sheets)
- Identification as per NA 8312

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date July 7, 1979 Signed MURDOCK, INC. By G. B. [Signature]
(NPT Certificate Holder)

Certificate of Authorization Expires January 5, 1982 Certificate of Authorization No. N-1290

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State _____ Reg. No. _____

Stress analysis report certified by N/A Prof. Eng. State _____ Reg. No. _____

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by LMC** of Long Grove, Illinois have inspected the part of a pressure vessel described in this Partial Data Report on July 7th 1979 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date July 9th 1979

Mahendran N. Contractor
Inspector's Signature

Commissions

Calif. 1408

National Board State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is provided in item 3, "Remarks".

*Lumbermens Mutual Casualty Company
(10/77)

This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

FOR INFORMATION ONLY

11-B.17

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220

(b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 096
Nat'l Bd. No. N/A

(a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.

(b) Description of Part Inspected Safe End

(c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976, Case No. N/A Class 1

Remarks: See LP Report No. GEJ 0716

Date: July 7, 1979 MURDOCK, INC.
Manufacturer

Signed

W. B. P.

Date July 9th 1979

Mahendran N. Contractor. Commissions
Inspector's Signature (M.N. Contractor)



Calif. 1408



LIQUID PENETRANT EXAMINATION REPORT

Attachment 1 Page 2 of

CUSTOMER <i>General Electric</i>		WORK ORDER NO. <i>2-6523-01</i>	DATE <i>7-2-79</i>	REPORT NO. <i>GEJ 0716</i>	NAME OF ITEM OR DESCRIPTION <i>SAFE END</i>		
SURFACE CONDITION <i>Smooth</i>		INSPECTION STANDARDS USED <i>QP-204 Rev. N/C</i>		ACCEPTANCE STANDARD <i>QP-204 Rev. N/C</i>		NDE PROCEDURE NO. <i>QP-204 Rev. N/C</i>	
TYPE OF LIQUID PENETRANT MATERIALS USED <i>Spotcheck Penetrant SKL-HF/SKL-S Batch # 6M018</i> <i>Spotcheck Cleaner SKC-S Batch # 79A003</i> <i>Spotcheck Developer SKD-S Batch # 79P048</i>				<input type="checkbox"/> POST EMULSIFIED <input checked="" type="checkbox"/> SOLVENT REMOVABLE		<input type="checkbox"/> WATER WASHABLE <input type="checkbox"/> FLUORESCENT <input checked="" type="checkbox"/> VISIBLE	
TYPE OF WORK <i>Rework</i>		TYPE OF MATERIAL <i>SISE INCOOL</i>		PENETRANT DWELL TIME <i>20 MIN.</i>		DEVELOPMENT TIME AND TYPE <i>15 MIN.</i> <input type="checkbox"/> WET <input type="checkbox"/> DRY <input checked="" type="checkbox"/> NONAQUEOUS	
DRAWING OR ITEM NO. <i>112D2704 Det-P1</i>		SERIAL NO. <i>MI 096</i>		TYPE OF DEFECT CODE: C-CRACK, P-POROSITY, NF-NONFUSION, LT-LINEAR INDICATION, S-SLAG, LA-LAMINATION, OTHERS-SPECIFY			

WELD NO.	ACC	REJ	DEFECT CODE	TRAVELER SER. NO.	TRAVELER OPER. NO.	DATE	DMD/REMARKS & STAMP
<i>INSP Entire Item 100%</i> <i>AFTER FINAL MACH PER NOTE #2 OF DWG.</i>	—	<i>1</i>	<i>LT</i>	<i>5744R2</i>	<i>20</i>	<i>7/2/79</i>	
<i>INSP AREA Between X-RAY Station NO. 4-5 where Linear Indication was detected & Removed by Blending only Light Grinding was used to Remove defect.</i>	<i>X</i>	—	—	<i>5744R2</i>	<i>40</i>	<i>7/2/79</i>	

NIS-2 No. 2-0001
Sheet 17 of 34

VERCOCK, INC. APPROVAL, NDE STAMP & LEVEL

CUSTOMER APPROVAL

AI/ANI REVIEW:

J. Galbraith Level III

JWH
7-7-79

7-9-79

NIS-2 No. 2-0001

Sheet 18 of 34

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd., Compton, CA 90220
(Name and address of NPT Certificate Holder)
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave., San Jose, CA 95125
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification: Certificate Holder's Serial No. of Part MI 097 Nat'l Bd. No. N/A
112D2704 Rev. 1 ECN-NHO3747
(a) Constructed According to Drawing No. _____ Drawing Prepared by General Electric Co.
(b) Description of Part Inspected Safe End
(c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 1976, Case No. N/A Class 1
3. Remarks: Recirculating Inlet Nozzle for Reactor Vessel
(Brief description of service for which component was designed)
Forging SA 182 F316L 9.920 \pm .000 \pm .06 I.D./14.25 \pm .00 O.D.
Rework: See Attachments 1 (2 sheets) and 2 (2 sheets)
Identification as per NA 8312

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date July 7 1979 Signed MURDOCK, INC. By W. B. [Signature]
(NPT Certificate Holder)
Certificate of Authorization Expires January 5, 1982 Certificate of Authorization No. N-1290

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State _____ Reg. No. _____

Stress analysis report certified by N/A Prof. Eng. State _____ Reg. No. _____

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by LMC**
of Long Grove, Illinois have inspected the part of a pressure vessel described in this

Partial Data Report on July 9th 1979 and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date July 9th 1979



M. N. Contractor Commissions Calif. 1408
Inspector's Signature M.N. Contractor National Board, State, Province and No.

Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in items 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

*Lumbermens Mutual Casualty Company
(10/77)

This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

FOR INFORMATION ONLY

11-B.20

Attachment 1

Page 1 of 2

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 097
Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976, Case No. N/A Class 1

Remarks: See LP Report No. GEJ 0718

Date: July 7, 1979 MURDOCK, INC. Signed [Signature]
Manufacturer

Date July 9th 1979

Mahendra N. Contractor. Commissions Calif. 1408
Inspector's Signature (M.N. Contractor)



LIQUID PENETRANT EXAMINATION REPORT

Attachment 1 Page 2 of 2

CUSTOMER <i>General Electric</i>		WORK ORDER NO. <i>2-6523-01</i>	DATE <i>7-2-79</i>	REPORT NO. <i>LET0718</i>	NAME OF ITEM OR DESCRIPTION <i>SAFE END</i>		
SURFACE CONDITION <i>Smooth</i>		INSPECTION STANDARDS USED <i>QR204 Rev. NIC</i>		ACCEPTANCE STANDARD <i>QR204 Rev. NIC</i>		NDE PROCEDURE NO. <i>QR204 Rev. NIC</i>	
TYPE OF LIQUID PENETRANT MATERIALS USED <i>Spotcheck Penetrant - SKL-HF15TL-5 Batch # 677018</i> <i>Spotcheck Cleaner - SKC-5 Batch # 797003</i> <i>Spotcheck Developer - SKD-5 Batch # 798048</i>				<input type="checkbox"/> POST EMULSIFIED <input checked="" type="checkbox"/> SOLVENT REMOVABLE		<input type="checkbox"/> WATER WASHABLE <input type="checkbox"/> FLUORESCENT <input checked="" type="checkbox"/> VISIBLE <input checked="" type="checkbox"/> NONAQUEOUS	
TYPE OF WORK <i>REPAIR</i>		TYPE OF MATERIAL <i>S/S & INCONEL</i>		PENETRANT DWELL TIME <i>20 MIN.</i>		DEVELOPMENT TIME AND TYPE <i>15 MIN.</i> <input type="checkbox"/> WET <input type="checkbox"/> DRY <input checked="" type="checkbox"/> NONAQUEOUS	
DRAWING OR ITEM NO. <i>112D2704 Det-P1</i>		SERIAL NO. <i>MT 097</i>		TYPE OF DEFECT CODE: C-CRACK, P-POROSITY, NF-NONFUSION, LT-LINEAR INDICATION, S-SLAG, LA-LAMINATION, OTHERS-SPECIFY			

WELD NO.	ACC	REJ	DEFECT CODE	TRAVELER SER. NO.	TRAVELER OPER. NO.	DATE	DMD/REMARKS & STAMP
<i>INSP ENTIRE ITEM 100% PCR Note #2 OF DWG.</i>	—	1	LT	5745R2	20	7/2/79	(1)
<i>GROUND OUT DEFECTS</i>	1	—	N/A	5745R2	4.0	7.2-9	(2)
<i>REPAIRED AREAS</i>	OK	0	N/A	5745R-2	060	7-4-79	(2)

NIS-2 No. 12-000
Sheet 20 of 34

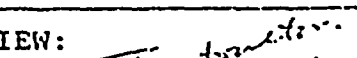
VERTECK, INC. APPROVAL, NDE STAMP & LEVEL

CUSTOMER APPROVAL

SA/ANI REVIEW:

Barthelme II


 JWH 7-2-79


 7-9-79

11-8-22

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220
(b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 097
Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.
 - (b) Description of Part Inspected Safe End
 - (c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976; Case No. N/A Class 1

Remarks: See Sketch

Date: July 7, 1979 MURDOCK, INC. Signed W.B. Smith
Manufacturer

Date July 9th 1979

Machin. N. Contractor. Commissions Calif. 1408
Inspector's Signature (M.N. Contractor)



FOR RELEASE TO GOV

11-8.23



DA-EF
JWH
7-7-78 (R)

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd., Compton, CA 90220
(Name and address of NPT Certificate Holder)
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave., San Jose, CA 95125
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification: Certificate Holder's Serial No. of Part MI 098 Nat'l Bd. No. N/A
112D2704 Rev. 1 ECN-NHO3747
- (a) Constructed According to Drawing No. Safe End Drawing Prepared by General Electric Co.
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 1976, Case No. N/A Class 1
3. Remarks: Recirculating Inlet Nozzle for Reactor Vessel
(Brief description of service for which component was designed)
Forging SA 182 F316L 9.920 $\pm .000$ I.D./14.25 $\pm .06$ O.D.
Rework: See Attachments 1 (2 sheets) and 2 (2 sheets)
Identification as per NA 8312

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date July 7, 1979 Signed MURDOCK, INC. By W. B. [Signature]
(NPT Certificate Holder)

Certificate of Authorization Expires January 5, 1982 Certificate of Authorization No. N-1290

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State Reg. No.

Stress analysis report certified by N/A Prof. Eng. State Reg. No.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by LMC**
of Long Grove, Illinois have inspected the part of a pressure vessel described in this
Partial Data Report on July 9th, 1979 and state that to the best of my knowledge
and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date July 9th, 1979



Maher N. Contractor Commissions Calif. 1408
Inspector's Signature M.N. Contractor National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) also in 4W" x 11", (2) information in items 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

**Lumbermens Mutual Casualty Company
(10/77)

This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

FOR INFORMATION ONLY

11-B.25

Attachment 1

Page 1 of 2

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220

(b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 098
Nat'l Bd. No. N/A

(a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.

(b) Description of Part Inspected Safe End

(c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976, Case No. N/A Class 1

Remarks: See LP Report No. GEJ 0689

Date: July 7, 1979 MURDOCK, INC.
Manufacturer

Signed

Date July 9th 1979

Michael N. Contractor Commissions
Inspector's Signature (M.N. Contractor)

Calif. 1408



11-B.26

CUSTOMER GEJ	WORK ORDER NO. Z-6523-01	DATE 7-2-79	REPORT NO. GEJ 0689	NAME OF ITEM OR DESCRIPTION SAFE END			
SURFACE CONDITION MACHINED	INSPECTION STANDARDS USED QP 204 N/C		ACCEPTANCE STANDARD QP 204 N/C		NDE PROCEDURE NO. QP 204 N/C		
TYPE OF LIQUID PENETRANT MATERIALS USED DEVELOPER - BATCH 79B048 SKD-S SOLVANT - BATCH 79A003 SKC-S PENETRANT - BATCH 6M018 SKL-NF/SKL...			<input type="checkbox"/> POST EMULSIFIED <input checked="" type="checkbox"/> SOLVENT REMOVABLE		<input type="checkbox"/> WATER WASHABLE <input type="checkbox"/> FLUORESCENT		<input checked="" type="checkbox"/> VISIBL
TYPE OF WORK NEW		TYPE OF MATERIAL INCONEL OVER S.S.		PENETRANT DWELL TIME 22 MIN.		DEVELOPMENT TIME AND TYPE 8 MIN. <input type="checkbox"/> WET <input type="checkbox"/> DRY <input checked="" type="checkbox"/> NONAQUEOUS	
DRAWING OR ITEM NO. 112D 2704		SERIAL NO. M1-098		TYPE OF DEFECT CODE: C-CRACK, P-POROSITY, NF-NONFUSION, LT-LINEAR INDICATION, S-SLAG, LA-LAMINATION, OTHERS-SPECIFY			
WELD NO.	ACC	REJ	DEFECT CODE	TRAVELER SER. NO.	TRAVELER OPER. NO.	DATE	DMD/REMARKS & STAMP
PT COMPLETE UNIT WITH DEFECTS SHOWING UP IN WELD AREA	0	1	LT-P	5728 RZ	40	7-2-79	
GROUND OUT DEFECT	X	0	N/A	5728 R2	40B	7-2-79	
DEFLECTS WELDED	X	-	N/A	5728 R2	40D	7-2-79	

INSPECTION, INC. APPROVAL, NDE STAMP & LEVEL

CUSTOMER APPROVAL

AT/ANI REVIEW:

NIS-2 No. 2-0001
Sheet 25 of 34

11-8-27

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220

(b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 098
Nat'l Bd. No. N/A

(a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.

(b) Description of Part Inspected Safe End

(c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976, Case No. N/A Class 1

Remarks: See Sketch

Date: July 2, 1979 MURDOCK, INC. Signed H. P. P. h.
Manufacturer

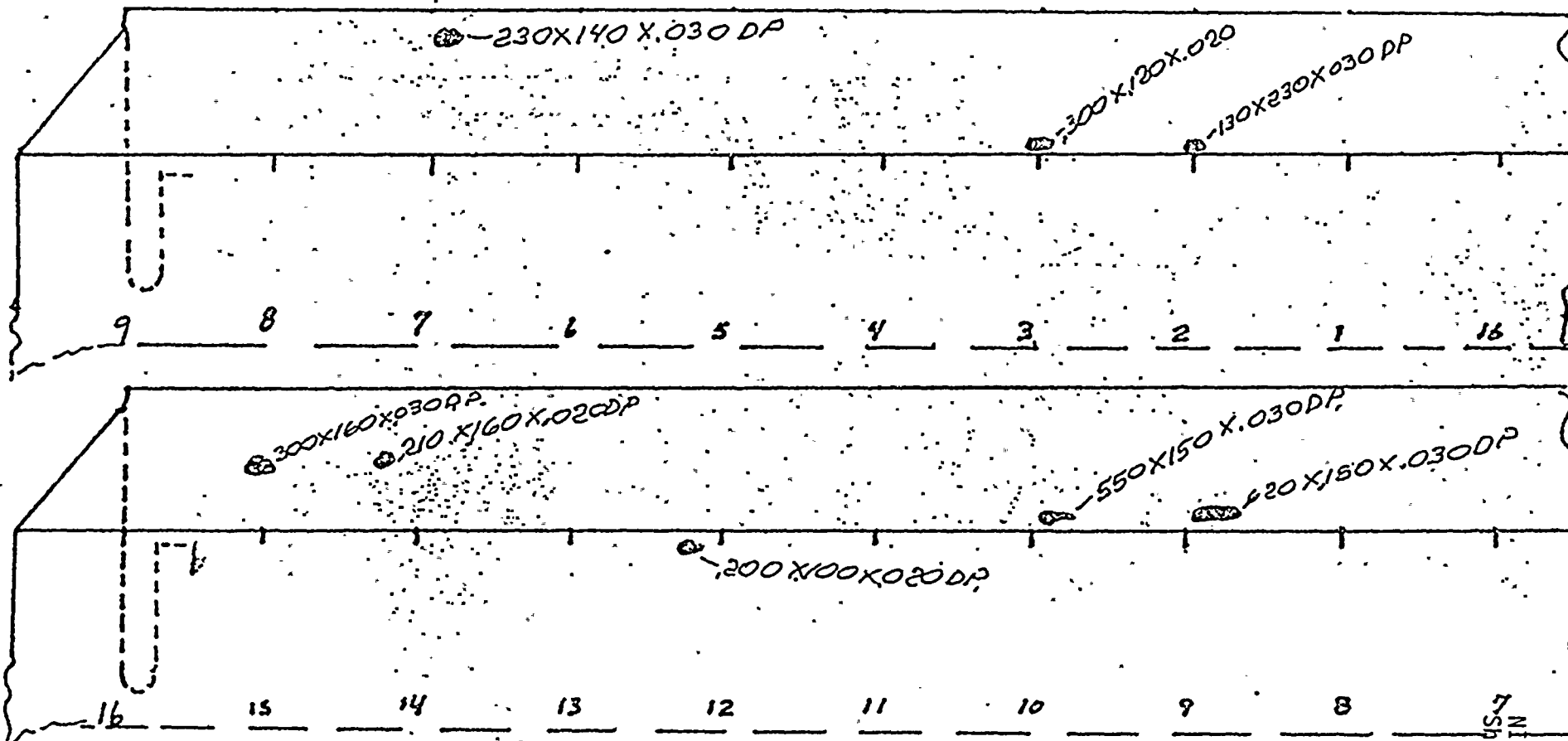
Date July 9th 1979

Mahesh N. Contractor. Commissions Calif. 1408
Inspector's Signature (M.N. Contractor)



11-B.28

FOR INFORMATION ONLY



OUTSIDE DIAMETER ROLLED INTO FLAT PATTERN - NUMBERS REPRESENT X-RAY REFERENCE

JOB # 2-6523-01
TRAV # 5228 R2
OP # 40B
DATE 7-2-79

NAME SAFC END
S/N MI-098
DWG 112D2704
DMD # N/A

QA
JWH
7-7-79 (R)

As required by the Provision of the ASME Code Rules, Section III, Div. 1

REVISED

NIS-2 No. 2-0001

Sheet 28 of 34

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd., Compton, CA 90220
(Name and address of NPT Certificate Holder)
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave., San Jose, CA 95125
(Name and address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holder's Serial No. of Part MI 099 Nat'l Bd. No. N/A
112D2704 Rev. 1 ECN-NHO3747
- (a) Constructed According to Drawing No. General Electric Co. Drawing Prepared by General Electric Co.
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 1976, Case No. N/A Class 1
3. Remarks: Recirculating Inlet Nozzle for Reactor Vessel
(Brief description of service for which component was designed)
Forging SA 182 F316L 9.920 ^{+0.00} _{-0.015} I.D./14.25 ^{+0.06} _{-0.00} O.D.
Rework: See Attachments 1 (2 sheets) and 2 (2 sheets)
Identification as per NA 8312

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date July 7, 1979 Signed MURDOCK, INC. By W. B. Danahy
(NPT Certificate Holder)

Certificate of Authorization Expires January 5, 1982 Certificate of Authorization No. N-1290

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State Reg. No.

Stress analysis report certified by N/A Prof. Eng. State Reg. No.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by LMC**
of Long Grove, Illinois have inspected the part of a pressure vessel described in this
Partial Data Report on July 9th 1979, and state that to the best of my knowledge
and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date July 9th 1979

Malenderson N. Contractor Commissions Calif. 1408
Inspector's Signature M.N. Contractor National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) also is 8W" x 11", (2) information in items 1-2 on this
Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

**Lumbermens Mutual Casualty Company
(10/77)

This form 1E00040 may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

FOR INFORMATION ONLY

11-B.30

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 099
Nat'l Bd. No. N/A
- (a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976, Case No. N/A Class 1

Remarks: See LP Report No. GEJ 0690

Date: July 7, 1979 MURDOCK, INC.
Manufacturer

Signed [Signature]

Date July 2th 1979

Mahendra N. Contractor.
Inspector's Signature (M.N. Contractor)

Commissions

Calif. 1408



LIQUID PENETRANT EXAMINATION REPORT

Attachment Page 2 of

CUSTOMER GET		WORK ORDER NO. 2-6523-01	DATE 7-2-79	REPORT NO. GET 0690	NAME OF ITEM OR DESCRIPTION SAFE END		
SURFACE CONDITION MACHINED	INSPECTION STANDARDS USED QP 204 N/C		ACCEPTANCE STANDARD QP 204 N/C		NDE PROCEDURE NO. QP 204 N/C		
TYPE OF LIQUID PENETRANT MATERIALS USED DEVELOPER - BATCH 79B048 SKD-S SOLVENT - BATCH 79A003 SKC-S PENETRANT - BATCH 6M018 SKL-NF/SKL				<input type="checkbox"/> POST EMULSIFIED <input checked="" type="checkbox"/> SOLVENT REMOVABLE		<input type="checkbox"/> WATER WASHABLE <input type="checkbox"/> FLUORESCENT <input checked="" type="checkbox"/> VISIBLE	
TYPE OF WORK NEW		TYPE OF MATERIAL INCONSISTENT S.S.		DEVELOPMENT TIME AND TYPE 20 MIN. <input type="checkbox"/> WET <input checked="" type="checkbox"/> DRY <input checked="" type="checkbox"/> NONAQUEOUS			
DRAWING OR ITEM NO. 112 D 2204		SERIAL NO. M1-099		TYPE OF DEFECT CODE: C-CRACK, P-POROSITY, NF-HONFUSION, LT-LINEAR INDICATION, S-SLAG, LA-LAMINATION, OTHERS-SPECIFY			

WELD NO.	ACC	REJ	DEFECT CODE	TRAVELER SER. NO.	TRAVELER OPER. NO.	DATE	DMD/REMARKS & STAMP
PT COMPLETE UNIT WITH DEFECTS SHOWN IN WELD AREA	0	1	LT - P	5746 R1	40	7-2-79	
GROUND OUT DEFECTS	X	0	N/A	5746 R1	40 B	7-3-79	
REPAIRED AREAS	X	0	N/A	5746 R1	40 D	7-5-79	

MURDOCK, INC. APPROVAL, NDE STAMP & LEVEL

CUSTOMER APPROVAL

AI/ANI REVIEW:

11-B.32

NIS-2 No. 2-0001
Sheet 30 of 34

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd.,
Compton, CA 90220
(b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave.,
San Jose, CA 95125
2. Identification-Certificate Holder's Serial No. of Part MI 099
Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No. 112D2704 Rev. 1
ECN-NH03747, Drawing Prepared by General Electric Co.
 - (b) Description of Part Inspected Safe End
 - (c) Applicable ASME Code: Section III, Edition 1974, Addenda
date Summer 1976, Case No. N/A Class 1

Remarks: See Sketch

Date: July 7, 1979 MURDOCK, INC. Signed W.B. R.
Manufacturer

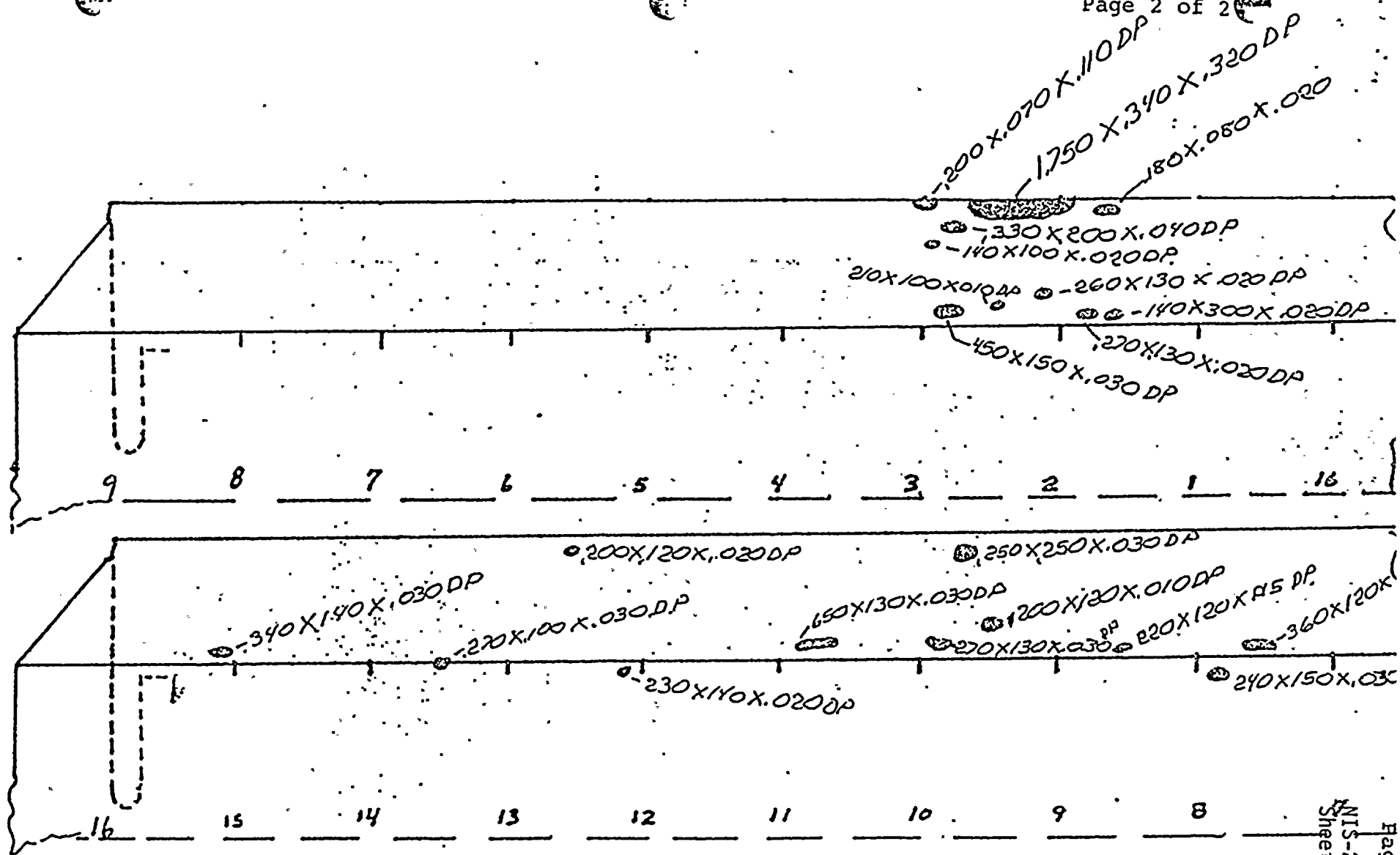
Date July 9th 1979

Mahendra N. Contractor. Commissions Calif. 1408
Inspector's Signature (M.N. Contractor)



11-B.33

FOR INFORMATION ONLY



OUTSIDE DIAMETER ROLLED INTO FLAT PATTERN - NUMBERS REPRESENT X RAY REFERENCE

JOB # 2-6523-01
 TRAV # 5246 R1
 OP # 40R
 DATE 2-3-79

NAME SAFE END
 SIN # 11099
 DWG 112D2704
 DIMD # N/A

QA-FE
 11-2-79
 JWH
 7-7-79

11-B.34

FORM N-2 MANUFACTURER'S DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provisions of the ASME Code

NIS-2 No. 2-0001

Sheet 33 of 34

1. (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd., Compton, CA 90220
(Name and address of Manufacturer of part)
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave., San Jose, CA 95125
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part MI 100 Nat'l Id. No. N/A
- (a) Constructed According to Drawing No. 112D2704 Rev.1 ECN-NH03747 Drawing Prepared by General Electric Co.
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 1976, Case No. N/A Class 1
3. Remarks: Recirculating Inlet Nozzle for Reactor Vessel
(Brief description of service for which component was designed)
- Forging SA 182 F316L 9.920 \pm .000 \pm .06 I.D./14.25 \pm .00 O.D.

Identification as per NA 8312

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date June 4 1979 Signed MURDOCK, INC. By W. B. Parker
(Manufacturer)

Certificate of Authorization Expires January 5, 1982 Certificate of Authorization No. N-1290

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State Reg. No.

Stress analysis report certified by N/A Prof. Eng. State Reg. No.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by LMC** of Long Grove, Illinois have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on 6th June 1979, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 6th June 1979Inspector's Signature Mahmud N. Contractor

Commissions

Calif. 1408

National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in Items 1-2 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3, "Remarks".

**Lumbermens Mutual Casualty Company

FOR INFORMATION ONLY

11-B.35

- (a) Manufactured by MURDOCK, INC., 15800 S. Avalon Blvd., Compton, CA 90220
(Name and address of Manufacturer of part)
- (b) Manufactured for GENERAL ELECTRIC CO., 175 Curtner Ave., San Jose, CA 951
(Name and address of Manufacturer of completed nuclear component)
2. Identification-Manufacturer's Serial No. of Part MI 101 Nat'l Id. No. N/A
- (a) Constructed According to Drawing No. .112D2704 Rev.1 ECN-NH03747 General Electric Co.
Drawing Prepared by
- (b) Description of Part Inspected Safe End
- (c) Applicable ASME Code: Section III, Edition 1974, Addenda date Summer 1976, Case No. N/A Class 1
3. Remarks: Recirculating Inlet Nozzle for Reactor Vessel
(Brief description of service for which component was designed)
- Forging SA 182 F316L 9.920 - .015 I.D./14.25 - .00 O.D.

Identification as per NA 8312

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date MAY 23 1979 Signed MURDOCK, INC. By [Signature]
(Manufacturer)

Certificate of Authorization Expires January 5, 1982 Certificate of Authorization No. N-1290

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at N/A

Stress analysis report on file at N/A

Design specifications certified by N/A Prof. Eng. State Reg. No.

Stress analysis report certified by N/A Prof. Eng. State Reg. No.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by LMC** of Long Grove, Illinois have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on 5/23/1979, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 5-23- 1979

Mahendran N. Contractor

Inspector's Signature M.N. Contractor

Commission

Calif. 1408

National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8 1/2" x 11", (2) information in Items 1-2 on this data report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3, "Remarks".

**Lumbermens Mutual Casualty Company



WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
 2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
 3. Work Performed by Bectel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.
 (Address)
 4. Identification of System Residual Heat Removal (RHR)
 5. (a) Applicable Construction Code ASME III 19 71 Edition, S73 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1980, W '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RHR-V-27A	Velan	349	N/A	N/A	N/A	1976	Modified	Yes, Class 2
RHR-V-27B	Velan	355	N/A	N/A	N/A	1976	Modified	Yes, Class 2

7. Description of Work 3/4" dia. x 6" long bonnet drain was added as follows:

- 1) Drilled drain hole in the bonnet.
- 2) PT examined the drilled area.
- 3) Fitted and welded the drain pipe to the bonnet.
- 4) PT examined the completed weld. PT examination results acceptable.
- 5) Performed final drilling (drilled 45° angle hole from the inside of the bonnet to connect to the bonnet drain).
- 6) Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 *Test Pressure 625 psi Test Temp 60 °F Component Design Pressure 500 Temp. 358

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

FOR INFORMATION ONLY

*Test pressure of 625 psig is 1.1X system operating pressure.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this modification conforms to Section XI of the

ASME Code.

15415
Signed 3/24/83 B. A. Schubert (Owner or Owner's Designee) A. E. H. W. P. 2 (Date) 3/30 83

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the Modification described in this Report on 2/21. 19 83
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/13/83 A. M. Fort (Inspector) Commissions 7486W
(State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8½ in. x 11 in., (2) information in items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
 2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
 (Name)
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc..
 (Address)

4. Identification of System Standby Liquid Control (SLC)
 5. (a) Applicable Construction Code Sec. III 1971 Edition, W. '73 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
SLC-TK-1	Lamco	274	N/A	N/A	N/A	1975	Modified	Yes (Class 2)
N-10								

7. Description of Work A 3-inch stainless steel nozzle was added to the SLC-TK-1. The new nozzle is located at 549'-7 1/2" elevation and is 45° west of existing nozzle N2. The nozzle-to-tank weld was liquid penetrate examined. The PT was acceptable. The 3-inch stainless steel nozzle is ASME SA 312 TP 304.

Test Conducted:

- * Filled the tank to the highest point (filled it up to overflow nozzle N1). Maintained head for one hour. Visually examined the weld. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ Static Head *
 Test Pressure ATM psi Test Temp 72.9 °F Component Design Pressure ATM Temp. 200 °F

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

FOR INFORMATION ONLY

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this modification conforms to Section XI of the ASME Code.

3/26/83 B. A. Chulley Mar Eng WIP 3/30/83 19
(Owner or Owner's Designee) Title (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Washington, employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the Modification described in this Report on 7/3/83 83
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/31/83 A. M. East 7486 W
(Inspector) Commissions (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8 1/2 in. x 11 in., (2) information in items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
 2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.,
 (Address)

4. Identification of System Reactor Recirculation (RRC)

** 5. (a) Applicable Construction Code ASME III 19 71 Edition, N/A Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RRC-V-60A	Ham-Dah	71/2005/001A	N/A	N/A	N/A	1976	Modified	Yes, Class 1
RRC-V-60B	Ham-Dah	71/2005/002A	N/A	N/A	N/A	1976	Modified	Yes, Class 1

7. Description of Work A bonnet vent was added. A hole was drilled into the bonnet, a 3/4" schedule 80S pipe was welded to the bonnet and PT the final weld. The PT exam was acceptable. The schedule 80S pipe is ASME SA-312 TP304. Performed hydrostatic test. No evidence of leakage.

** Body - ASME Section III, 1971 Edition with no Addenda.

Bonnet - ASME Section III, 1971 Edition with S71 Addenda.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 * Test Pressure 1217 psi Test Temp 168 °F Component Design Pressure 1675 psig Temp. 575 °F

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

* Test pressure of 1217 psig is 1.1 x system operating pressure.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this modification conforms to Section XI of the ASME Code.

Signed B. A. Schuler Mar. Engr. WUP2 3/30/83 .19
 (Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the MODIFICATION described in this Report on 3/21 .19 83
 (Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/21/83 A. M. Foster Commissions 7486W
 (Inspector) (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8½ in. X 11 in., (2) information in items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
2. Plant WNP-2 (Address) 1 Unit N/A
Hanford, Benton County, WA 99352
3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.
4. Identification of System Reactor Feedwater (RFW)
5. (a) Applicable Construction Code ASME III, 1971 Edition, W. '72 Addenda, Code Cases 1516
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1980, W. '80 Addenda, Code Cases N308
6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RFW-V-32B	Anc/Dar	1N-110-	N/A	N/A	N/A	1975	Modified	Yes, Class 1

7. Description of Work A drain connection was added to the 24" valve body. A hole was drilled into the bottom of the body, 29" from the downstream end. A 3/4" SA-105 pipe was welded to the body and this weld was examined by MT. The MT results were acceptable. Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 * Test Pressure 1217 psi Test Temp 168 °F Component Design Pressure 2790 psi Temp. 100 °F

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

FOR INFORMATION ONLY

* Test pressure of 1217 psig is 1.1 x system operating pressure.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this modification conforms to Section XI of the

ASME Code.

Signed B. A. Holmberg 3/30/83 Mgr Eng'g WNP-2
 (Owner or Owner's Designee) Title (Date)
B. A. Holmberg, Manager, WNP-2 Engineering

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington, employed by Lumberman's Mutual Casualty Co. of ILLINOIS have inspected the Modification described in this Report on 2/21, 19 82
 (Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/2/83 A. M. Felt Commissions 7486 W
 (Inspector) (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8 1/2 in. X 11 in., (2) information in items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 2. Plant WNP-2 (Address) Hanford, Benton County, WA 99352 Unit N/A
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc..
 4. Identification of System Residual Heat Removal (RHR)
 5. (a) Applicable Construction Code ASME III, 74 Edition, S, '75 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1980, W, '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RHR-V-123A	Borg-W	22303	N/A	N/A	N/A	1978	Repair	Yes (Class 2)

7. Description of Work Weld built-up was performed on the valve body to 1" x 2" reducer insert fillet welds. Weld built-up of the fillet welds was required because of the undersized fillet. The weld built-up was PT examined. PT examination results acceptable. Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 *Test Pressure 1217 psi Test Temp 168 °F Component Design Pressure 3600 psig Temp. 100 °F

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

*Test pressure of 1217 psig is 1.1 x system operating pressure

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the

ASME Code.

KSmith
3/26/83

B. A. Holmberg Manager, WNP-2 Engineering
(Owner or Owner's Designee) (Title)
B. A. Holmberg, Manager, WNP-2 Engineering

3/30/83 .19
(Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 7/7/83 .19 83
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/31/83 A. M. Fast
(Inspector)

Commissions 7486W
(State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8 1/2 in. X 11 in., (2) information in items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.,
 (Address)
4. Identification of System Main Steam Line B (MS)
5. (a) Applicable Construction Code ASME III 74 Edition, S. '75 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements—1980, W. '80 Addenda, Code Cases N308
6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
MS-LS-24B	Manetrol	613600	N/A	N/A	N/A	1979	Repaired	Yes, Class 2

7. Description of Work The areas on the tank switch were blended down to less than the required wall. The areas were repaired by welding as follows:

- 1) MT and UT examined the excavated areas.
- 2) Areas below the required wall were repaired by welding.
- 3) Repaired areas were blended smoothly with the adjacent base metal.
- 4) The final repaired areas were UT examined for wall thickness check and also RT examined. NDE results were acceptable.
- 5) Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 * Test Pressure 1375 psi Test Temp 131 °F Component Design Pressure 1250 psi Temp. 5750 F
9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

* Test pressure of 1375 psig is 1.1 x System operating pressure.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the ASME Code.

1/24/83 Signed B.A. Schubert (Owner or Owner's Designee) Mar Eng UNP 2 Title US 3/30/83 (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3-31-83 (Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-31-83 James H. Brent (Inspector) Commissions 6265 W (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8½ in. x 11 in., (2) information in Items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 2. Plant WNP-2 (Address) Unit N/A
Hanford, Benton County, WA 99352
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc..
 4. Identification of System Residual Heat Removal (RHR)
 5. (a) Applicable Construction Code ASME III 71 Edition, W72 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements—1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RHR-V-24A	Anc/Dar	2N407	N/A	N/A	N/A	1977	Repair	Yes (Class 2)

7. Description of Work Area on the valve body was blended down to less than the required wall. This area was repaired as follows.

1. Weld built-up the excavated area.
2. Blended the welded area smoothly into adjacent base metal.
3. UT examined the welded area for wall thickness.
4. PT and RT examined the welded area. NDE results acceptable.
5. Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 * Test Pressure 625 psi Test Temp 60 °F Component Design Pressure 720 Temp. 100

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

*Test pressure of 625 PSIG is 1.25 x System design pressure.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the ASME Code.

Signed BAH Schubert UNP-2 Mvt Eng 3/24 ' 83
 (Owner or Owner's Designee) Title (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington, employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3/21, 19 83
 (Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/21/83 A. M. East Commissions 7486 W
 (Inspector) (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8½ in. X 11 in., (2) information in Items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

Form No. 2-0021
Plan No. 2-0021

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 2. Plant WNP-2 (Address) Unit N/A
Hanford, Benton County, WA 99352
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc..
 4. Identification of System Reactor Feedwater (RFW)
 5. (a) Applicable Construction Code ASME III 1971 Edition, W. '72 Addenda, Code Cases 1516
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RFW-V-32A	Anc/Dar	1N-109-	N/A	N/A	N/A	1975	Modified	Yes, Class 1

7. Description of Work A drain connection was added to the 24" valve body. A hole was drilled into the bottom of the valve body 8" from the downstream end. A 3/4" SA-105 pipet was welded to the body and this weld was examined by MT. The MT results were acceptable. Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 * Test Pressure 1217 psi g Test Temp 168 °F Component Design Pressure 2790 psig Temp. 1000 °F

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

* Test pressure of 1217 psig is 1.1 x System operating pressure.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this Modification conforms to Section XI of the ASME Code.

Signed BA Hohnberg Plant Engineer-2 3/30/83 .19
 (Owner or Owner's Designee) Title (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Washington, employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the modification described in this Report on 3-31, 19 83
 (Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-31-83 James H. Brent Commissions 6265 W
 (Inspector) (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8 1/2 in. X 11 in., (2) information in items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
3. Work Performed by Bechtel Power Corporation C-250
P.O.Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc..
4. Identification of System Residual Heat Removal (RHR)
5. (a) Applicable Construction Code ASME III, 1974 Edition, S. '75 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements — 1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RHR-V-123B	Borg-W	22301	N/A	N/A	N/A	1978	Repaired	Yes (Class 2)

7. Description of Work Weld built-up was performed on the valve-body to 1" x 2" reducer insert fillet welds. Weld built-up of the fillet welds was required because of the under-sized fillet. The weld built-up was PT examined. PT examination results acceptable. Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 *Test Pressure 1217 psig Test Temp 168 °F Component Design Pressure 3600 psig Temp. 100 °F
9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

*Test pressure of 1217 PSIG is 1.1 x System operating pressure.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the

ASME Code.

Suppl
Signed 3/26/83 B. M. Soluberg Mar Eng WWP 3/30 :19 83
(Owner or Owner's Designee) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3-31, 19 83
(Repair's) or Replacement(s)

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-31-83 James H. Brent Commissions 6265 W
(Inspector) (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8 1/2 in. X 11 in., (2) information in items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc..
4. Identification of System Residual Heat Removal (RHR)
5. (a) Applicable Construction Code ASME III 19 71 Edition, S. '73 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RHR-V-113	Velan	I	N/A	N/A	N/A	1977	Repaired	Yes (Class 2)

7. Description of Work An ASME Section III, Class 2, test connection fitting had been welded to ASME Section III, Class 1, valve body. The Class 2 fitting was removed and a Class 1 pipet fitting was installed. The fitting is SA-182 F304 and is located on the North side of the valve, 15" from the downstream end. The completed weld was PT examined with acceptable results. Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 *Test Pressure 1217 psig Test Temp 168 °F Component Design Pressure 1250 psig Temp 575 °F

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

*Test pressure of 1217 PSIG is 1.1 x System operating pressure.

FOR INFORMATION ONLY

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the ASME Code.

Signed BA [Signature] WNP-27412 me 3/24 .19 83
 (Owner or Owner's designee) Title (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3-31 .19 83
 (Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-31-83 James H. Brent Commissions 6265 W
 (Inspector) (State or Province, National Board)

Note:—Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8½ in. X 11 in., (2) information in Items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
2. Plant WNP-2 (Address) Hanford, Benton County, WA 99352 Unit N/A
3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc..
4. Identification of System High Pressure Core Spray (HPCS)
5. (a) Applicable Construction Code ASME III, 71 Edition, W. '72 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements — 1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
HPCS-V-24	Anc/Dar	2N-491	N/A	N/A	N/A	1975	Repaired	Yes (Class 2)

7. Description of Work An area located between 18" and 22" from the inlet end of the valve at 10⁰A7 was built up above minimum wall. The repaired area was blended into the surrounding base metal. NDE of the area by MT and RT were satisfactory. A UT thickness measurement of the repaired area was done with the results being greater than minimum wall.

Note: A pressure test was not performed since the repair was less than 25% of the wall thickness. IWA-4400(b)(3) allows exemption from pressure test if repair does not go through wall. The Supply System has adapted a more stringent criteria of 25% of wall.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None
 Test Pressure _____ psi Test Temp _____ °F Component Design Pressure _____ Temp. _____

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the

ASME Code.

3/26/83 signed B. A. Schubert More Eng WNP-2 3/30 :19 83
(Owner or Owner's Designee) Title (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Washington, employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3-31, 19 83
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-31-83 James H. Brent Commissions 6265 W
(Inspector) (State or Province, National Board)

Notes: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8½ in. X 11 in., (2) information in items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
 2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
 (Address)
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc..
 (Address)
 4. Identification of System Residual Heat Removal (RHR)
 5. (a) Applicable Construction Code ASME III 71 Edition, W' 72 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1980, W. '80 Addenda, Code Cases N308
 6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RHR-V-46B	Anc/Dar	2N-1010	N/A	N/A	N/A	1977	Repaired	Yes (Class 2)

7. Description of Work An area located 1" from the outlet end of the valve at 280° Az was built up above minimum wall. The repaired area was blended into the surrounding base metal. NDE of the area by MT and RT were satisfactory. A UT thickness measurement of the repaired area was done with the results being greater than minimum wall. Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 *Test Pressure 158 psig Test Temp 65 °F Component Design Pressure 125 psig Temp. 300 °F
 9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

*Test pressure of 158 psig is 1.25 x system design pressure.

11-B.58

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the ASME Code.

Signed B. A. H. H. WNP-21/4/83 3/24/83 19 83
 (Owner or Owner's Designee) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Washington, employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 2/2/83, 19 83
 (Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 2/2/83 A. M. Felt Commissions 7486W
 (Inspector) (State or Province, National Board)

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
 2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.:
 (Address)

4. Identification of System Containment Vessel
 5. (a) Applicable Construction Code ASME III, 71 Edition, S72 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements — 1980, W, '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Cont. Vessel	PDM	12764	790	N/A	N/A	1976	Repaired	Yes, MC

7. Description of Work — Found unacceptable linear indications on continuity bar to containment shell weld. The work was performed as follows:

- 1) Removed unacceptable MT indications.
- 2) MT examined the excavated area. MT examinations results acceptable.
- 3) Weld built up the excavated area.
- 4) MT examined the weld built area. MT examinations results acceptable.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None
 Test Pressure _____ psi Test Temp _____ °F Component Design Pressure _____ Temp. _____

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the ASME Code.

¹ Swish
3/24/83 Signed B. A. Ahlberg WNP-2 Mar Eng 3/24/ 19 83
(Owner or Owner's designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3/31, 19 83
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/31/83 A. M. East Commissions 7468W
(Inspector) (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8½ in. x 11 in., (2) information in items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 2. Plant WNP-2 (Address) Hanford, Benton County, WA 99352 Unit N/A
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc..
 4. Identification of System Containment Vessel
 5. (a) Applicable Construction Code ASME III, 71 Edition, S72 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980, W, '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Cont. Vessel	PDM	12764	790	N/A	N/A	1976	Replacement	Yes, MC

7. Description of Work Installed tee stiffeners on the containment vessel wall (shell) at A31480, elev. 472'-0". These tee stiffeners were installed for platform installation. The work was performed as follows:

- 1) MT examined containment vessel wall prior to welding.
- 2) Welded stiffeners to the containment vessel wall.
- 3) MT examined the welds. MT examination results acceptable.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None
 Test Pressure _____ psi Test Temp _____ °F Component Design Pressure _____ Temp. _____

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this replacement conforms to Section XI of the ASME Code.

Signed BAI [Signature] WNP-2 Max Eng 3/24 19 83
 (Owner or Owner's Designee) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the replacement described in this Report on 3/21 19 83
 (Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/21/83 [Signature] Commissions 7468W
 (Inspector) (State or Province, National Board)

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
 2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
 (Address)
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.
 (Address)
 4. Identification of System Reactor Feedwater (RFW)
 5. (a) Applicable Construction Code ASME III 19 71 Edition, S73 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements — 1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RFW-V-65A	Velan	003	N/A	N/A	N/A	N/A	Repaired	Yes, Class I

7. Description of Work: Three (3) areas on the valve body were blended down to less than the required wall. These areas were repaired as follows:

- 1) Weld built up the excavated areas.
- 2) Blended the welded areas smoothly into adjacent base metal.
- 3) UT examined the welded areas for wall thickness check.
- 4) MT and RT examined the welded areas. MT and RT examinations acceptable.

Note: A pressure test was not performed since the repair was less than 25% of the wall thickness. IWA-4400(b)(3) allows exemption from pressure test if repair does not go through wall. Supply System adapted a more stringent criteria of 25% of wall.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None
 Test Pressure _____ psi Test Temp _____ °F Component Design Pressure _____ Temp. _____

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the ASME Code.

Signed BAH WNP-21-101 Eng 3/24 .19 83
 (Owner or Owner's Designee) Title (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington, employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3/21 .19 83
 (Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/31/83 A. M. [Signature] Commissions 7468W
 (Inspector) (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8½ in. x 11 in.,

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 2. Plant WNP-2 (Address) Unit N/A
Hanford, Benton County, WA 99352
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.
 4. Identification of System High Pressure Core Spray (HPCS)
 5. (a) Applicable Construction Code ASME III 19 71 Edition, S71 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements — 1980, W, '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
HPCS-P-1	I/Rand	0473126-	29	N/A	N/A	1974	Repair	Yes, Class 2

7. Description of Work Damaged section of the pump seal piping was removed and replaced with socket weld coupling. The repair was performed as follows:
 1) Cut and removed damaged section of the pump seal piping.
 2) Installed socket weld coupling and made coupling to pipe weld on either side of the coupling.
 3) PT examined the completed socket welds. PT examination results acceptable.
 4) Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 *Test Pressure 1969 psi Test Temp 60.9 °F Component Design Pressure 1575 Temp. 212

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

FOR INFORMATION ONLY

* Test pressure of 1969 psig is 1.25X System design pressure.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the ASME Code.

3/26/83 signed B. H. Schubert Mar Eng WNP-2 3/30/83 .19
 (Owner or Owner's Designee) Title (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3-31 .19 83
 (Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-31-83 James H. Bent Commissions 6265 W
 (Inspector) (State or Province, National Board)

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.
4. Identification of System Service Water (SW)
5. (a) Applicable Construction Code ASME III, 71 Edition, W72 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements — 1980, W '80 Addenda, Code Cases N308
6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
SW-V-104D	Anc/Dar1.	3N830	N/A	N/A	N/A	1976	Repair	Yes, Class 3

7. Description of Work Area on the valve body was blended down to less than the required wall. This area was repaired as follows:

- 1) Weld built the excavated area.
- 2) Blended the welded area smoothly into the adjacent base metal.
- 3) UT examined the welded area for wall thickness.
- 4) PT examined the welded area. PT results acceptable.

Note: A pressure test was not performed since the repair was less than 25% of the wall thickness. IWA-4400(b)(3) allows exemption from pressure test if repair does not go through wall. Supply System has adapted a more stringent criteria of 25% of wall.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None
 Test Pressure _____ psi Test Temp _____ °F Component Design Pressure _____ Temp. _____
9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

FOR INFORMATION ONLY

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
 2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
 (Address)
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc..
 (Address)
 4. Identification of System Service Water (SW)
 5. (a) Applicable Construction Code ASME III 1971 Edition, W72 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements—1980, W, '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
SW-V-57A	Anc/Darl.	3N325	N/A	N/A	N/A	1976	Repair	Yes, Class 3

7. Description of Work Area on the valve body was blended down to less than the required wall. This area was repaired as follows:

- 1) Weld built the excavated area.
- 2) Blended the welded area smoothly into the adjacent base metal.
- 3) UT examined the welded area for wall thickness.
- 4) PT examined the welded area. PT results acceptable.

Note: A pressure test was not performed since the repair was less than 25% of the wall thickness. IWA-4400(b)(3) allows exemption from pressure test if repair does not go through wall. Supply System has adapted a more stringent criteria of 25% of wall.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None
 Test Pressure _____ psi Test Temp _____ °F Component Design Pressure _____ Temp. _____

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

FOR INFORMATION ONLY

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the ASME Code.

3/21/83 Signed BAV John WNP2 M. R. Dwy Title 3/24 Date 83
(Owner or Owner's Designee)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3/21 19 83
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/21/83 J. M. East Commissions 7486W
(Inspector) (State or Province, National Board)

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Form No. 2-0040
Plan No 2-0048

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 (Address)
 2. Plant WNP-2 Unit N/A
Hanford, Benton County, WA 99352
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.
 (Address)
 4. Identification of System Residual Heat Removal (RHR)
 5. (a) Applicable Construction Code ASME III, 1974 Edition, S75 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements — 1980, W, '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr. *	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RHR-V-73A	BW	75603	N/A	N/A	N/A	1982	Repaired	Yes, Class 2
RHR-V-73B	BW	75604	N/A	N/A	N/A	1982	Repaired	Yes, Class 2
RHR-V-74A	BW	75605	N/A	N/A	N/A	1982	Repaired	Yes, Class 2
RHR-V-74B	BW	75606	N/A	N/A	N/A	1982	Repaired	Yes, Class 2
RHR-V-134A	BW	75607	N/A	N/A	N/A	1982	Repaired	Yes, Class 2
RHR-V-134B	BW	75608	N/A	N/A	N/A	1982	Repaired	Yes, Class 2

7. Description of Work Valve bonnet to yoke tack welds were cut to remove yoke due to interference. Yoke was assembled on the bonnet and made two (2) tack welds.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None
 Test Pressure _____ psi Test Temp _____ °F Component Design Pressure _____ Temp. _____

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

FOR INFORMATION

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the

ASME Code.

Sup's
3/26/83
Signed B.A. Shuler Mar. Eng. WNP-2
(Owner or Owner's Designee) Title
3/30 .19 83
(Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3-31 .19 83
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-31-83 James H. Brent Commissions 6265 W
(Inspector) (State or Province, National Board)

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size 8½ in. X 11 in., (2) information in items 1 through 4 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 2. Plant WNP-2 (Address) Unit N/A
Hanford, Benton County, WA 99352
 3. Work Performed by Bechtel Power Corporation C-250
P.O.Box 600, Richland, WA 99352 Repair Organization P.O No., Job No., etc..
 4. Identification of System (Address) Residual Heat Removal (RHR)
 5. (a) Applicable Construction Code ASME III, 71 Edition, S73 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements — 1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
RHR-V-3A	Velan	03151	N/A	N/A	N/A	1978	Repaired	Yes (Class 2)

7. Description of Work Two (2) areas on the valve body were blended down to less than the required wall. These areas were repaired as follows:

- 1) Weld built up the excavated areas..
- 2) Blended the welded areas smoothly into adjacent base metal.
- 3) UT examined the welded areas for wall thickness check.
- 4) PT and RT examined the welded areas. PT and RT examinations acceptable.
- 5) Performed hydrostatic test. No evidence of leakage.

8. Tests Conducted: Hydrostatic ☒ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☐
 *Test Pressure 625 psig Test Temp 64 °F Component Design Pressure 500 Temp. 480

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

* Test pressure of 625 psig is 1.25X system design pressure.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the ASME Code.

L. Smith
Signed 3/22/83 B. M. Schuber WNP-2 H. Jr. Eng. 3/24 '83
(Owner or Owner's Designee) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3-31, 19 83
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-31-83 James H. Brent Commissions 6265 W
(Inspector) (State or Province, National Board)

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 2. Plant WNP-2 (Address) Unit N/A
Hanford, Benton County, WA 99352
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.
 4. Identification of System Containment Vessel
 5. (a) Applicable Construction Code ASME III 19 71 Edition, S72 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements — 1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Cont. Vessel	PDM	12764	790	N/A	N/A	1976	Repaired	Yes, MC

7. Description of Work Access hole was cut in the containment vessel seal plate to facilitate the repair of seal drain piping. This access hole was subsequently covered with the cover plate as follows:

- 1) PT examined the plate edges. PT examination results acceptable.
- 2) Welded cover plate on the access hole.
- 3) PT examined the completed welds. PT examination results acceptable.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None
 Test Pressure _____ psi Test Temp _____ °F Component Design Pressure _____ Temp. _____

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repair conforms to Section XI of the

ASME Code.

Signed 3/26/83 B. J. Schuler, Jr. Owner or Owner's Designee Title 3/30/83 Date

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repair described in this Report on 3/31/83. 19 82
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/31/83 D. M. Felt (Inspector) Commissions 7468W
(State of Washington, National Board)

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM
FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT
As Required by the Provisions of ASME Code Section XI

1. Owner Washington Public Power Supply System Date 3/31/83
3000 George Washington Way, Richland, WA 99352 Sheet 1 of 1
 2. Plant WNP-2 (Address) Unit N/A
Hanford, Benton County, WA 99352
 3. Work Performed by Bechtel Power Corporation C-250
P.O. Box 600, Richland, WA 99352 Repair Organization P.O. No., Job No., etc.

4. Identification of System Containment Vessel
 5. (a) Applicable Construction Code ASME III 19 71 Edition, S72 Addenda, Code Cases N/A
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1980, W. '80 Addenda, Code Cases N308

6. Identification of Components Repaired or Replaced, and Replacement Components

Name of Component	Name of Mfr.	Mfrs. Ser. No.	Nat'l. Bd. No.	CRN No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Cont. Vessel	PDM	12764	790	N/A	N/A	1976	Repaired	Yes, MC

7. Description of Work - Sealed by welding 2-inch diameter drain pipe hole in the containment vessel seal plate. This drain pipe became non-functional due to leak which developed during drain line testing. The hole was plugged as follows:

- 1) PT examined the plate edges. PT examination results acceptable.
- 2) Welded cover plate on the hole.
- 3) PT examined the completed weld. PT examination results acceptable.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Other ☒ None
 Test Pressure _____ psi Test Temp _____ °F Component Design Pressure _____ Temp. _____

9. Remarks None
 (Applicable Manufacturer's Data Reports to be attached)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this repaired conforms to Section XI of the

ASME Code.

15 min
3/22/83
Signed B. H. Mulvey, Marc Emery WMP Title 3/30 Date 19 83
(Owner or Owner's Designee)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Washington employed by Lumberman's Mutual Casualty Co. of Illinois have inspected the repaired described in this Report on 3/21 19 82
(Repair(s) or Replacement(s))

and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this Certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/21/83 J. M. Felt Commissions 7468W
(Inspector) (State or Province, National Board)

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