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 PARRISH,J.V. Washington Public Power Supply System *See Rpt.*  
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SUBJECT: Forwards Amend 1 Vols 1-3 of "ISI Program Plan" for first  
 insp interval.

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May 27, 1993  
G02-93-127

Docket No. 50-397

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

Gentlemen:

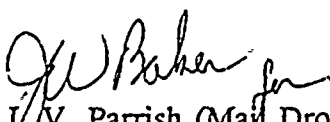
Subject: WNP-2, OPERATING LICENSE NPF-21  
AMENDMENT NO. 1 TO INSERVICE INSPECTION PROGRAM PLAN,  
FIRST INSPECTION INTERVAL

- References: 1) Letter, G02-85-274, dated May 29, 1985, GC Sorensen (SS) to Mr. W.R. Butler (NRC), "Inservice Inspection Program Plan, Requests for Relief"
- 2) Letter, G02-92-240, dated October 16, 1992, GC Sorensen (SS) to NRC, "Inservice Inspection Summary Report, NIS-1, NIS-2, Owner's Reports"

The Washington Public Power Supply System (SS) submits five (5) copies of Amendment No. 1 to the Inservice Inspection Program Plan for the first Inspection Interval. Amendment No. 1 replaces in its entirety the Program Plan submitted via Reference 1. The changes made by this amendment are summarized in Attachment 1 to this letter. They consist of editorial changes and updating the Program Plan to current approved NRC commitments.

This amendment does not contain any commitments that have not already been reviewed and approved by the NRC or required by 10CFR50.55a. This submittal commits to revising relief request 2-ISI-001 on RPV shell weld examination coverage in response to 10CFR50.55a issued August 6, 1992. In addition the Supply System will submit a new relief request, per the requirements of 10CFR50.55a, defining areas of limited examination of the RPV nozzle to shell welds. Coverage for these welds was reported in the Refueling Outage 7 ISI Summary Report, Reference 2.

Sincerely,

  
J. V. Parrish (Mail Drop 1023)  
Assistant Managing Director, Operations

*A047  
1/5 Site*

cc: JB Martin - NRC RV  
NS Reynolds - Winston & Strawn  
JW Clifford - NRC

DL Williams - BPA/399  
NRC Site Inspector - 901A

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## ATTACHMENT 1

### AMENDMENT 1 TO ISI PROGRAM PLAN

This amendment replaces revision 0 of the ISI Program Plan in its entirety.

The changes made in Amendment 1 consist of editorial, retyping and addition or modifications to existing commitments where NRC approval has already been granted. No changes in this revision modify or change existing approved commitments to the NRC. Editorial changes are defined as correcting spelling, grammar, capitalization, punctuation and page numbering. No changes to meaning of sentences were done under editorial type changes.

Two commitments are made in this submittal:

- 1) Relief request 2-ISI-001 will be modified after vessel examinations are completed at R8 or R9 to reflect the requirements in August 6, 1992 10CFR50.55a. This regulation revoked all relief requests for the RPV shell welds and requires plants to perform 100% examination. WNP-2 can perform 100% examination on almost all of these welds. The exact percentages will be known at the conclusion of the examinations during R8 or R9.
- 2) A new relief request will be submitted to NRC prior to 12/13/94 to identify the volume of RPV nozzle welds that could be examined. The extent of these examinations was reported in the 1992 ISI Summary Report, which was submitted to the NRC.

Major changes to the Program Plan:

- Description of snubber testing program was removed from the ISI Program. The ISI Program Plan now references the Technical Specifications where this program is described. This will eliminate any chance of making conflicting commitments in this program. The safety-related snubber list remains in the ISI Program Plan as Table 6-2.
- Changes to GL 88-01 commitments made by the Supply System through October, 1992 (Letter G02-92-241, dated October 16, 1992, GC Sorensen to NRC, "Response to Generic Letter 88-01"). All of these changes have been reviewed and approved by NRC (last letter from NRC was dated January 19, 1993, "Alternate Schedule for IGSCC Inspections").
- Changes to extent of RPV shell weld exams as described above (10CFR50.55a, dated August 6, 1992).

- Two new commitments: 1) to revise relief request 2-ISI-001 after RPV examinations are completed; and 2) to submit a new relief request identifying RPV nozzle to shell welds which cannot be completely examined due to part geometry. Both commitments are required by 10CFR50.55a.
- Added Volume 3. The Weld & Component Diagrams will be in this new volume while the schedule of examinations will remain in Volume 2.

# AMENDMENT 1 TO ISI PROGRAM PLAN

Replace Pages	New Pages	Reason for Change
1-1 thru 1-2, Rev 0	1-1 thru 1-2, Amend 1	Add Volume 3. Split examination schedule and diagrams into separate volumes.
2-1 thru 2-27, Rev 0	2-1 thru 2-22, Amend 1 2-23 thru 2-27 deleted	Update page revision status. Editorial
3-1, Rev 0	3-1, Amend 1	Update to GL 88-01 commitments approved by NRC
3-2, Rev 0	3-2, Amend 1	Add FFTR commitment on RFW nozzle inspection. NRC approved
3-3 thru 3-5, Rev 0	3-3 thru 3-5, Amend 1	Editorial changes
3-6, Rev 0	3-6, Amend 1	Editorial, section 14.0 split into schedule tables and ISI diagrams.
New	3-6a, Amend 1	Added 1st interval inspection schedule
New	3-6b, Amend 1	Editorial, blank page
3-7, 3-8, Rev 0	3-7, 3-8, Amend 1	Editorial changes. Removed definitions for snubber testing.
3-9, 3-10, Rev 0	3-9, 3-10, Amend 1	Editorial changes
4-1, Rev 0	4-1, Amend 1	Added Code Cases and GL 88-01 commitments. NRC approved. Editorial changes.
4-2, Rev 0	4-2, Amend 1	Editorial changes
Table 4-1, Rev 0	Table 4-1, Amend 1	Editorial changes. Category B-D changed complies with Sec XI from "yes" to "no". Geometry prevents full Code volume examination. Commit to providing relief request prior to interval end (12/13/94). Category C-F replaced table C-F with ones from C-F-1, C-F-2 W83 Code.
4-3, Rev 0	4-3, Amend 1	Editorial changes, new page
4-3, Rev 0	4-4, Amend 1	Editorial changes. Added reference to August 6, 1992 10CFR50.55a.



# AMENDMENT 1 TO ISI PROGRAM PLAN

Replace Pages	New Pages	Reason for Change
4-4, Rev 0	4-5, Amend 1	Added relief requests ISI-2-008 and ISI-2-009. NRC approved. Page number different.
4-5, Rev 0	4-6, Amend 1	Editorial changes. Page number different. Changed number of welds affected by relief request from 13 to correct number - 16. The relief request approved by NRC identified 16 welds. (Ref letter G02-86-679, 7/22/86.)
4-6, Rev 0	4-7, Amend 1	Editorial changes. Page number different.
4-7, Rev 0	4-8, Amend 1	Editorial changes. Added reference to August 6, 1992, 10CFR 50.55a. Page number different.
4-8, Rev 0	4-9, Amend 1	Editorial changes. Added reference to August 6, 1992 10CFR 50.55a. New commitment- Revise this relief request prior to end of interval. Page number different.
4-9 thru 4-10, Rev 0	4-10 thru 4-11, Amend 1	Deleted relief request not approved. Page number different.
4-11 thru 4-18, Rev 0	4-12 thru 4-19, Amend 1	Editorial changes. Different page
4-19 thru 4-26, Rev 0	4-20 thru 4-27, Amend 1	Revised Relief Request. NRC approved. Different pages.
New	4-28 thru 4-32, Amend 1	New relief requests ISI-2-008 and 2-009. NRC approved.
5-1, Rev 0	5-1, Amend 1	Added reference to FSAR 5.2.3.2.3. Editorial changes.
5-2 thru 5-8, Rev 0	5-2 thru 5-8, Amend 1	Editorial changes
5-9, Rev 0	5-9i thru 5-9vii, Amend 1	Replaced Table 5-2 with one that identifies welds by IGSCC category.
5-10, Rev 0	5-10, Amend 1	Added NRC approved FFWTR RFW nozzle examinations.

# AMENDMENT 1 TO ISI PROGRAM PLAN

Replace Pages	New Pages	Reason for Change
5-11, Rev 0	5-11, Amend 1	RFW erosion transferred to erosion/corrosion program. Added non-mandatory RWCU thermal sleeve examination.
6-1 thru 6-3, Rev 0	6-1 thru 6-3, Amend 1	Editorial changes
6-4, thru 6-7, Rev 0	6-4, thru 6-7 Amend 1	Removed snubber testing program description and referenced Technical Specifications, which describes the program. Program description in one place - TS
Table 6-1, Rev 0	Table 6-1, Amend 1	Updated table for component supports that have been added, deleted or modified. Now includes all snubbers within Section XI scope.
Table 6-2, Rev 0	Table 6-2, Amend 1	Updated table for safety-related snubbers that have been added, deleted or modified.
7-1 thru 7-14 and associated boundary diagrams, Rev 0	7-1 thru 7-14 and associated boundary diagrams, Amend 1. Boundary diagrams updated to latest revision.	Editorial changes all text pages 7-1, 7-2, etc. Boundary diagrams, ISI-200, ISI-217, etc revised to reflect current plant configuration.
8-1, Rev 0	8-1, Amend 1	Editorial changes. Table 8-1 does not exist.
8-2, Rev 0	8-2, Amend 1	Editorial changes. New commitment. Identified the basis for SS visual acceptance standard since Reference Code does not have one.
9-1, Rev 0	9-1, Amend 1	Editorial changes
Table 9-1, Rev 0	Table 9-1, Amend 1	Editorial changes/updated UTCB drawings.
UTCB-XXX	UTCB-XXX, current revision	Updated to current approved revision.
Table 9-2, Rev 0	Table 9-2, Amend 1	Editorial changes. Added several calibration blocks to table/updated UTCB drawings

# AMENDMENT 1 TO ISI PROGRAM PLAN

Replace Pages

New Pages

Reason for Change

10-1, Rev 0	10-1, Amend 1	Editorial changes
11-1, Rev 0	11-1, Amend 1	Editorial changes
11-2, Rev 0	11-2, Amend 1	Editorial changes Organizational changes
12-1, Rev 0	12-1, Amend 1	Editorial changes
13-1, Rev 0	13-1, Amend 1	Editorial changes
14-1 thru 14-4, Rev 0	14-1 thru 14-4, Amend 1	Editorial changes

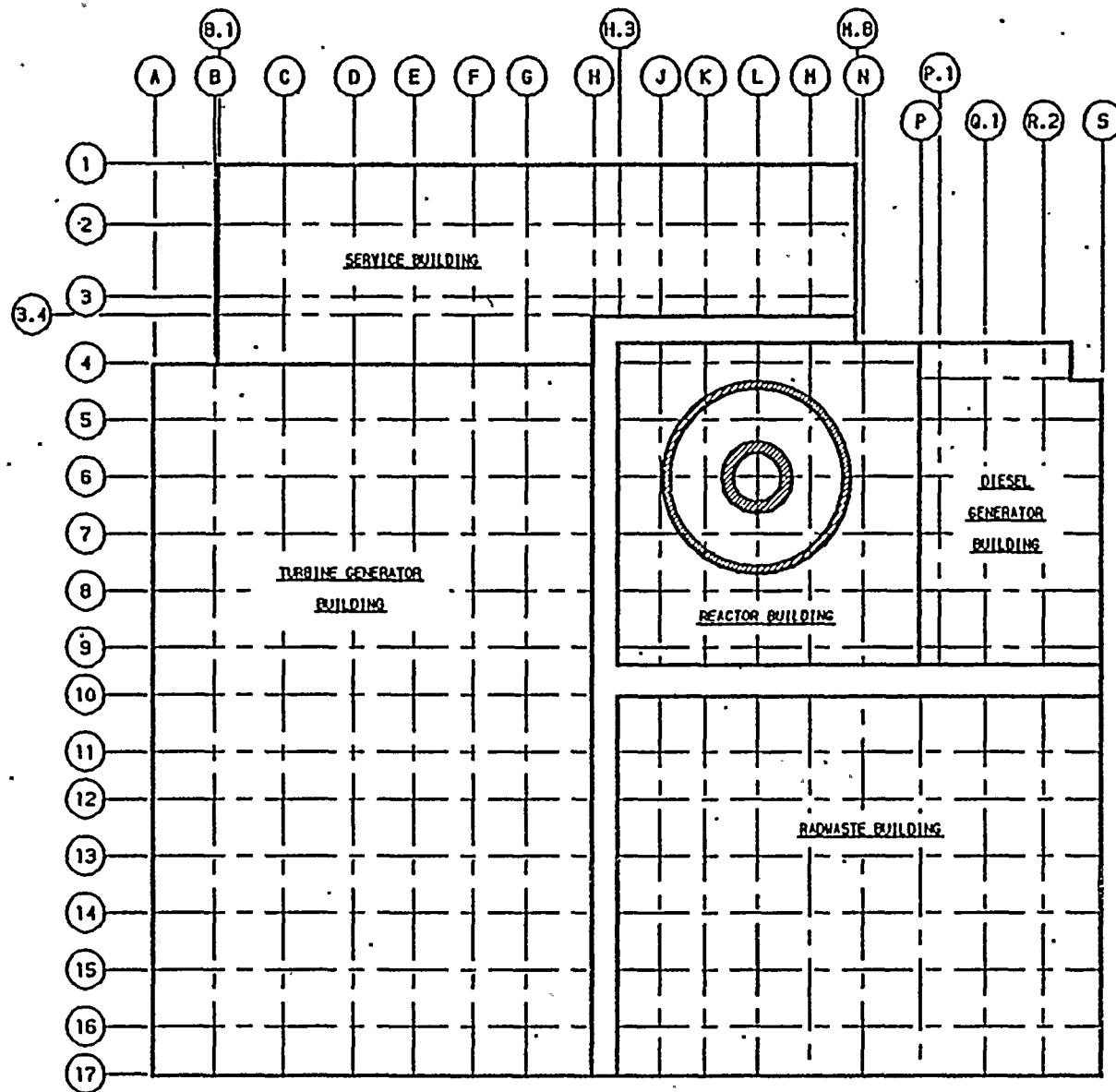
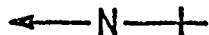
## 14.2 Weld and component Identification Diagrams

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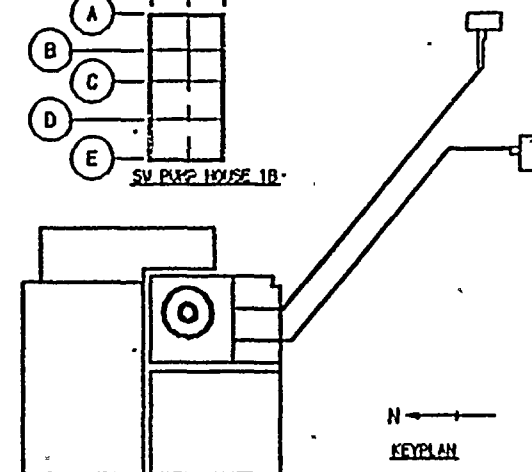
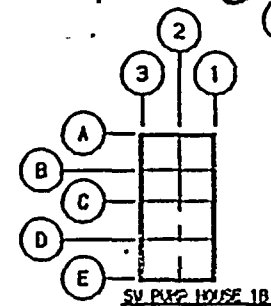
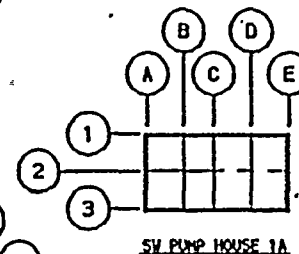
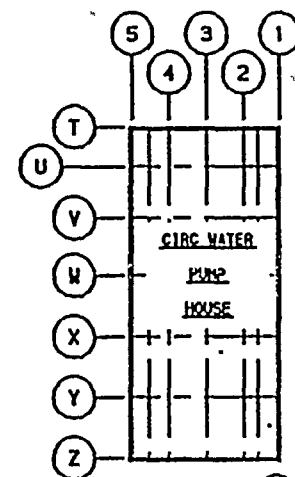


Amendment No. 1  
March 1993

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WNP-2 BUILDINGS



DESIGN: K-McANDREW DATE: 10-7-63  
MAJOR COLUMBI LINE ORIENTATION  
BUILDINGS & PUMP HOUSES



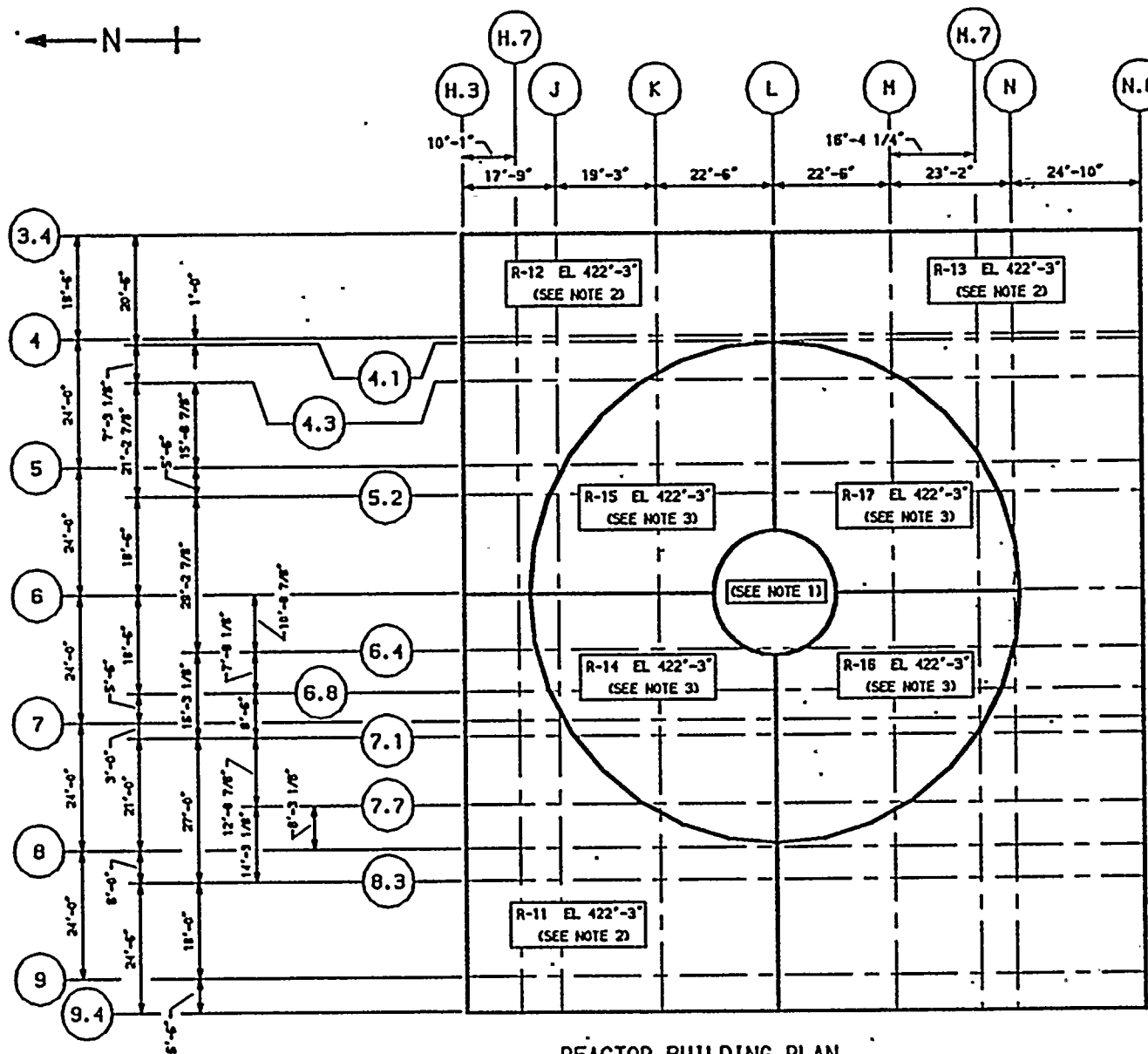
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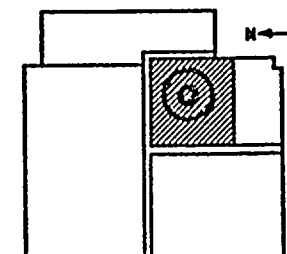




1. R-18 EL 422'-3"  
R-28 EL 441'-0"  
R-38 EL 471'-0"  
R-48 EL 501'-0"  
R-58 EL 522'-0"  
R-68 EL 548'-0"  
R-74 EL 572'-0"  
R-81 EL 606'-10 1/2"
2. R-11 R-12 R-13 EL 422'-3"  
R-21 R-22 R-23 EL 441'-0"  
R-31 R-32 R-33 EL 471'-0"  
R-41 R-42 R-43 EL 501'-0"  
R-51 R-52 R-53 EL 522'-0"  
R-61 R-62 R-63 EL 548'-0"  
R-71 R-72 R-73 EL 572'-0"  
R-81 EL 606'-10 1/2"
3. R-14 R-15 R-16 R-17 EL 422'-3"  
R-24 R-25 R-26 R-27 EL 441'-0"  
R-34 R-35 R-36 R-37 EL 471'-0"  
R-44 R-45 R-46 R-47 EL 501'-0"  
R-54 R-55 R-56 R-57 EL 522'-0"  
R-64 R-65 R-66 R-67 EL 548'-0"  
R-74 R-75 R-76 R-77 EL 572'-0"  
R-81 EL 606'-10 1/2"

REACTOR BUILDING PLAN

KEYPLAN

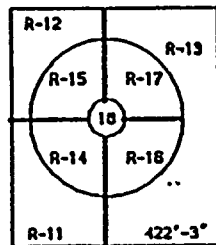
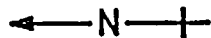


ENGR. K. H. ANDREW DATE: 10-7-66  
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REACTOR BUILDING PLAN

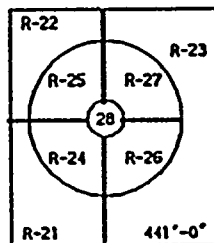


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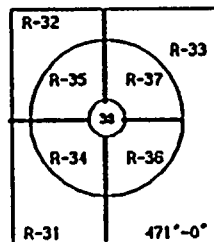
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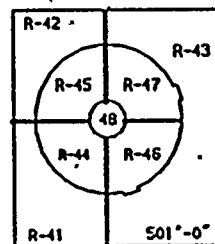
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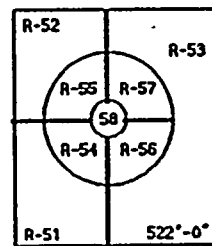
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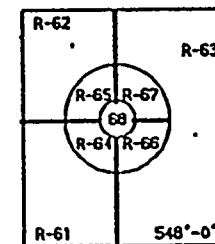
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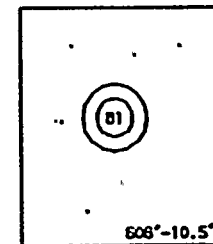
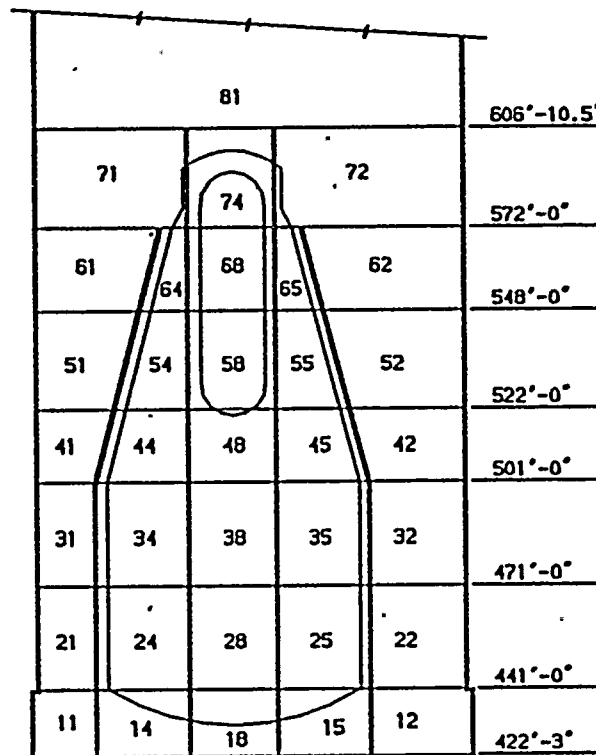
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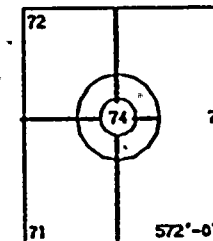
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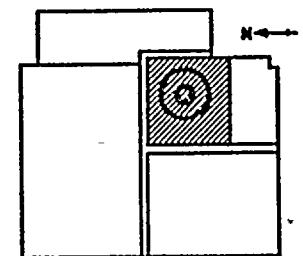


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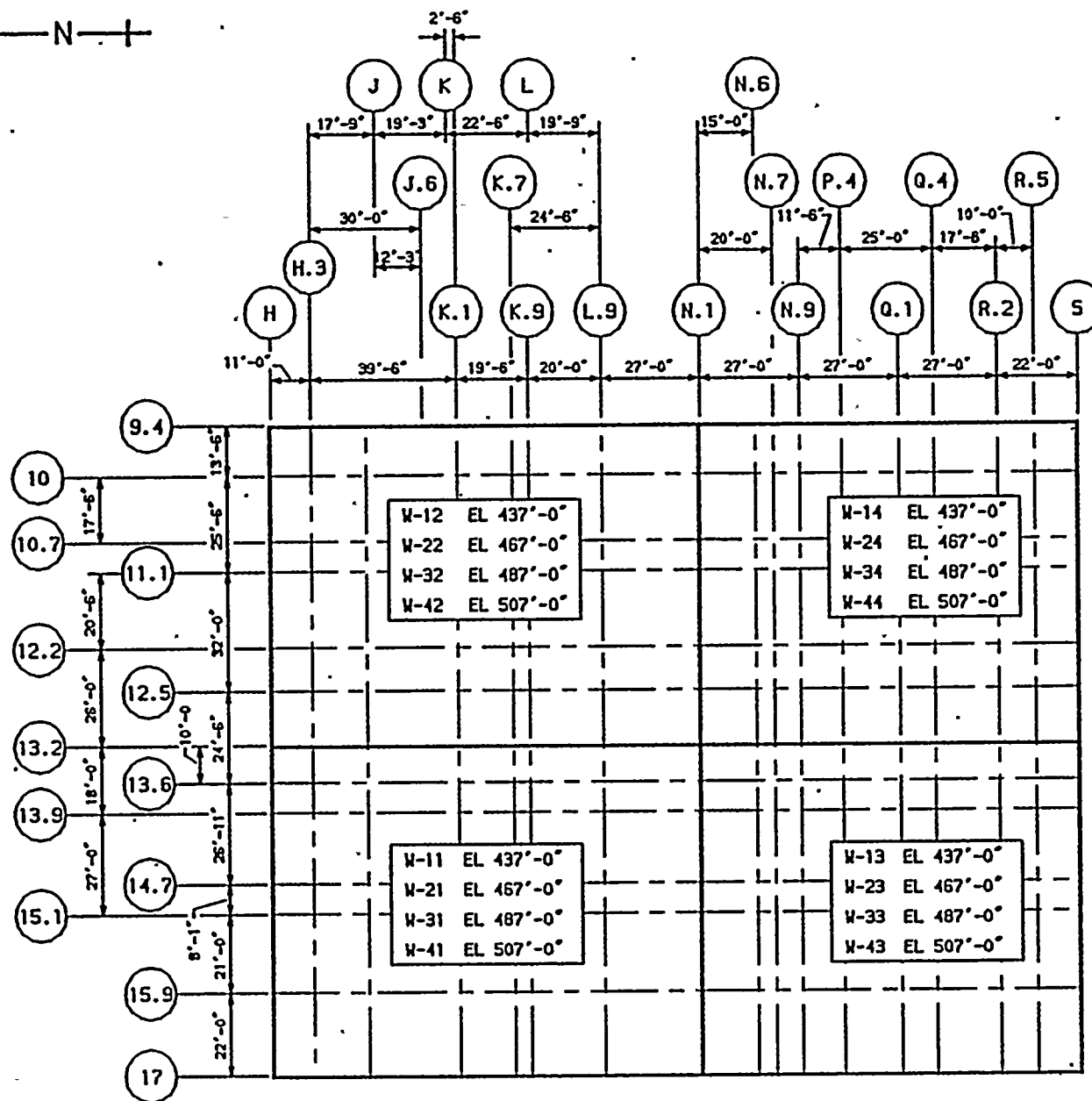


# REACTOR BUILDING PLANS & ELEVATIONS

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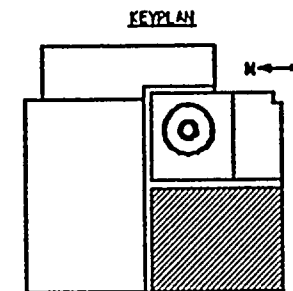
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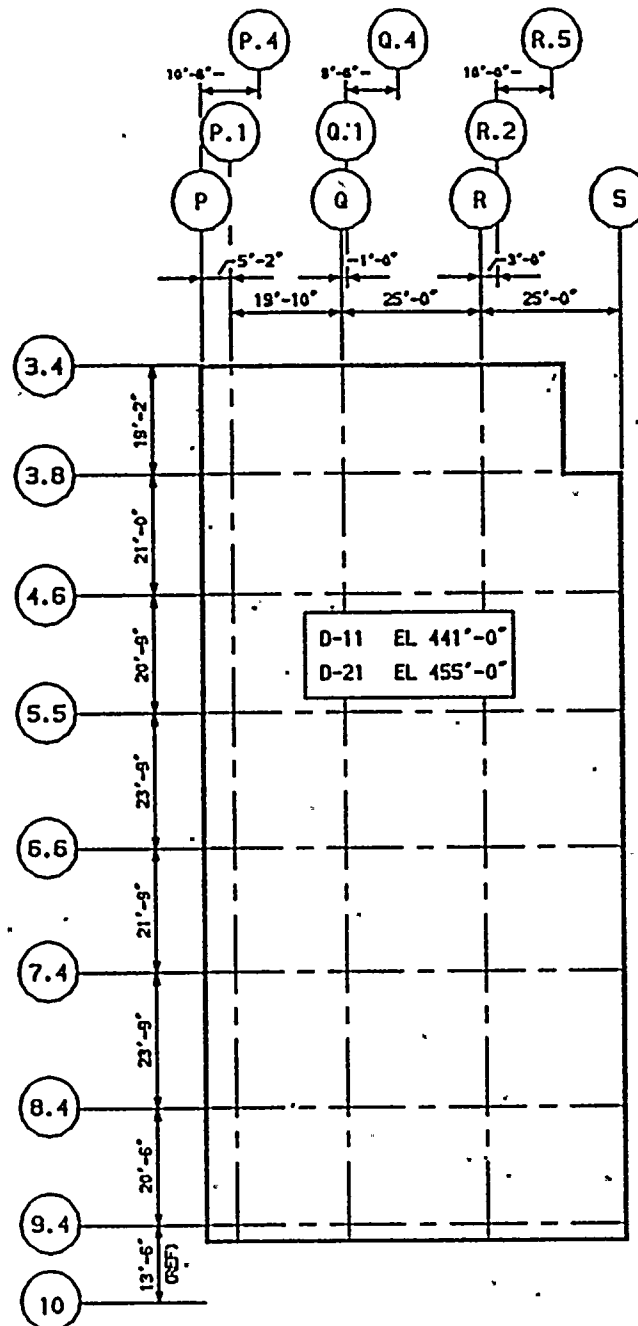
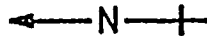
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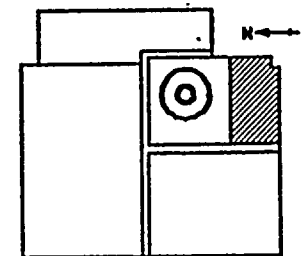
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**DIESEL GENERATOR BUILDING**

**KEYPLAN**

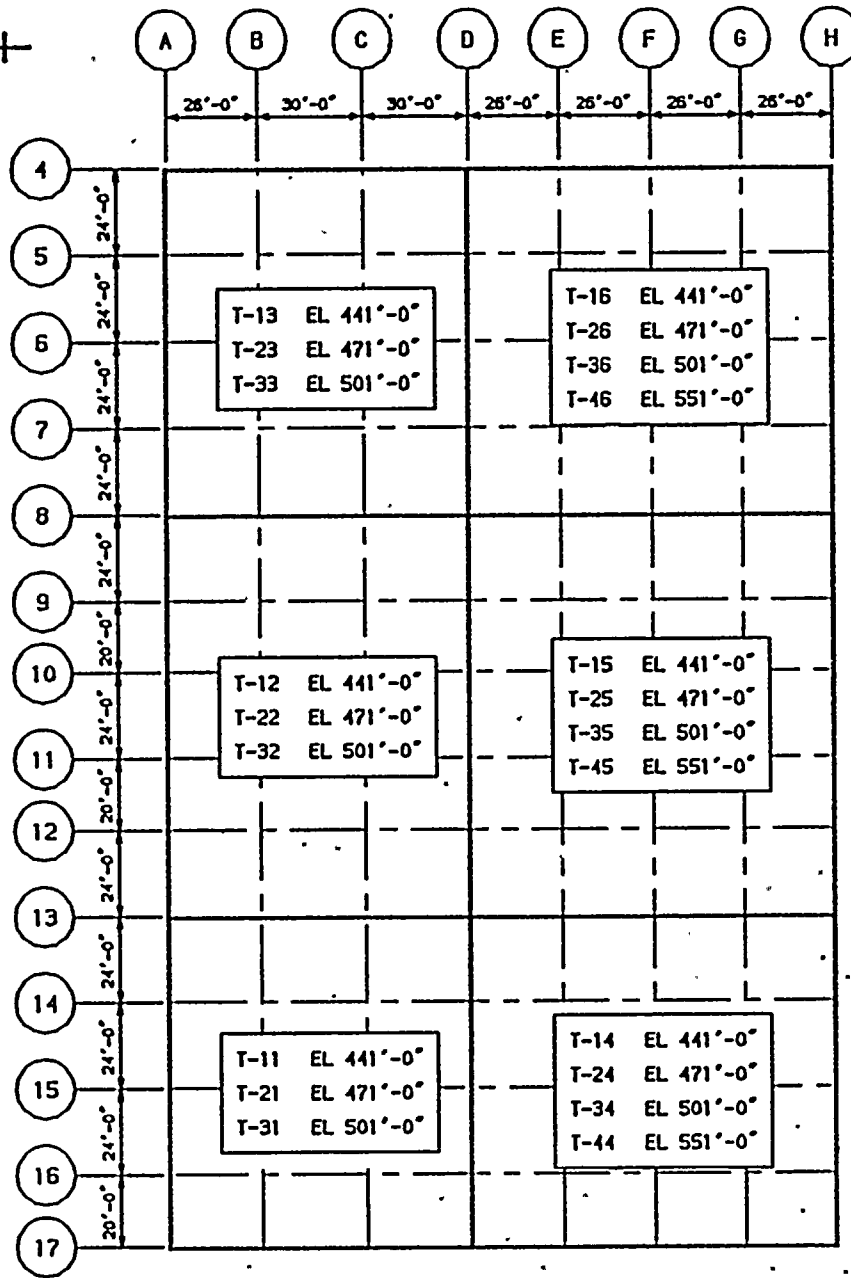
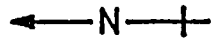


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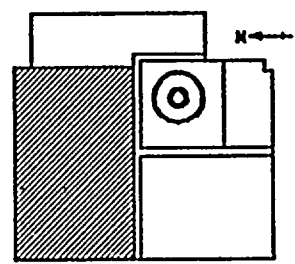




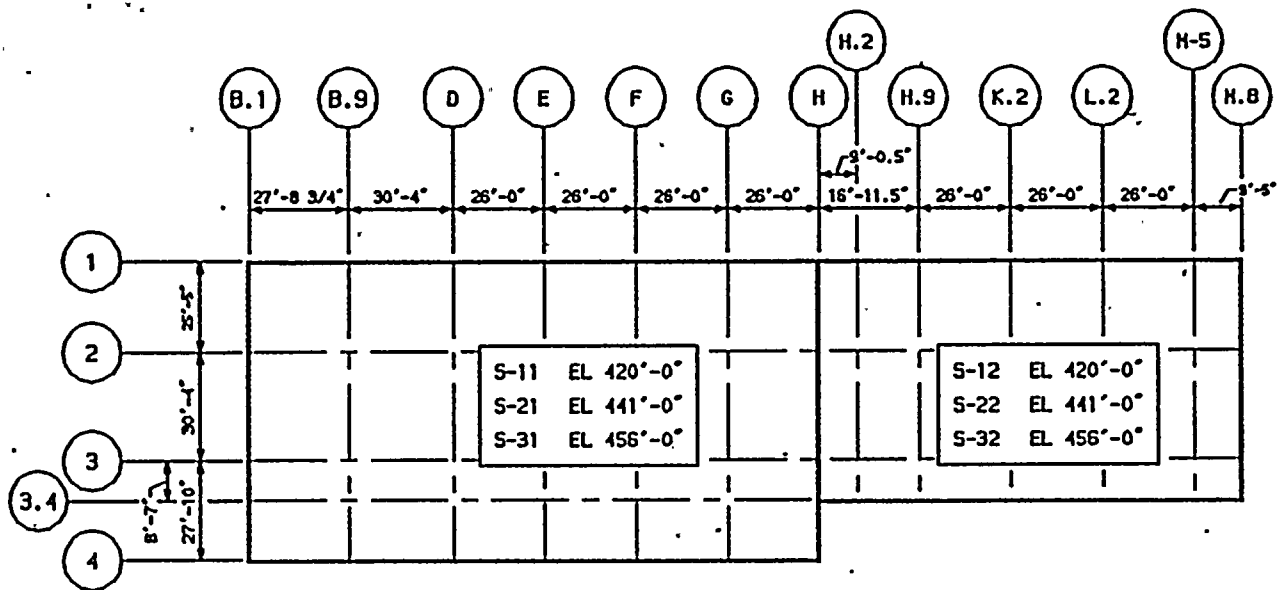
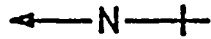


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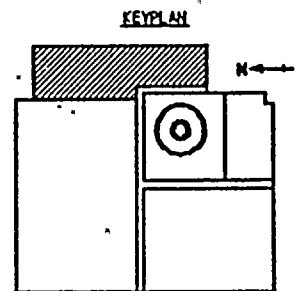
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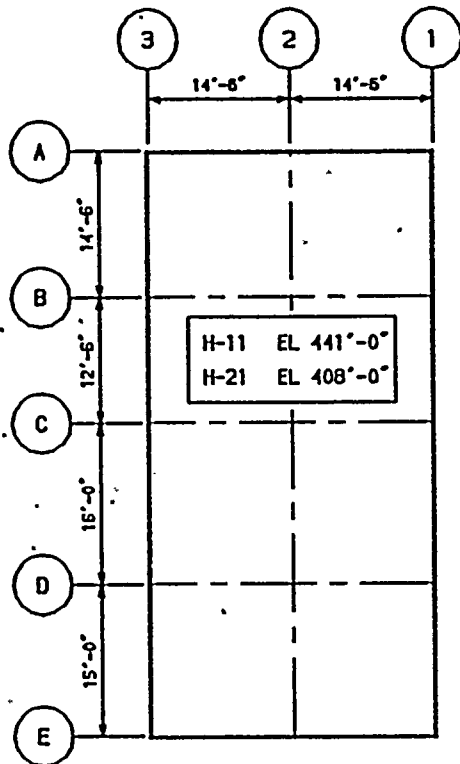
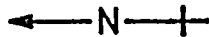


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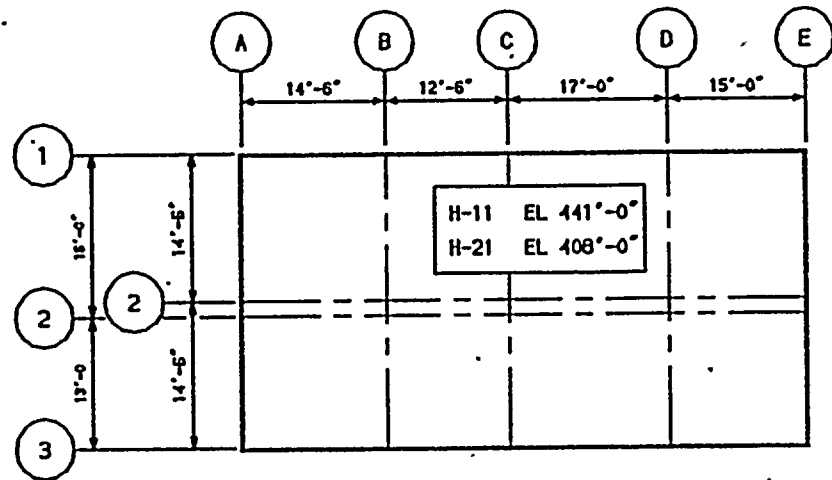


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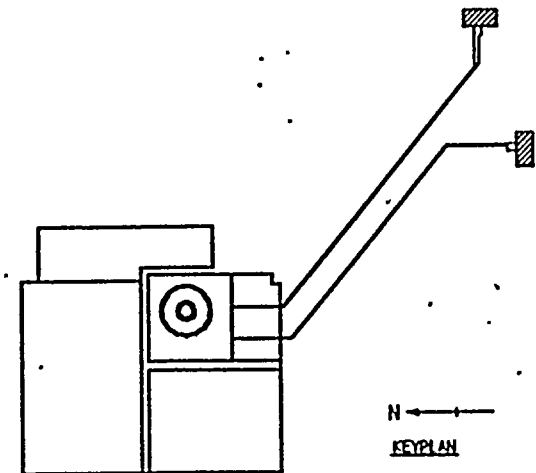
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SERVICE WATER PUMP HOUSE 1B



SERVICE WATER PUMP HOUSE 1A



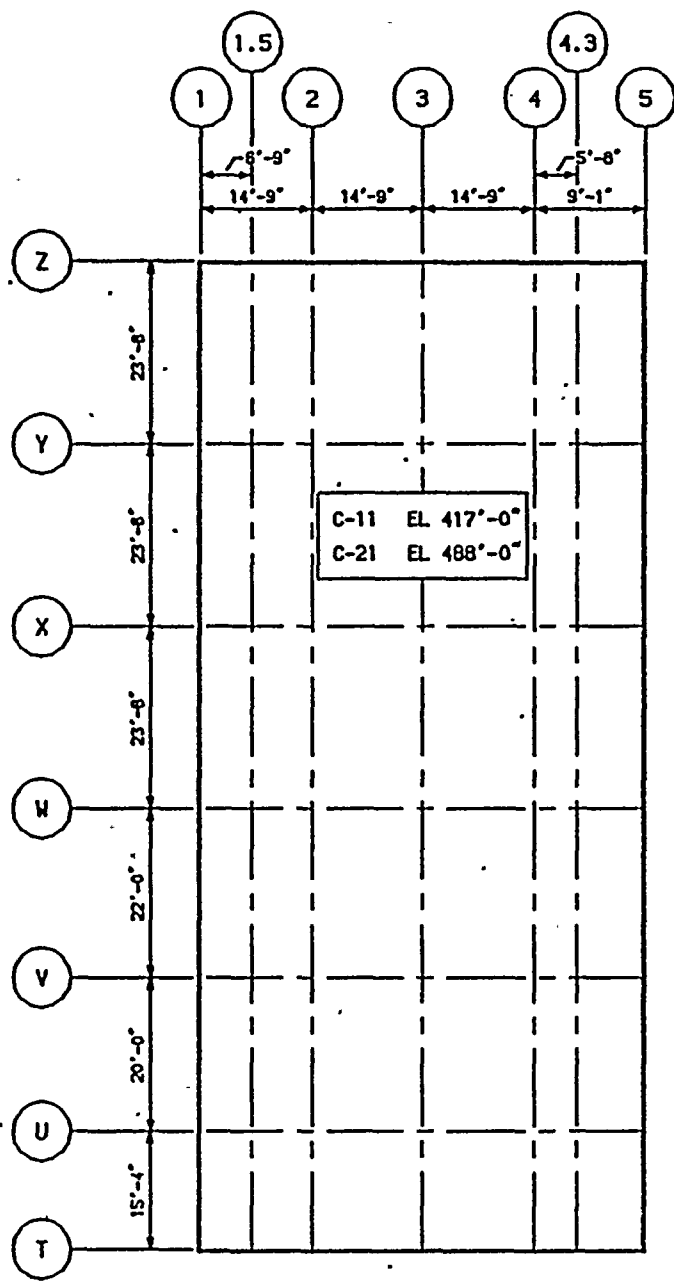
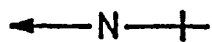
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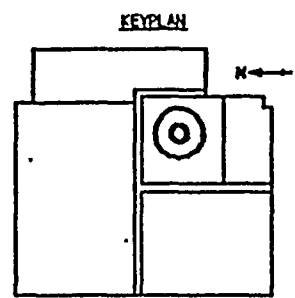



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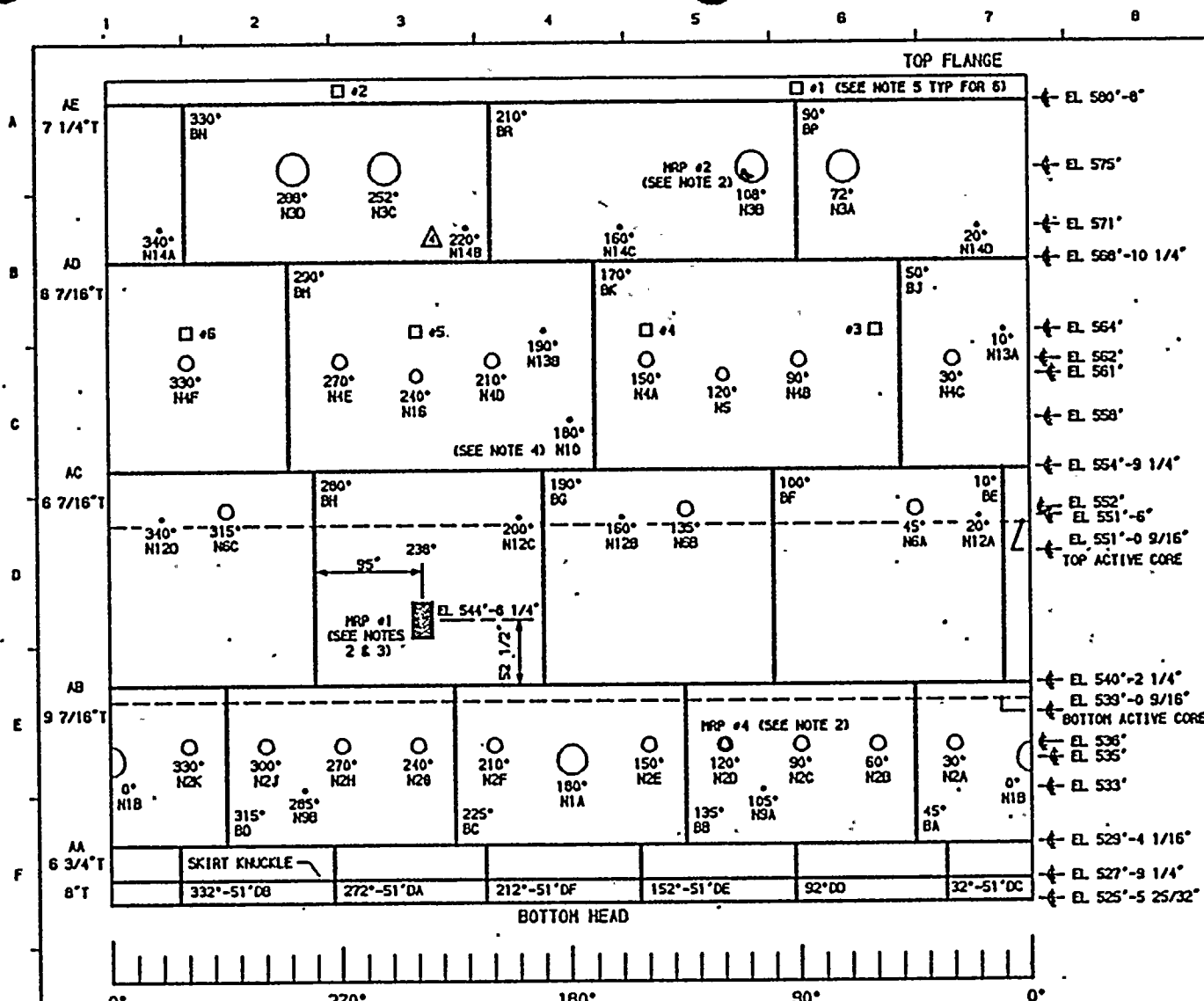




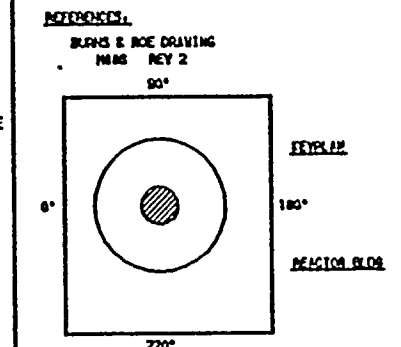
CIRCULATING WATER PUMP HOUSE



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DWG NO.			ZN-209



- NOTES:**
1. REFER TO PROGRAM PLAN & SCHEDULE TABLES FOR EXAMINATION & CALIBRATION BLOCK REQUIREMENTS.
  2. "MRP" INDICATES MAJOR REPAIR AREA. MRP #3 AT NOZ NOZZLE TO SAFE-END WELD PREP IS NOT SHOWN.
  3. MRP #1 IS 2 3/4" TO 3 7/8" IN DEPTH & IS 15" WIDE BY 30" HIGH. NOTE THAT MRP #1 AREA CENTER IS DIMENSIONALLY REFERENCED.
  4. FOR DETAILS OF NOZZLE ASSEMBLY SEE MRP-113.
  5. CLADDING PATCH LOCATIONS:  
 #1 AT 90° AZ  
 #2 AT 270° AZ (LINE 21" BELOW FLANGE LIP)  
 #3 AT 60° AZ  
 #4 AT 150° AZ  
 #5 AT 240° AZ  
 #6 AT 330° AZ (LINE 21" ABOVE THE N14 NOZZLES)



QUALITY CLASS. 1 ASME CODE CLASS. 1  
 ENGR. K. HANNAH DRAWN. K. HANNAH DATE: 2-23-78

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98352

MRP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 REACTOR PRESSURE VESSEL ROLL-OUT

DWG NO. RPV-101 REV 4

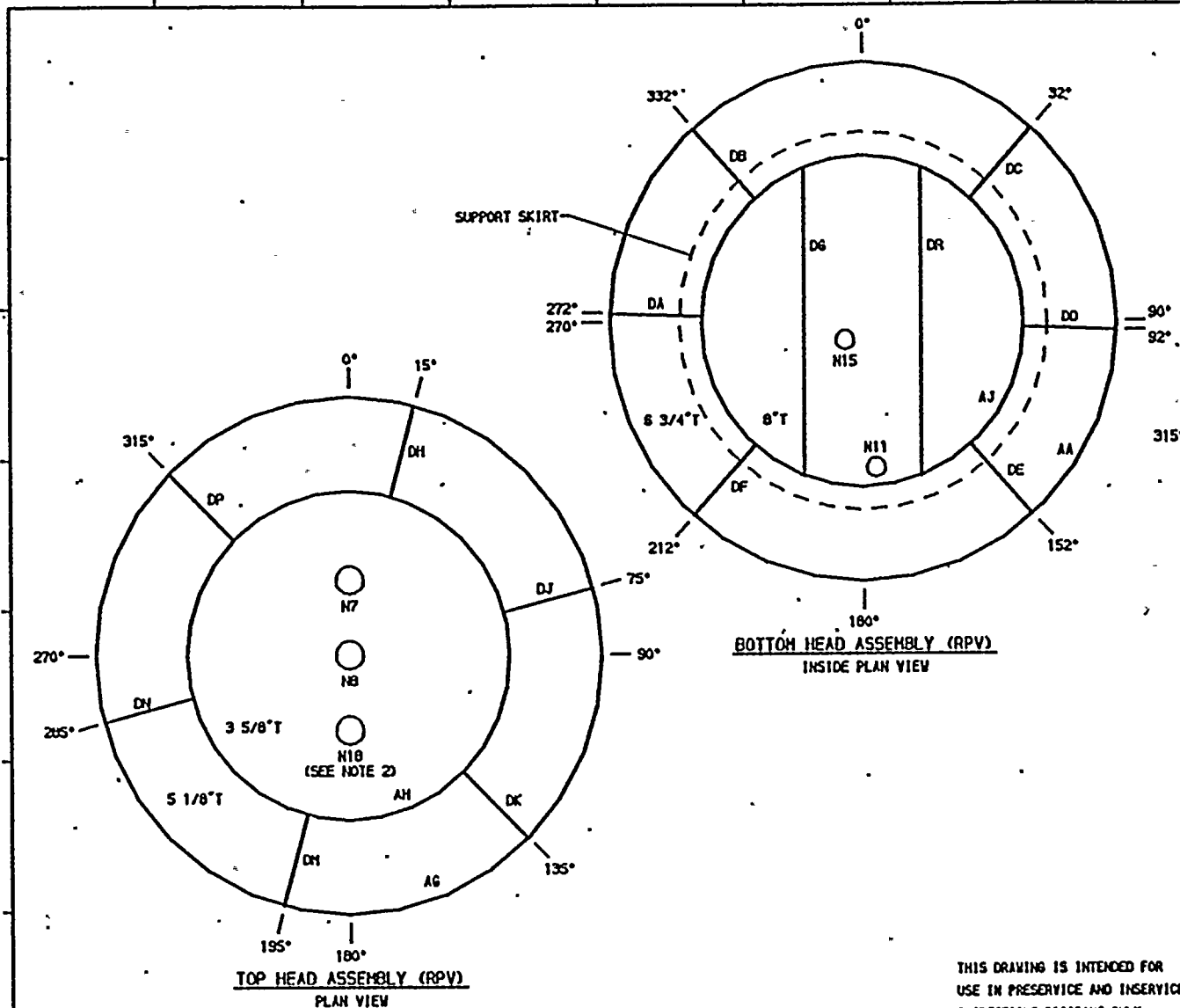
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NON DTA (110)	SCH	NOMINAL WALL THICKNESS	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-9-82	CORRECTED MRP LOCATION GRAPHICALLY ADDED CEMENT. MODIFIED LING. RETAIN	K-MCA	DPR	DRV	REACTOR PRESSURE VESSEL	251	NA	7 1/4, 8 7/16, 9 7/16	SA 106 GR B	CS	NOTE 1
3	12-2-81	EL 551'-0" WAS 551' LOWERED ACTIVE CORE TO COINCIDE.	K-MCA	DPR	TFH							
2	11-5-80	ADDED ELEVATIONS - ACTIVE CORE	K-MCA	TFH	DMP							
1	7-17-79	REVISED NOZZLE LETTERS PER AS BUILT. ADDED NOTES 4 & 5.	K-MCA	TFH	DMP							
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	DMP							
A	5-17-78	ISSUED FOR INFORMATION ONLY	K-MCA	DMP	DMP							

THIS DRAWING IS INTENDED FOR  
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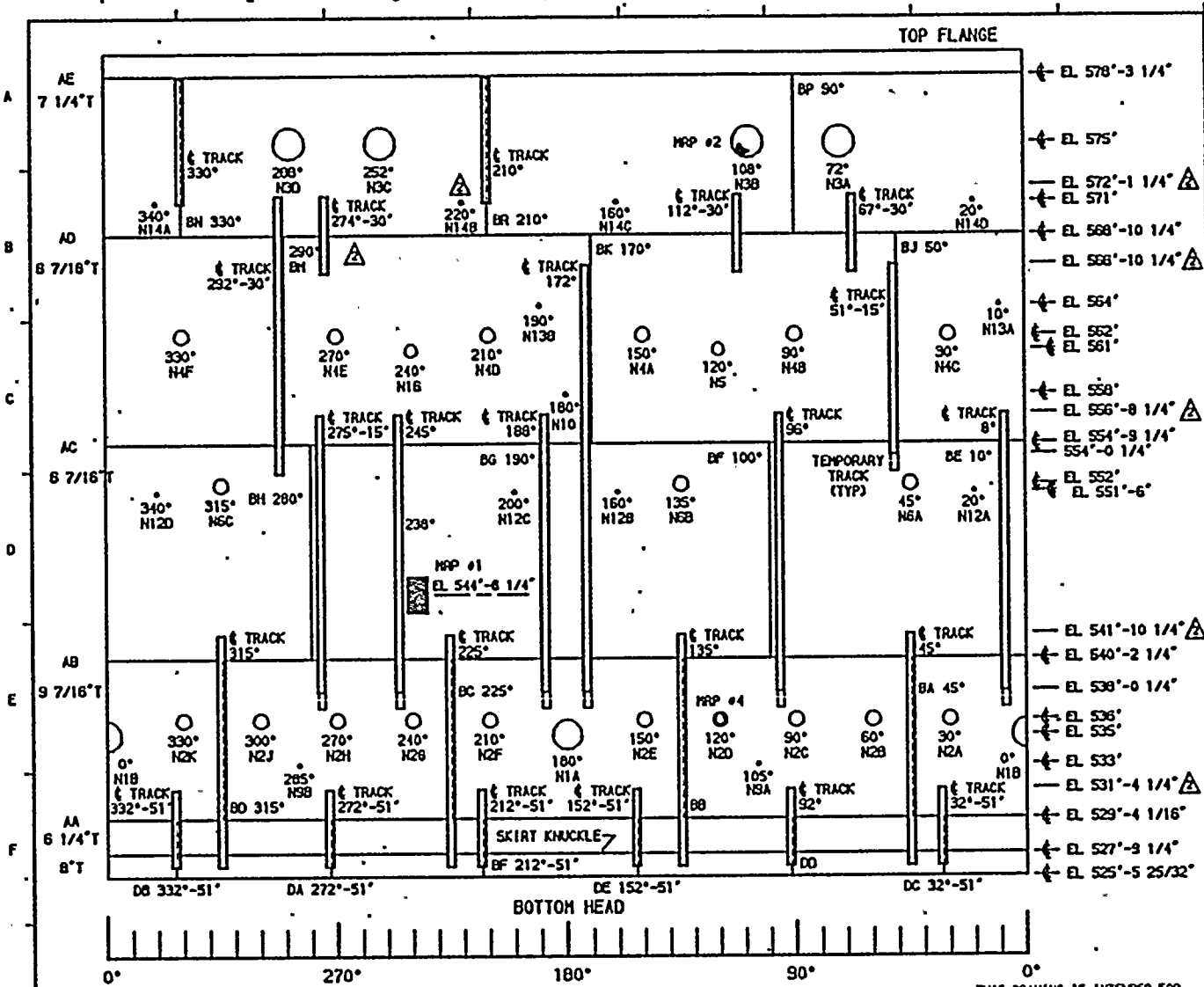
A  
B  
C  
D  
E  
F  
G  
H



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INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	12-9-92	MODIFIED LOGO, REDRAWN	K-HCA	DPR	DRW							
2	12-2-81	INDICATED VESSEL SKIRT (DASHED)	K-HCA	DPR	TFH	TOP HEAD	251	NA	3 5/8, 5 1/8	SA 508 GR B	CS	NOTE 1
1	8-30-79	ADDED NOTE 2.	K-HCA	TFH	DPR	BOTTOM HEAD	251	NA	8 3/4, 8	SA 508 GR B	CS	NOTE 1
0	12-22-70	ISSUED FOR USE	K-HCA	TFH	DPR							
A	5-17-70	ISSUED FOR INFORMATION ONLY	K-HCA	DMP	DMP							

QUALITY CLASS,	ASME CODE CLASS,
ENGR: C AKRE	DRW: K-HCA DATE: 2-28-78
<p>WASHINGTON PUBLIC POWER SUPPLY SYSTEM RIOLAND, WASHINGTON 92352</p>	
<p>WP-2 WELD &amp; COMPONENT IDENTIFICATION DIAGRAM</p>	
<p>TITLE: REACTOR PRESSURE VESSEL TOP &amp; BOTTOM HEAD WELDS</p>	
DWG NO: RPV-102	REV 3

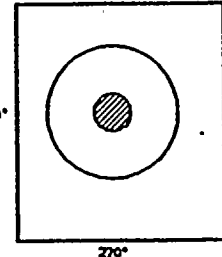


OUTSIDE VIEW

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

REFERENCES

BURNS & ROE DRAWING  
NBSG REV 2  
80°



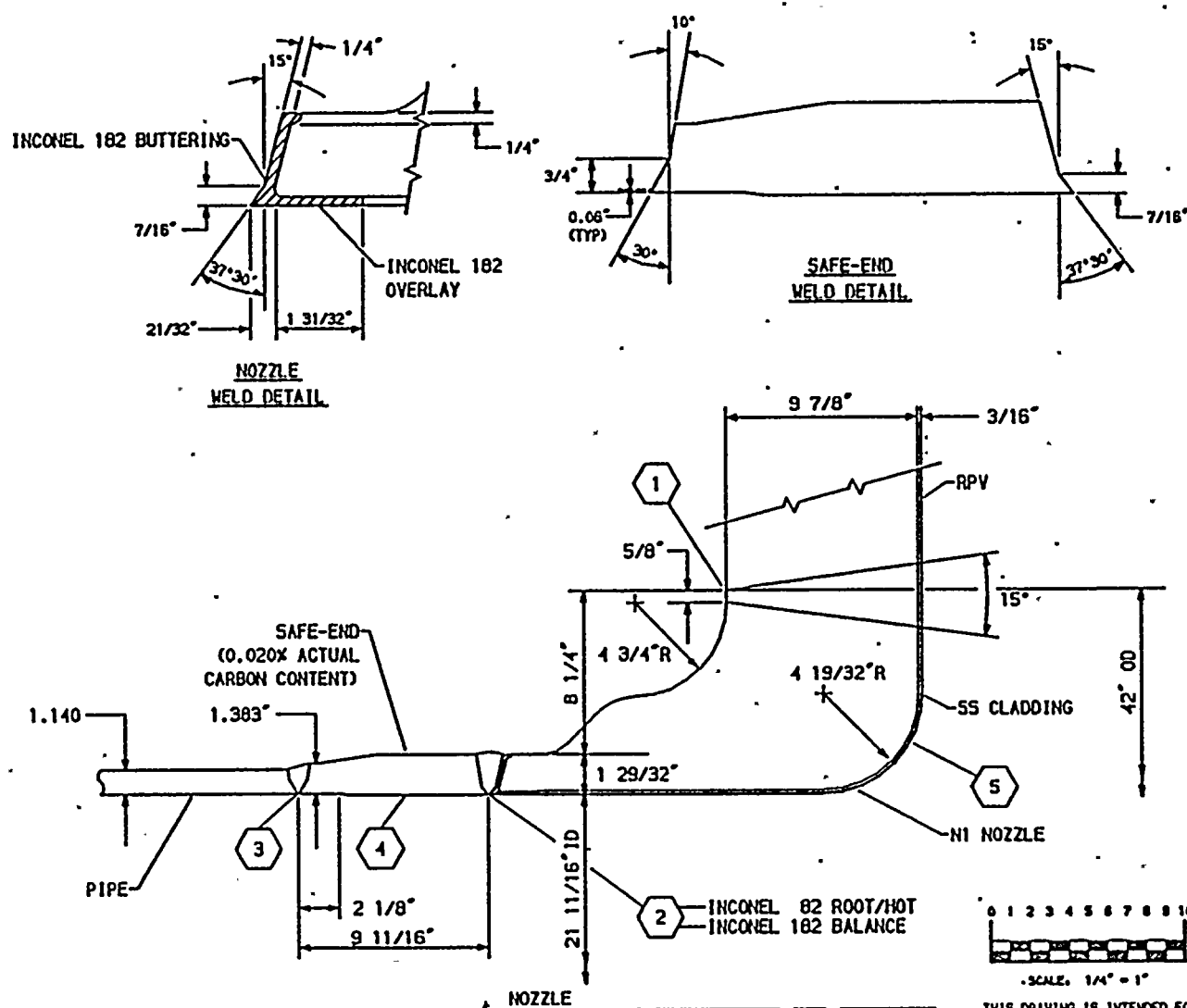
QUALITY CLASS, 1	ASME CODE CLASS, NA
ENGR, D PORTER	DRAWN, K-MEA DATE, 2-23-78
WASHINGTON PUBLIC POWER SUPPLY SYSTEM RIDGEMONT, WASHINGTON 98352	
WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: REACTOR PRESSURE VESSEL POLE TRACK LOCATION	
DWG NO. RPV-103	REV 2

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (INO)	SCH	NOMINAL WALL THICKNESS	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2	12-9-82	CORRECTED IN 10 B. TRACK CEN B-30 LOCATION GRAPHICALLY ADDED KEYPLAN, MODIFIED LOGO, INTRAMAT	K-MEA	DPR	DRW							
1	7-17-79	REVISED NOZZLE LETTERING FOR AS BUILT.	K-MEA	DPR	LFB							
0	12-22-70	ISSUED FOR USE	K-MEA	DPR	LFB							
A	5-17-78	ISSUED FOR INFORMATION ONLY	K-MEA	DPR	DPR							









# WELDS

①	N1A N1B	180° 0°	LOOP A LOOP B
②	24RRC (2) A-1 24RRC (2) B-1	180° 0°	LOOP A LOOP B
③	24RRC (2) A-2 24RRC (2) B-2	180° 0°	LOOP A LOOP B

# NOTES

CAL. BLOCK	EXAMINATION
①	UT-119 NOZZLE TO SHELL WELD
②	UT-101 NOZZLE TO SAFE-END WELD
③	UT-7 SAFE-END TO PIPE WELD
④	UT-101 SAFE-END FORGING (IF EXAMINED)
⑤	UT-119 NOZZLE INNER RADIUS

# REFERENCES:

CBI NUCLEAR CO.	205 AE 023
SHT 45	REV 4 NI NOZZLE FORGING
SHT 47	REV 3 NI SAFE-END FORGING
SHT 48	REV 4 NI NOZZLE ASSEMBLY
ISI ISOMETRICS	
RRC-101-1	REV 4
RRC-102-1	REV 3

QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. T HOYLE	DRAWN. K-MEA DATE, 5-10-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

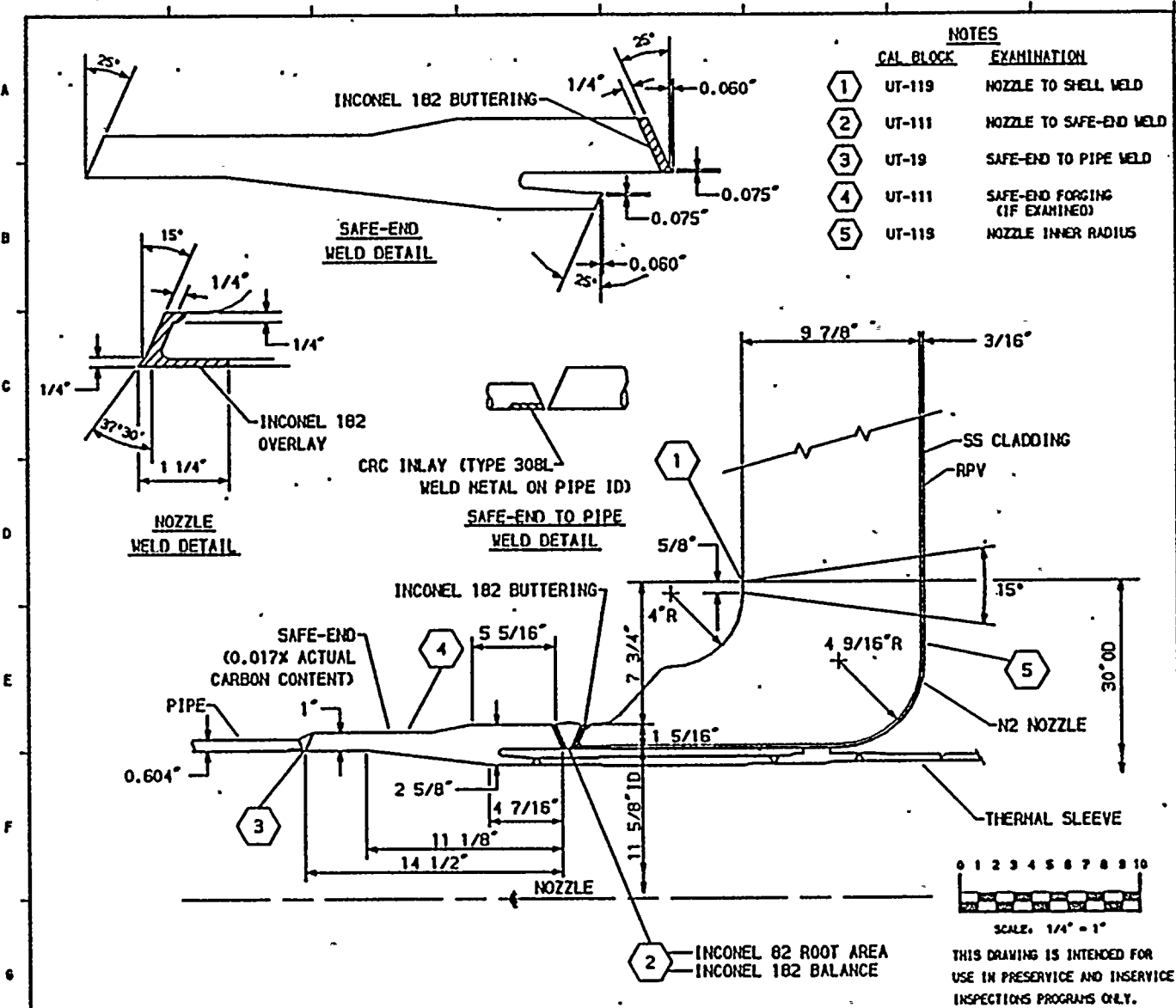
TITLE: RECIRC SUCTION  
NI NOZZLE AT 0° & 180°

DWG NO. RPV-105 REV 1

PIPING SYSTEM	NOM DIA INCH	SCH	NOM WALL THICKNESS	MATERIAL SPEC	MATL TYPE	CAL BLOCK NUMBER
24" RRC (2) -45°	24	XXX	1.140	SA 350 GR 304 CL 1	SS	SEE NOTES
SAFE-END				SA 338 CL F8	SS	SEE NOTES
NI NOZZLE				SA 508 CL 2	CS	SEE NOTES
				SA 533 GR B CL 1	CS	SEE NOTES

1	2-20-82	UPDATED TO DOCUMENT THE SAFE-END AND INCONEL INFORMATION FOR AS-BUILT CONDITION, MODIFIED 1048, 1049	K-MEA	CJ	DPR	RPV
0	7-31-79	ISSUED FOR USE	K-MEA	W/F	LFB	
NO	DATE	REVISION	BY	CHKD	APVD	





NOTES		
CAL BLOCK	EXAMINATION	
①	UT-119	NOZZLE TO SHELL WELD
②	UT-111	NOZZLE TO SAFE-END WELD
③	UT-19	SAFE-END TO PIPE WELD
④	UT-111	SAFE-END FORGING (IF EXAMINED)
⑤	UT-119	NOZZLE INNER RADIUS

WELOS		
①	N2A 30°	LOOP A
	N2B 60°	LOOP A
	N2C 90°	LOOP A
	N2D 120°	LOOP A
	N2E 150°	LOOP A
	N2F 210°	LOOP B
	N2G 240°	LOOP B
	N2H 270°	LOOP B
	N2J 300°	LOOP B
	N2K 330°	LOOP B
②	12RRC(1)-N2A-6	LOOP A
	12RRC(1)-N2B-6	LOOP A
	12RRC(1)-N2C-6	LOOP A
	12RRC(1)-N2D-6	LOOP A
	12RRC(1)-N2E-6	LOOP A
	12RRC(1)-N2F-6	LOOP B
	12RRC(1)-N2G-6	LOOP B
	12RRC(1)-N2H-6	LOOP B
	12RRC(1)-N2J-6	LOOP B
	12RRC(1)-N2K-6	LOOP B
③	12RRC(1)-N2A-4	LOOP A
	12RRC(1)-N2B-4	LOOP A
	12RRC(1)-N2C-4	LOOP A
	12RRC(1)-N2D-4	LOOP A
	12RRC(1)-N2E-4	LOOP A
	12RRC(1)-N2F-4	LOOP B
	12RRC(1)-N2G-4	LOOP B
	12RRC(1)-N2H-4	LOOP B
	12RRC(1)-N2J-4	LOOP B
	12RRC(1)-N2K-4	LOOP B

**REFERENCES:**  
 CBI NUCLEAR CO. 205 AE 023  
 SHT 49 REV 5 N2 NOZZLE FORGING  
 SHT 52 REV 10 N2 NOZZLE ASSEMBLY  
 GE / NED  
 112 D 2704 REV 1 SAFE-END RECIRC INLET NOZZLE  
 112 D 2593 REV 0 THERMAL SLEEVE EXTENSION

151 ISOMETRICS	
RRC-101-4	REV 2
RRC-101-5	REV 2
RRC-101-6	REV 2
RRC-101-7	REV 2
RRC-101-8	REV 2
RRC-102-4	REV 2
RRC-102-5	REV 2
RRC-102-6	REV 2
RRC-102-7	REV 2
RRC-102-8	REV 2

QUALITY CLASS. 1	ASME CODE CLASS. 1
ENGR. T HOYLE	DATE. 5-11-79

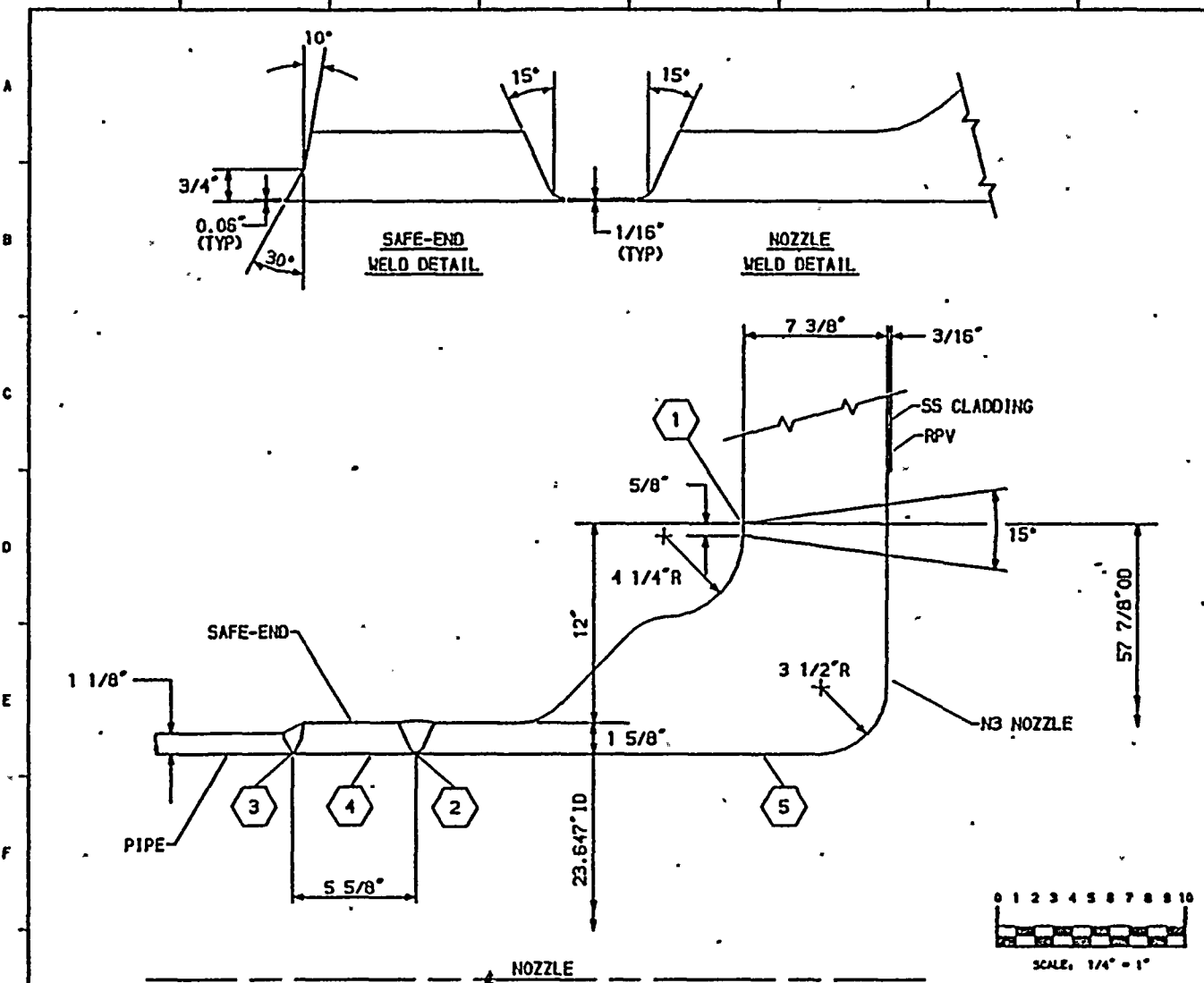
WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98102

PIPING SYSTEM	NOM DIA INCH	SCH	NOM WALL THICKNESS	MATERIAL SPEC	MATL TYPE	CAL BLOCK NUMBER
12"RRC(1)-45	12	XXX	0.603	SA 358 GR 304 CL 1	SS	SEE NOTES
SAFE-END				SA 182 GR F316L	SS	SEE NOTES
N2 NOZZLE				SA 508 CL 2	CS	SEE NOTES
				SA 533 GR B CL 1	CS	SEE NOTES

1	2-20-82	UPDATED TO DOCUMENT THE SAFE-END AND INCONEL INFORMATION FOR AS-BUILT CONDITION, MODIFIED LOGS, IN DRAWING	K-MCA	CJ	DPR	RPV
0	7-31-79	ISSUED FOR USE	K-MCA	IFM	LFB	
NO	DATE	REVISION	BY	CHKD	APVD	

WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: RECIRC RETURN N2 NOZZLE AT 30°, 60°, 90°, 120°, 150°, 210°, 240°, 300° & 300°	
DWG NO. RPV-106	REV 1





WELDS			
①	N3A 72°	LINE A	
	N3B 108°	LINE B	
	N3C 252°	LINE C	
	N3D 268°	LINE D	
②	26MS(1)A-1	LINE A	
	26MS(1)B-1	LINE B	
	26MS(1)C-1	LINE C	
	26MS(1)D-1	LINE D	
③	26MS(1)A-2	LINE A	
	26MS(1)B-2	LINE B	
	26MS(1)C-2	LINE C	
	26MS(1)D-2	LINE D	

NOTES		
CAL	BLOCK	EXAMINATION
①	UT-119	NOZZLE TO SHELL WELD
②	UT-104	NOZZLE TO SAFE-END WELD
③	UT-4	SAFE-END TO PIPE (IF EXAMINED)
④	UT-104	SAFE-END FORGING
⑤	UT-119	NOZZLE INNER RADIUS

REFERENCES		
CBI NUCLEAR CO.	205 AE 023	
SHT 53	REV 3	N3 NOZZLE FORGING
SHT 54	REV 4	N3 SAFE-END FORGING
SHT 55	REV 3	N3 NOZZLE ASSEMBLY
ISI ISOMETRICS		
MS-101-1	REV 5	
MS-102-1	REV 5	
MS-103-1	REV 5	
MS-104-1	REV 4	

QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR, T HOYLE	DRAWN, K-McA DATE, 5-14-73

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE, MAIN STEAM  
N3 NOZZLE AT 72°, 108°, 252° & 268°

DWG NO, RPV-107 REV 1

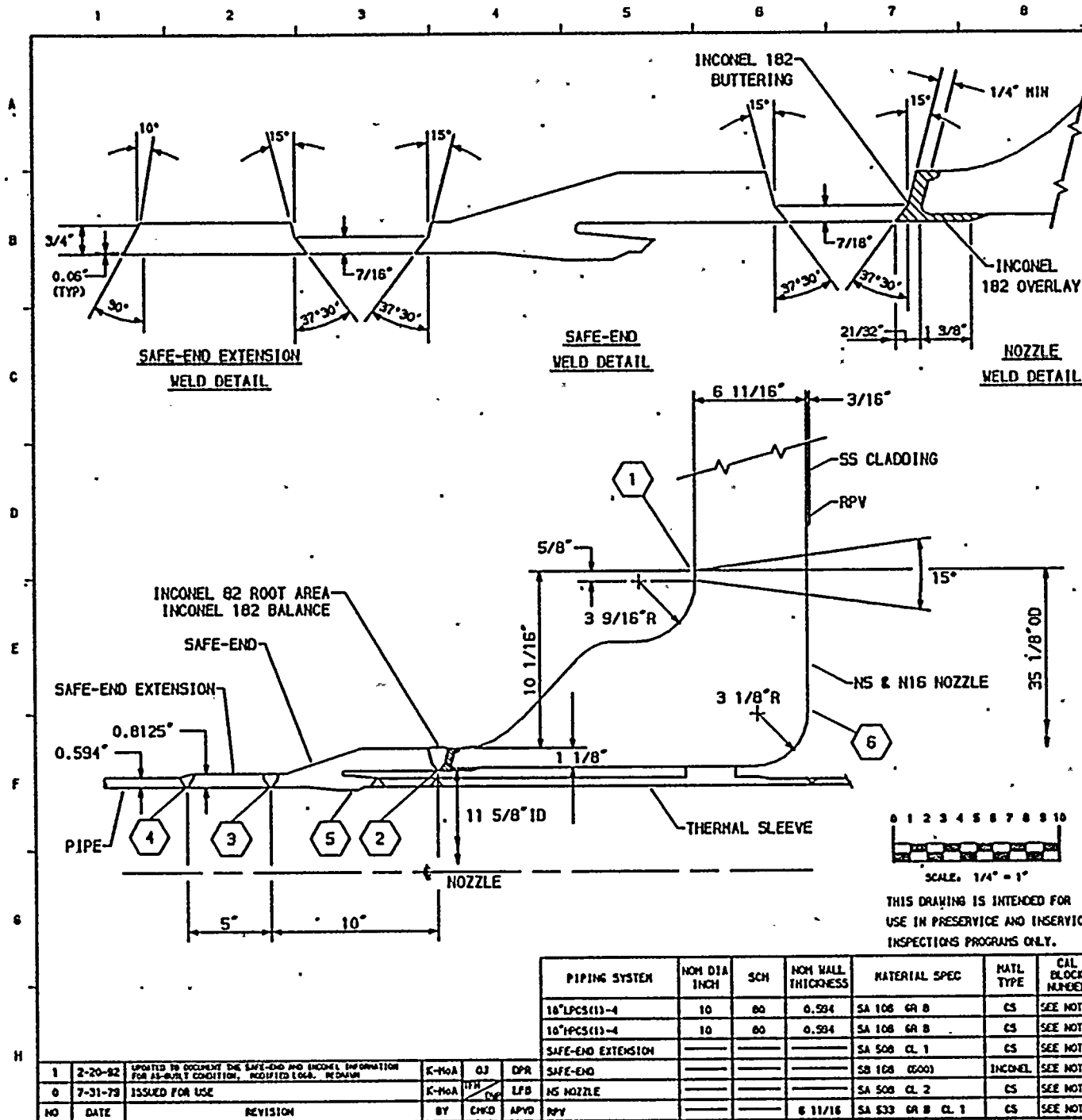
PIPING SYSTEM	NOM DIA INCH	SCH	NOM WALL THICKNESS	MATERIAL SPEC	MATL TYPE	CAL BLOCK NUMBER
26MS(1)A-4	26	XXX	1.125	SA 106 GR B	CS	SEE NOTES
SAFE-END				SA 508 CL 1	CS	SEE NOTES
N3 NOZZLE				SA 508 CL 2	CS	SEE NOTES
			7 3/8	SA 533 GR B CL 1	CS	SEE NOTES

NO	DATE	REVISION	BY	CHKD	APPRO
1	2-20-82	UPDATED TO DOCUMENT THE SAFE-END AND ISOMETRIC INFORMATION FOR AS-BUILT CONDITION, MODIFIED LOGS, REDRAWN	K-McA	GJ	OPR
0	7-31-73	ISSUED FOR USE	K-McA	ITH	LFB

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.







WELDS			
①	NS 120°	LPCS	
	N16 240°	HPCS	
②	10LPCS(11)-4		
	10HPCS(11)-4		
③	10LPCS(11)-4		
	10HPCS(11)-4		
④	10LPCS(11)-4		
	10HPCS(11)-4		

NOTES	
WELD	EXAMINATION
①	UT-120 NOZZLE TO SHELL WELD
②	UT-102 NOZZLE TO SAFE-END WELD
③	UT-106 SAFE-END TO SAFE-END EXTENSION WELD
④	UT-22 SAFE-END EXTENSION TO PIPE WELD
⑤	UT-106 SAFE-END FORGING (IF EXAMINED)
⑥	UT-119 NOZZLE INNER RADIUS

REFERENCES:	
CB1 NUCLEAR CO.	205 AE 023
SHT 60	REV 3 NS NOZZLE FORGING
SHT 61	REV 2 NS SAFE-END & SAFE-END EXTENSION
SHT 63	REV 5 NS NOZZLE ASSEMBLY
SHT 88	REV 4 N16 NOZZLE FORGING
SHT 89	REV 2 N16 SAFE-END & SAFE-END EXTENSION
SHT 91	REV 5 N16 NOZZLE ASSEMBLY
ISI ISOMETRICS	
LPCS-101-2	REV 2
HPCS-101-2	REV 3

QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. T HOYLE	DRAWN. K-McA
	DATE, 5-15-79



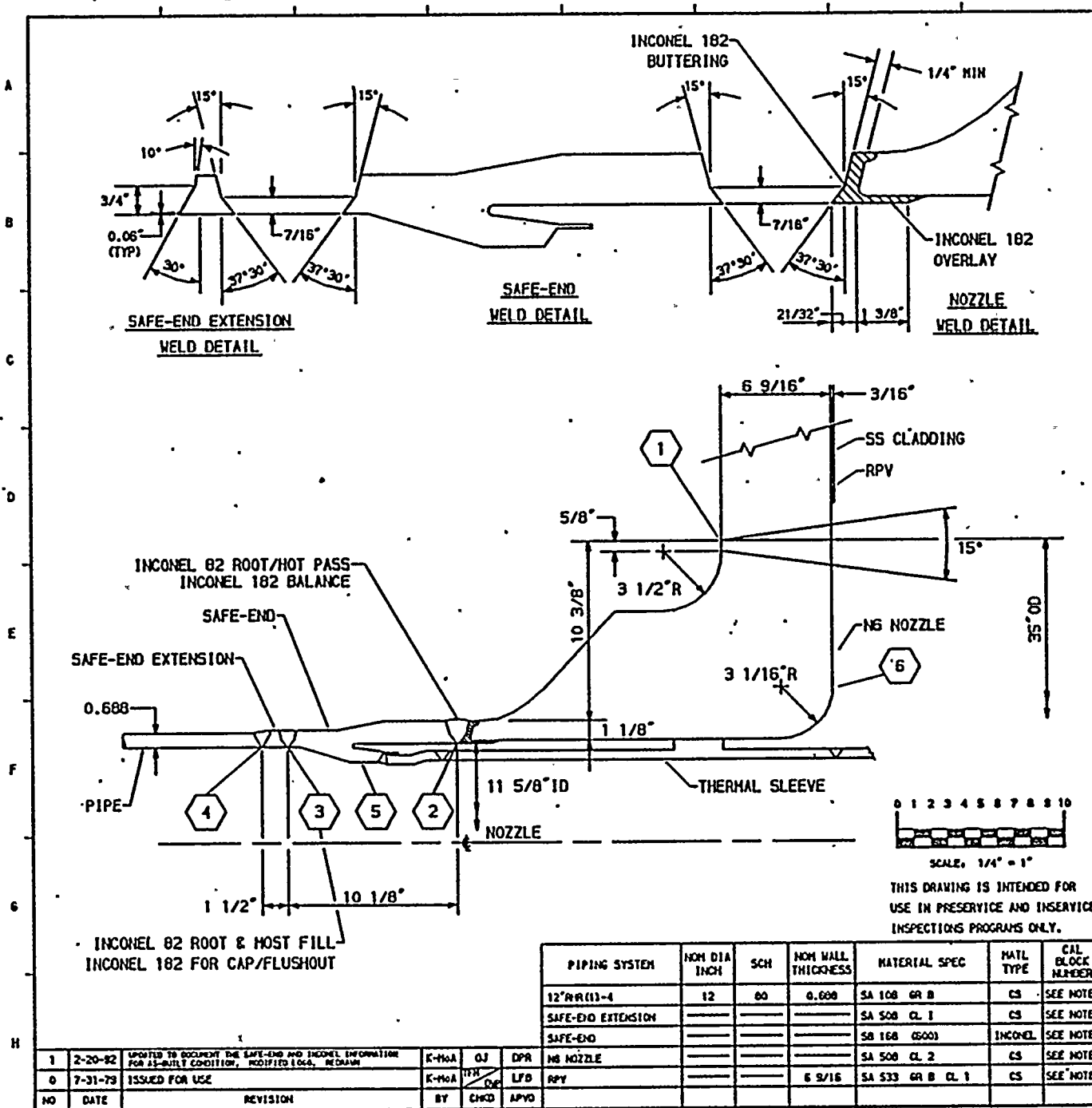
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIOLAND, WASHINGTON 99352

MP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
--

TITLE: LPCS / HPCS DISCHARGE NS NOZZLE AT 120° N16 NOZZLE AT 240°
---

DWG NO. RPV-109	REV 1
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WELOS			
1	H6A 45°	LOOP A	
	H6B 135°	LOOP B	
	H6C 315°	LOOP C	
2	12LPC1(11A-6	LOOP A	
	12LPC1(11B-6	LOOP B	
	12LPC1(11C-6	LOOP C	
3	12LPC1(11A-5	LOOP A	
	12LPC1(11B-5	LOOP B	
	12LPC1(11C-5	LOOP C	
4	12LPC1(11A-4	LOOP A	
	12LPC1(11B-4	LOOP B	
	12LPC1(11C-4	LOOP C	

NOTES		
CAL BLOCK	EXAMINATION	
1	UT-120	NOZZLE TO SHELL WELD
2	UT-102	NOZZLE TO SAFE-END END EXTENSION
3	UT-106	SAFE-END TO SAFE-END EXTENSION WELD
4	UT-17	SAFE-END EXTENSION TO PIPE WELD
5	UT-102	SAFE-END FORGING (IF EXAMINED)
6	UT-119	NOZZLE INNER RADIUS

REFERENCES:			
CBI NUCLEAR CO.	205 AE 023		
SHT 64	REV 3	NG NOZZLE FORGING	
SHT 65	REV 3	NG SAFE- TO SAFE-END END EXTENSION FORGING	
SHT 66	REV 2	NG THERMAL SLEEVE FORGING	
SHT 67	REV 6	NG NOZZLE ASSEMBLY	
ISI ISOMETRICS			
R/R-101	REV 7		
R/R-102	REV 7		

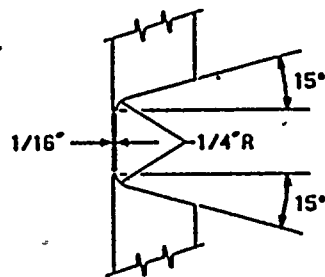
QUALITY CLASS. 1	ASME CODE CLASS. 1
ENGR. T HOYLE	DRAWN. K-HWA
	DATE. 5-17-79

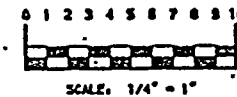
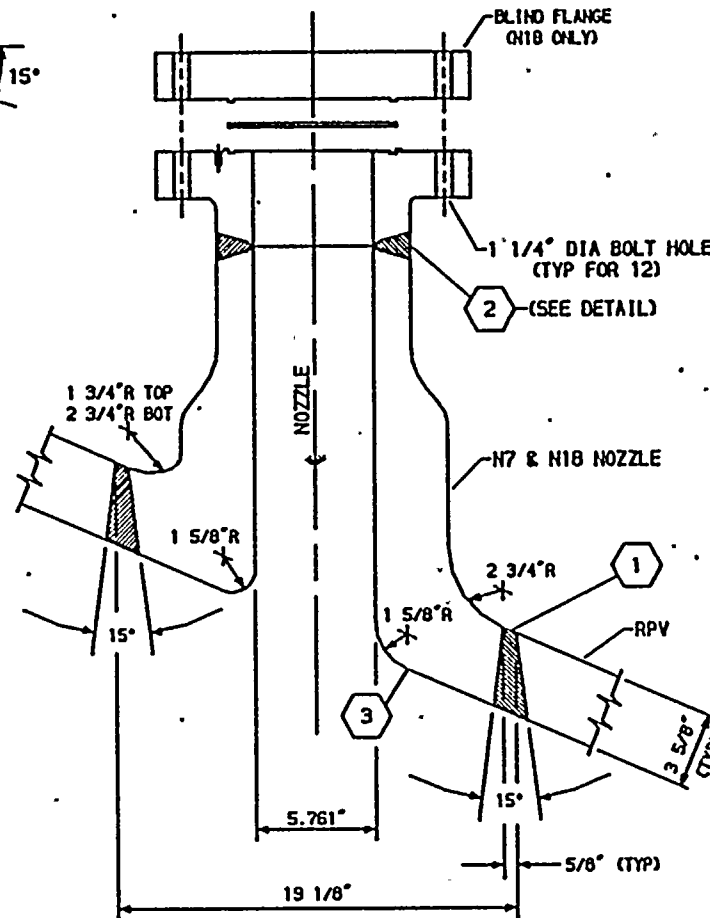
WASHINGTON PUBLIC POWER SUPPLY SYSTEM RIGLAND, WASHINGTON 98352
WMP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM

TITLE:	R/R / LPCI NG NOZZLE AT 45°, 135° & 315°
DWG NO. RPV-110	REV 1



FLANGE TO NOZZLE  
WELD DETAIL



THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

# WELDS

① N7 0° RCIC  
N18 180° SPARE

② SRCIC(11)-45  
6" SPARE-1

## NOTES

### CAL BLOCK END EXTENSION

- ① UT-115 NOZZLE TO VESSEL  
HEAD WELD
- ② UT-107 NOZZLE TO FLANGE WELD
- ③ UT-115 NOZZLE INNER RADIUS

## REFERENCES:

CB1 NUCLEAR CO. 205 AE 023  
SHT 68 REV 2 N7 NOZZLE & WELD  
NECK FLANGE  
SHT 69 REV 4 N7 NOZZLE ASSEMBLY  
SHT 92 REV 4 N18 NOZZLE & WELD  
NECK FLANGE  
SHT 93 REV 6 N18 NOZZLE ASSEMBLY

ISI ISOMETRICS  
RCIC-102-3 REV 5  
RPV-102 REV 2

QUALITY CLASS, 1 ASME CODE CLASS, 1  
ENGR. T HOYLE DRAWN. K-HCA DATE, 5-17-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIOLAND, WASHINGTON 99352

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

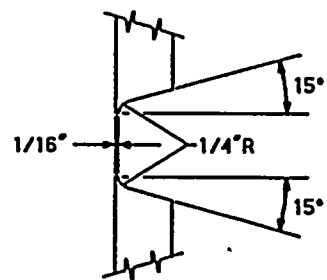
TITLE: RCIC / SPARE  
N7 NOZZLE AT 0° N18 NOZZLE AT 180°

DWG NO. RPV-111

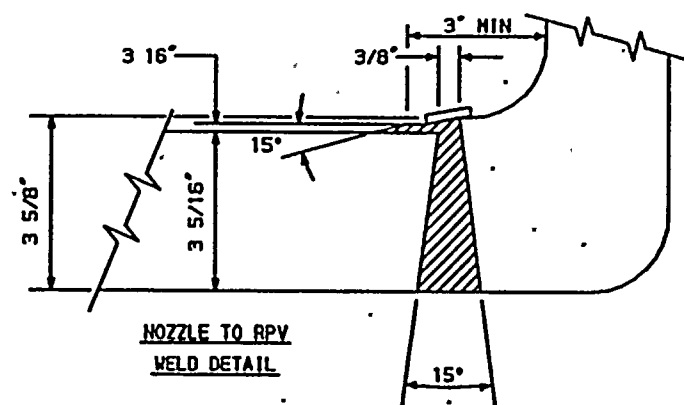
REV 1

PIPING SYSTEM	NOM DIA INCH	SCH	NOM WALL THICKNESS	MATERIAL SPEC	MATL TYPE	CAL BLOCK NUMBER
6"RCIC(11)-4	6	80	0.432	SA 106 GR B	CS	SEE NOTES
WELD NECK FLANGE	6	900#		SA 508 CL 1	CS	SEE NOTES
N7 NOZZLE				SA 508 CL 2	CS	SEE NOTES
N18 NOZZLE				SA 508 CL 2	CS	SEE NOTES
RPV			3 5/8	SA 533 GR B CL 1	CS	SEE NOTES

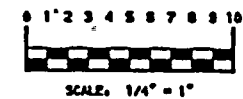
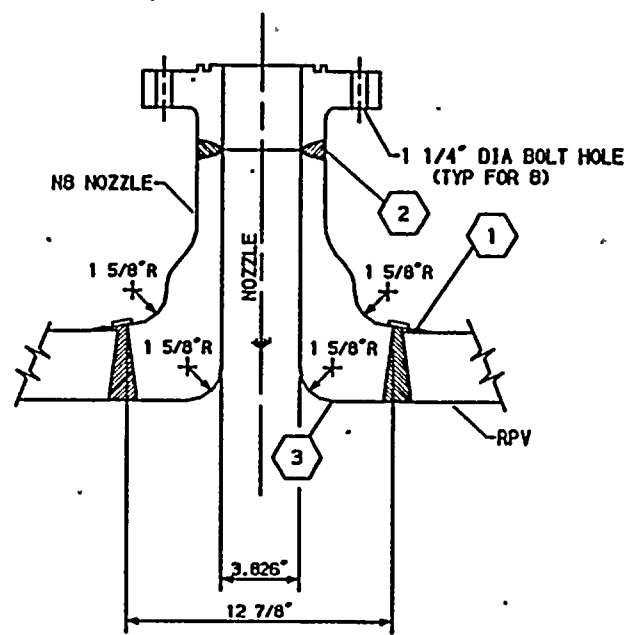
NO	DATE	REVISION	BY	CHKD	APVD
1	2-20-82	UPDATED TO REFLECT THE SAFE-END AND INCHONEL INFORMATION FOR AS-BUILT CONDITION, MODIFIED 1984, MCDONALD	K-HCA	OJ	DPR
0	7-31-79	ISSUED FOR USE	K-HCA	TH	LFB



FLANGE TO NOZZLE  
WELD DETAIL



NOZZLE TO RPV  
WELD DETAIL



THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA INCH	SCH	NOM WALL THICKNESS	MATERIAL SPEC	MATL TYPE	CAL BLOCK NUMBER
4" 900# WN FLANGE	---	---	---	SA 508 CL 1	CS	SEE NOTES
NB NOZZLE	---	---	---	SA 508 CL 2	CS	SEE NOTES
RPV	---	---	3 1/2	SA 533 GR B CL 1	CS	SEE NOTES

NO	DATE	REVISION	BY	CHKD	APVD
1	2-20-92	UPDATED TO DOCUMENT THE SAFE-END AND SHOCKED INFORMATION FOR AS-BUILT CONDITION, MODIFIED LOGS, REVISION	K-McA	CJ	DPR
0	7-31-79	ISSUED FOR USE	K-McA	TFB	LFB

WELDS

- ① NB HEAD VENT
- ② 4WS(12)-1

NOTES

- | CAL BLOCK | EXAMINATION           |
|-----------|-----------------------|
| ① UT-115  | NOZZLE TO VESSEL WELD |
| ② UT-108  | NOZZLE TO FLANGE WELD |
| ③ UT-115  | NOZZLE INNER RADIUS   |

REFERENCES:

- CB1 NUCLEAR CO. 205 AE 023
- SHT 70 REV 4 NB NOZZLE FORGING
- SHT 71 REV 9 NB NOZZLE ASSEMBLY
- ISI ISOMETRICS
- MS-106-1 REV 4
- RPV-102 REV 2

QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR, T HOYLE	DRAWN, K-McA DATE, 5-21-79



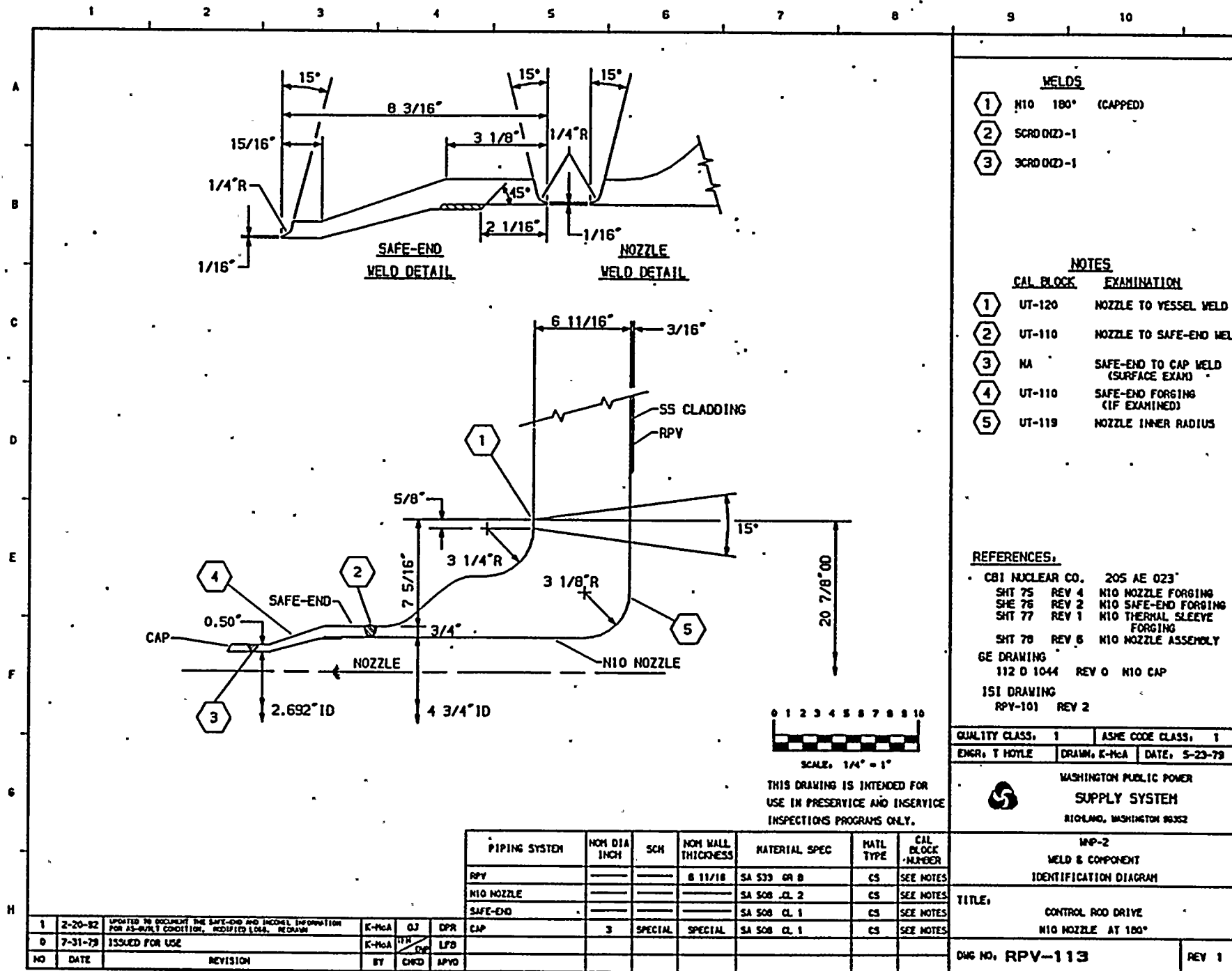
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

WPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
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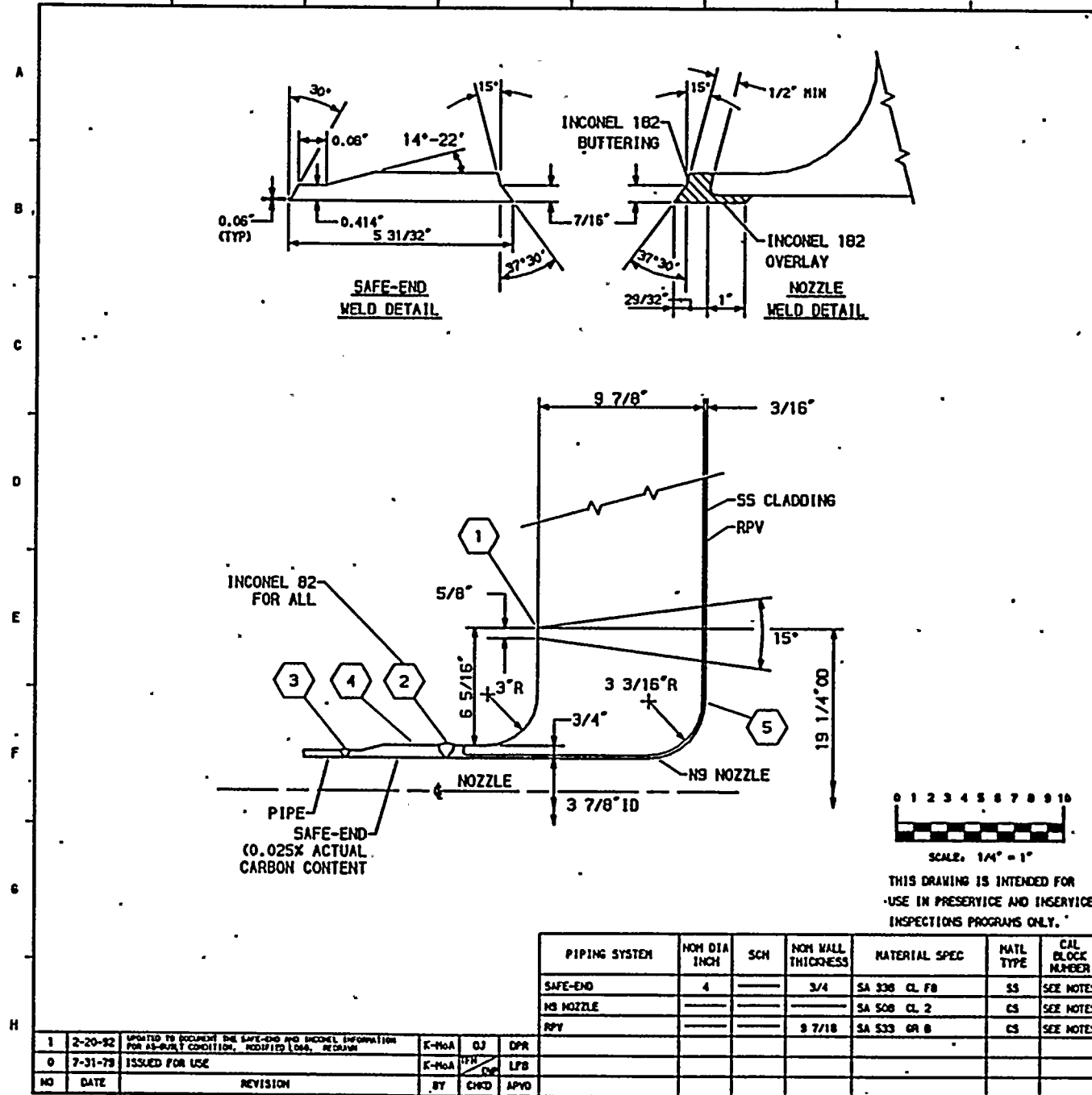
TITLE: HEAD VENT NB NOZZLE

DWG NO, RPV-112	REV 1
-----------------	-------









**WELDS**

①	N9A 105° N9B 205°
②	4JP 002A-1 4JP 002B-1
③	4JP 002A-2 4JP 002B-2

**NOTES**

CAL BLOCK	EXAMINATION
①	UT-119 NOZZLE TO SHELL WELD
②	UT-109 NOZZLE TO SAFE-END WELD
③	UT-29 SAFE-END TO FITTING WELD
④	UT-109 SAFE-END FORGING (IF EXAMINED)
⑤	UT-119 NOZZLE INNER RADIUS

**REFERENCES:**

CB1 NUCLEAR CO.	205 AE 023
SHT 72 REV 2	N9 NOZZLE FORGING
SHT 73 REV 2	N9 SAFE-END FORGING
SHT 74 REV 2	N9 NOZZLE ASSEMBLY

QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. T HOYLE	DRAWN. K-MoA DATE: 10-4-79

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

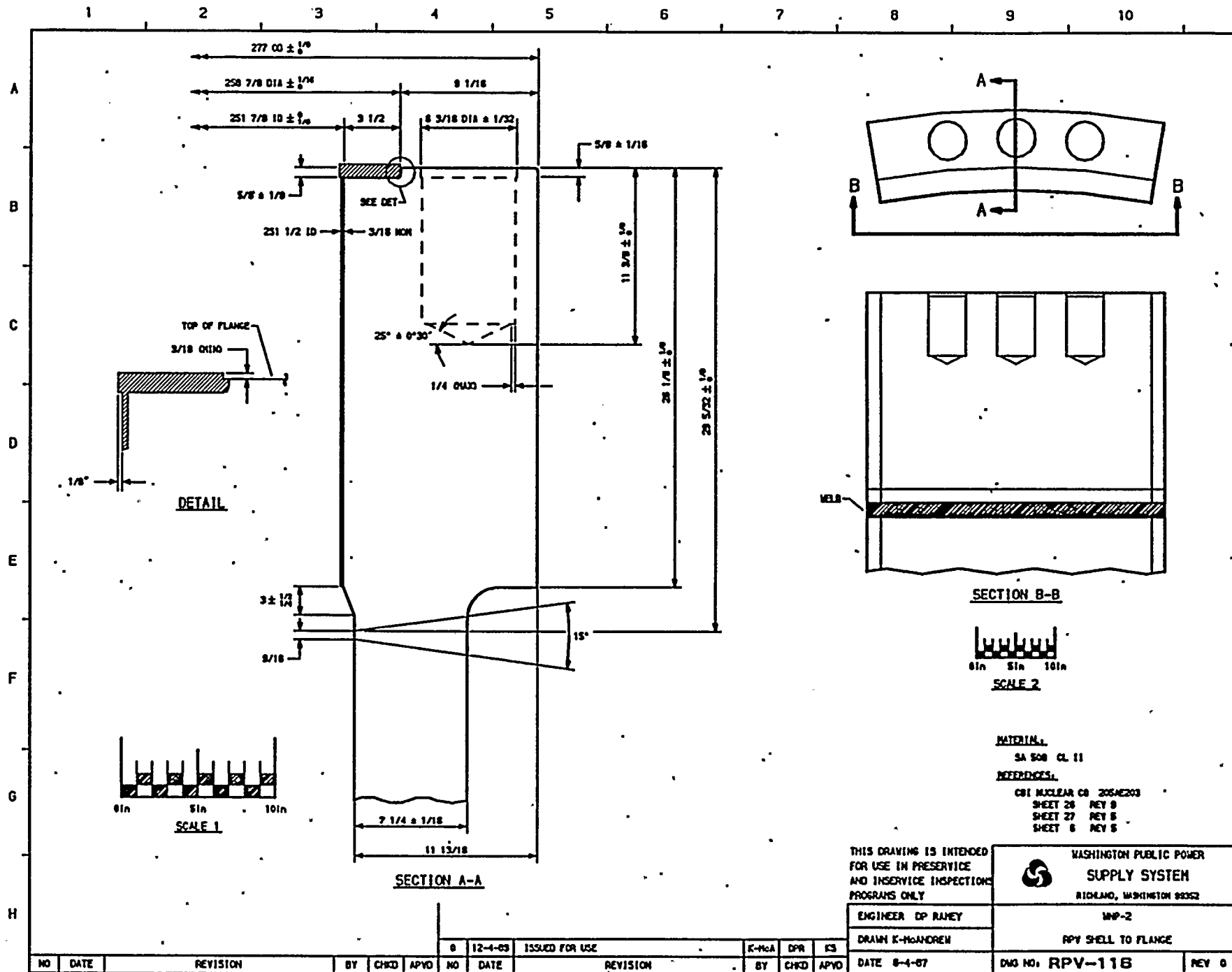
WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
JET PUMP INSTRUMENTATION  
N9 NOZZLE AT 105° & 205°

DWG NO. RPV-115

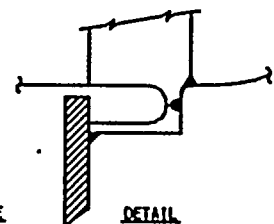
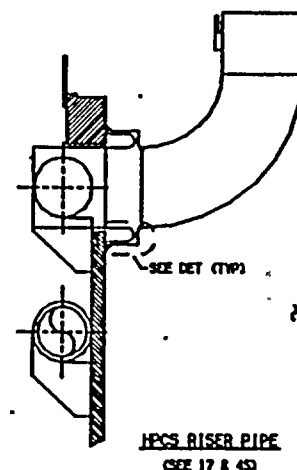
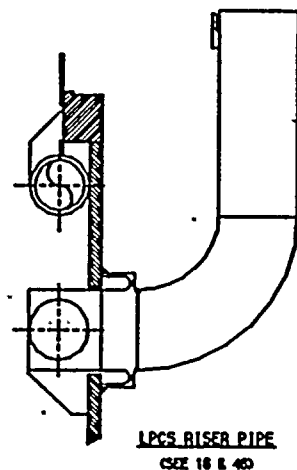
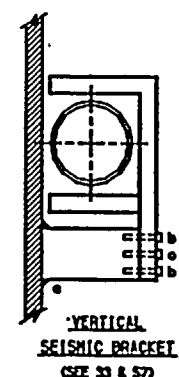
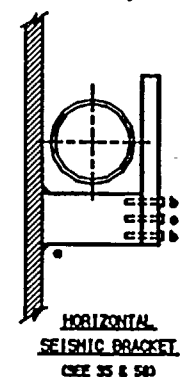
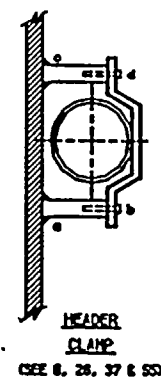
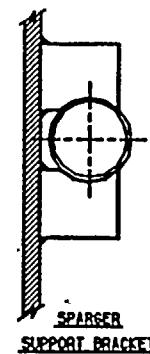
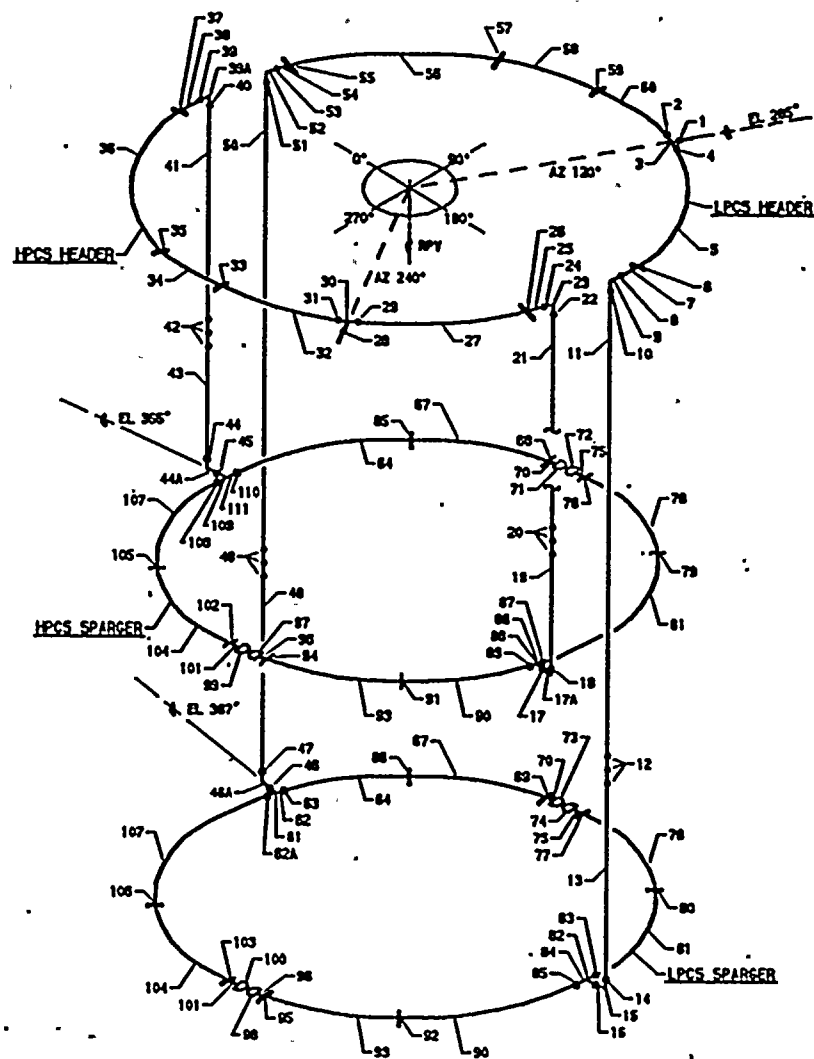
REV 1







A  
B  
C  
D  
E  
F  
G  
H



- NOTES**
1. ELEVATIONS ARE INCHES BELOW RPV FLANGE.
  2. NUMBERS CORRESPOND TO CORE SPRAY SPARGERS & SUPPLY PIPING INSPECTION PLAN. NOT ALL ITEMS IN PLAN ARE IDENTIFIED ON THIS DRAWING.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WASHINGTON 99352	
IMP-2 CORE SPRAY SPARGERS & SUPPLY PIPING	
ENGINEER: DP RAMEY	DWG NO. RPV-117
DRAWN: K-McANDREW	REV: 0
DATE: 10-8-87	

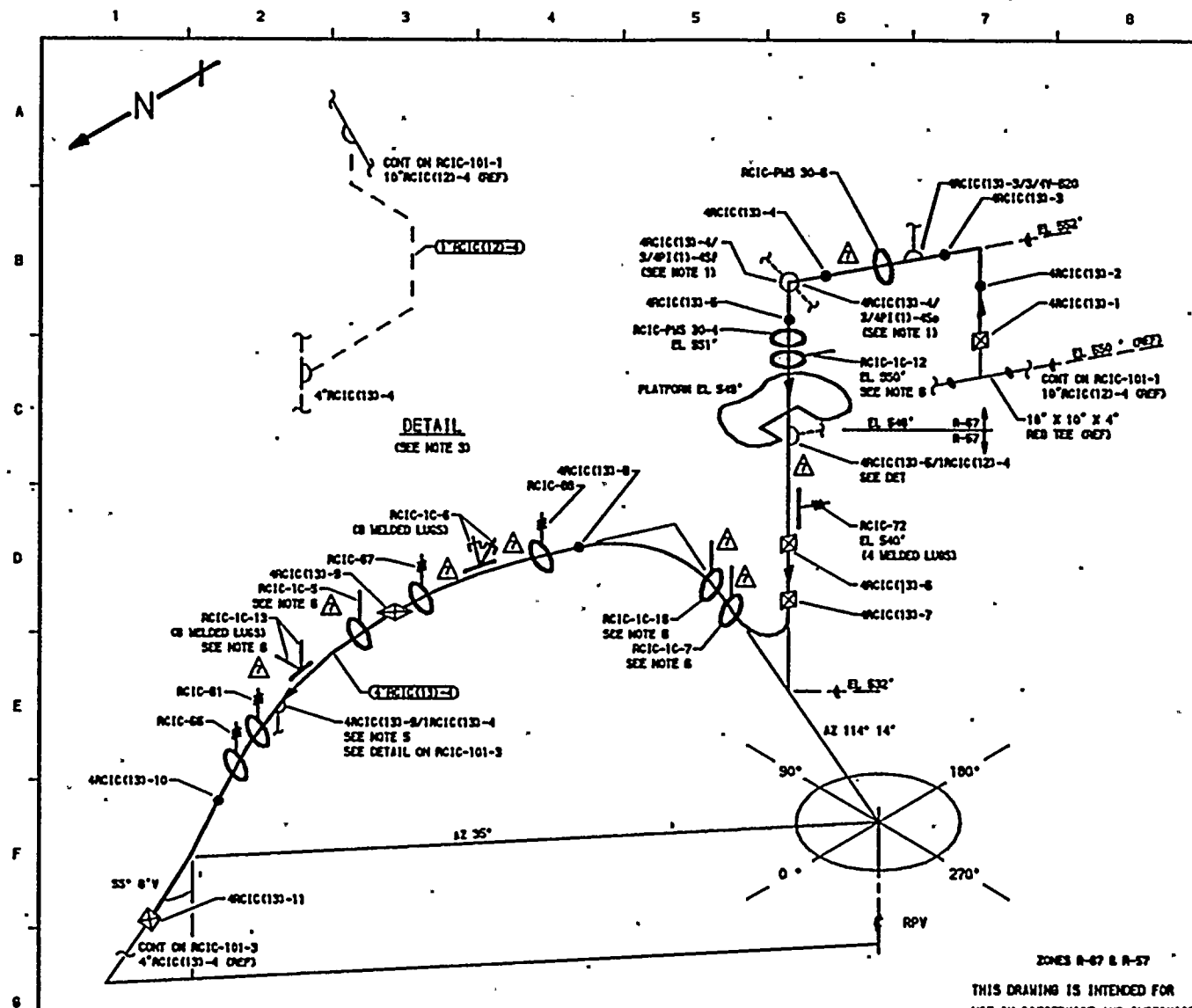
THIS DRAWING IS INTENDED  
FOR USE IN PRE-SERVICE  
AND INSERVICE INSPECTIONS  
PROGRAMS ONLY









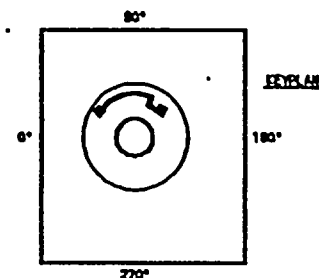


# NOTES:

1. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT CI-710, X-7113 THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
2. ALL CIRCUMFERENTIAL BUTT WELDS GREATER THAN ONE INCH RECEIVE AUGMENTED ISI.
3. EXTEND V-2 EXAM THROUGH LINE 1"RCIC(12)-4.
4. COMPONENT SUPPORTS RCIC-68 THROUGH RCIC-10-7 CAN BE REACHED BY CLIMBING ON DUCT WORK.
5. EXTEND V-2 EXAM THROUGH LINE 1"RCIC(13)-4.
6. RCIC-10-8, RCIC-10-7, RCIC-10-12, RCIC-10-13 & RCIC-10-18 CHANGED FROM SHROODS TO STRUTS PER DOC 88-0525-02-023.
7. RCIC-10-4, RCIC-10-8 & RCIC-10-15 WERE DELETED PER DOC 88-0525-02-023.

# REFERENCES:

- ISI - 210-1  
BOYCE & CRILL (ISOMETRICS)  
RCIC-003-1.2 REV 12  
RCIC-002-1 REV 12  
RCIC-002-1 REV 3  
SUPPLY SYSTEM DRAWINGS  
RCIC-002-2.4 SH 1 REV 0  
RCIC-002-2.4 SH 2 REV 0



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. D PORTER	DRAWN. K-McA DATE, 11-7-77

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RCIC-PUMP-1 DISCHARGE

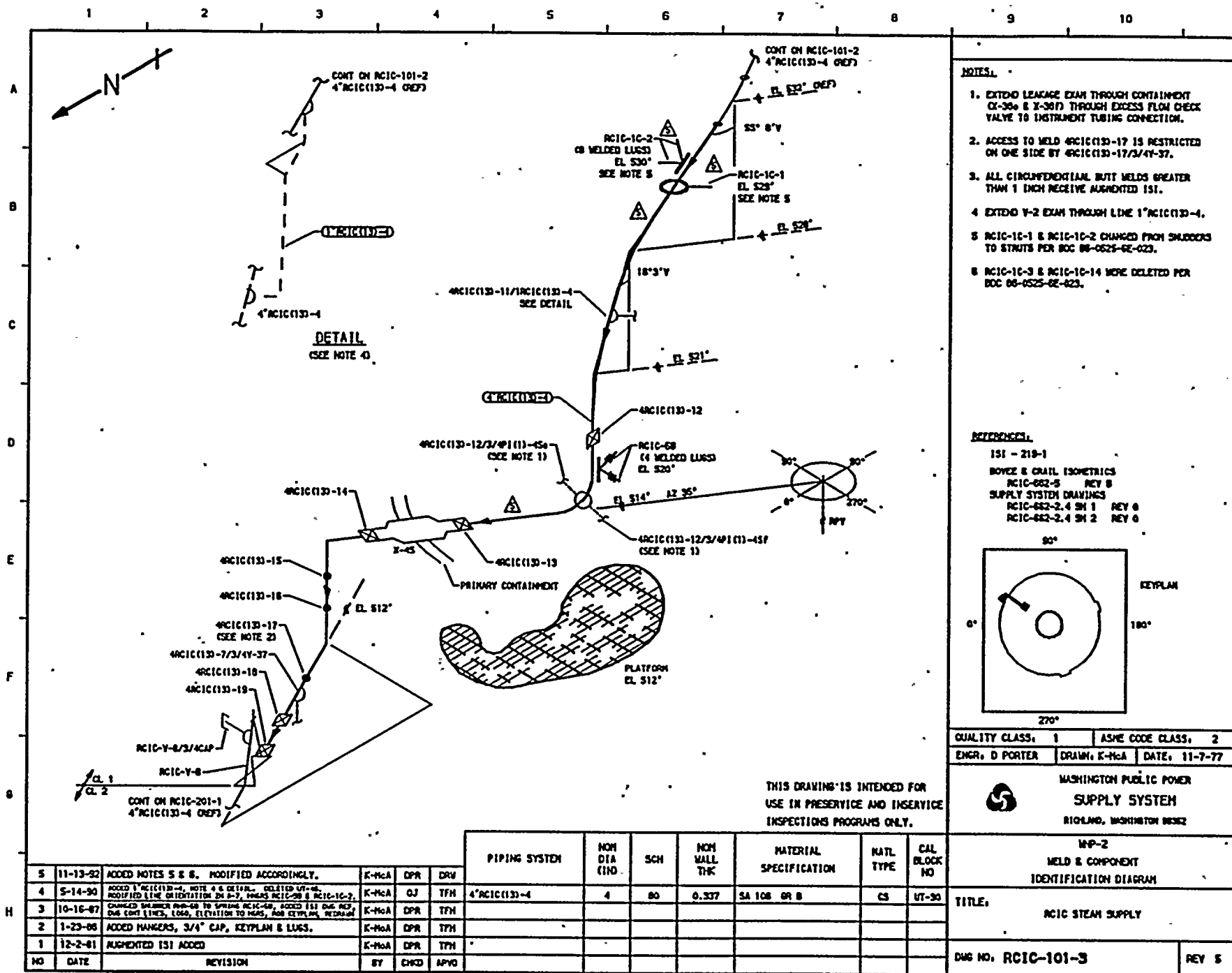
DWG NO. RCIC-101-2 REV 7

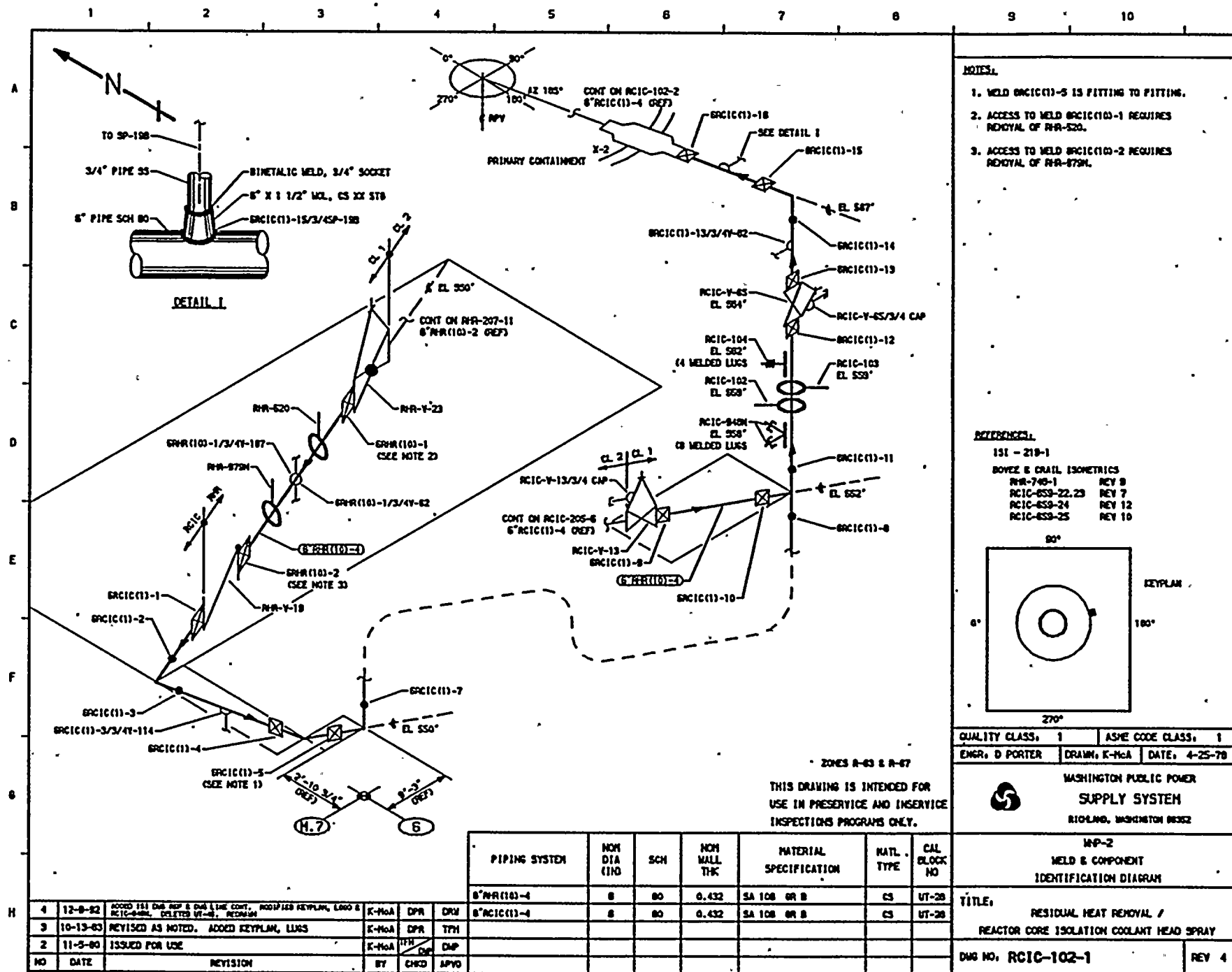
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO
7	11-13-82	ADDED NOTES 6 & 7. DELETED RCIC-PMS 30-5.	K-McA	DPR	DRW							
6	2-20-82	ADDED RCIC-PMS 30-4, RCIC-PMS 30-5 & RCIC-PMS 30-8.	K-McA	OJ	DPR							
5	5-14-80	ADDED 1 SELECTED CONNECTION, NOTE 6. MODIFIED DIMENSIONS RCIC-10-8, RCIC-10-13 & RCIC-10-15.	K-McA	OJ	TFH	4"RCIC(13)-4	4	80	0.337	SA 108 GR B	CS	UT-30
4	10-16-87	ADDED THE MARKING TO SHOWNING ZONE 0-6, ISI AND REF. DUE CONT LINES, NOTE 4 & 6 (OCC. MODIFIED REPLAN.	K-McA	DPR	TFH							
3	1-24-84	GENERAL UPDATE REDRAWN	K-McA	DPR	TFH							
2	12-2-81	AUGMENTED ISI ADDED	K-McA	DPR	TFH							

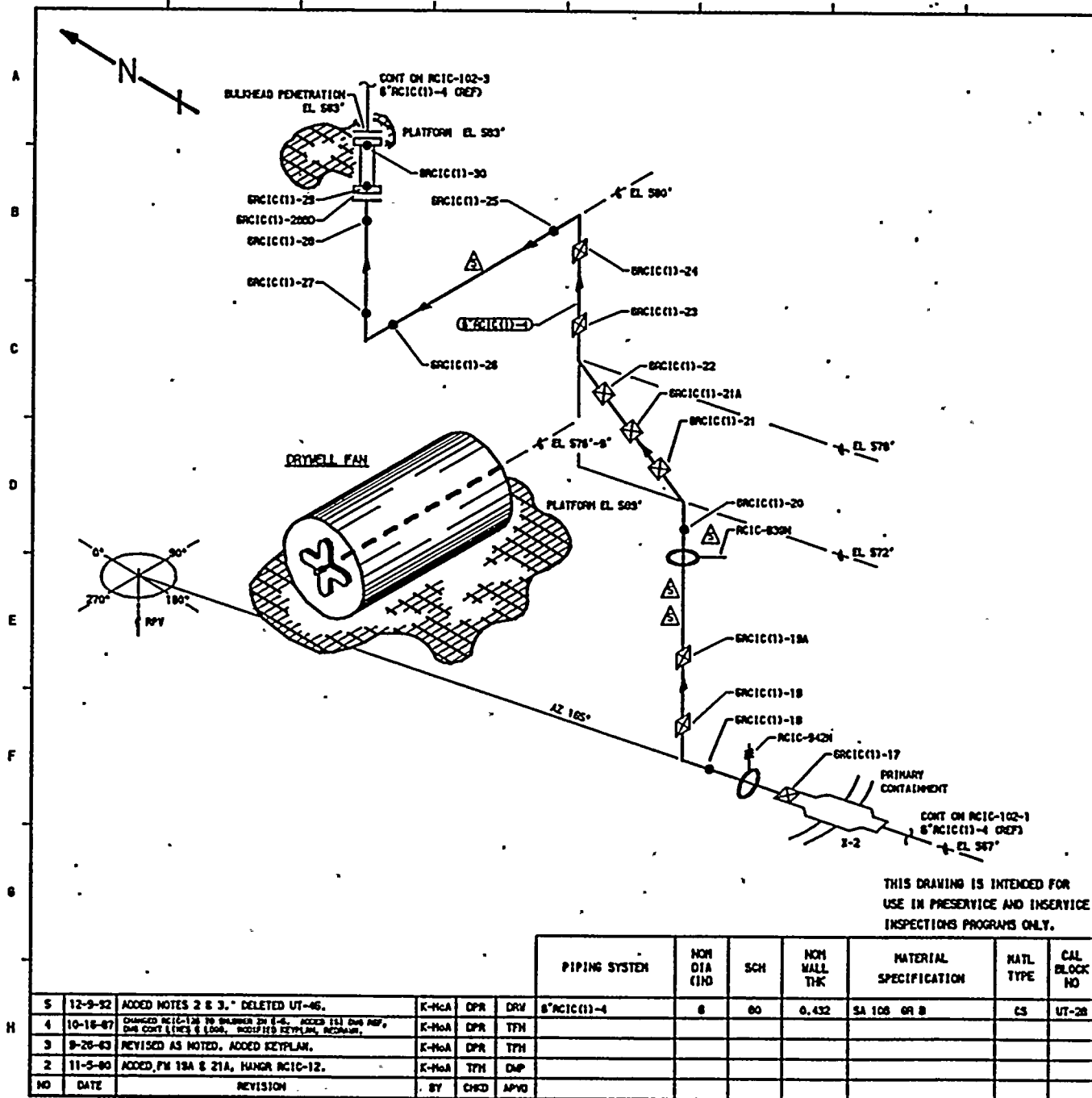
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

ZONES R-67 & R-57









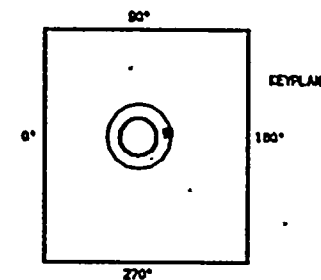
# NOTES:

1. ACCESS TO WELDS BRIC(11)-22 THROUGH BRIC(11)-27 REQUIRES TEMPORARY SCAFFOLDING.
2. RCIC-833H CHANGED FROM SLUGGER TO STRUT PER BOC-88-0525-SC-024.
3. RCIC-128, RCIC-837H & RCIC-839H WERE DELETED PER BOC-88-0525-SC-024.

## REFERENCES:

ISI - 219-1

BOYCE & CHAIL ISOMETRIC  
RCIC-858-28 REV B



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR, D PORTER	DRAWN, K-McA DATE, 4-25-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RESIDUAL HEAT REMOVAL /  
REACTOR CORE ISOLATION COOLANT HEAD SPRAY

DWG NO: RCIC-102-2

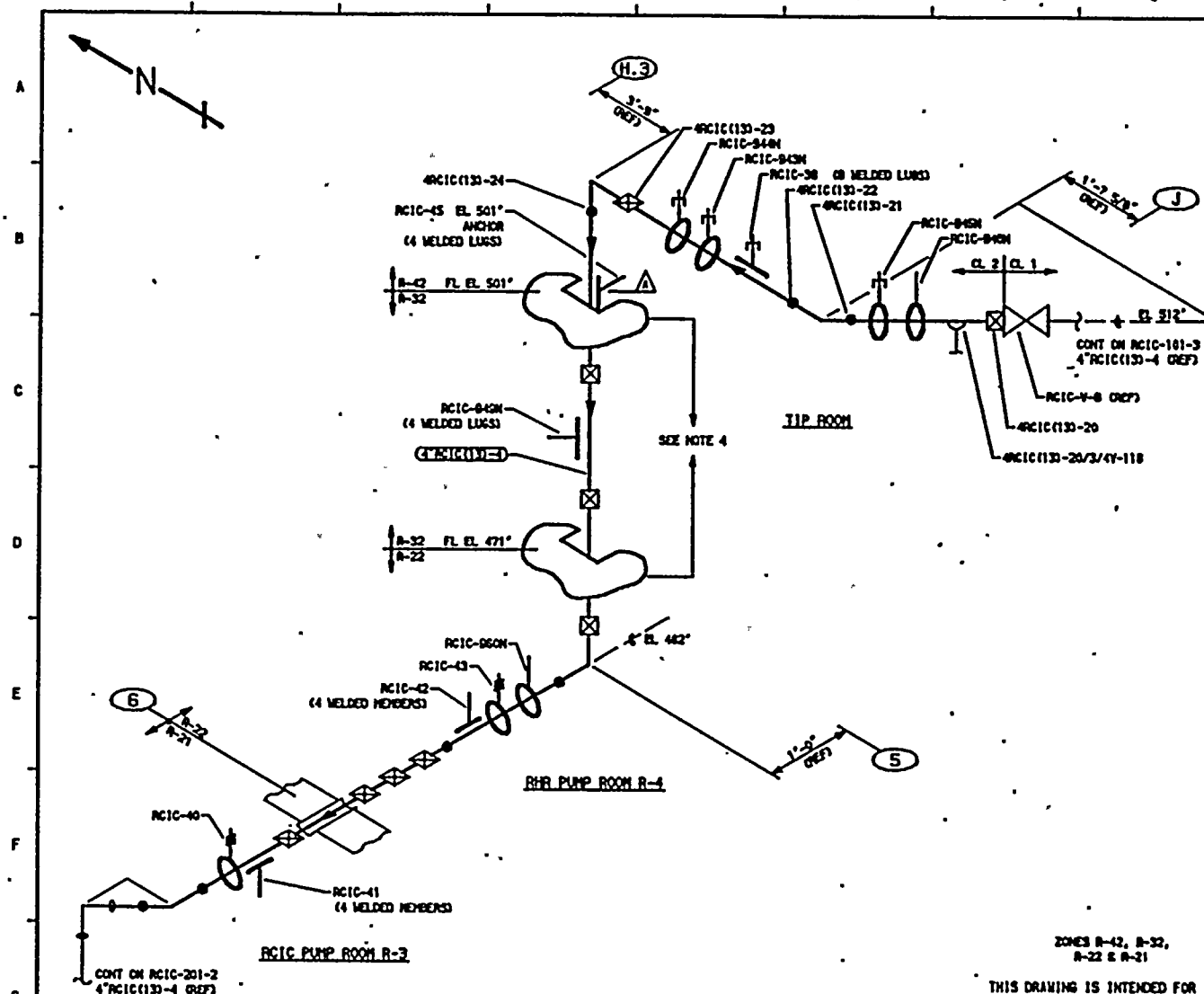
REV 5









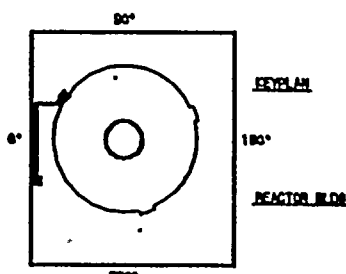


# NOTES:

1. DELETED
2. DELETED
3. PORTIONS OF THIS DRAWING IDENTIFY PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAMINATION FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH IWA-5000.
4. ENCLOSED IN PIPE CHASE.

## NOTES:

ISI - 219-2  
BOYCE & CRAIG ISOMETRICS  
RCIC-082-8 REV 8  
RCIC-082-7.10 REV 4



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. CA KUGLER	DATE, 7-6-78

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RCIC STEAM SUPPLY TO RCIC-DT-1

DWG NO. RCIC-201-1

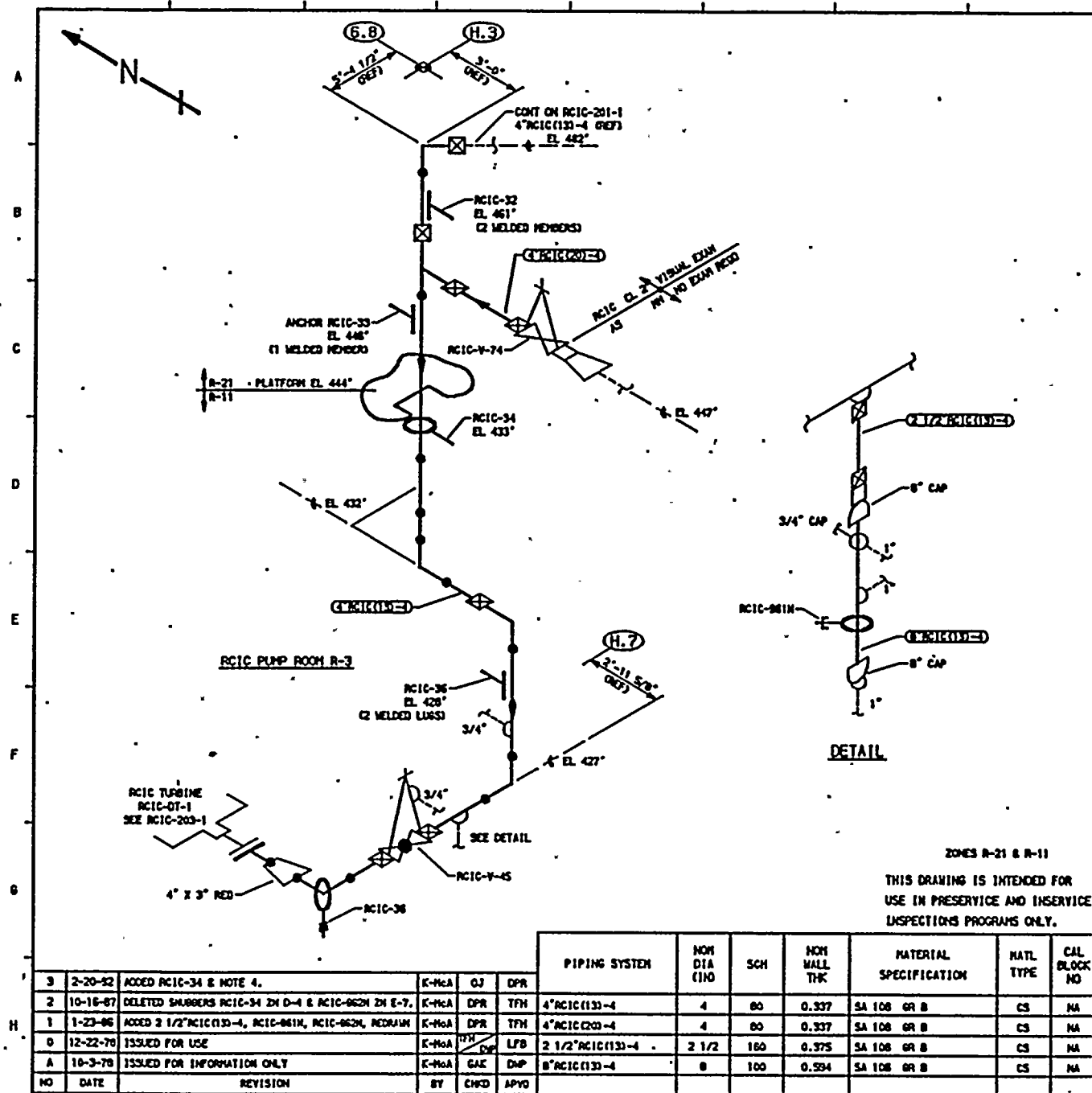
REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (INO)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO.
4	10-18-87	ADDED 11-30 FOR AUGMENTED PORTION OF 4" LINE, LOGS & NOTE 2, DELETED RCIC-25, RCIC-082H & NOTES 1 & 2, MODIFIED KEYPLAN.	K-MCA	DPR	TFH							
3	1-23-86	ADDED DWG CONT LINE, ISI REF DWG, MOD KEYPLAN	K-MCA	DPR	TFH							
2	12-2-83	GENERAL UPDATE REDRAWN	K-MCA	DPR	TFH	4"RCIC(1130-4	4	80	0.337	SA 106 GR B	CS	UT-30
1	12-2-81	AUGMENTED ISI ADDED	K-MCA	DPR	TFH							
0	12-22-79	ISSUED FOR USE	K-MCA	TFH	LFB							
A	10-3-78	ISSUED FOR INFORMATION ONLY	K-MCA	CAC	DMP							

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

ZONES B-42, B-32,  
B-22 & B-21



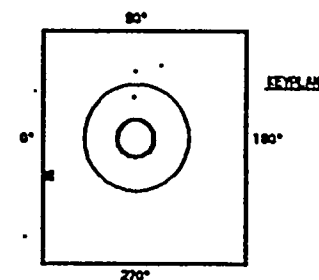


#### NOTES

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 11A-5000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
3. AT LOCATIONS WHERE LEAKAGE IS NORMALLY EXPECTED (e.g., VALVE STEM AND PUMP SEAL LEAKOFF CONNECTIONS) VERIFY LEAKAGE COLLECTION SYSTEM OPERABILITY ONLY. NO HYDRO TEST OF COLLECTION SYSTEM IS REQUIRED.
4. RCIC-34 CHANGED FROM SHUTTER TO STRUT R1.

#### REFERENCES

ISI - 210-2  
BOYCE & CRILL ISOMETRICS  
RCIC-862-11.16 REV 8  
RCIC-868-1 REV 4



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR, SA KUGLER	DRAWN, K-McA DATE, 7-17-78

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RCIC STEAM SUPPLY TO RCIC-DT-1

DWG NO. RCIC-201-2 REV 3



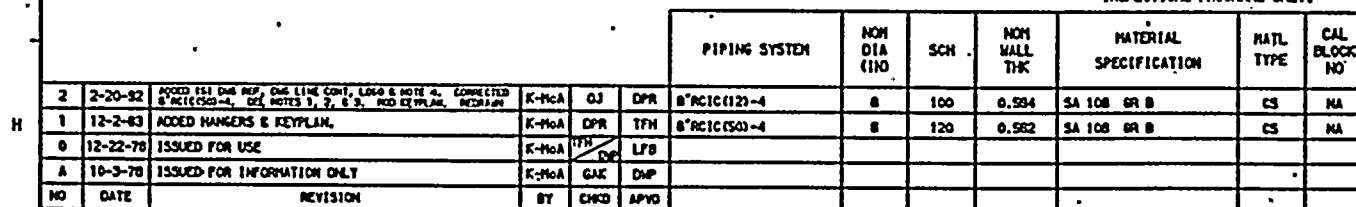




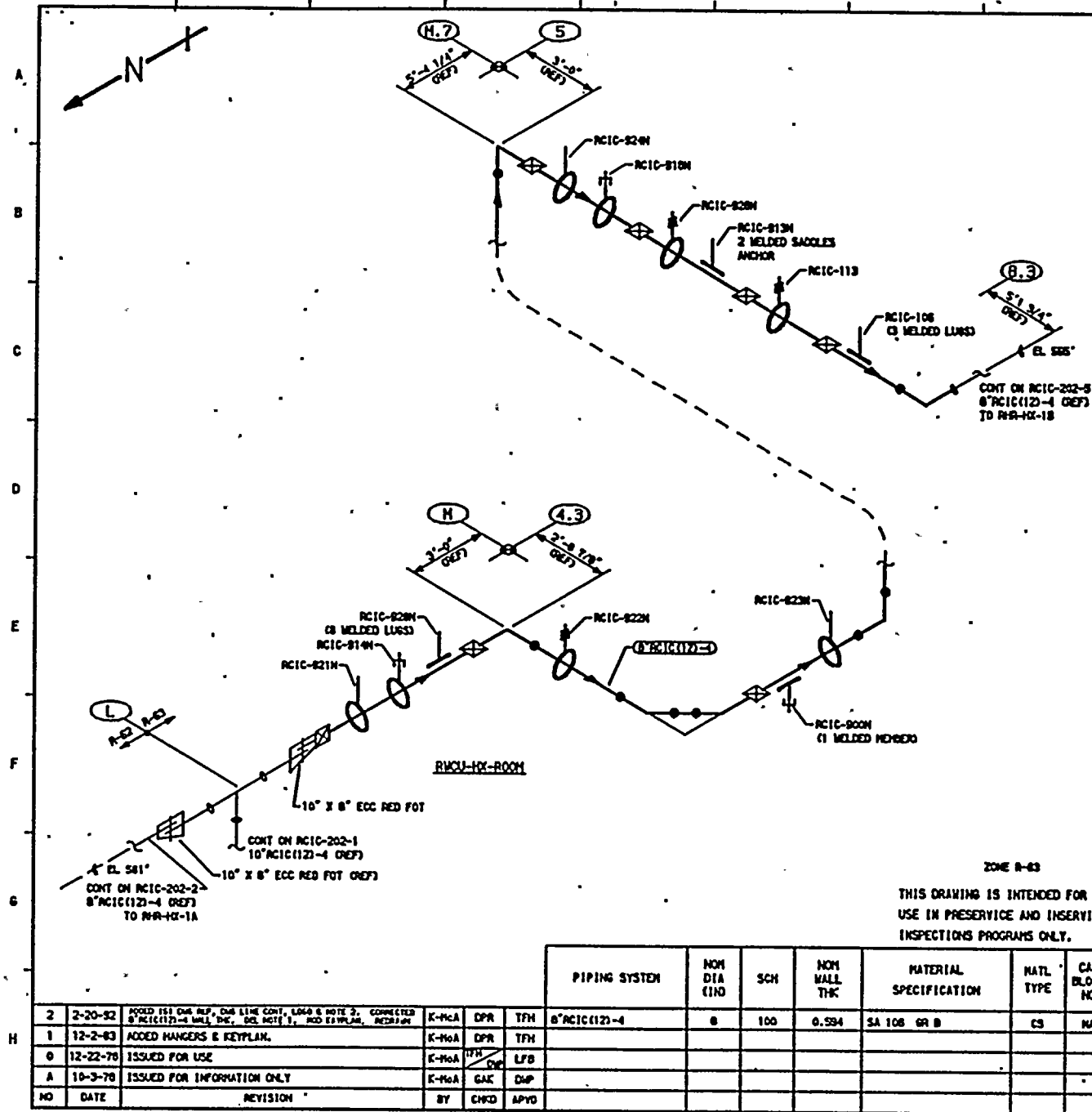




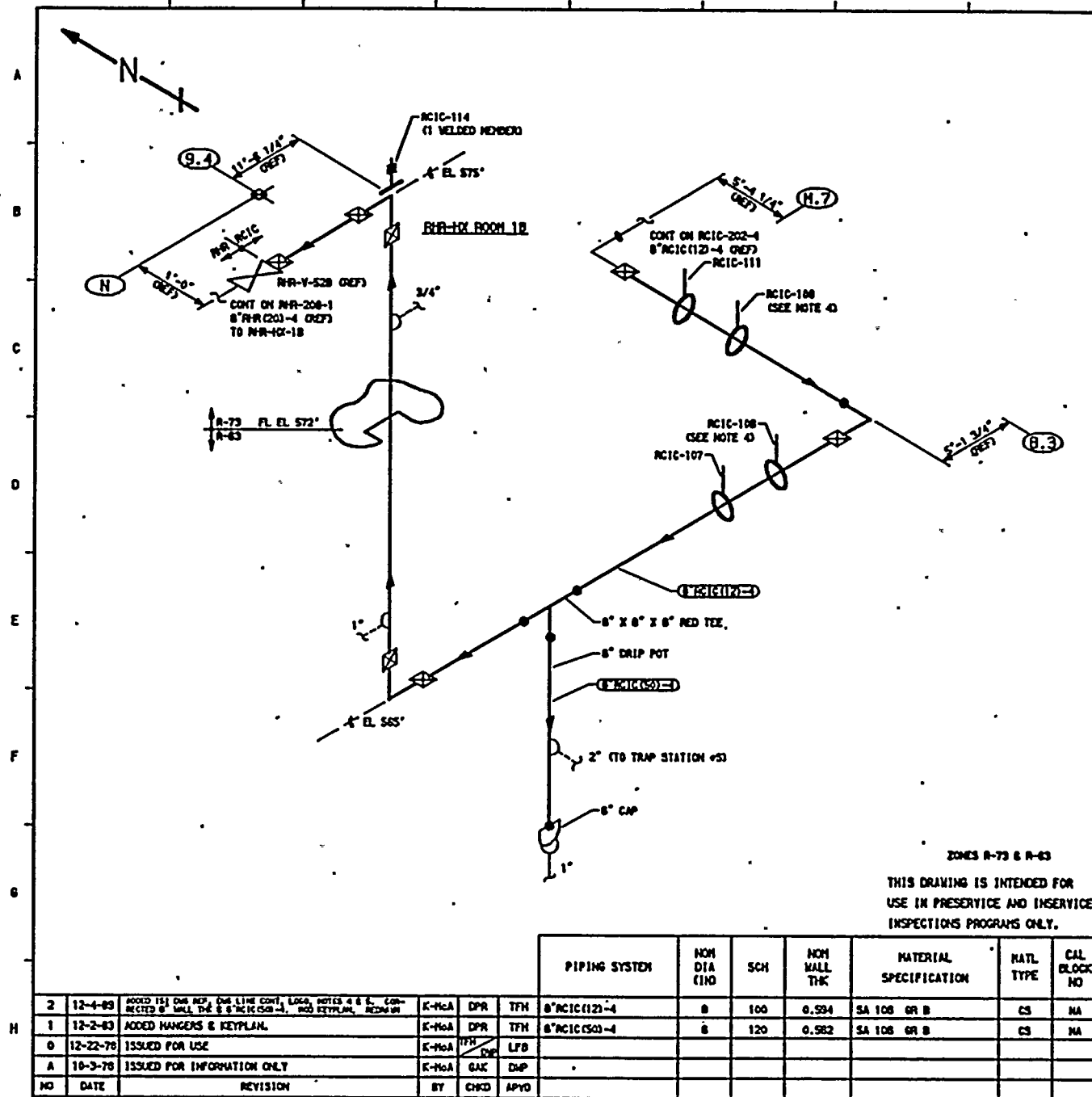












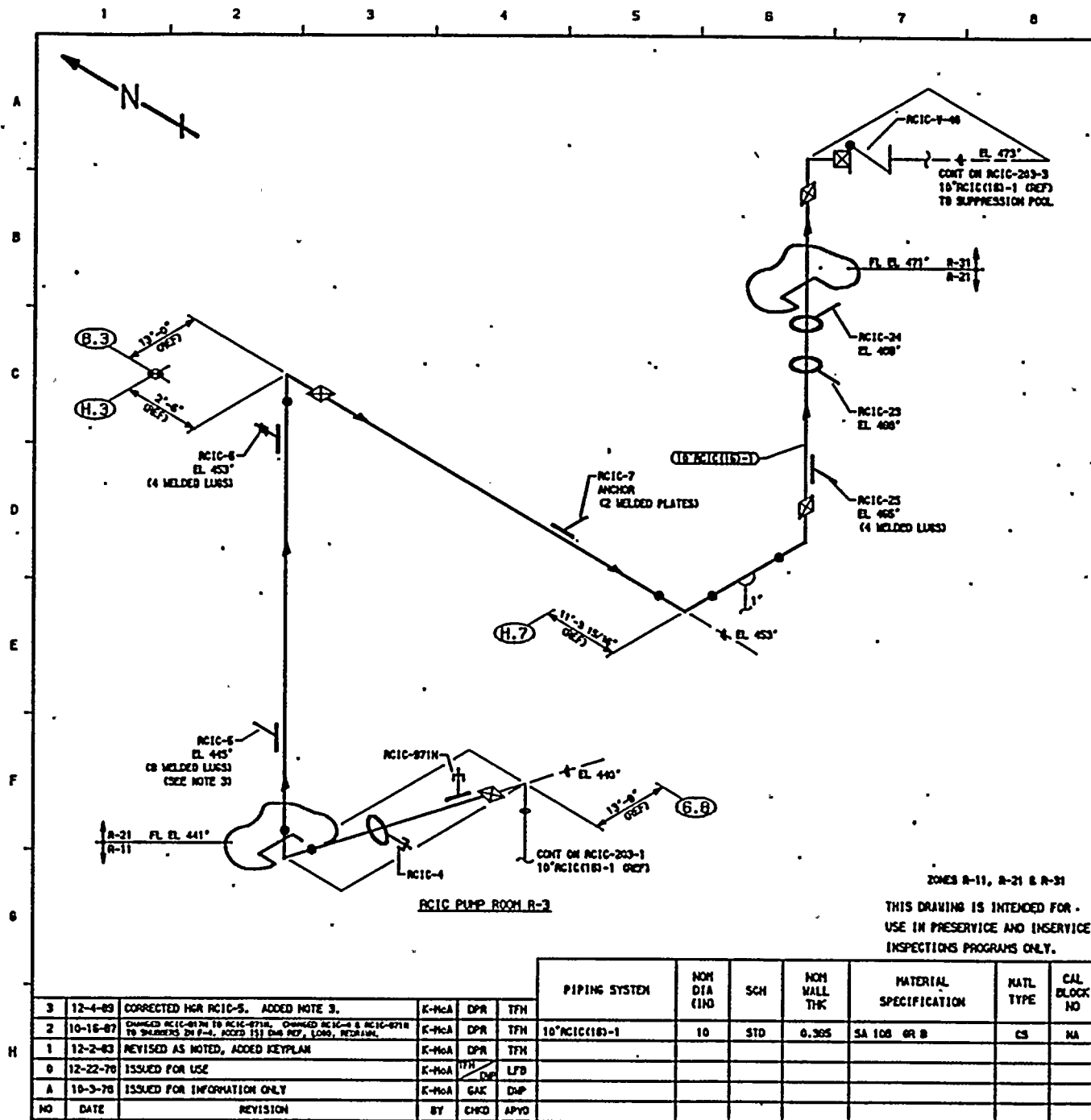
ZONES R-73 & R-63

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

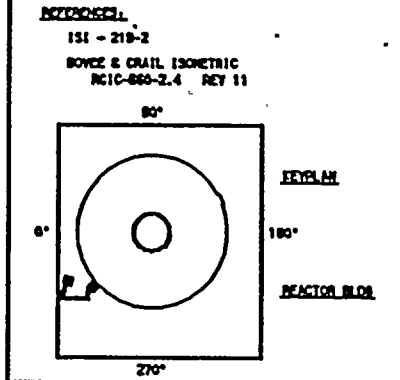






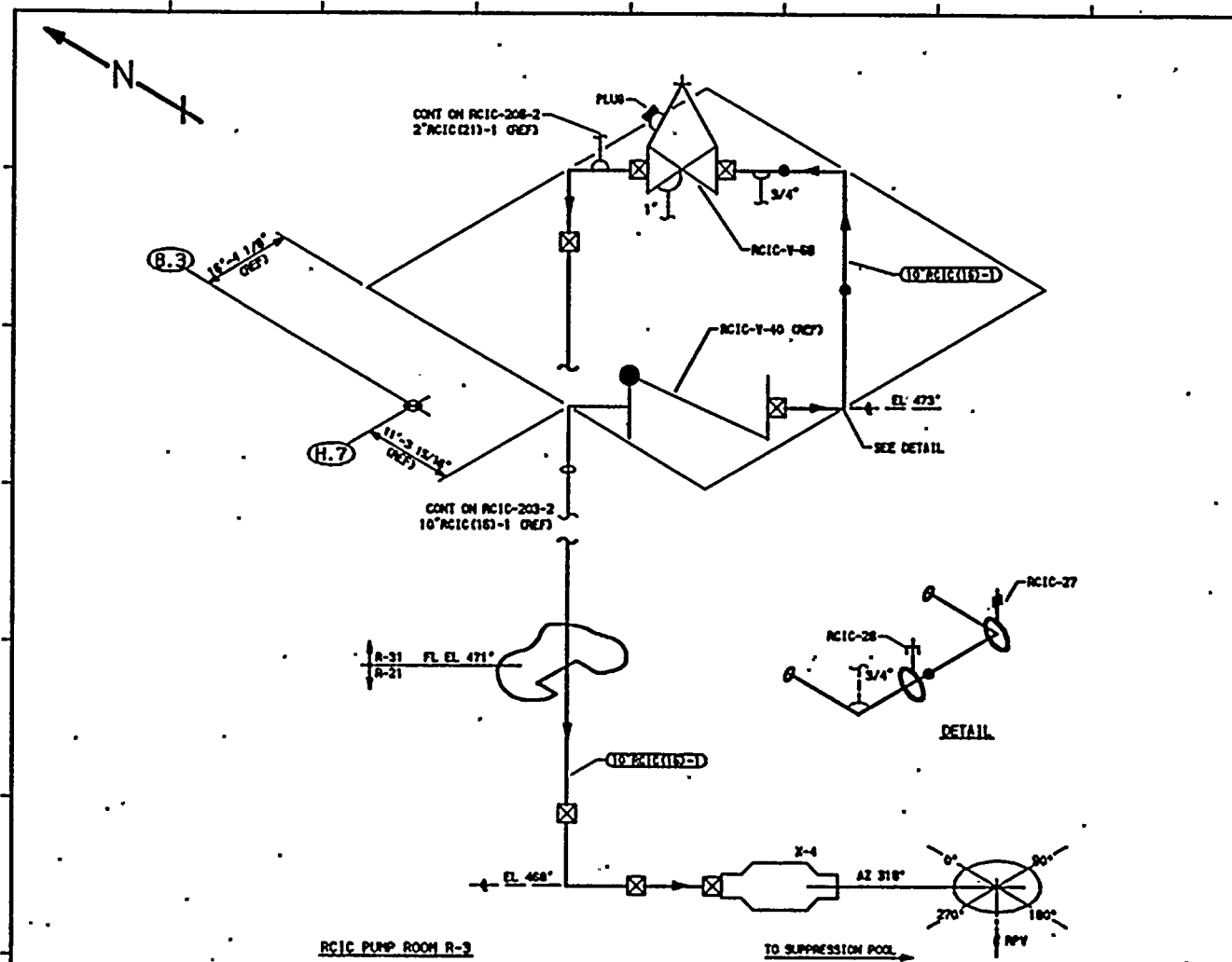


- NOTES:**
- THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 11A-5000.
  - FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
  - RCIC-5 CHANGED FROM SHAVER TO STRUT PER DOC-06-0525-04.



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. SA FUGLER	DRAWN. K-McA
DATE, 7-21-78	
WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WASHINGTON 99352	
WPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: RCIC TURBINE EXHAUST	
DWG NO. RCIC-203-2	REV 3





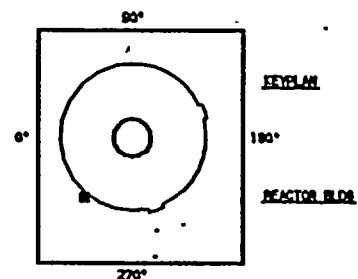
# REFERENCE

ISI - 218-2

BOYCE & CRILL ISOMETRICS

RCIC-800-B REV 13

RCIC-860-B REV 6



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR: GA KUGLER	DATE: 7-24-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM

RIHLAND, WASHINGTON 98932

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

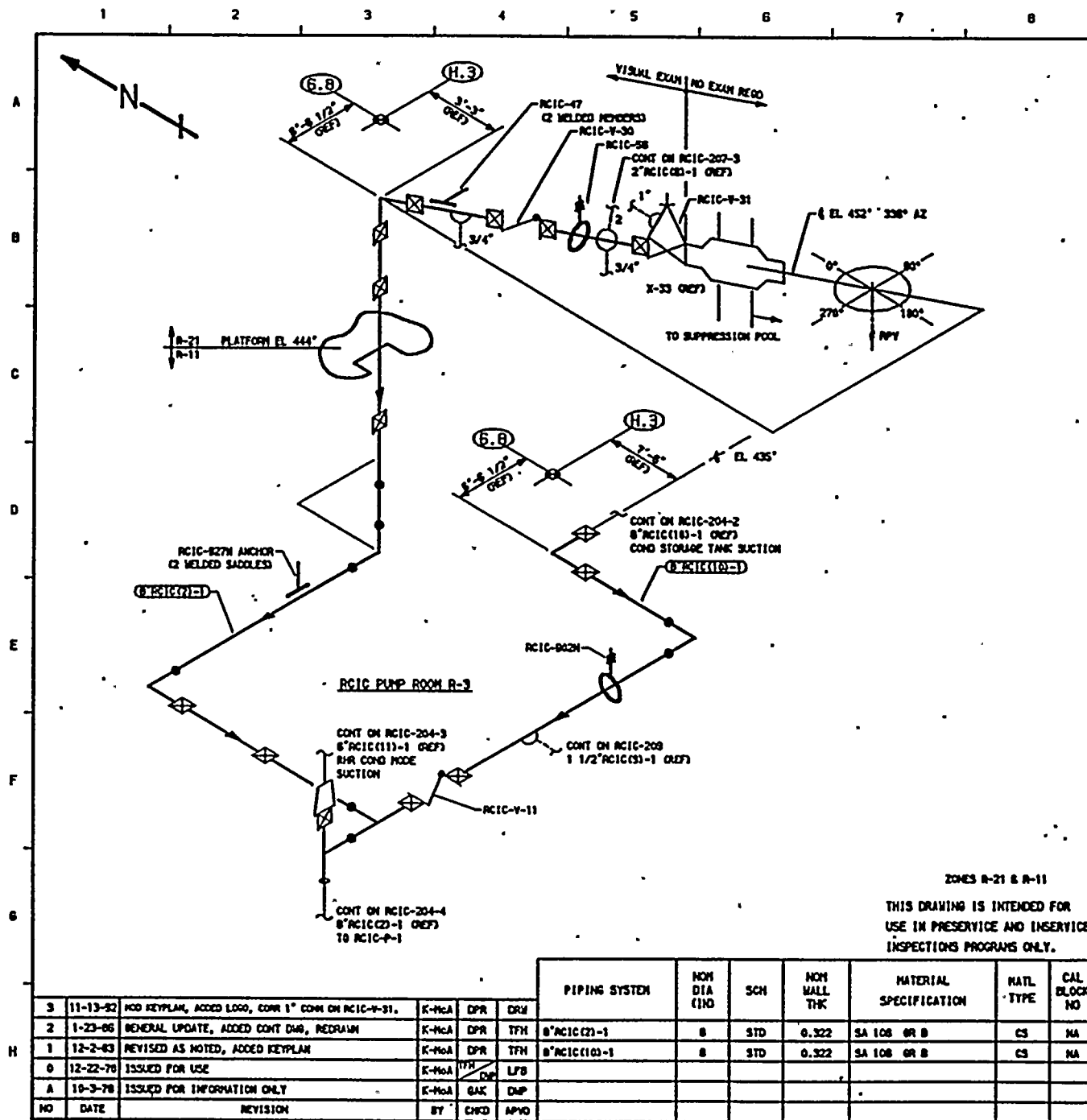
TITLE:  
RCIC TURBINE EXHAUST

DWG NO. RCIC-203-3

REV 2

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (INO)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2	11-13-82	MODIFIED KEYPLAN ADDED LOGO	K-MCA	DPR	DPM	10" RCIC(116)-1	10	STD	0.365	SA 106 GR B	CS	NA
1	1-23-86	ADDED 10" RCIC(116)-1 FROM RCIC-Y-68 TO X-4, REDRAWN	K-MCA	DPR	TTH							
0	12-22-78	ISSUED FOR USE	K-MCA	DPR	LFB							
A	10-3-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DMP							

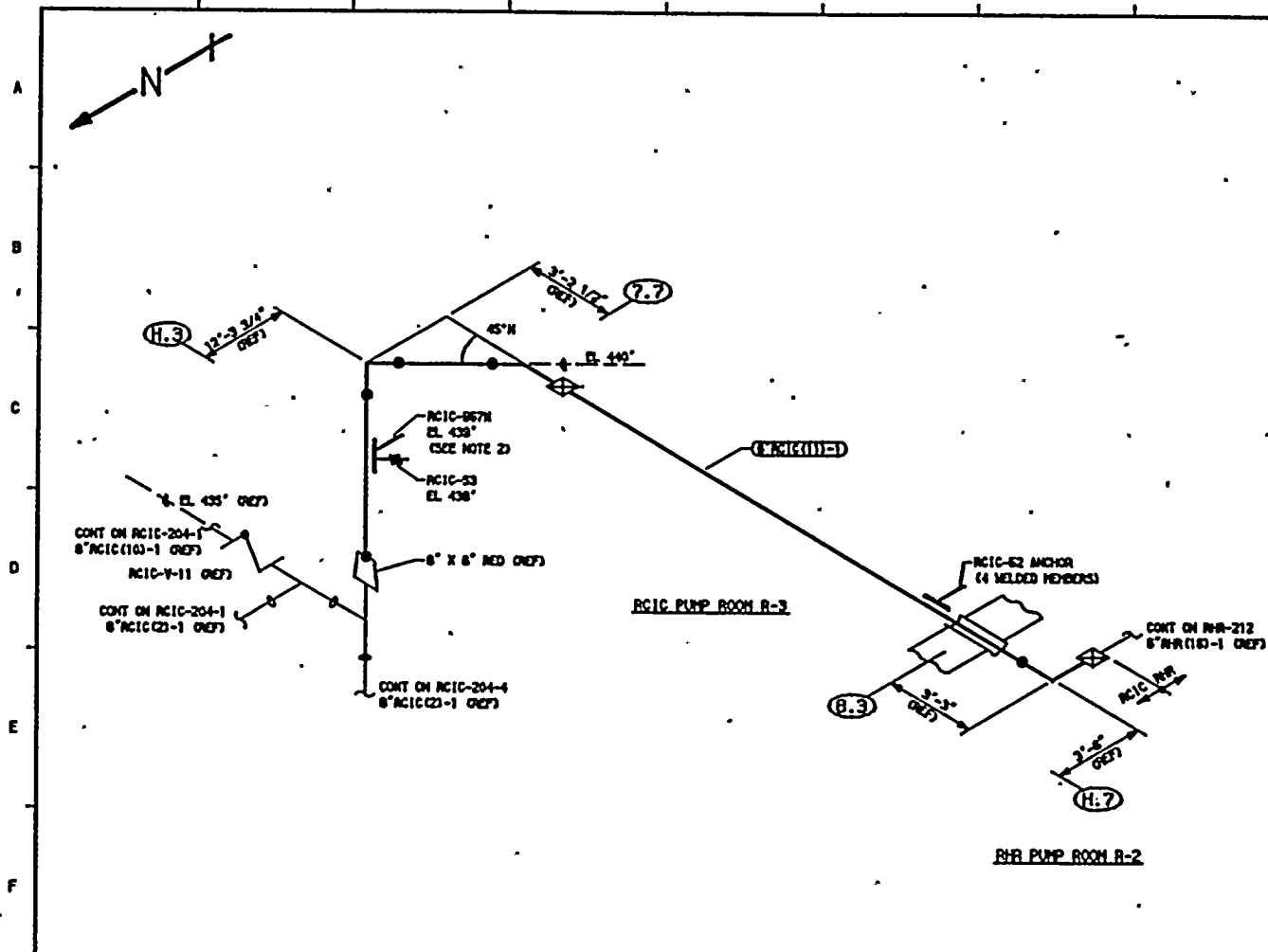












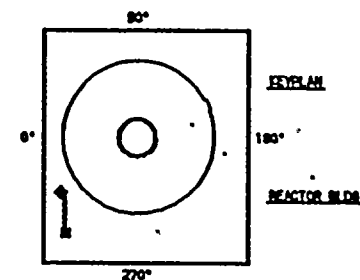
# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH IWA-5000.
2. RCIC-067N CHANGED FROM SLUGGER TO STRUT PER BCC-08-0525-10.

## NOTES:

151 - 218-1

BOYCE & CHAIL ISOMETRICS  
RCIC-050-1.2 REV B



ZONE R-11

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

							PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2	12-4-83	ADDED 154 DWS REV, DWS LINE CONT, LISA & NOTE 3. MODIFIED KEYPLAN. (PENDING)	K-McA	DPR	TFH		8"RCIC(111)-4	8	40	0.200	SA 106 GR B	CS	NA
1	12-2-83	REVISED AS NOTED, ADDED KEYPLAN	K-McA	DPR	TFH								
0	12-22-79	ISSUED FOR USE	K-McA	TFH	LFB								
A	10-3-79	ISSUED FOR INFORMATION ONLY	K-McA	GAK	DMP								
NO	DATE	REVISION	BY	CHKD	APVD								

QUALITY CLASS. 1	ASME CODE CLASS. 2
ENGR. SA KUGLER	DRAWN. K-McA DATE: 7-25-79



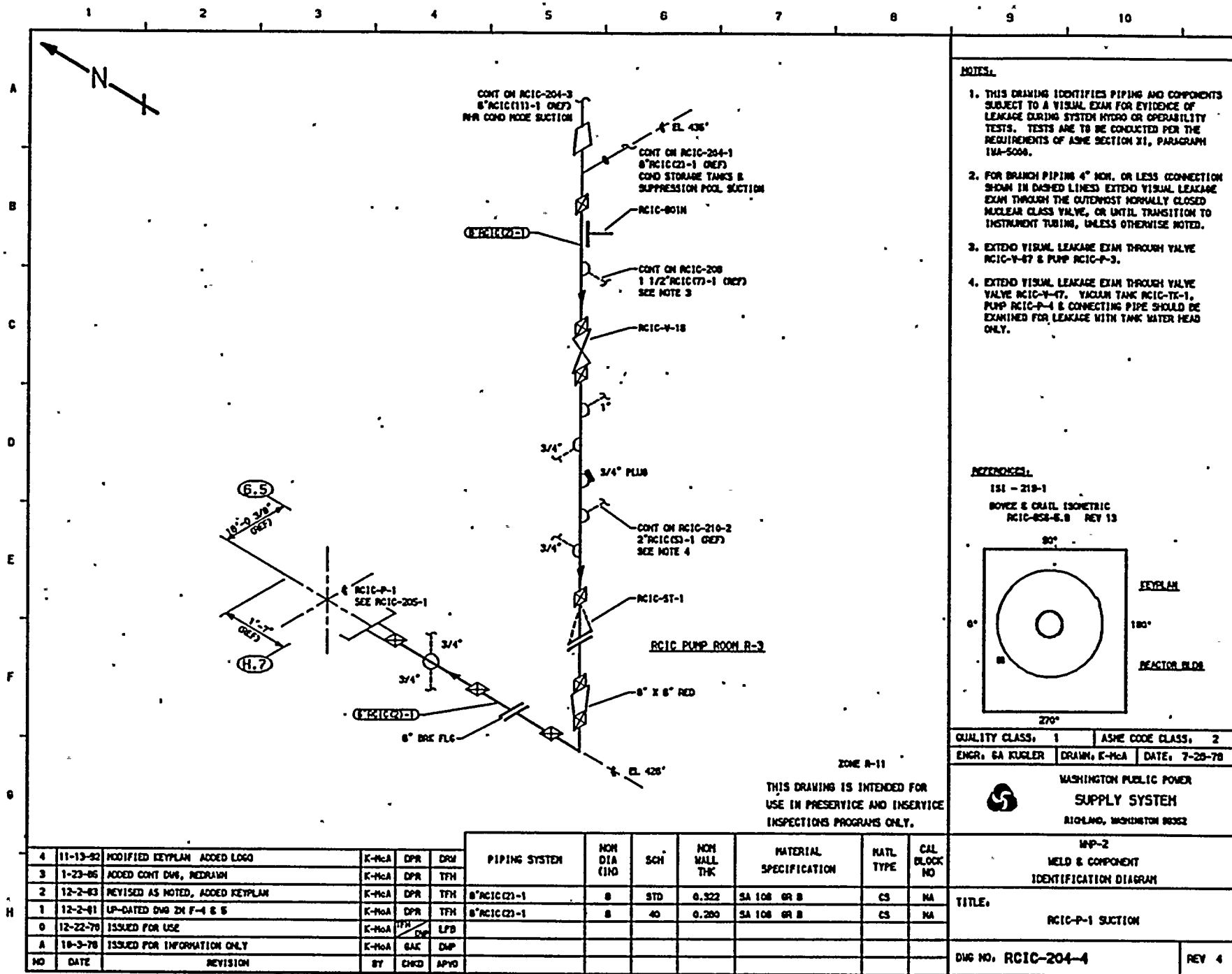
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

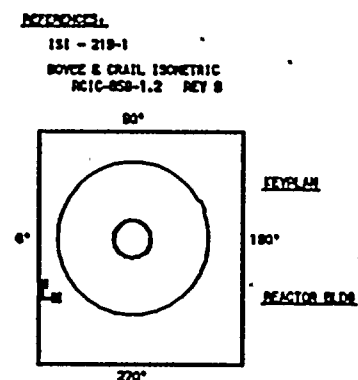
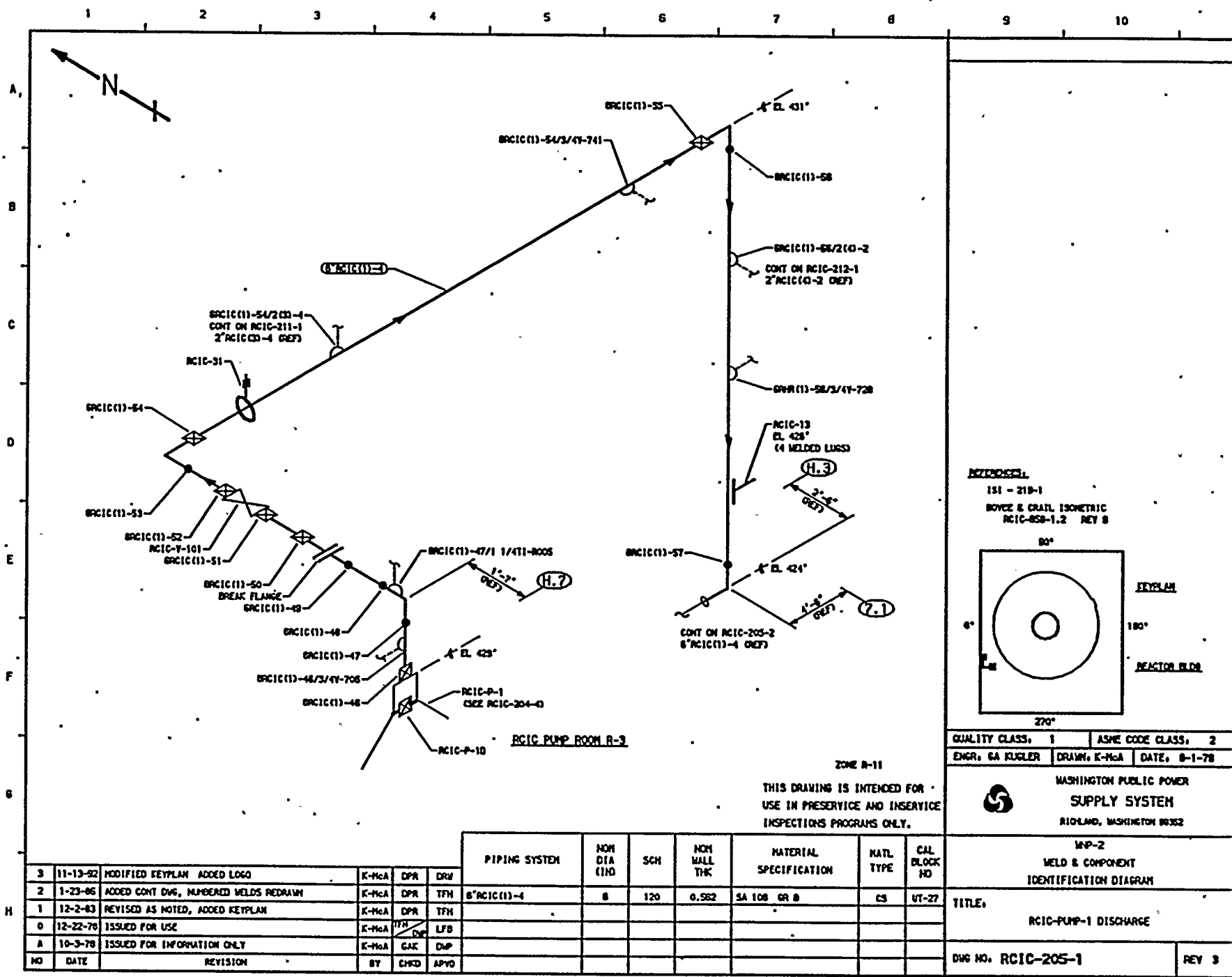
TITLE:  
RHR CONDENSING MODE SUPPLY TO RCIC-P-1


DWG NO. RCIC-204-3

REV 2







QUALITY CLASS, 1		ASME CODE CLASS, 2	
ENGR, GA KUGLER		DRAWN, K-McA	DATE, 8-1-78
<div></div> <p>WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHMOND, WASHINGTON 98352</p>			
<p>WPP-2 WELD &amp; COMPONENT IDENTIFICATION DIAGRAM</p>			
TITLE,  RCIC-PUMP-1 DISCHARGE			
DWG NO. RCIC-205-1			REV 3

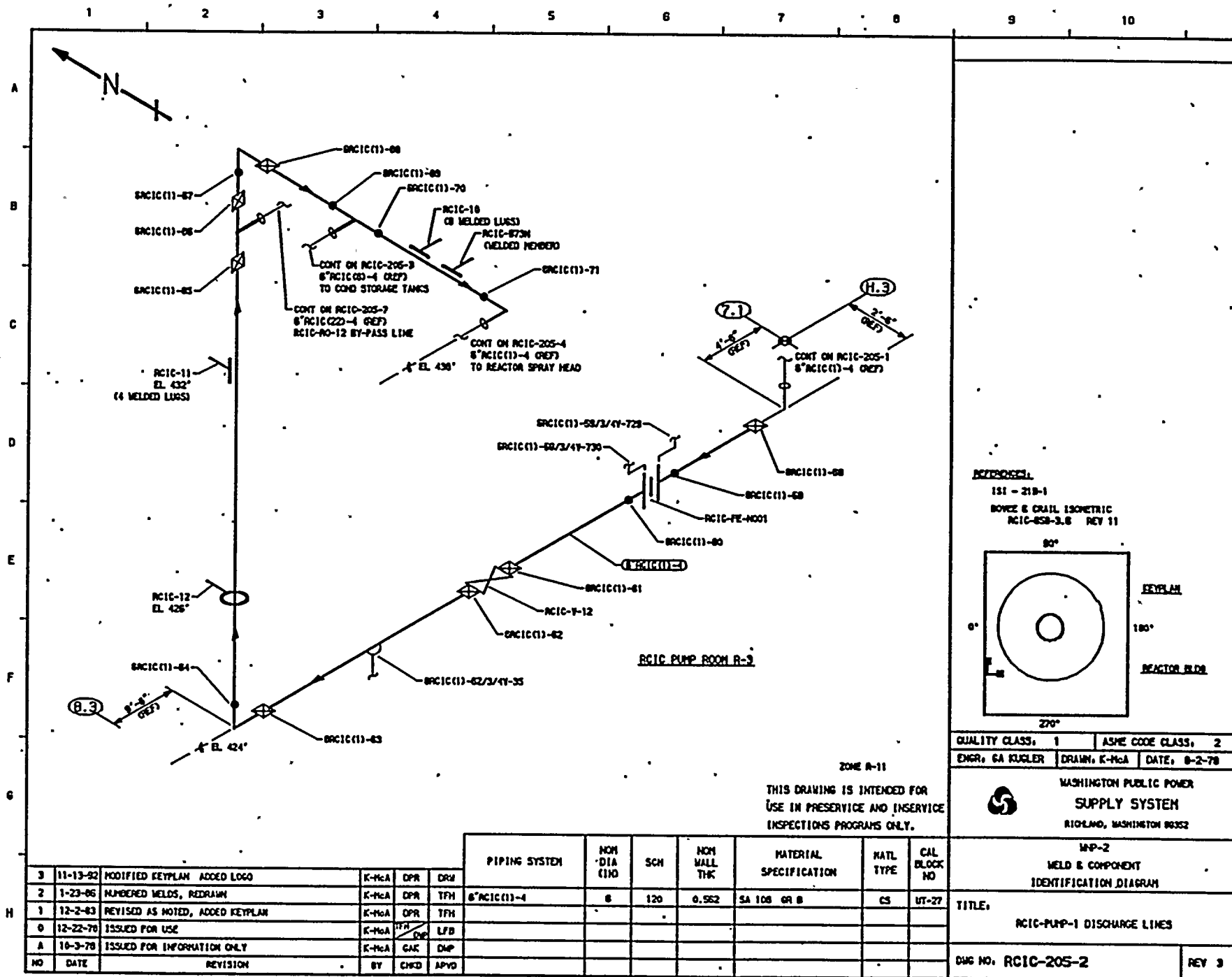
				PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO
3	11-13-82	MODIFIED KEYPLAN ADDED LOGO	K-McA DPR DRW							
2	1-23-85	ADDED CONT DWG, NUMBERED WELDS REDRAWN	K-McA DPR TFH	8\"RCIC(11)-4	8	120	0.582	SA 106 GR B	CS	UT-27
1	12-2-83	REVISED AS NOTED, ADDED KEYPLAN	K-McA DPR TFH							
0	12-22-78	ISSUED FOR USE	K-McA TFH DWP LFB							
A	10-3-78	ISSUED FOR INFORMATION ONLY	K-McA GAK DWP							
NO	DATE	REVISION	BY	CHKD	APVD					

THIS DRAWING IS INTENDED FOR USE IN PRESERVICE AND INSERVICE INSPECTIONS PROGRAMS ONLY.

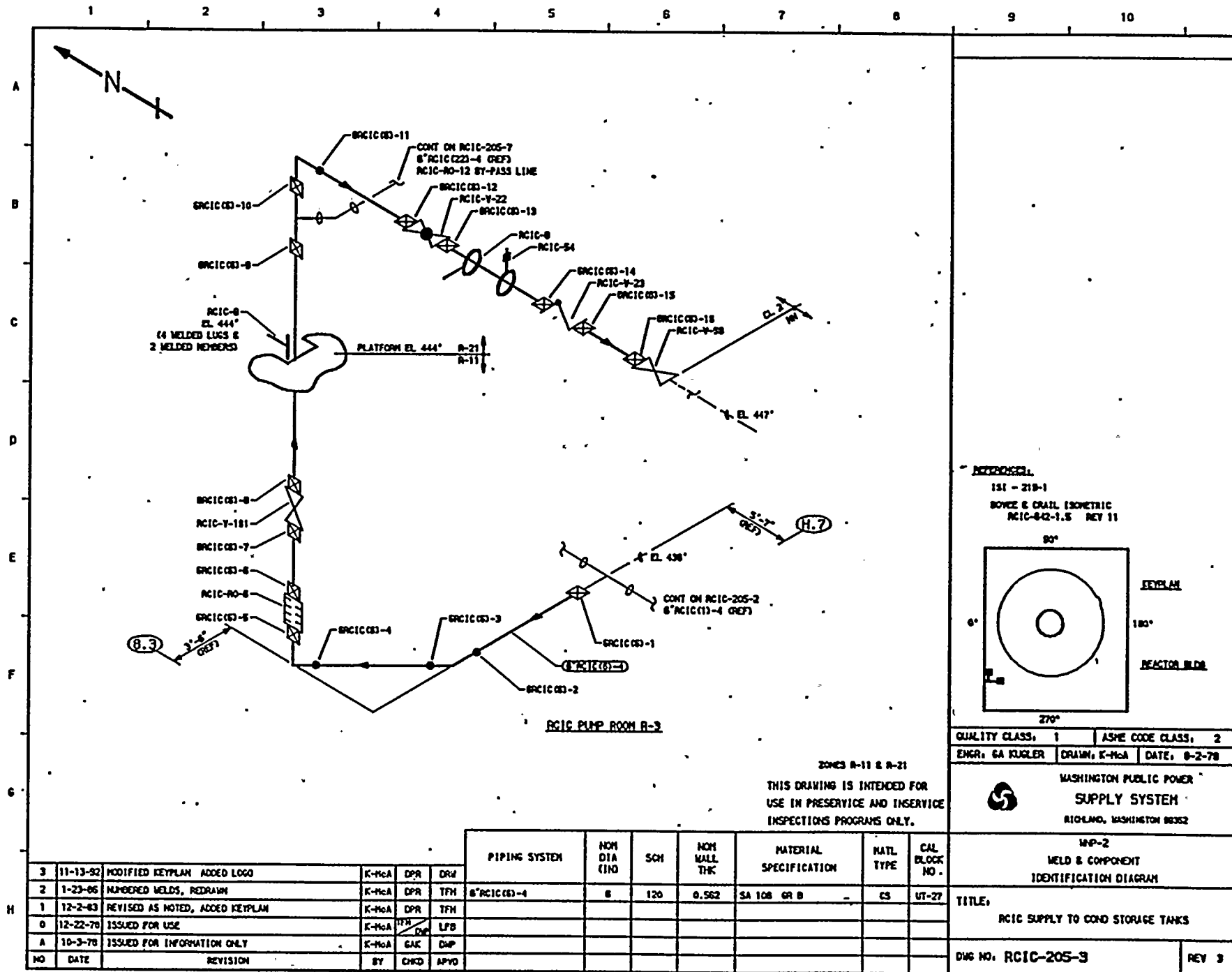
ZONE R-11

RCIC PUMP ROOM R-3



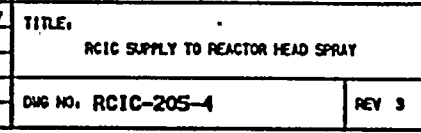






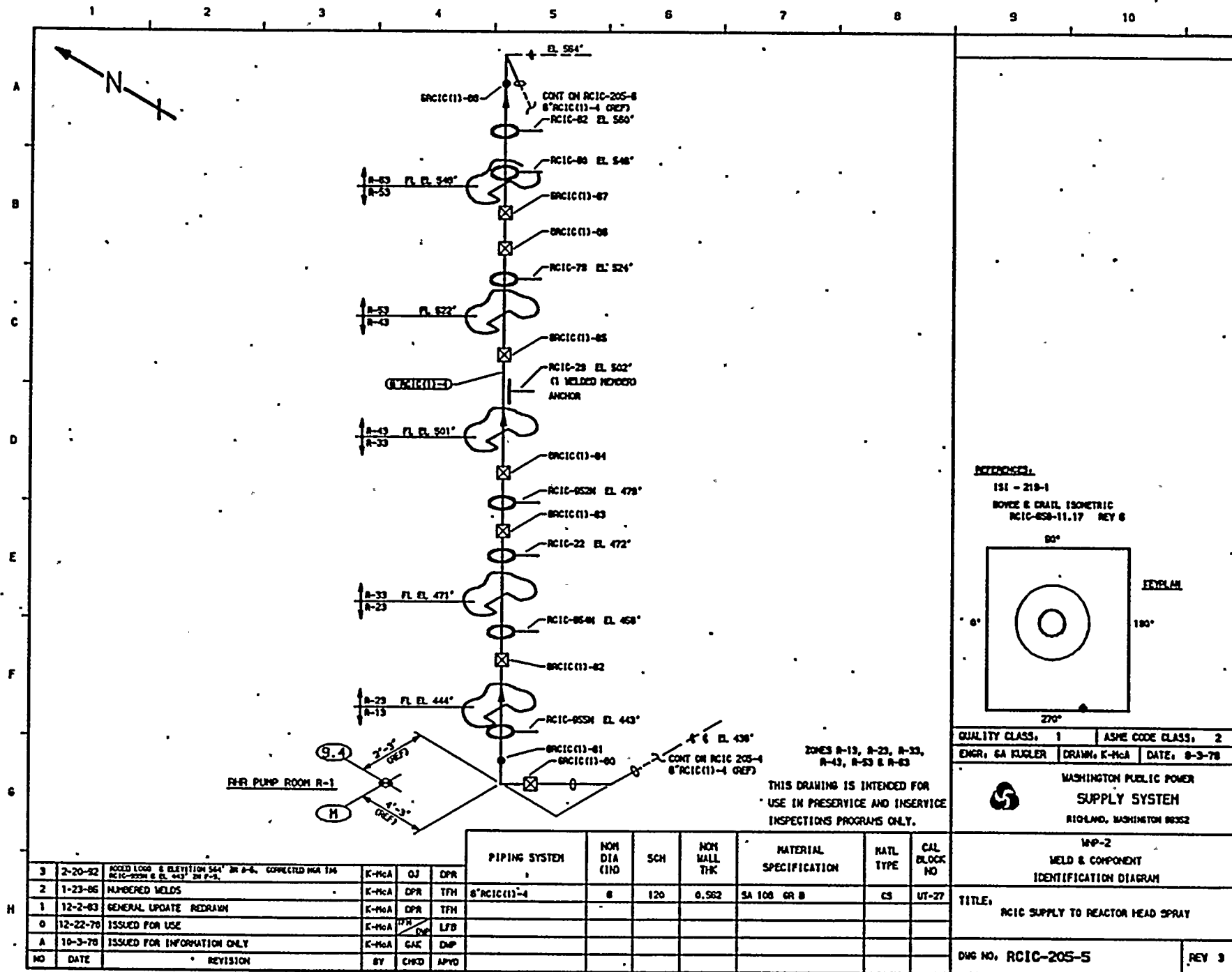




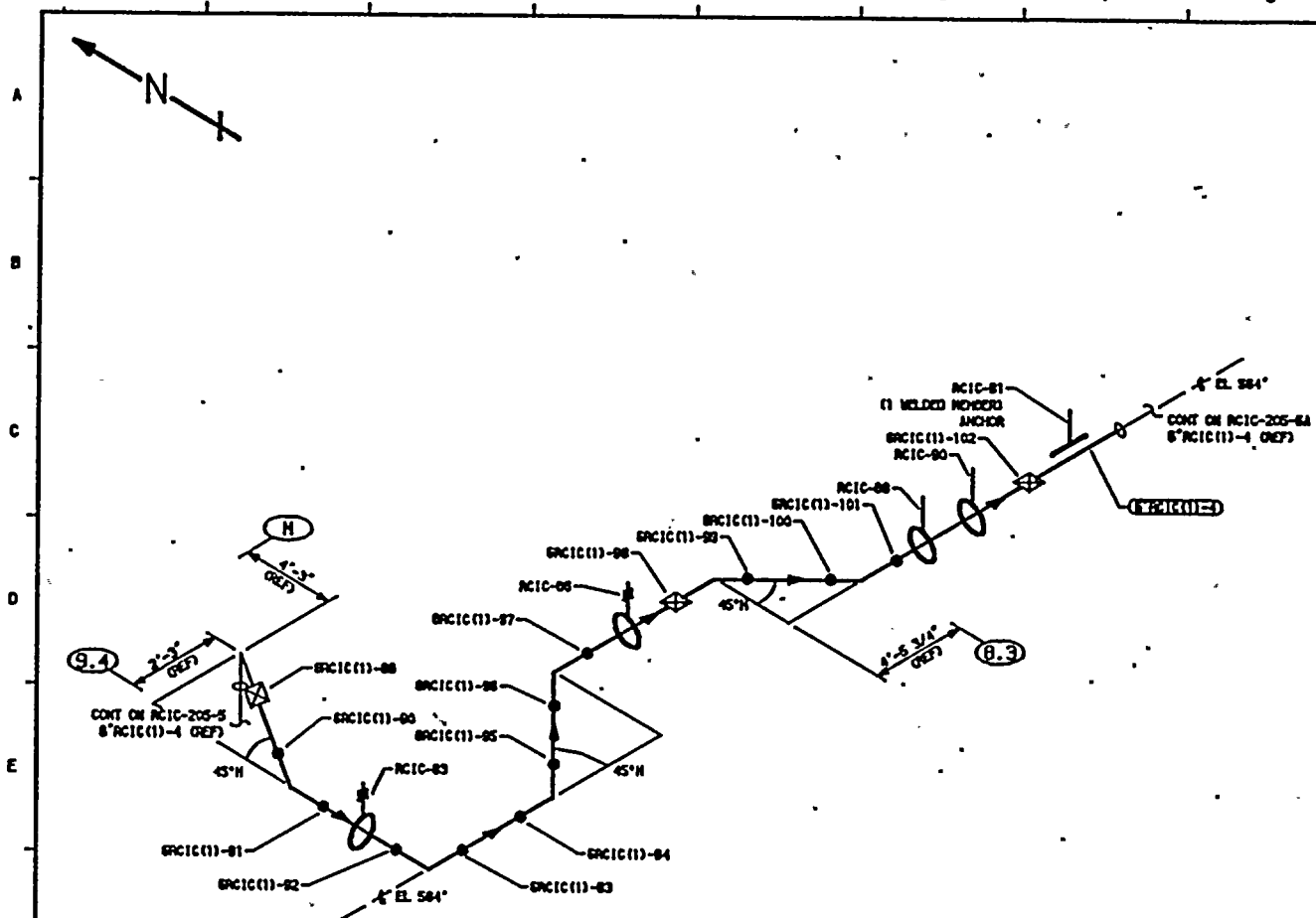


				PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MAT'L TYPE	CAL BLOCK NO
3	11-13-82	MODIFIED KEYPLAN, ADDED LOGO	K-McA DPR DRW							
2	1-23-86	NUMBERED WELDS, REDRAWN	K-McA DPR TFM	6"MC1C(11)-4	6	120	0.562	SA 106 GR B	CS	UT-27
1	12-2-83	REVISED AS NOTED, ADDED KEYPLAN	K-McA DPR TFM							
0	12-22-70	ISSUED FOR USE	K-McA ITR LFB							
A	10-3-78	ISSUED FOR INFORMATION ONLY	K-McA GAK DAP							
NO	DATE	REVISION	BY CHKD APPVD							

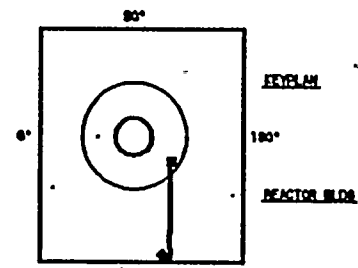








NOTES:  
1ST - 219-1  
BOWEN & CHAIL ISOMETRIC  
RCIC-858-18.21 REV 11



ZONE B-83

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (INO)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	11-13-92	MODIFIED KEYPLAN, 1ST DWG REF, ADDED LOGO	K-MCA	OPR	DRW	8"RCIC(11)-4	8	120	0.562	SA 108 GR B	CS	UT-27
2	1-23-86	NUMBERED WELDS, SPLIT DWG, REDRAWN	K-MCA	OPR	TFH							
1	12-2-83	GENERAL UPDATE REDRAWN	K-MCA	OPR	TFH							
0	12-22-70	ISSUED FOR USE	K-MCA	OPR	LFB							
A	10-3-70	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DMP							

QUALITY CLASS, 1 ASME CODE CLASS, 2  
ENGR, GA KUGLER DRAWN, K-MCA DATE, 8-3-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMO, WASHINGTON 98352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RCIC SUPPLY TO REACTOR HEAD SPRAY

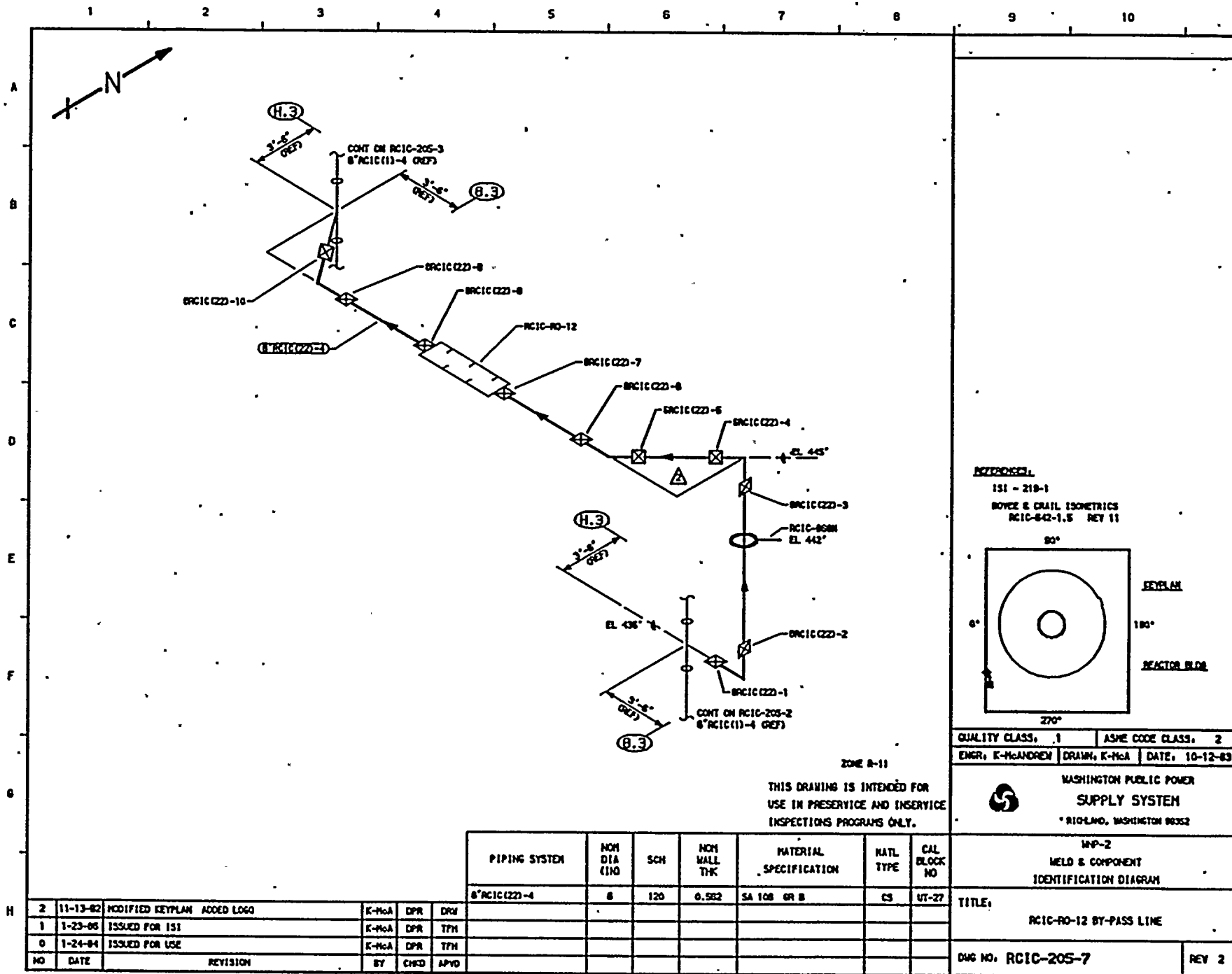
DWG NO. RCIC-205-8

REV 3

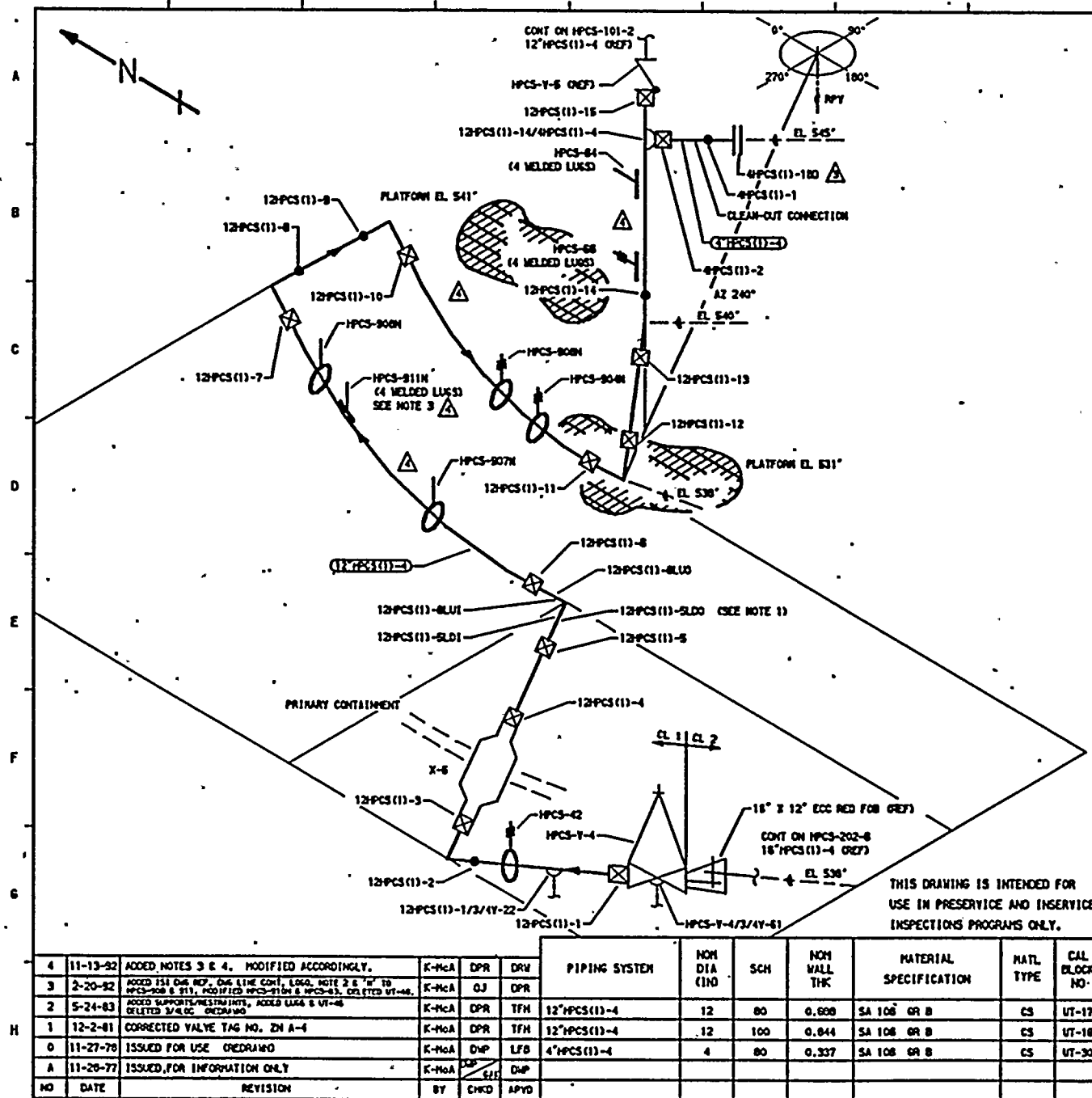










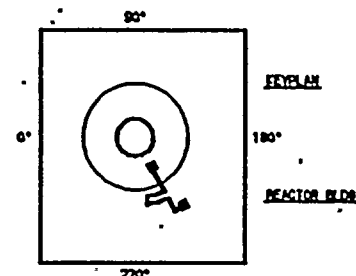


# NOTES:

1. PIPING SYSTEM 12" HPCS(11)-4 IS CONSTRUCTED OF SEAMLESS SCH 80 PIPE AND FITTINGS EXCEPT FOR THE SR ELL ASSOCIATED WITH WELDS 12PCS(11)-5 & 8 WHICH IS WELDED SCH 100. USE THE CAL BLOCKS SHOWN BELOW ACCORDINGLY.
2. WELD 4PCS(11)-180 WAS CHANGED TO 4PCS(11)-180 TO BE CONSISTANT WITH THE EXAMINATION SCHEDULE.
3. HPCS-811H CHANGED FROM SAUBER TO STRUT PER DOC 06-0525-07-022.
4. HPCS-63, HPCS-810H & HPCS-812H WERE DELETED PER DOC 06-0525-07-022.

# REFERENCES:

ISI - 220-1  
BOYCE & CRAIG ISOMETRICS  
HPCS-630-28.28 REV 10  
HPCS-630-29-30 REV 11



QUALITY CLASS, 1 ASME CODE CLASS, 1  
ENGR, GA KUGLER DRAWN, K-M6A DATE, 11-1-77

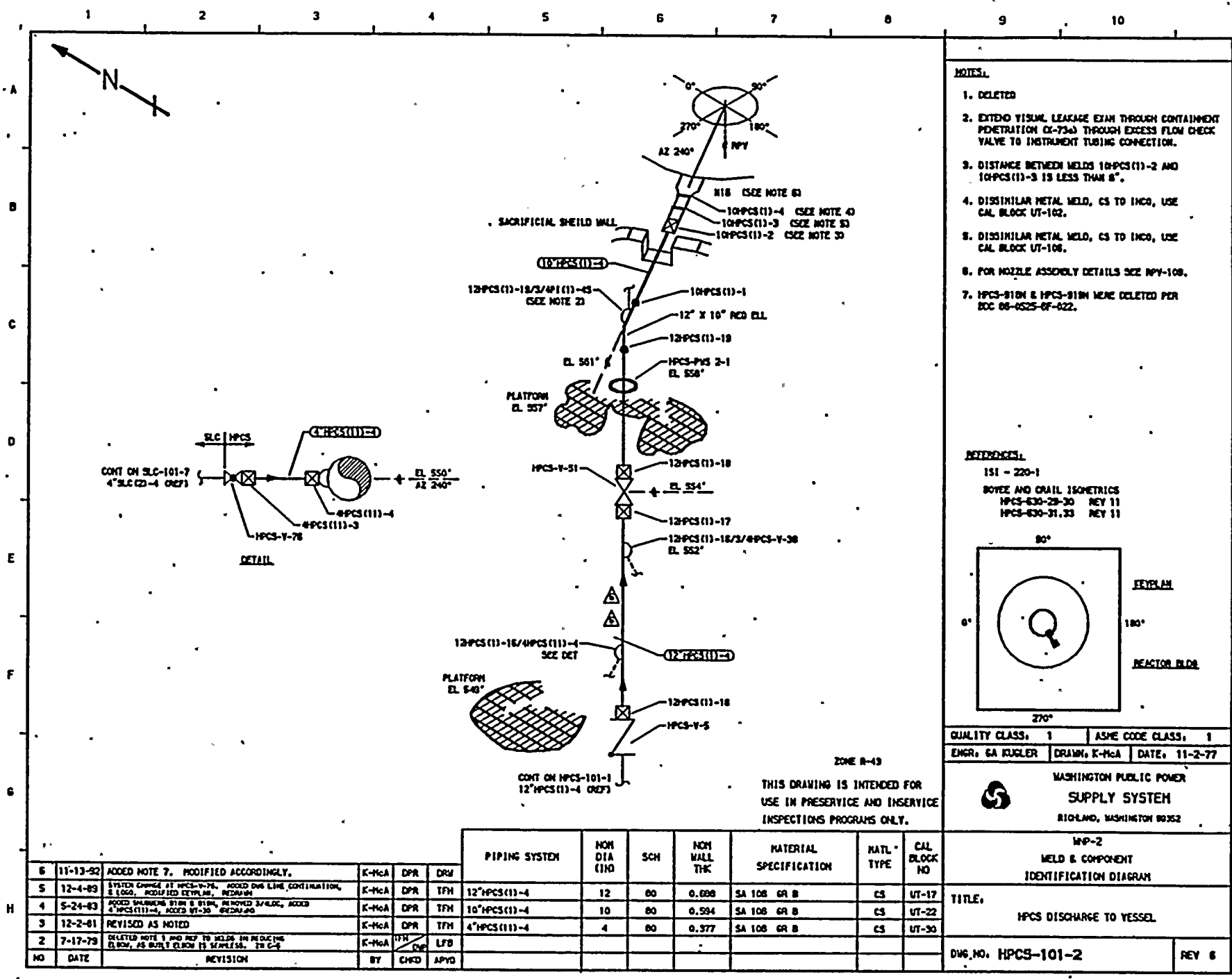
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: HPCS DISCHARGE TO VESSEL

DWG NO: HPCS-101-1 REV 4

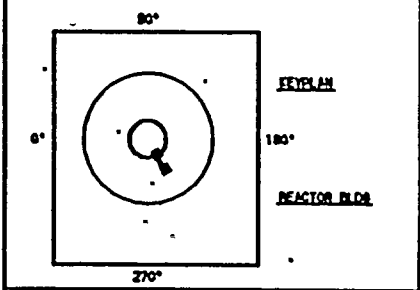
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO.
4	11-13-82	ADDED NOTES 3 & 4. MODIFIED ACCORDINGLY.	K-M6A	DPR	DRV							
3	2-20-82	ADDED 1ST DOW NO. ONE LINE CONT. LUGS, NOTE 2 & 4 TO HPCS-808 & 811. MODIFIED HPCS-810H & HPCS-812. DELETED UT-46.	K-M6A	DJ	DPR							
2	5-24-83	ADDED SUPPORT/RESTRAINTS. ADDED LUGS & UT-46 DELETED 3/4 LUG. OEDRAWN	K-M6A	DPR	TFH	12" HPCS(11)-4	12	80	0.600	SA 106 GR B	CS	UT-17
1	12-2-81	CORRECTED VALVE TAG NO. DN A-4	K-M6A	DPR	TFH	12" HPCS(11)-4	12	100	0.844	SA 106 GR B	CS	UT-18
0	11-27-76	ISSUED FOR USE OEDRAWN	K-M6A	DMP	LFB	4" HPCS(11)-4	4	80	0.337	SA 106 GR B	CS	UT-30
A	11-29-77	ISSUED FOR INFORMATION ONLY	K-M6A	DMP	ELF							



- NOTES:**
1. DELETED
  2. EXTEND VISUAL LEAKAGE EXAM THROUGH CONTAINMENT PENETRATION CX-734 THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
  3. DISTANCE BETWEEN WELDS 10HPCS(11)-2 AND 10HPCS(11)-3 IS LESS THAN 8".
  4. DISSIMILAR METAL WELD, CS TO INCO, USE CAL BLOCK UT-102.
  5. DISSIMILAR METAL WELD, CS TO INCO, USE CAL BLOCK UT-108.
  6. FOR NOZZLE ASSEMBLY DETAILS SEE RPY-108.
  7. HPCS-810N & HPCS-810M WERE DELETED PER DOC 06-0525-01-022.

**REFERENCES:**

ISI - 220-1  
 BOYCE AND GRILL ISOMETRICS  
 HPCS-630-29-30 REV 11  
 HPCS-630-31-33 REV 11



QUALITY CLASS.	1	ASME CODE CLASS.	1
ENGR.	GA KUGLER	DRAWN.	K-McA
DATE.	11-2-77		

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RIGLAND, WASHINGTON 99352

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 HPCS DISCHARGE TO VESSEL

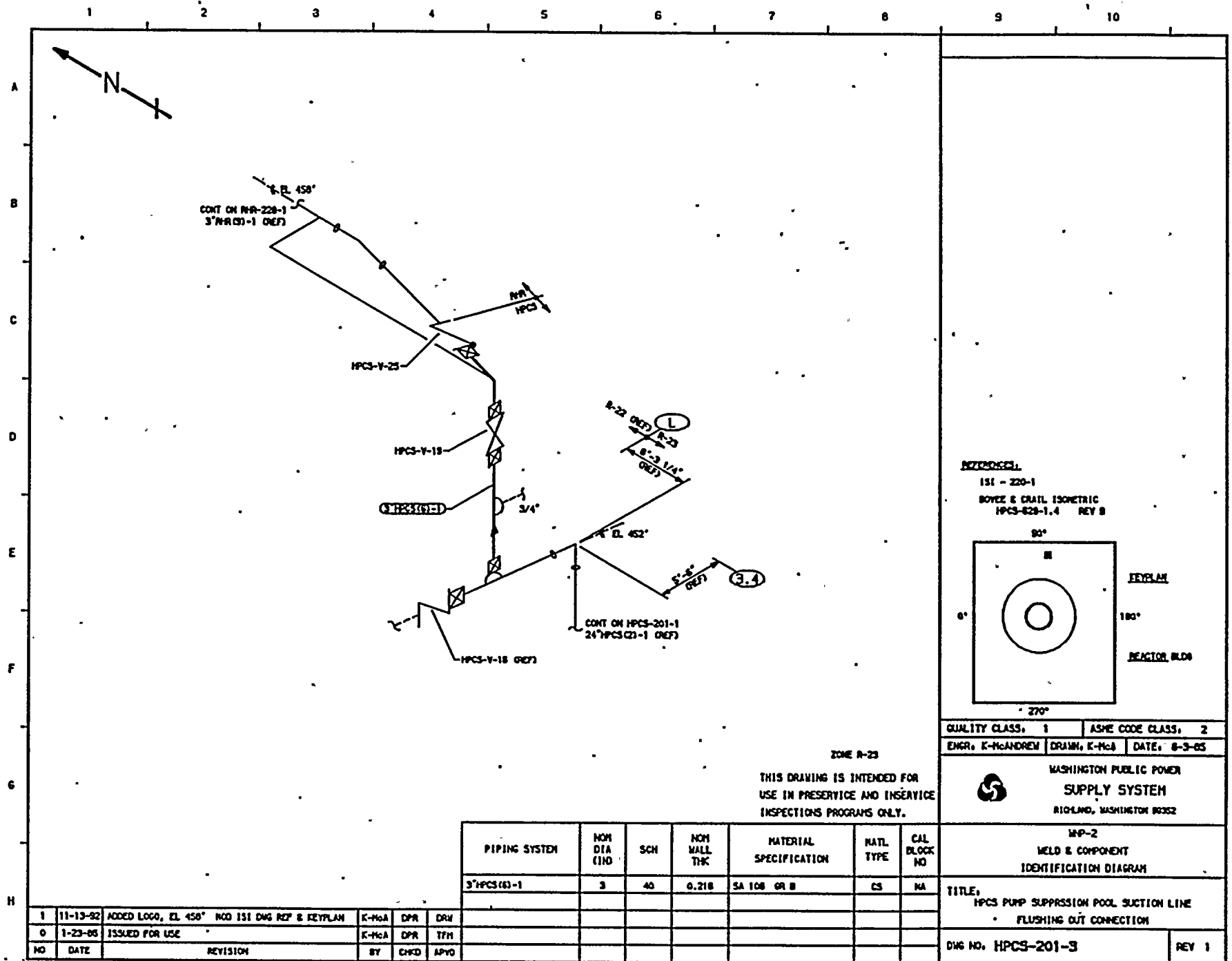
DWG. NO. HPCS-101-2  
 REV 6

					PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
6	11-13-82	ADDED NOTE 7. MODIFIED ACCORDINGLY.	K-McA	DPR	DRW						
5	12-4-83	SYSTEM CHANGE AT HPCS-Y-76. ADDED DWG LINE CONTINUATION & LOGO. MODIFIED DETAIL AM. RETURN	K-McA	DPR	TFH	12" HPCS(11)-4	12	80	0.698	SA 108 GR B	CS
4	5-24-83	ADDED SHARPEN 810N & 810M. REMOVED 3/4 LOC. ADDED 4" HPCS(11)-4. ADDED 91-30. 06/20/86	K-McA	DPR	TFH	10" HPCS(11)-4	10	80	0.594	SA 108 GR B	CS
3	12-2-81	REVISED AS NOTED	K-McA	DPR	TFH	4" HPCS(11)-4	4	80	0.377	SA 108 GR B	CS
2	7-17-79	DELETED NOTE 1 AND REF TO HOLD IN REDUCING ELBOW, AS BUILT ELBOW IS W/FLANGE. TR C-2	K-McA	TFH	LFB						
NO	DATE	REVISION	BY	CHKD	APVD						

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 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

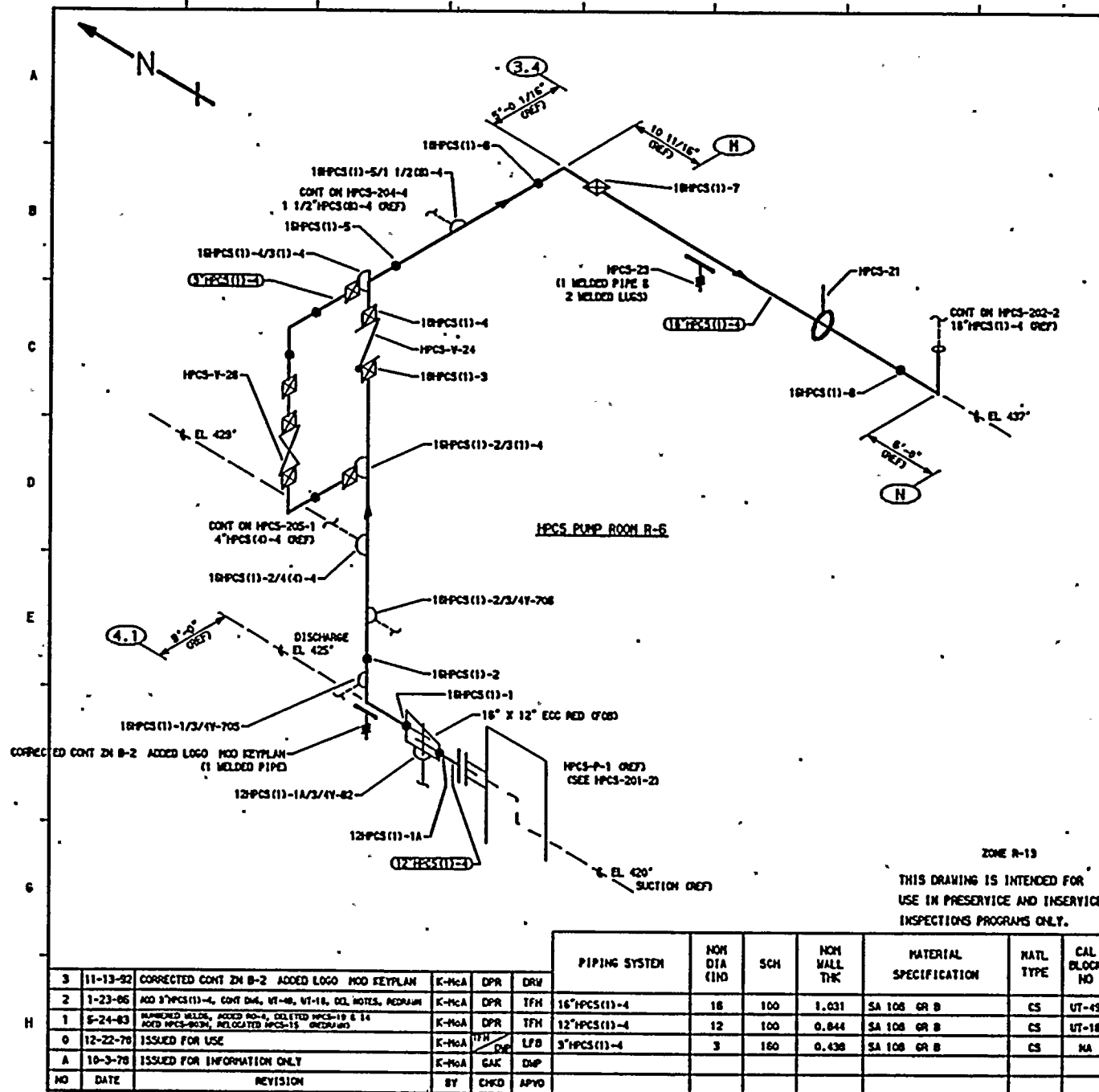






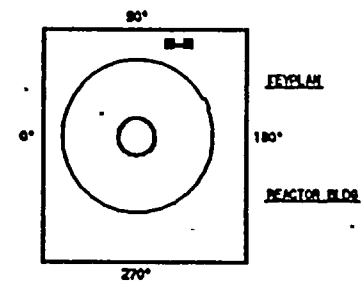






# **REFERENCE**

ISI - 220-2  
BOYCE & CRILL ISOMETRICS  
HPCS-830-1.4 REV 14  
HPCS-830-7.10 REV 8



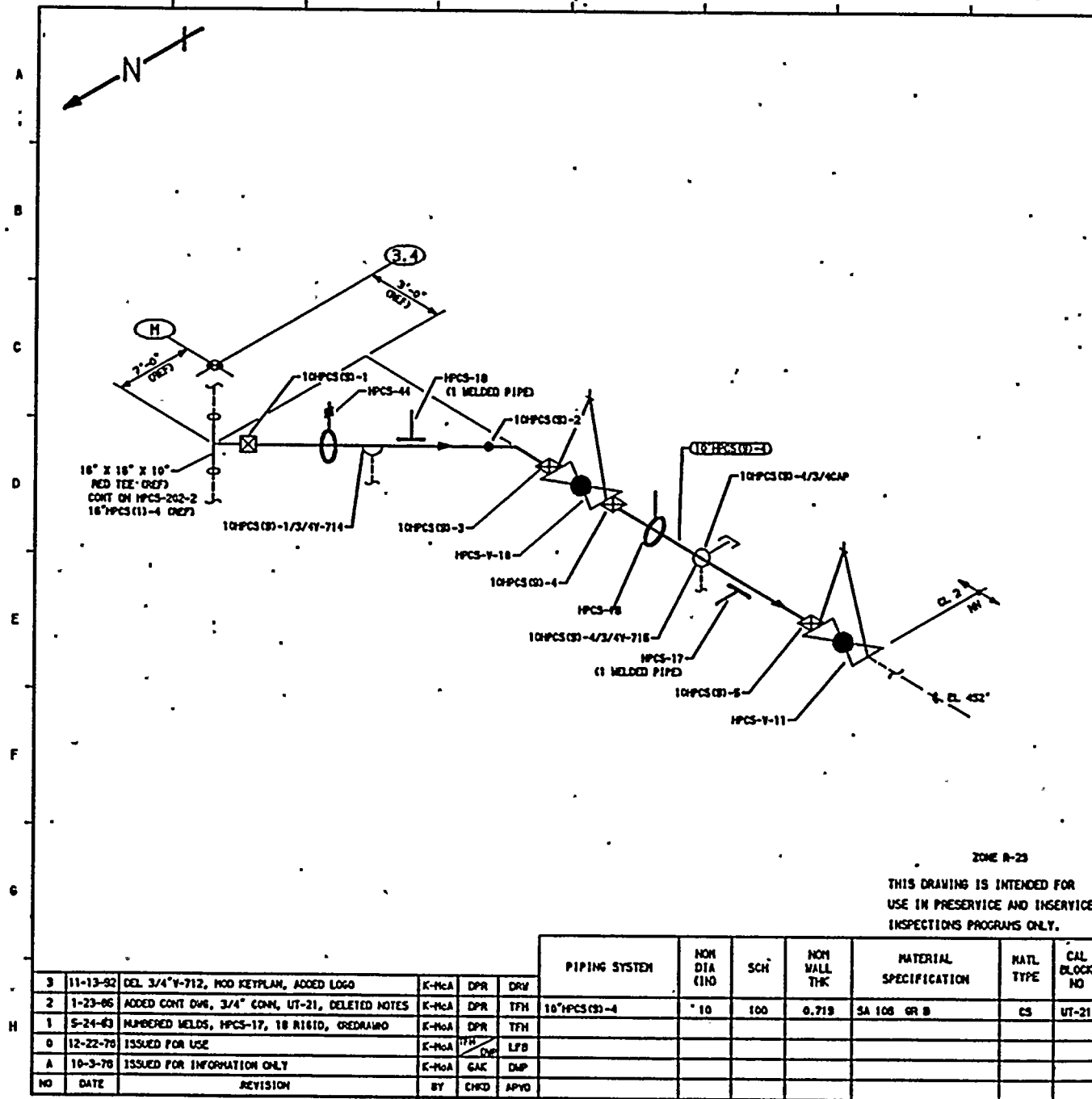
QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR: SA KUGLER	DRAWN: K-MCA
DATE: 8-9-78	

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
ATOLAND, WASHINGTON 98352

MP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: HPCS-PUMP-1 DISCHARGE	
DWG NO. HPCS-202-1	REV 3

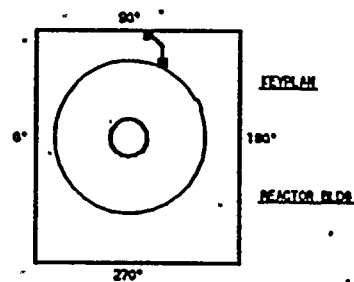




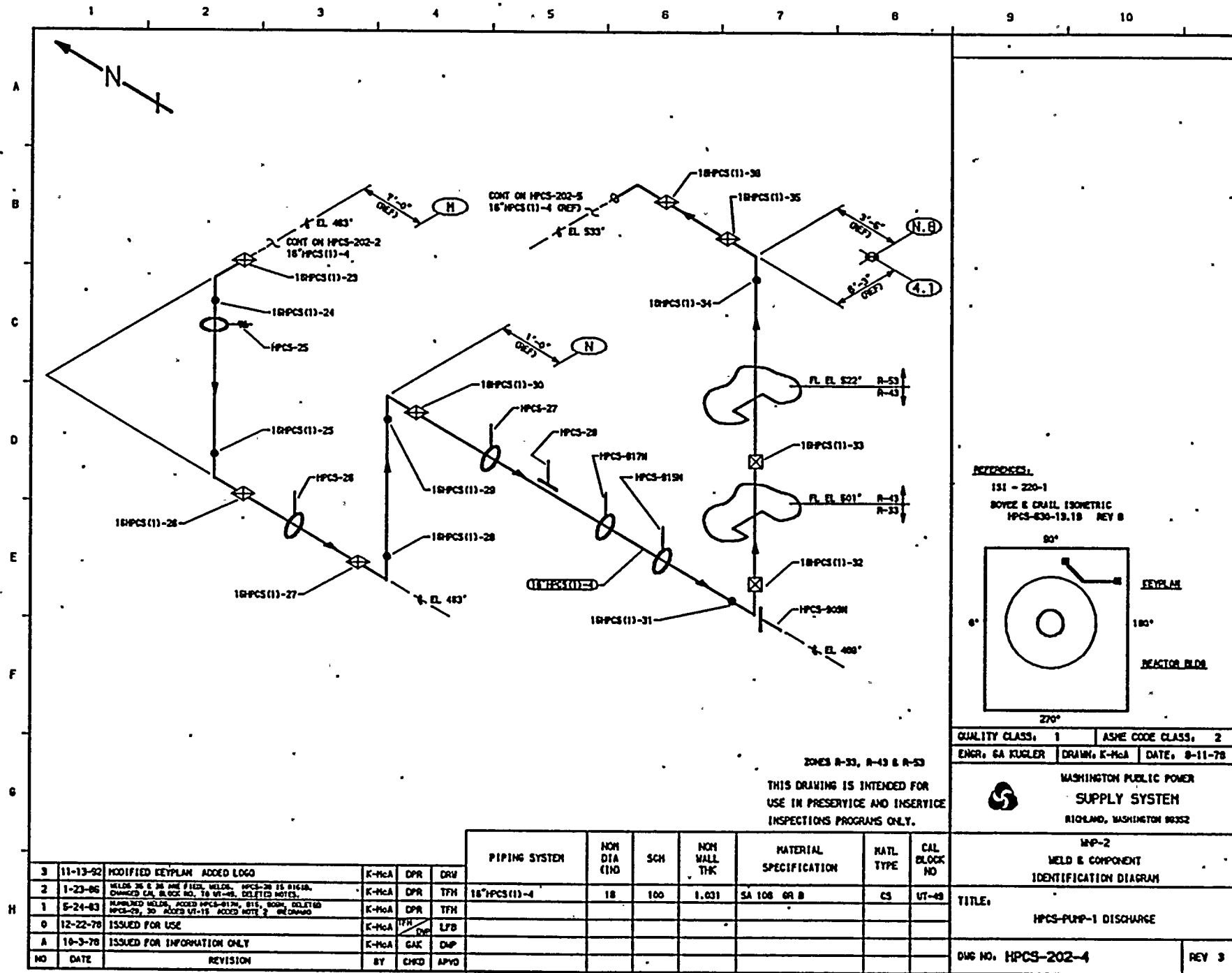


# NOTES:

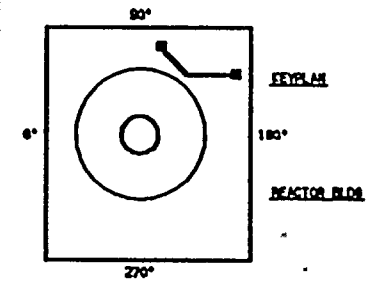
ISI - 220-1  
BOYCE & GRILL ISOMETRIC  
HPCS-833-1.2 - REV 13



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR, SA KUGLER	DRAWN, K-McA DATE, 8-11-78
WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WASHINGTON 99352	
WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: HPCS SUPPLY TO COND STORAGE TANKS	
DWG NO, HPCS-202-3	REV 3



REFERENCES:  
 ISI - 220-1  
 BOYCE & CRALL ISOMETRIC  
 HPCS-630-19.18 REV B



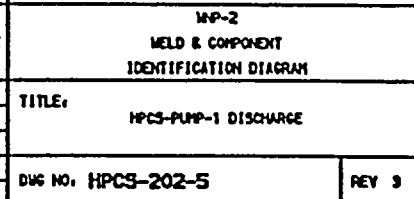
QUALITY CLASS: 1	ASME CODE CLASS: 2
ENGR. GA KUGLER	DATE: 8-11-78

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

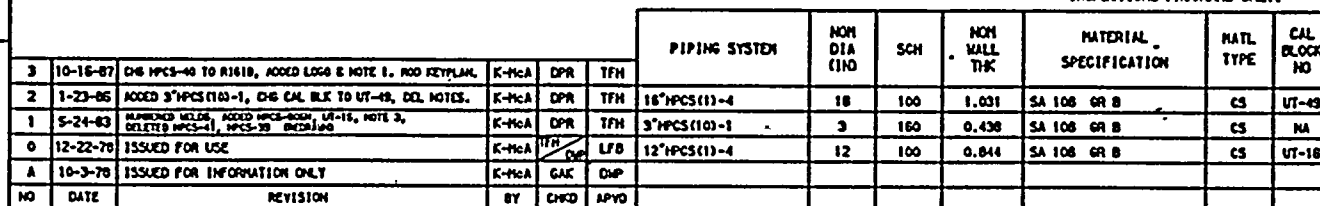
HPCS-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE: HPCS-PUMP-1 DISCHARGE
DWG NO. HPCS-202-4
REV 3

ZONES R-33, R-43 & R-53  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

				PIPING SYSTEM	NOM DTA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	11-13-92	MODIFIED KEYPLAN ADDED LOGO	K-McA DPR DRV							
2	1-23-86	WELDS 26 & 28 ARE FIELD WELDS. HPCS-28 IS 81410A. CHANGED EA, BLOCK NO. TO UT-45. DELETED NOTES.	K-McA DPR TFH	18" HPCS (1)-4	18	100	1.031	SA 106 GR B	CS	UT-4
1	5-24-83	SUPPLEMENTED WELDS. ADDED HPCS-01740, 815, 809H. DELETED HPCS-29, 30. ADDED UT-15. ADDED NOTE 2. (RE-DRUM)	K-McA DPR TFH							
0	12-22-78	ISSUED FOR USE	K-McA TFH LFB							
A	10-3-78	ISSUED FOR INFORMATION ONLY	K-McA GAK DMP							
NO	DATE	REVISION	BY	CHKD	APVD					









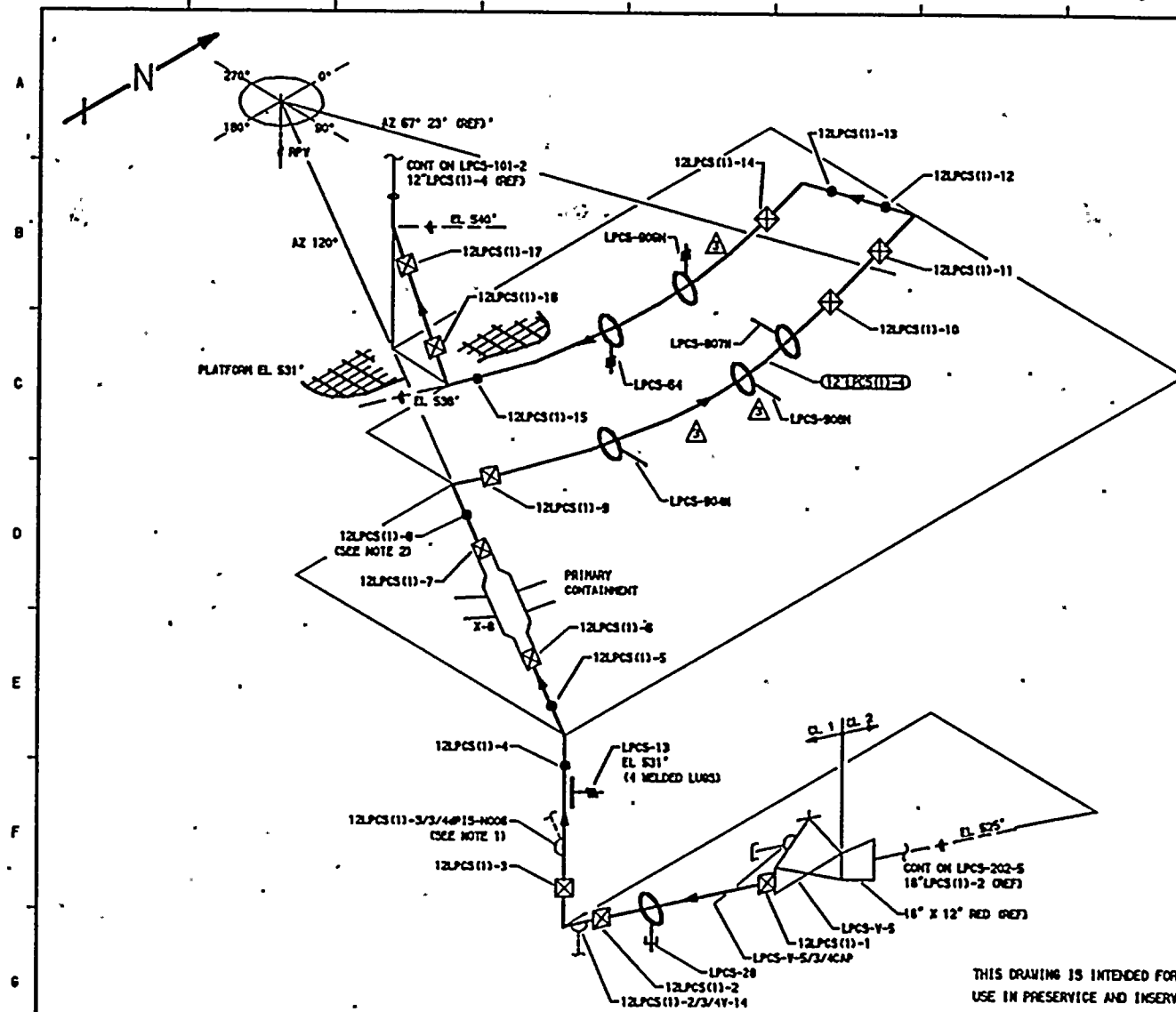










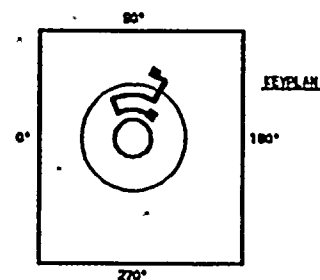


# NOTES:

1. EXTEND VISUAL LEAKAGE EXAM THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
2. PIPING SYSTEM 12"LPCS(11)-4 IS CONSTRUCTED OF SEAMLESS SCH 80 PIPE & FITTINGS EXCEPT FOR THE 5" BELL ASSOCIATED WITH WELDS 12LPCS(11)-8 & 12LPCS(11)-9 WHICH IS SEAMLESS SCH 100. USE CAL BLOCKS SHOWN BELOW ACCORDINGLY.
3. ACCESS TO WELDS 12LPCS(11)-6 & 12LPCS(11)-8 REQUIRES USE OF A LADDER.
4. ACCESS TO WELD 12LPCS(11)-1 REQUIRES REMOVAL OF LPCS-28.
5. LPCS-64H CHANGED FROM SHOULDER TO STRUT PER DOC-06-0525-SC-022.
6. LPCS-64H & LPCS-64H WERE DELETED PER DOC-06-0525-SC-022.

# REFERENCES:

ISI - 220-2  
BOYCE & ORILL ISOMETRICS  
LPCS-758-19.21 REV 12  
LPCS-758-22.24 REV 12



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. SA KUGLER	DRAWN. K-MCA DATE, 10-28-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGAND, WASHINGTON 98352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:

LPCS DISCHARGE TO VESSEL

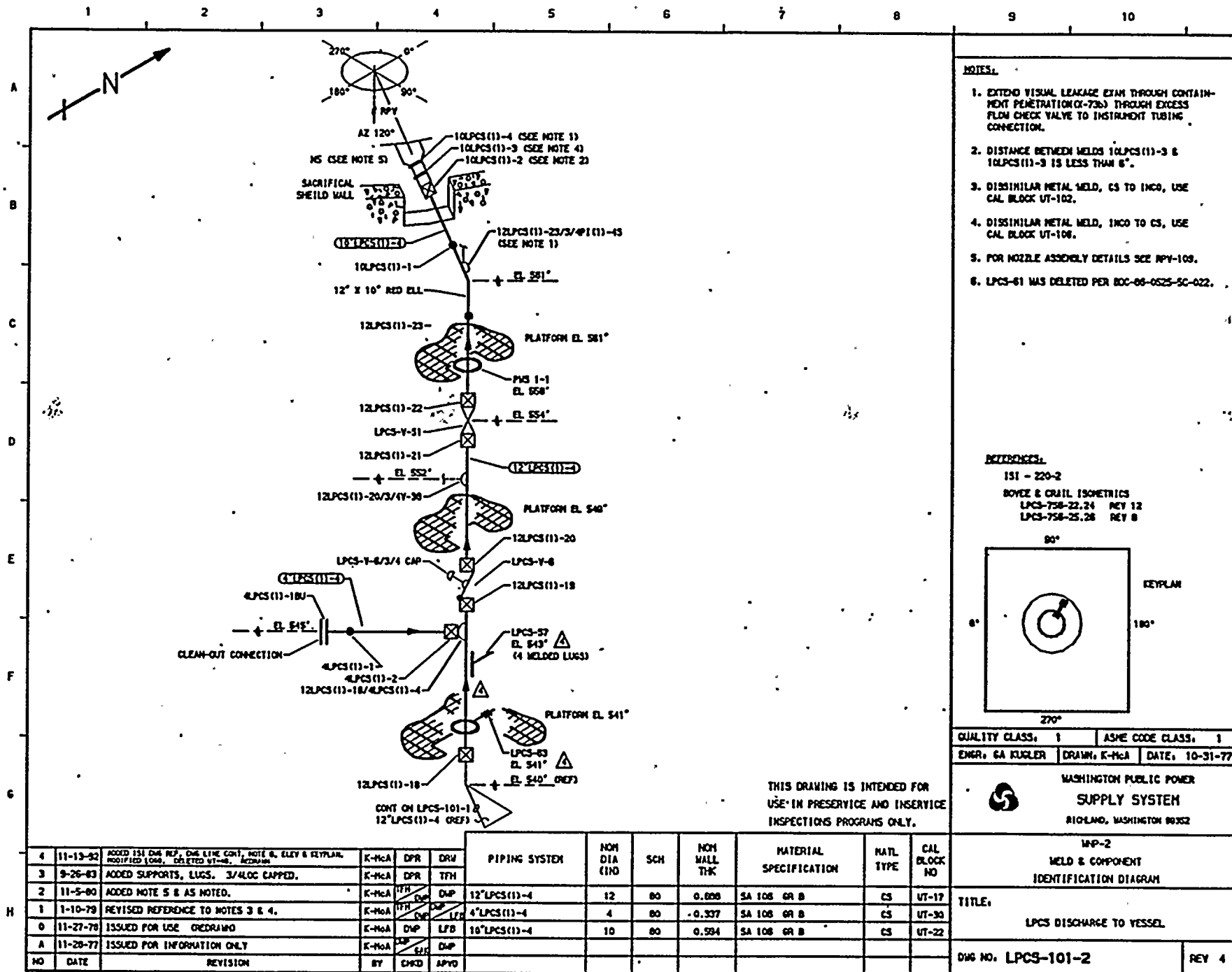
DWG NO. LPCS-101-1

REV 3

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DTA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	12-9-82	ADDED 134 DWS REF. DWS LINE CONT. NOTE 6 & NOTE 8. MODIFIED KEYLINE & LOGO. DELETED UT-18. RECD	K-MCA	DPR	DRW	12"LPCS(11)-4	12	80	0.888	SA 106 GR B	CS	UT-17
2	9-26-83	ADDED SUPPORTS, NOTES 9 & 4, LUGS. DELETED 3/4 LOC.	K-MCA	DPR	TFM	12"LPCS(11)-4	12	100	0.844	SA 106 GR B	CS	UT-18
1	7-17-78	SHOWN CHANGED TO SEAMLESS CONSTRUCTION OF 12LPCS(11)-8 PER 25-BU/LT. 24 0-4.	K-MCA	DPR	LFB	12"LPCS(11)-4	12	100	0.844	SA 106 GR B	CS	UT-18
0	11-27-78	ISSUED FOR USE. CREDRAWN	K-MCA	DPR	LFB							
A	11-28-77	ISSUED FOR INFORMATION ONLY	K-MCA	DPR	LFB							

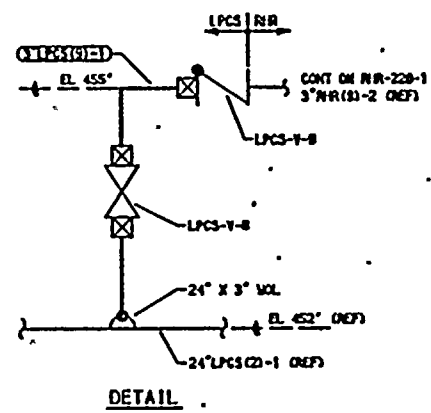
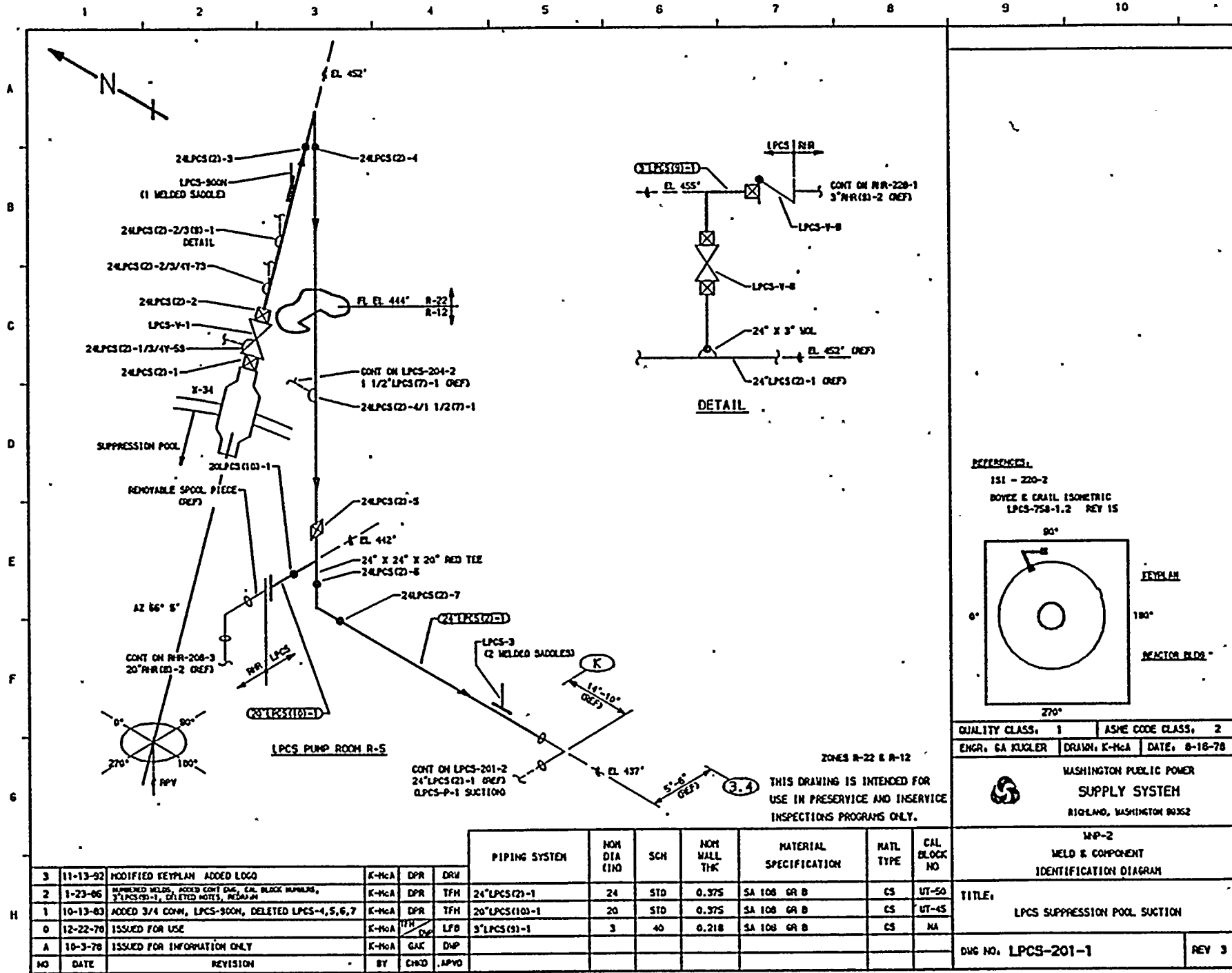


1-1-42

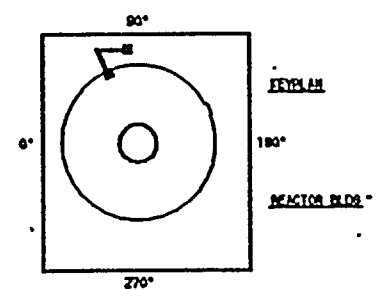








REFERENCES:  
 ISI - 220-2  
 BOYCE & CRAIG ISOMETRIC  
 LPCS-758-1.2 REV 15



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. GA KUGLER	DATE: 6-18-78

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RIGLAND, WASHINGTON 98352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 LPCS SUPPRESSION POOL SUCTION

DWG NO. LPCS-201-1 REV 3

				PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	11-13-92	MODIFIED KEYPLAN ADDED LOGO	K-MCA DPR DRW							
2	1-23-86	NUMBERED WELDS, ADDED CONT DWG, CAL BLOCK NUMBERS, 2" LPS (2)-1, DELETED NOTES, REJAWA	K-MCA DPR TFM	24" LPS (2)-1	24	STD	0.375	SA 108 GR B	CS	UT-5A
1	10-13-80	ADDED 3/4 CORN, LPS-300N, DELETED LPS-4,5,6,7	K-MCA DPR TFM	20" LPS (10)-1	20	STD	0.375	SA 108 GR B	CS	UT-4C
0	12-22-70	ISSUED FOR USE	K-MCA <sup>TFM</sup> <sub>DPR</sub> LFB	3" LPS (3)-1	3	40	0.218	SA 108 GR B	CS	NA
A	10-3-78	ISSUED FOR INFORMATION ONLY	K-MCA GAK DNP							
NO	DATE	REVISION	BY	CHG	APVD					

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.



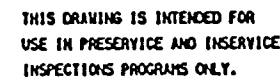






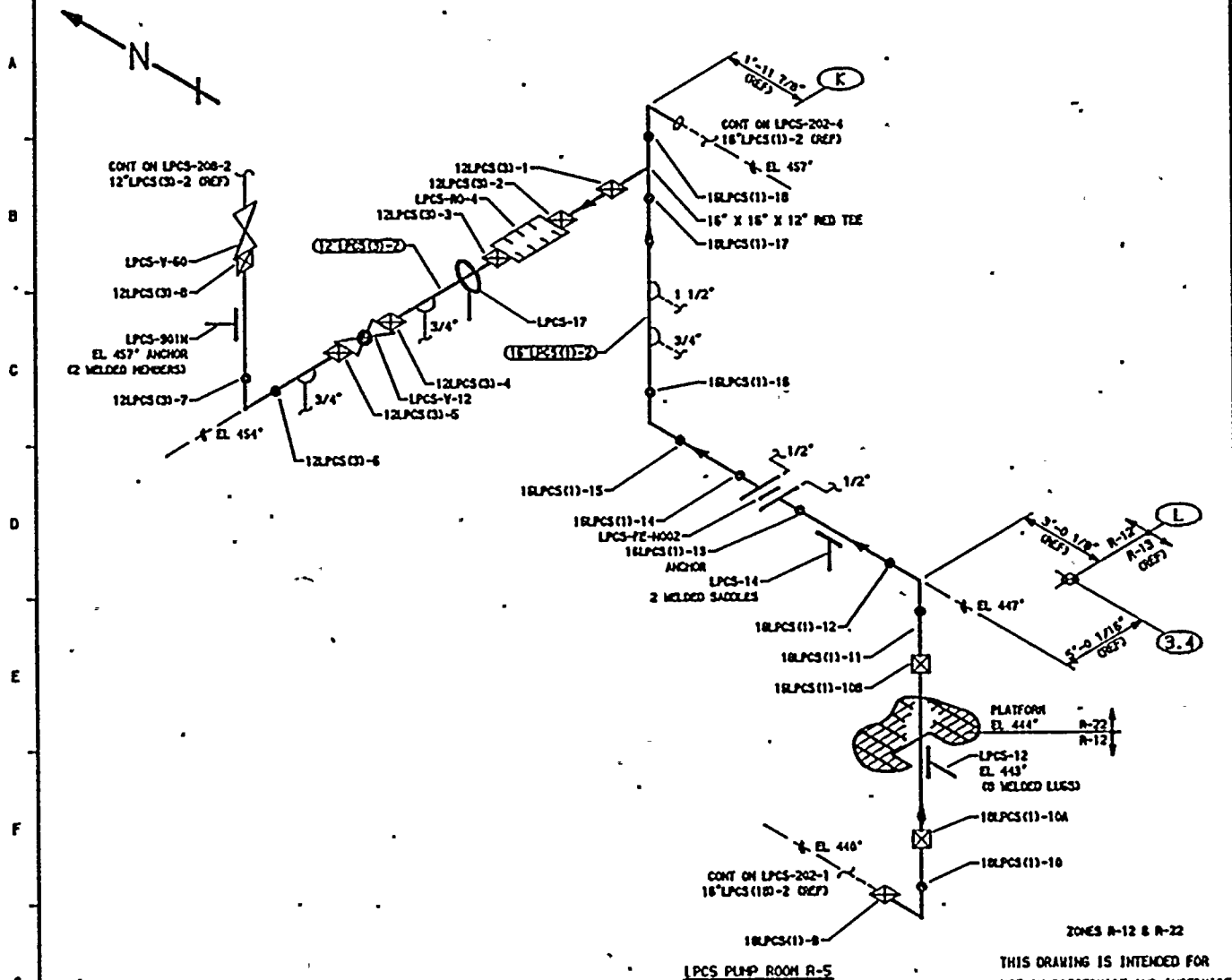
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INSPECTIONS PROGRAMS ONLY.





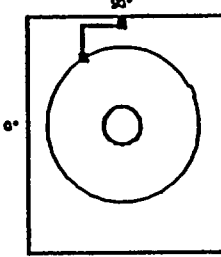






# REFERENCES

ISI - 220-2  
BOYCE & CRILL ISOMETRICS  
LPCS-754-4.10 REV 9  
LPCS-759-1 REV 12



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. GA KUGLER	DRAWN. K-MCA DATE, 6-10-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDLAND, WASHINGTON 90352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
LPCS-PUMP-1 DISCHARGE & TEST LINES

DWG NO. LPCS-202-3

REV 3

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	11-13-92	ADDED LOGO, CORRECTED CONT, ALL REF DIM & NO KEYPLAN.	K-MCA	DPR	DRV							
2	1-23-86	ADDED UT-39, UT-18, CONT DWG. DELETED NOTES, REDRAWN	K-MCA	DPR	TFH	16"LPCS (1)-2	16	STD	0.375	SA 106 GR B	CS	UT-39
1	9-26-83	NUMEROUS WELDS, ADDED LPCS-901N, DELETED LPCS-18, 49, 15 & 40. CHANGED LPCS-12 & 17	K-MCA	DPR	TFH	12"LPCS (3)-2	12	STD	0.375	SA 106 GR B	CS	UT-18
0	12-22-70	ISSUED FOR USE	K-MCA	TFH	LFB							
A	10-3-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DMP							

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

ZONES R-12 & R-22

LPCS PUMP ROOM R-5

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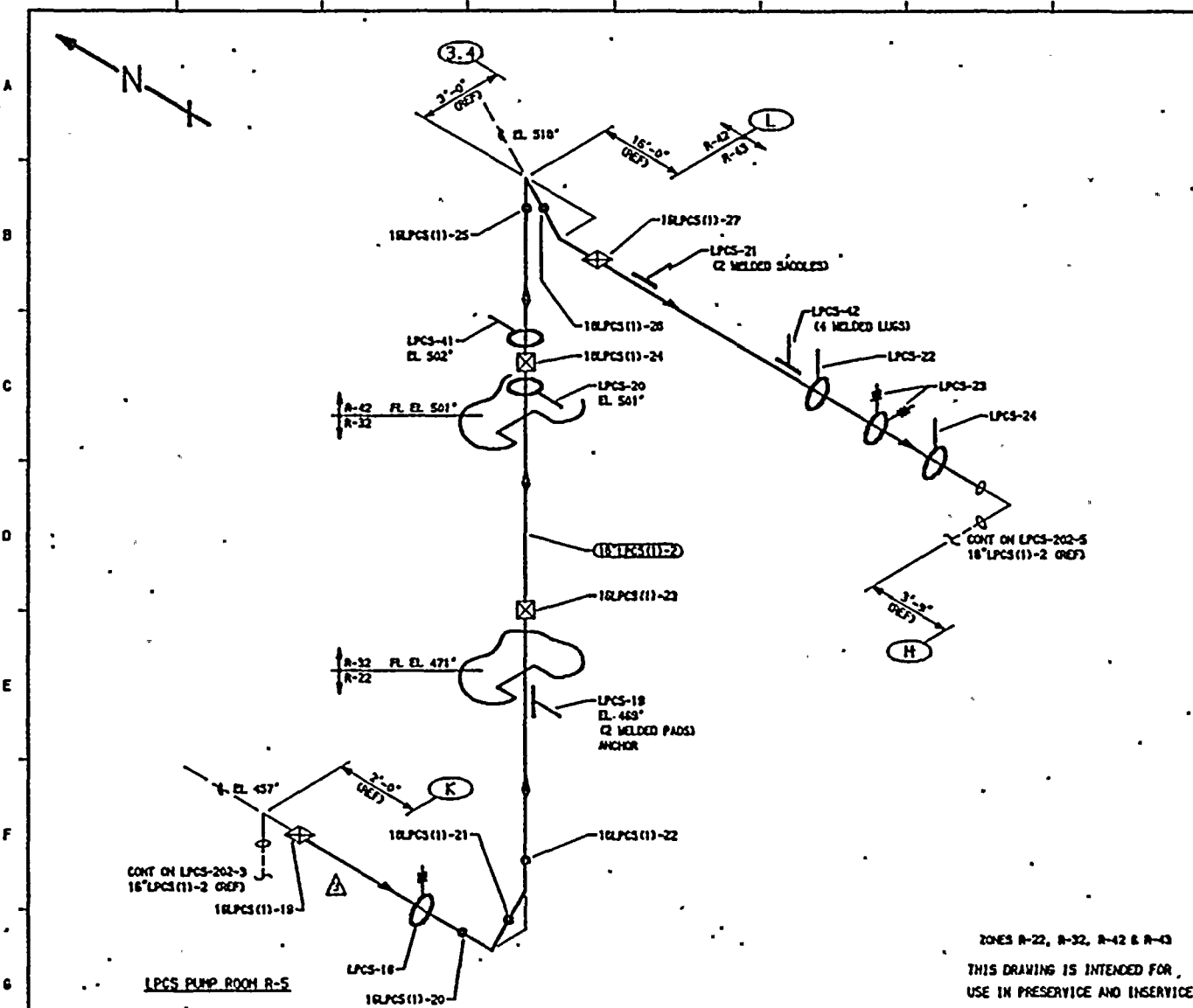
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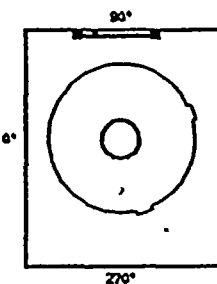
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# REFERENCES:

ISI - 220-2  
BOYCE & GRILL ISOMETRIC  
LPCS-754-11.15 REV 7



ISOMETRIC

180°

REACTION PLATE

QUALITY CLASS, 1 ASME CODE CLASS, 2  
ENGR. SA KUGLER DRAWN. K-McA DATE, 8-21-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMO, WASHINGTON 98352

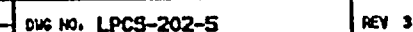
ZONES R-22, R-32, R-42 & R-43  
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	2-20-82	DELETED WELD 18LPCS(11)-19A. ADDED LOGO.	K-McA	OJ	DPR	16" LPCS(11)-2	18	STD	0.375	SA 106 GR B	CS	UT-30
2	1-23-86	CONF 18 HOO IN 6-4, DEL NOTES, ADD UT-39, REDRAWN	K-McA	DPR	TFH							
1	9-26-83	NUMBERED WELDS, LPCS-20, 22, & 24 NOW RIGID	K-McA	DPR	TFH							
0	12-22-78	ISSUED FOR USE	K-McA	TFH	LFD							
A	10-3-78	ISSUED FOR INFORMATION ONLY	K-McA	GAK	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							

DWG NO. LPCS-202-4

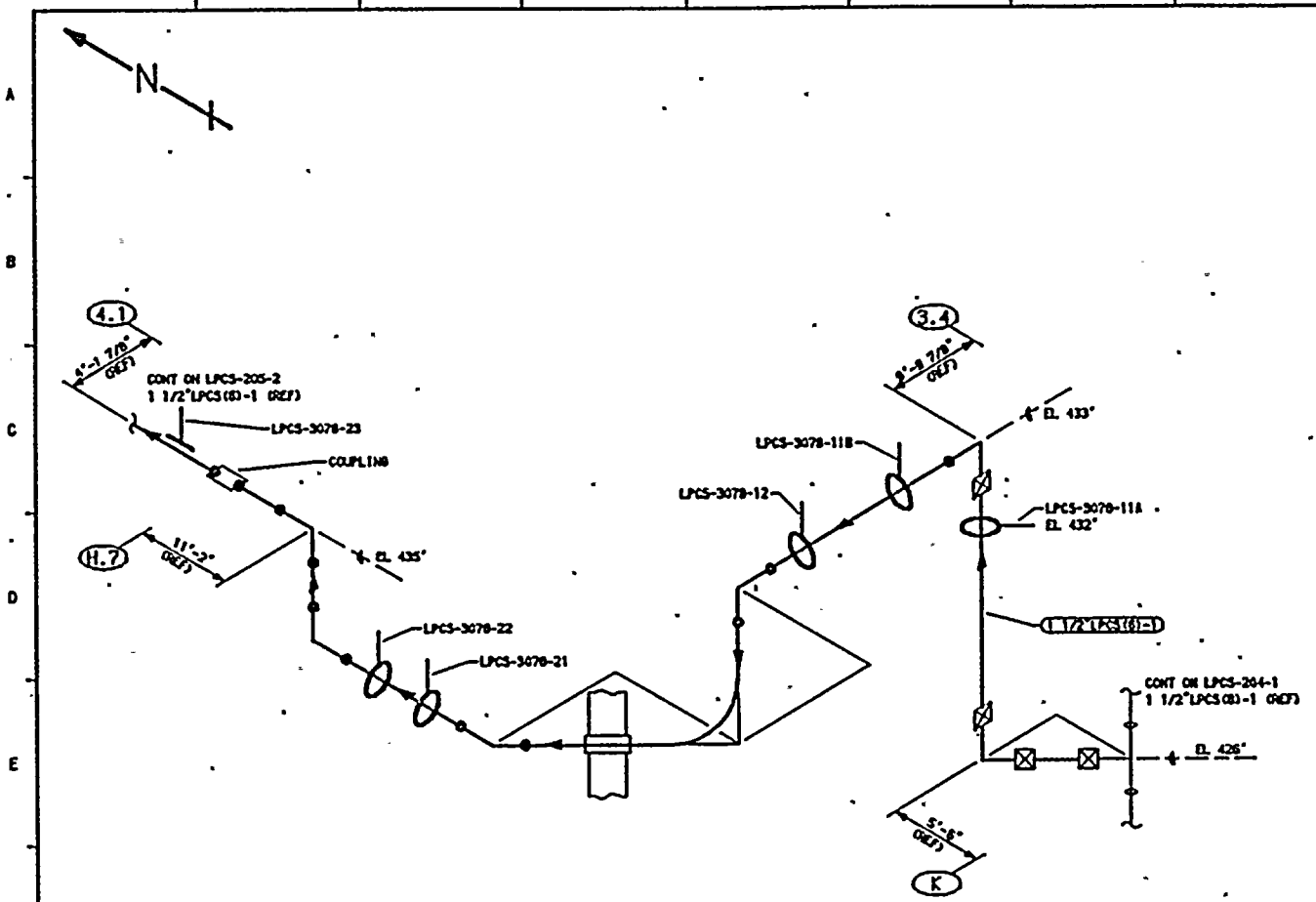
REV 3





				PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	11-13-92	MODIFIED KEYPLAN ADDED LOGO	K-MCA DPR DRW							
2	1-23-96	ADDED CONT DWG, UT-38, UT-18, DELETED NOTES, REDUAM	K-MCA DPR TFM	16" LPCS (11)-2	18	STD	0.375	SA 106 GR B	CS	UT-38
1	9-26-83	REMOVED WELD, ADDED NOTE 2, LACS-80-24, DELETED LACS-11, 43, 47 & 48; ADDED 17" LPCS (11)-2	K-MCA DPR TFM	12" LPCS (11)-2	12	STD	0.375	SA 106 GR B	CS	UT-18
0	12-22-76	ISSUED FOR USE	K-MCA <del>DPR</del> LFB							
A	10-3-78	ISSUED FOR INFORMATION ONLY	K-MCA GAK DWP							
NO.	DATE	REVISION	BY	CHKD	APVD					





ZONE B-12

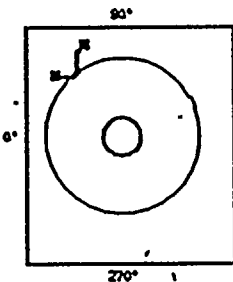
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2" LPCS (S)-1	1 1/2	80	0.200	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	11-13-82	MODIFIED KEYPLAN ADDED LOGO	K-McA	DPR	DRW
0	1-23-86	ISSUED FOR USE	K-McA	DPR	TJH

**REFERENCE**

ISI - 220-2  
BOYCE & CRILL ISOMETRICS  
LPCS-3078-1 REV 8  
LPCS-3078-2 REV 10



KEYPLAN  
180°  
REACTOR BUILD

QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. K-McANDREW	DRAWN. K-McA DATE: 6-6-85



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

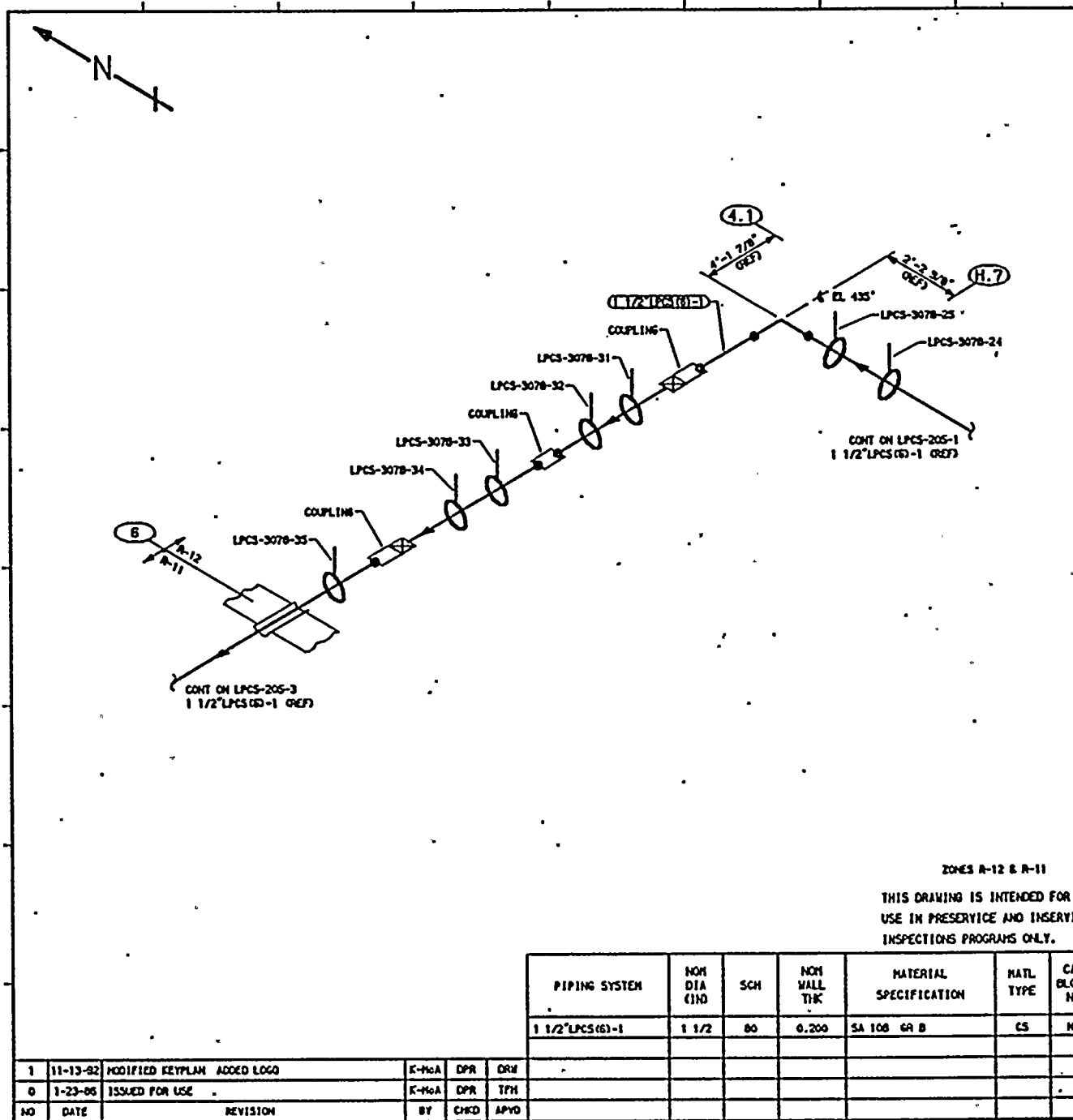
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
WATER LEG PUMP LPCS-P-2  
DISCHARGE TO RWR SYSTEM

DWG NO. LPCS-205-1 REV 1

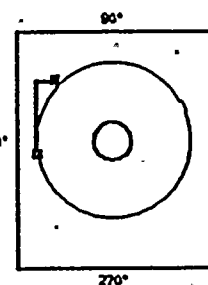






# REFERENCES

131 - 220-2  
 BOYCE & CRAIG ISOMETRICS  
 LPCS-3078-2 REV 10  
 LPCS-3078-3 REV 11



QUALITY CLASS, 1 - ASME CODE CLASS, 2  
 ENGR, K-McANDREW DRAWN, K-MGA DATE, 6-6-85



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98352

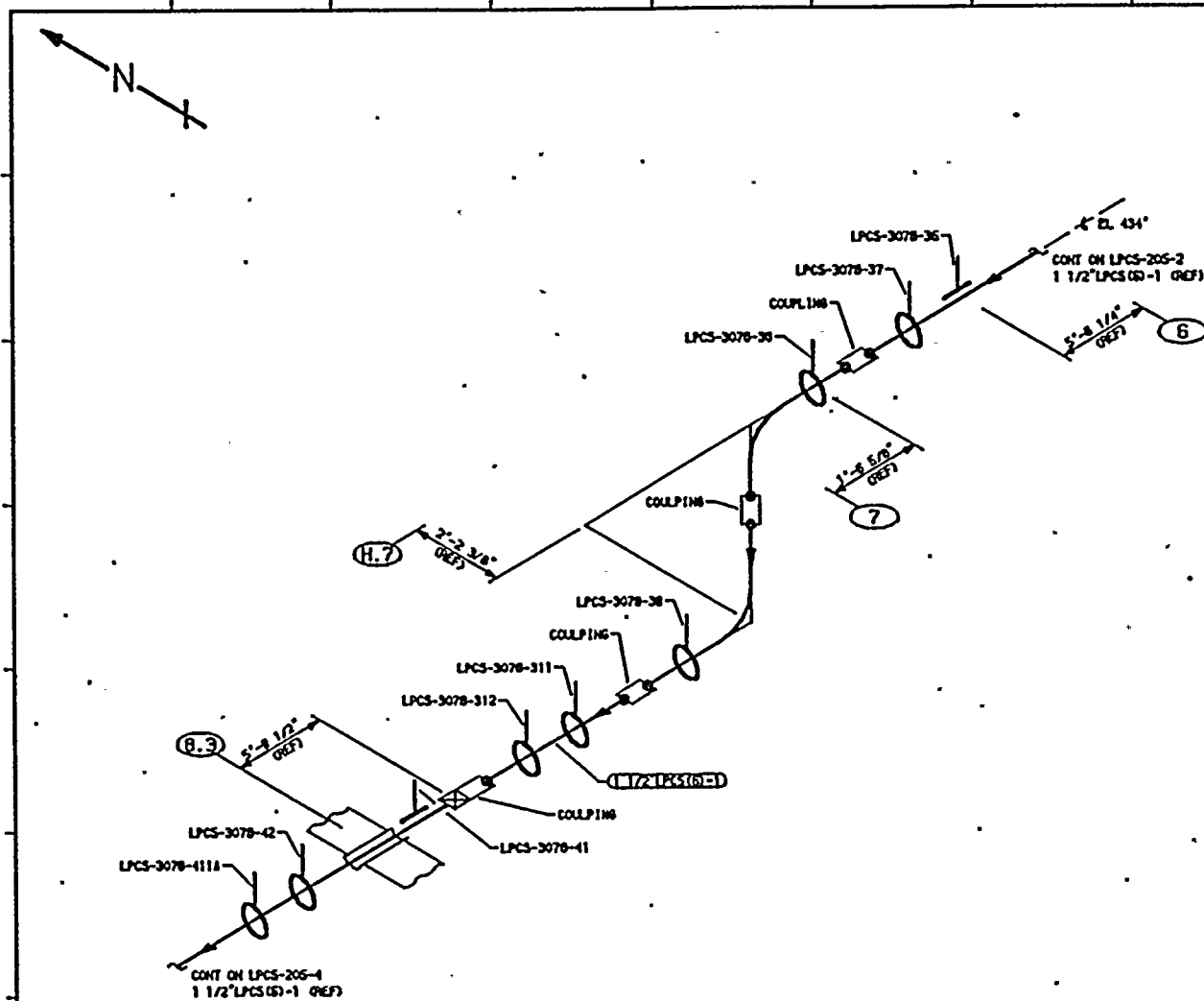
WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 WATER LEG PUMP LPCS-P-2  
 DISCHARGE TO RWR SYSTEM

DWG NO. LPCS-205-2

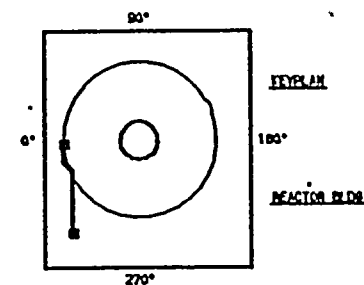
REV 1





# REFERENCES:

ISI - 220-2  
BOYCE & CRILL ISOMETRICS  
LPCS-3078-3 REV 11  
LPCS-3078-4 REV 11



QUALITY CLASS. 1 ASME CODE CLASS. 2  
ENGR. K-McANDREW DRAWN. K-McA DATE. 8-11-85



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
WATER LEAK PUMP LPCS-P-2  
DISCHARGE TO RWR SYSTEM

DWG NO. LPCS-205-3

REV 1

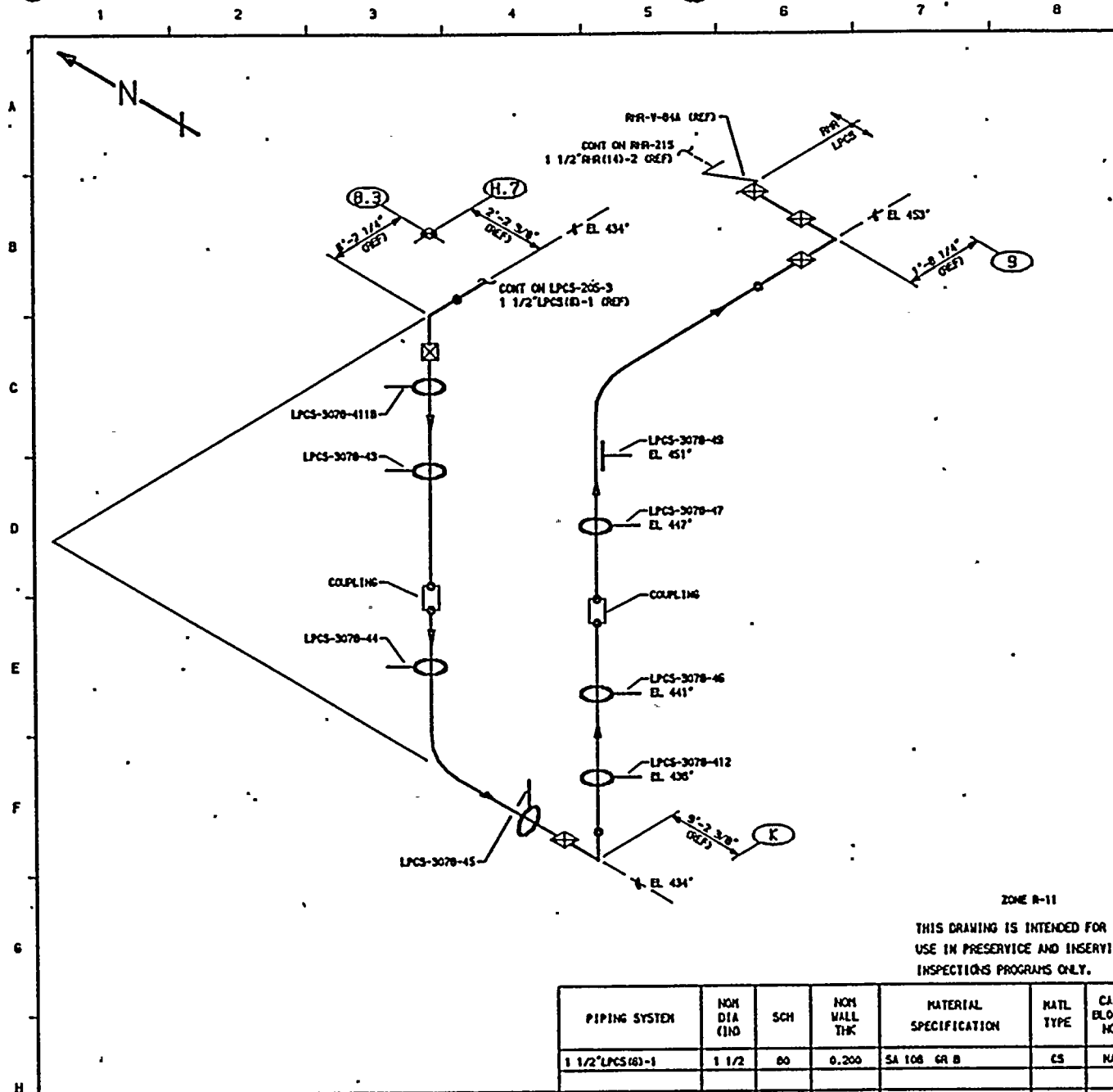
ZONE R-11

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	RATL TYPE	CAL BLOCK NO
1 1/2" LPCS (S)-1	1 1/2	80	0.200	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	11-13-82	MODIFIED KEYPLAN ADDED LOGO	K-McA	DPR	DRW
0	1-23-85	ISSUED FOR USE	K-McA	DPR	TPN





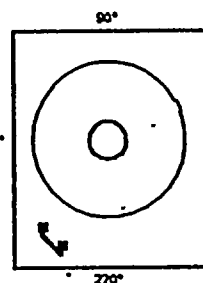
ZONE R-11

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

# NOTES

ISI - 220-2

BOYCE & GRILL ISOMETRICS  
LPCS-3078-4 REV 11



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR, K-McANDREW	DRAWN, K-McA DATE, 8-11-85



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

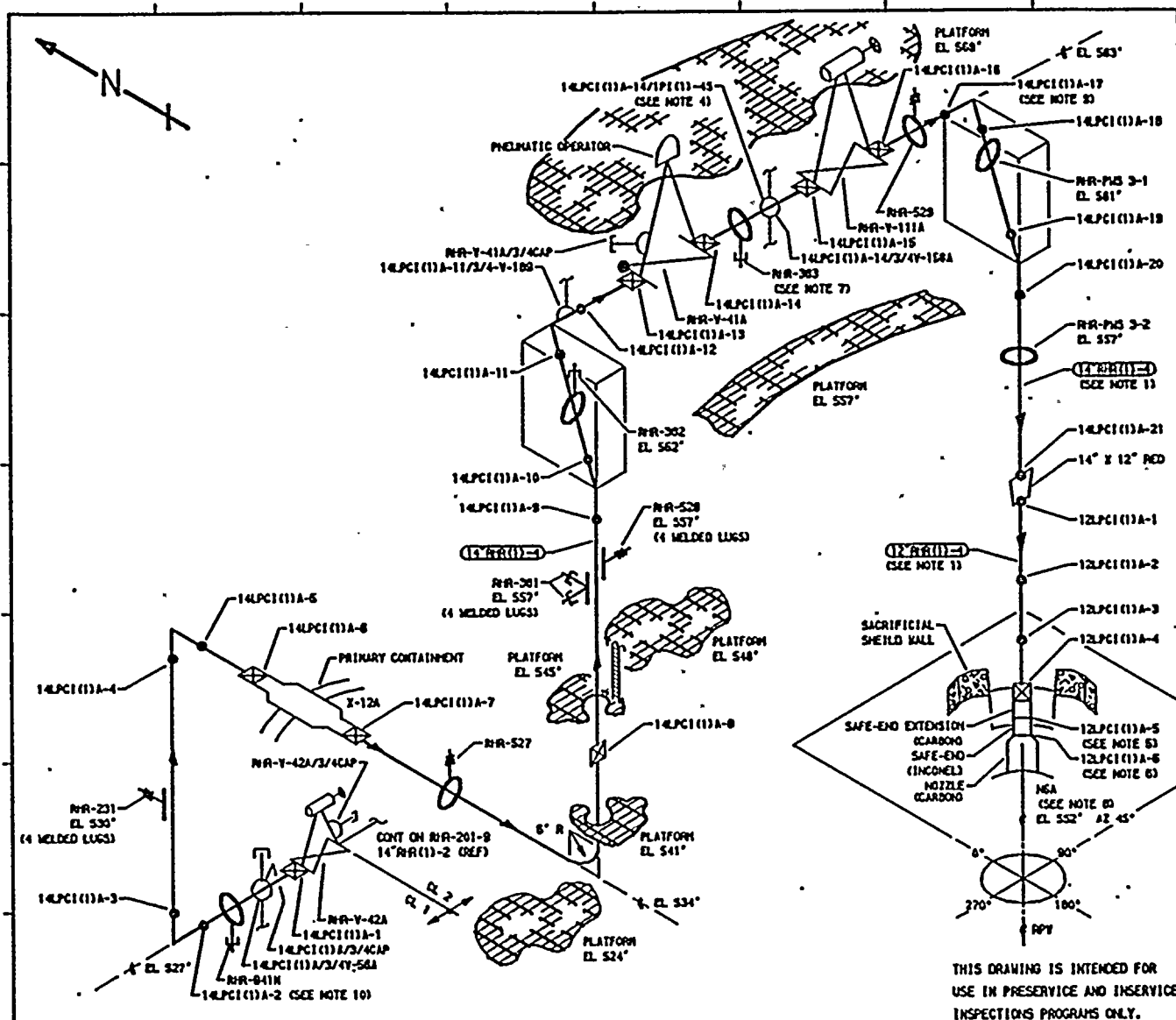
TITLE:  
WATER LEG PUMP LPCS-P-2  
DISCHARGE TO RRR SYSTEM

DWG NO. LPCS-205-4 REV 1

NO	DATE	REVISION	BY	CHKD	APVD
1	11-13-82	MODIFIED KEYPLAN ADDED LOGO	K-McA	DPR	DRM
0	1-23-85	ISSUED FOR USE	K-McA	DPR	TFH

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2" LPCS(43)-1	1 1/2	80	0.200	SA 106 GR B	CS	NA



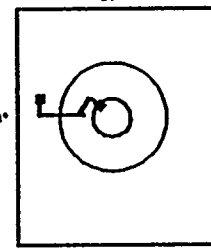


# NOTES:

1. WELD NUMBERING UTILIZED "LPCI" RATHER THAN "RHR" FOR SYSTEM DESIGNATION FOR CLARITY.
2. ACCESS TO WELDS AT NOZZLE MGA REQUIRES TEMPORARY SCAFFOLDING.
3. PMS 3-1 IS WITHIN -4" OF WELD 14LPCI(11)A-18.
4. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-746) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
5. DISSIMILAR METAL WELD, CS TO INCO, USE CAL BLOCK UT-106.
6. DISSIMILAR METAL WELD, INCO TO CS, USE CAL BLOCK UT-102.
7. ACCESS TO WELD 14LPCI(11)A-15 REQUIRES REMOVAL OF RHR-303.
8. FOR DETAILS OF NOZZLE ASSEMBLY SEE RPY-110.
9. ACCESS TO WELD 14LPCI(11)A-17 REQUIRES REMOVAL OF RHR-529.
10. ACCESS TO WELD 14LPCI(11)A-2 REQUIRES REMOVAL OF RHR-941N.
11. RHR-300 WAS DELETED PER BOC-08-0525-2A.

# REFERENCES:

ISI - 221-1  
BOYCE & CRILL ISOMETRICS  
RHR-851-20 REV 10  
RHR-851-21,24 REV 8



QUALITY CLASS, 1 ASME CODE CLASS, 1  
ENGR. D PORTER DRAWN: K-HCA DATE: 12-2-77

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIGLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RHR/LPCI LOOP "A"

DWG NO. RHR-101 REV 8

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8	12-9-82	ADDED 3/4" CAP PER BOC-06-0631-CA-027 IN C-2.	K-HCA	DPR	DRY							
7	12-14-80	ADDED NOTE 11. DELETED RHR-300 & UT-48.	K-HCA	OJ	TFH							
6	10-16-87	ADDED 1ST DIA REF. DIA LINE CONT. NUMBER ELEVATIONS, LOGS, & NOTE 16. DELETED RHR-332. MODIFIED KEYPLAN. RIGADW	K-HCA	DPR	TFH							
5	1-23-86	ADDED KEYPLAN & AN NOTED. ADDED LUGS.	K-HCA	DPR	TFH	14"RHR(11)-4	14	80	0.750	SA 106 GR B	CS	UT-14
4	1-23-86	REVISED AS NOTED.	K-HCA	DPR	TFH	12"RHR(11)-4	12	80	0.608	SA 106 GR B	CS	UT-17
3	11-5-80	CORRECTED SCH & WALL THK FOR 12RHR(11)-4.	K-HCA	TFH	DPR							
2	8-30-79	ADDED NOTE 8. ADDED CALL-OUT IN A-4.	K-HCA	TFH	DPR							
1			K-HCA	TFH	DPR							

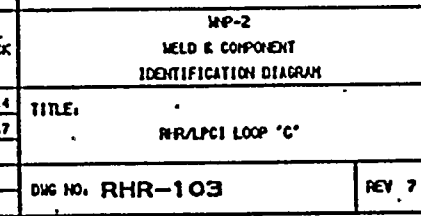
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.







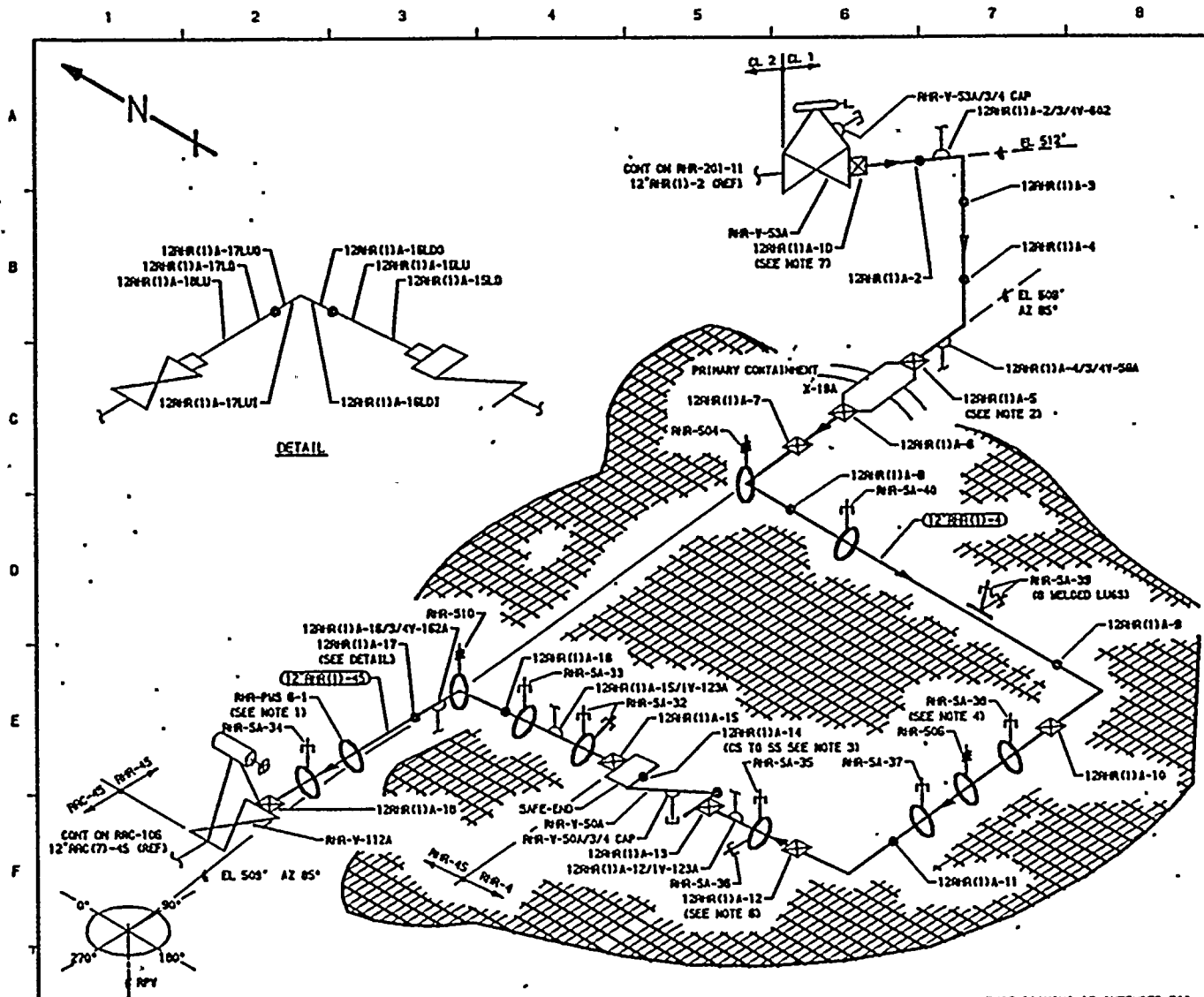










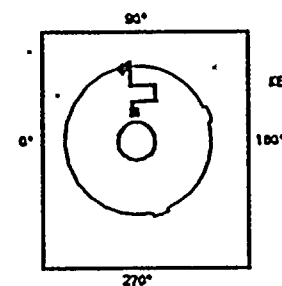


# NOTES:

1. ACCESS TO WELD 12RHR(11A)-18 REQUIRES REMOVAL OF RHR-PUS 6-1.
2. WELD 12RHR(11A)-5 IS FITTING TO FITTING.
3. DISSIMILAR METAL WELD, CS TO SS, USE CAL BLOCK UT-19.
4. ACCESS TO WELD 12RHR(11A)-10 REQUIRES REMOVAL OF RHR-SA-38.
5. DELETED.
6. CONDUIT 2 1/2\"/>

# REFERENCES:

151 - 221-1 -  
 BOYCE & ORILL ISOMETRICS  
 RHR-851-14 REV 8  
 RHR-851-15.18 REV 7  
 RHR-851-17 REV 8



QUALITY CLASS: 1 ASME CODE CLASS: 1  
 ENGR: D PORTER DRAWN: K-HCA DATE: 12-14-77



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

# TITLE:

RHR SHUTDOWN COOLING RETURN LOOP "A"

DWG NO: RHR-105

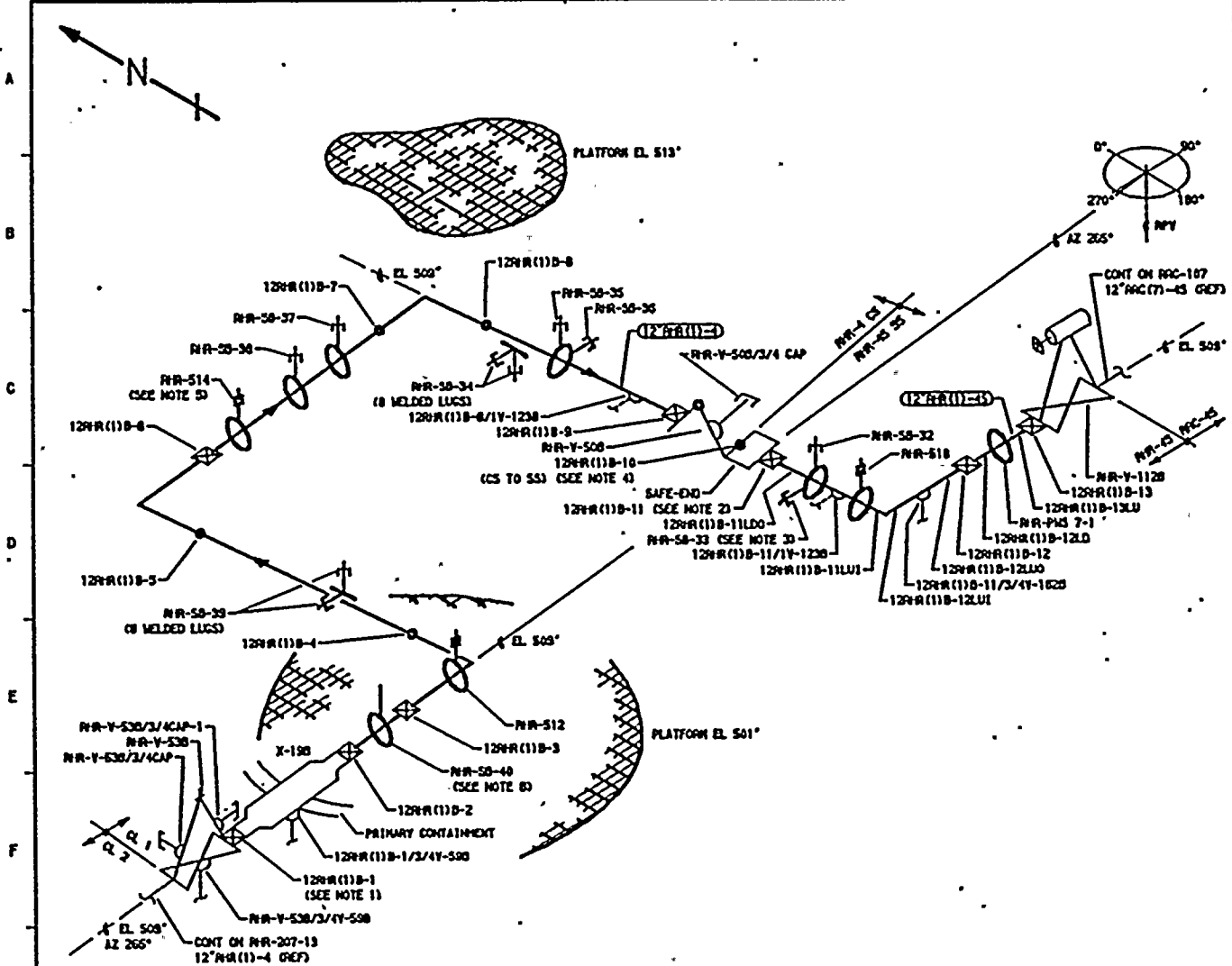
REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-9-82	ADDED NOTE 9, 151 Dwg REF & CAL LINE CONT. MODIFIED LEGS, NOTES 1 & 3, RHR SA-32 & RHR SA-38, RHR-PUS 112A	K-HCA	DPR	DRW							
3	9-26-83	REVISED AS NOTED, ADDED KEYPLAN	K-HCA	DPR	TFH							
1	12-2-81	REVISED AS NOTED	K-HCA	DPR	TFH	12" RHR (11)-4	12	100	0.044	SA 106 GR B	CS	UT-1
0	9-30-79	ADDED LONG BEAM CONNECTION FROM WELD 12-08 (11)-15, 16 & 17 PER AS BUILT, ADDED DETAIL FOR CLARITY IN C-3	K-HCA	DPR	LFB	12" RHR (11)-43	12	80	0.020	SA 312 GR B	SS	UT-1
0	11-27-76	ISSUED FOR USE	K-HCA	DMP	LFB							
0	3-15-78	ISSUED FOR INFORMATION ONLY	K-HCA	S-15-78 HCH	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.







**NOTES:**

1. WELD 12\"/>

**REFERENCES:**

ISI - 221-2  
 BOYCE & CRILL ISOMETRICS  
 RHR-803-48.47 REV 12  
 RHR-803-48 REV 10

**QUALITY CLASS, 1** **ASME CODE CLASS, 1**

**ENGR, D PORTER** **DRAWN, K-MCA** **DATE, 12-15-77**

**WASHINGTON PUBLIC POWER**  
**SUPPLY SYSTEM**  
 RICHLAND, WASHINGTON 99352

**WMP-2**  
**WELD & COMPONENT**  
**IDENTIFICATION DIAGRAM**

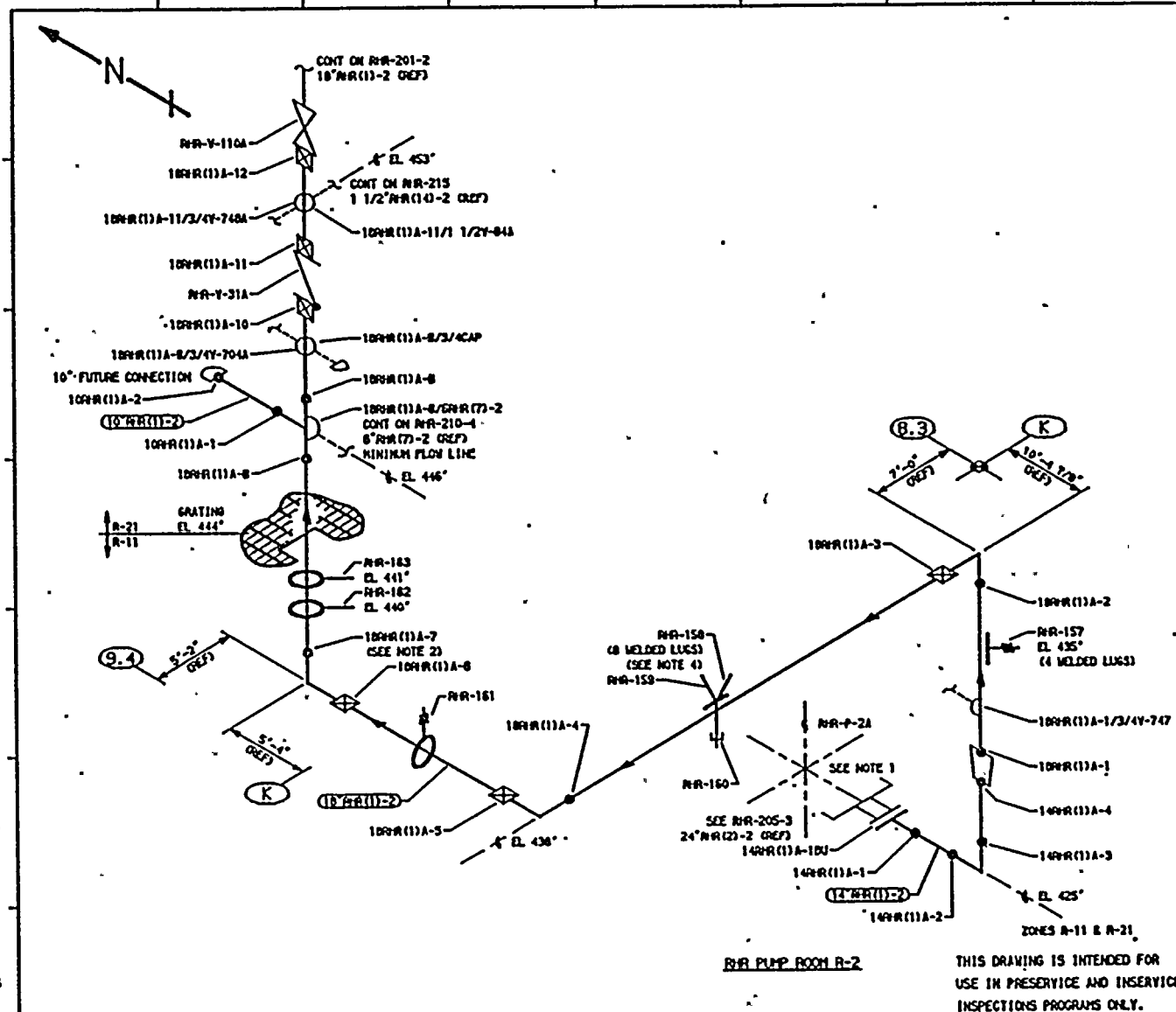
**TITLE, SHUTDOWN COOLING RETURN LOOP "B"**

**DWG NO, RHR-106** **REV 5**

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

H	5	2-20-82	ADDED RHR-PHS 7-1 ZONE C-7.	K-MCA	DJ	DPR	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
	4	12-4-83	ADDED 151 DWS REF, DWS LINE CONT, LOGS, NOTES 8 & 9, DELETED LOGS, CONNECTED RHR-538 & COM, MOD KEYPLAN, INFORMATION	K-MCA	DPR	TFH							
	3	9-16-83	REVISED AS NOTED, ADDED KEYPLAN & LOGS.	K-MCA	DPR	TFH							
	2	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH							
	1	7-17-79	ADDED LONG LEAK DOWN STREAM FROM WELD 1204R (118)-12 PER AS BUILT, IN C-7.	K-MCA	TFH DWP	LFB	12" RHR (11)-45	12	80	0.688	SA 312 TP 304	SS	UT-13
	0	11-27-70	ISSUED FOR USE	K-MCA	DWP	LFB							
	A	3-15-70	ISSUED FOR INFORMATION ONLY	K-MCA	J-14-70 RGL	DWP							
	NO	DATE	REVISION	BY	CHKD	APVD							



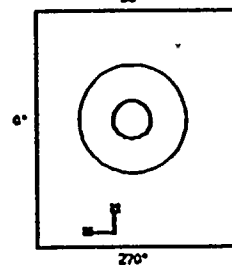


# NOTES:

1. EXTEND VISUAL LEAKAGE EXAM OF RHR-PUMP-2A VENTS AND DRAINS TO OUTERMOST NORMALLY CLOSED VALVE.
2. ACCESS TO 10RHR(11)A-7 REQUIRES REMOVAL OF RHR-182.
3. SCAFFOLDING IS REQUIRED.
4. RHR-158 CHANGED FROM SNUGGER TO STRUT PER DOC-86-625-2A.

# REFERENCES:

151 - 221-1A  
 DOWE & GRILL ISOMETRICS  
 RHR-057-1.4 REV 12  
 RHR-057-5.7 REV 8



QUALITY CLASS. 1 ASME CODE CLASS. 2  
 ENGR. SA KUGLER DRAWN. K-MCA DATE. 5-1-78



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98352

MP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: RHR LOOP A  
 SUPPLY TO RHR-HX-1A

DWG NO. RHR-201-1

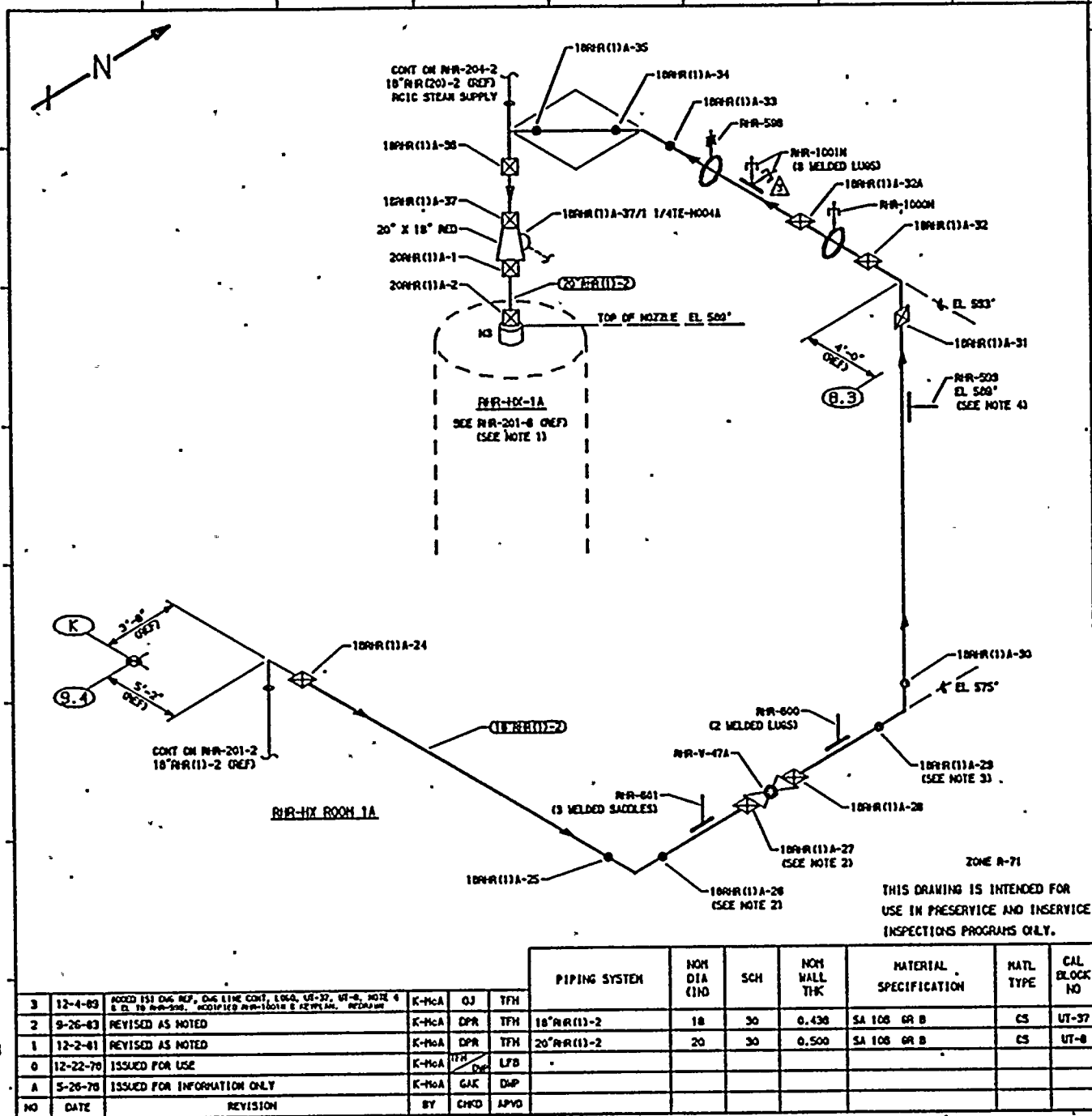
REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL CLOCK NO
4	5-14-80	ADDED LOGO & NOTE 4.	K-MCA	DJ	TFH							
3	1-23-80	GENERAL UPDATE, REDRAWN	K-MCA	DPR	TFH							
2	9-26-83	ADDED 3/4" SOL., NOTES 2 & 3. RHR-182 & 183 NOW R1810	K-MCA	DPR	TFH	14"RHR(11)-2	14	STD	0.375	SA 108 GR B	CS	UT-30
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH	18"RHR(11)-2	18	30	0.438	SA 108 GR B	CS	UT-37
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	LFB	10"RHR(11)-2	10	40	0.365	SA 108 GR B	CS	NA
A	5-16-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DNP							







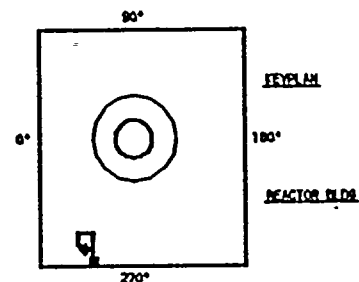


# NOTES

1. EXTEND VISUAL LEAKAGE EXAM OF RHR-HX-1A VENTS & DRAINS THROUGH OUTERMOST NORMALLY CLOSED ISOLATION VALVE, RELIEF VALVE OR TRANSITION TO INSTRUMENT TUBING.
2. RHR-601 - WELDED SADDLE IS 1\" FROM WELD 18\" RHR (11A-28) CENTERLINE & 2\" FROM WELD 18\" RHR (11A-27) CENTERLINE.
3. RHR-600 - 4\" DIA PIPE WELDED TO LINE IS 1 1/2\" FROM WELD 18\" RHR (11A-28) CENTERLINE AT 90° & 270°.
4. RHR-508 CHANGED FROM SHROUD TO STRUT PER DOC-85-025-2A.

# REFERENCES

ISI - 221-1  
BOYCE & CRILL ISOMETRIC  
RHR-057-13.15 REV 7



QUALITY CLASS. 1 ASME CODE CLASS. 2  
ENGR. SA KUELER DRAWN. K-McA DATE. 5-2-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 90362

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

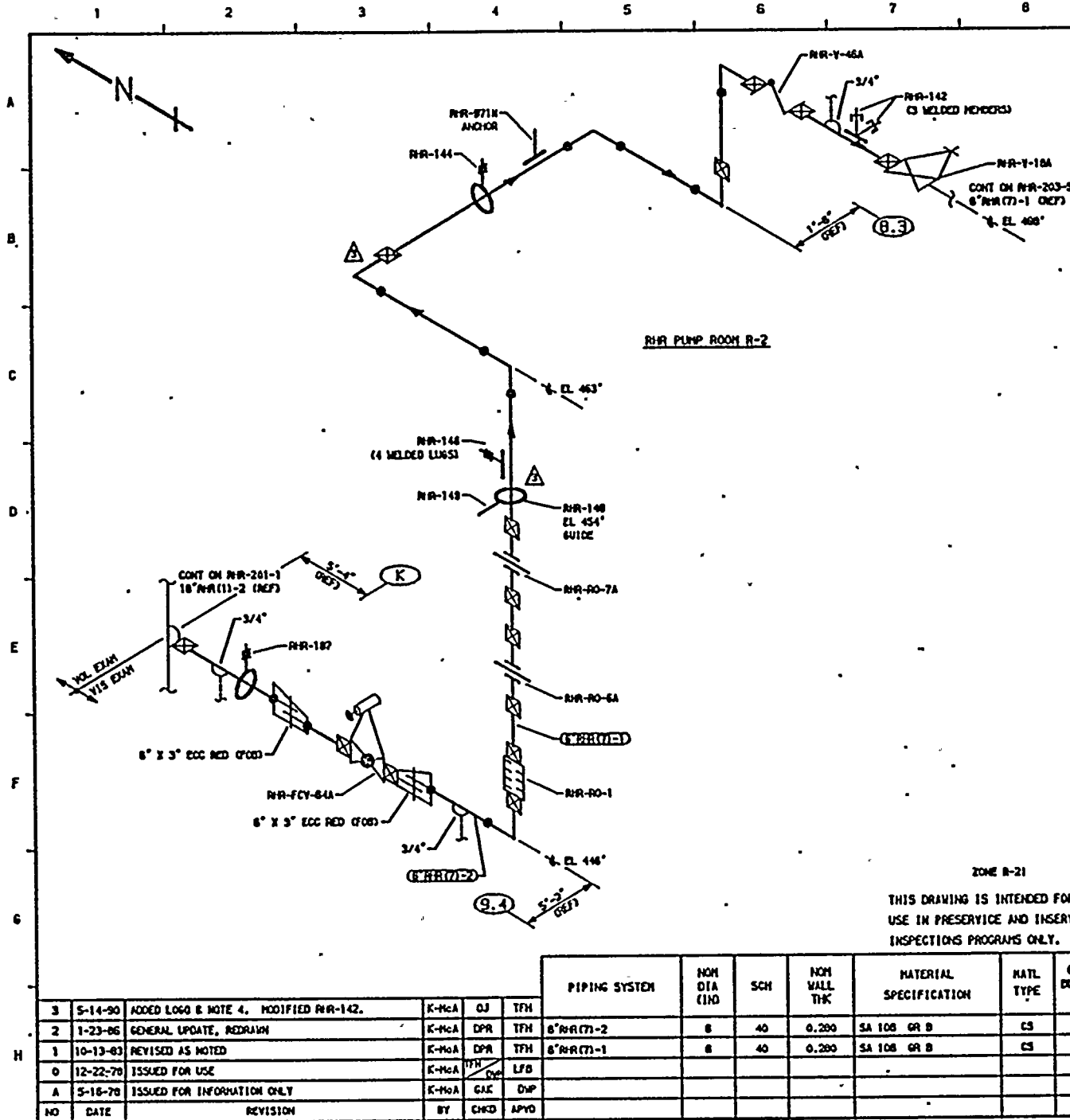
TITLE: RHR LOOP A  
SUPPLY TO RHR-HX-1A

DWG NO. RHR-201-3

REV 3





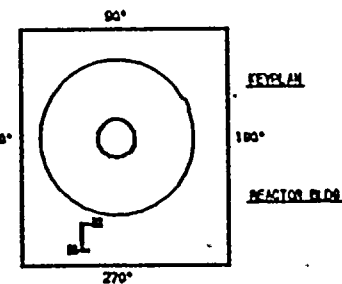


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 1XA-5000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
3. SCAFFOLDING IS REQUIRED.
4. RHR-145 & RHR-147 WERE DELETED FOR DOC-06-525-2A.

## REFERENCE:

151 - 221-1A  
BOYCE & CRILL ISOMETRICS  
RHR-057-18.18 REV 8  
RHR-057-20.22 REV 8



QUALITY CLASS.	1	ASME CODE CLASS.	2
ENGR.	GA KUGLER	DRAWN.	K-McA
DATE.	5-2-78		



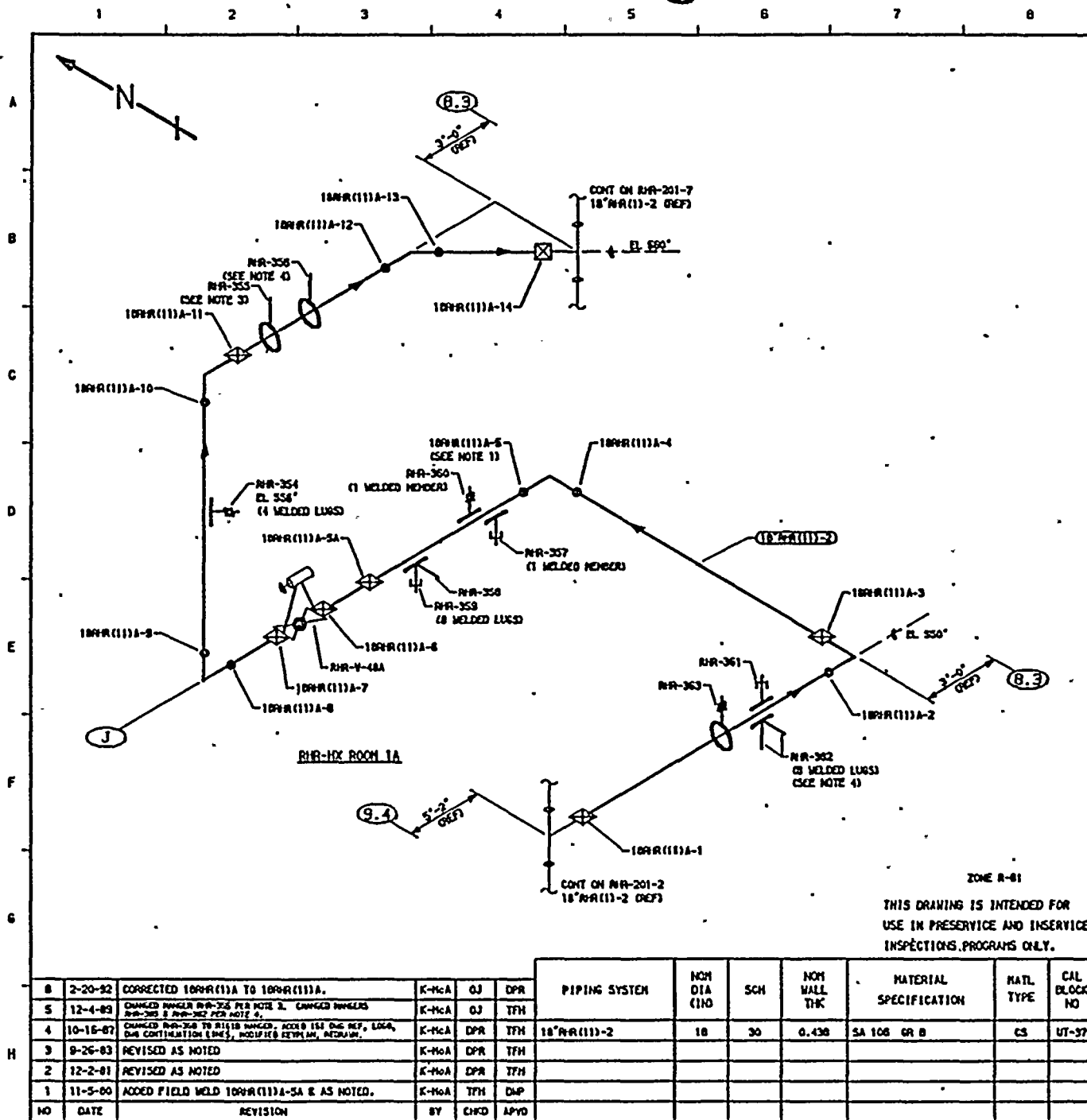
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIEDLAND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RHR LOOP A  
MINIMUM FLOW LINE TO SUPPRESSION POOL

DWG NO. RHR-201-4 REV 3





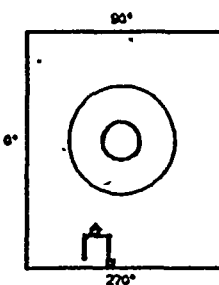
# NOTES:

1. RHR-357 WELDED MEMBER IS 1 1/2" FROM WELD 18\"/>
2. SCAFFOLDING IS REQUIRED.
3. RHR-355 CHANGED FROM SHUDDER TO STRUT PER DOC-86-0525-0A.
4. RHR-362 & RHR-358 CHANGED FROM SHUDDER TO STRUT PER DOC-86-2525-2A.

## NOTES:

1ST - 221-1

BOVEE & CRILL ISOMETRIC  
RHR-852-1.4 REV 7



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. GA KUGLER	DATE, 5-3-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIOLAND, WASHINGTON 99352

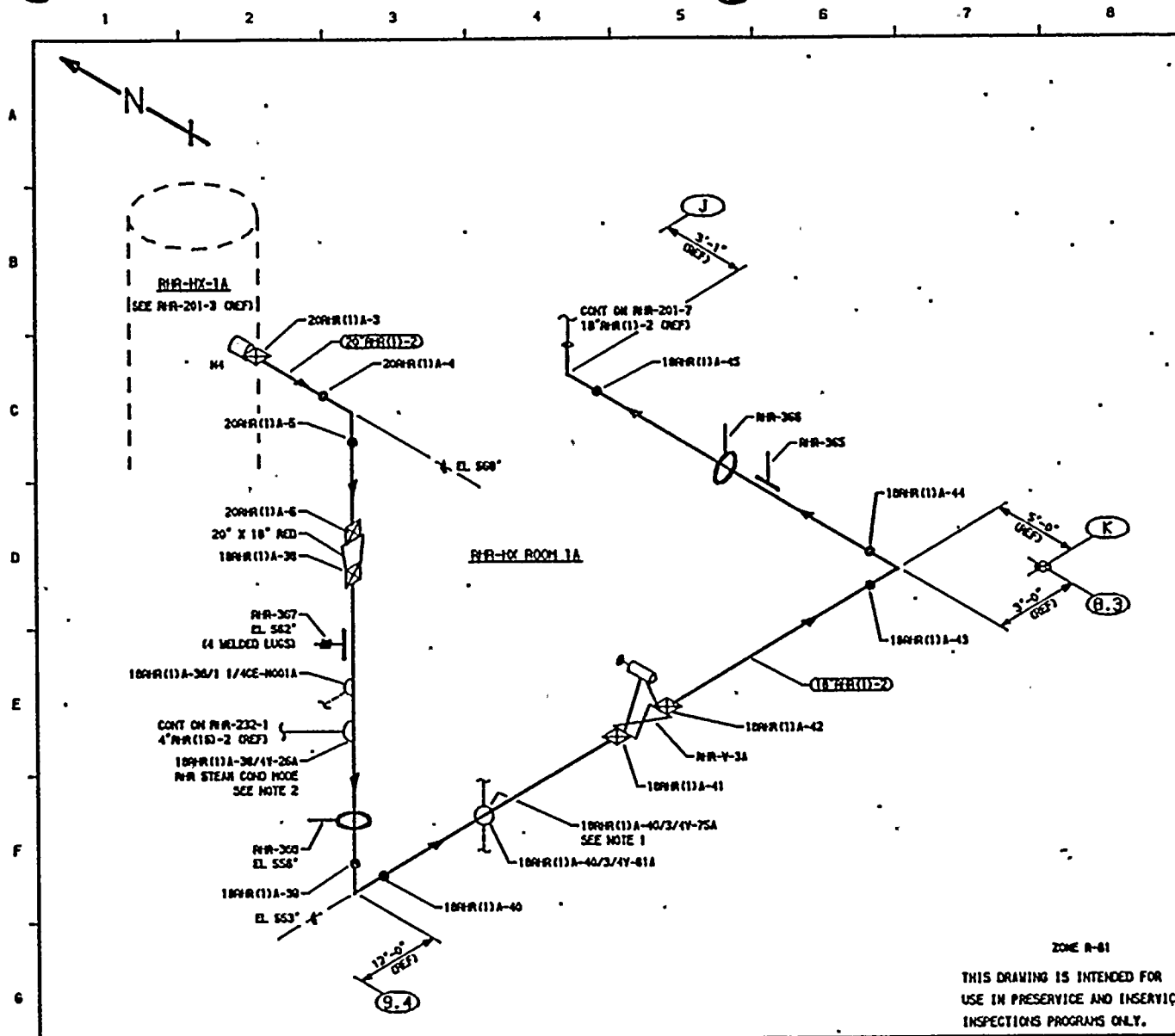
WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RHR LOOP A  
RHR HEAT EXCHANGER BY-PASS

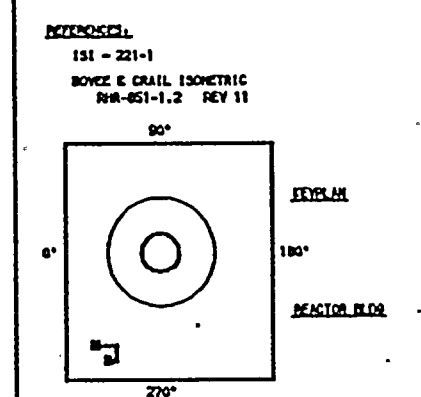
DWG NO. RHR-201-5

REV 6





- NOTES:
1. THIS IS A 1 1/2" CONNECTION WITH VISUAL EXAM EXTENDING TO 3/4"Y-75A.
  2. TERMINATE VISUAL EXAM AT Y-28A, Y-11A & Y-150A.
  3. FOUR LUGS FROM RHR-305 ARE 1" FROM WELD 18RHR(11A)-44 CENTERLINE.
  4. SCAFFOLDING IS REQUIRED.



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. GA KUGLER	DRAWN. K-HCA
DATE, 5-4-78	

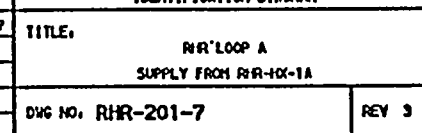
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 98552

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:	RHR LOOP A SUPPLY FROM RHR-HX-1A
DWG NO. RHR-201-B	REV 2

						PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2	10-16-67	ADDED ONE LINE CONNECTION ON E-3, 1 1/2" DIA. ALP. CAL. BLOCK NO. 8 LOGO. CORRECTED MANGER TAP HOLE, PEDASIM	K-MGA	DPR	TFH	18" N R (1)-2	18	30	0.438	SA 108 GR B	CS	UT-5
1	8-26-63	ADDED NOTES 3 & 4. CHSD 20" N R (1) A-6 & 30 TO FW	K-MGA	DPR	TFH	20" N R (1)-2	20	30	0.500	SA 108 GR B	CS	UT-
0	12-22-70	ISSUED FOR USE	K-MGA	TFH DPR	LFD							
A	5-26-76	ISSUED FOR INFORMATION ONLY	K-MGA	GAK	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							





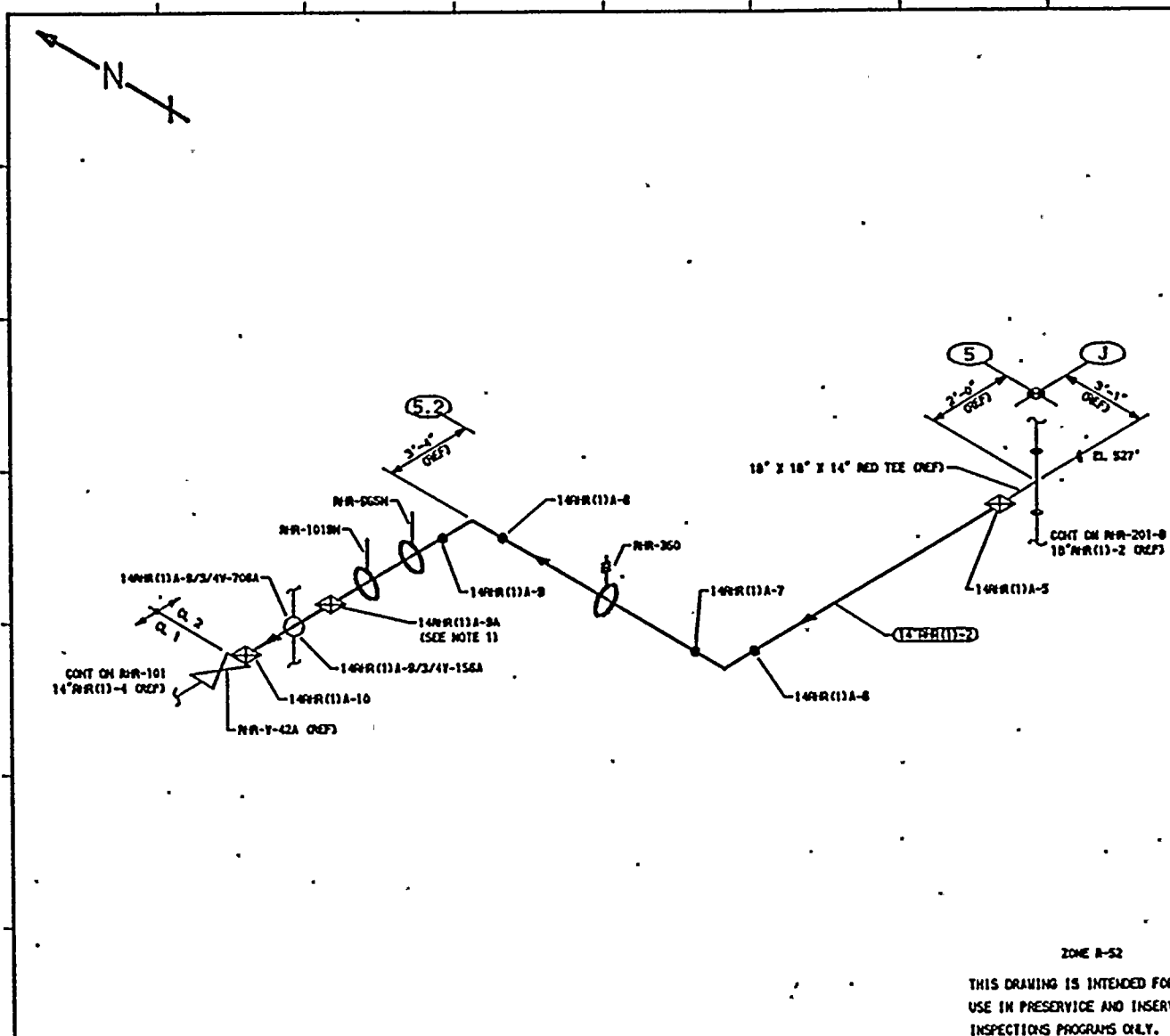
			PIPING SYSTEM			DIA (IN)	SCH	WALL THK	SPECIFICATION	TYPE	BLOCK NO	
3	12-4-89	ADDED THE DUE MUFF, AND LINE CONT, LOGS & UT-37. MODIFIED SUPPLIES, PROGRAM	K-McA	DPR	TFH							
2	10-13-83	REVISED AS NOTED	K-McA	DPR	TFH	18"RR(11-2	18	30	0.438	SA 106 GR B	CS	UT-32
1	12-2-81	REVISED AS NOTED	K-McA	DPR	TFH							
0	12-22-78	ISSUED FOR USE	K-McA	TFH DPR	LFB							
A	5-26-78	ISSUED FOR INFORMATION ONLY	K-McA	GAK	DNP							
NO	DATE	REVISION	BY	CHKD	APVD							









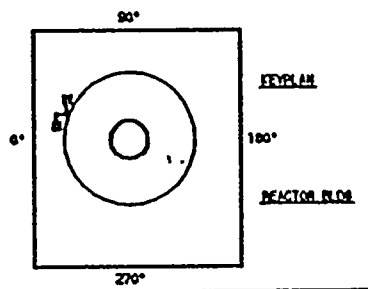


**NOTES**

1. ACCESS TO WELD 14WR(11)A-8A REQUIRES REMOVAL OF RHR-1015M. CLAMP IS 1 1/2" FROM WELD CENTERLINE.

**REFERENCES**

ISI - 221-1  
BOYCE & GRAIL ISOMETRIC  
RHR-051-18.18 REV 10



QUALITY CLASS. 1	ASME CODE CLASS. 2
ENGR. SA KUGLER	DRAWN. K-MCA DATE. 5-5-78

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RHR LOOP A / LPCI RETURN

DWG NO. RHR-201-8 REV 3

ZONE B-52

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	12-4-83	ADDED FSI DWG REF, DWG LINE CONT, LOGO & RT-30, MODIFIED KEYPLAN, REVISION	K-MCA	DPR	TFH	14"RHR(11)-2	14	STD	0.375	SA 108 GR B	CS	UT-30
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH							
1	11-5-80	ADDED FIELD WELD 14WR(11)A-8A & AS NOTED.	K-MCA	TFH	DMP							
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	LFB							
A	5-26-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							





					PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	10-16-87	CHANGED 8000-340 TO 8102 INCHES, ADDED ISI DUE REF., LOGS, DMS (LINE CONT. & UT-28, MODIFIED REPAIRS, REPAIRS)	K-MCA	DPR	TFM						
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFM	14"RR(1)-2	14	STD	0.375	SA 106 GR B	CS
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFM						
0	12-22-78	ISSUED FOR USE	K-MCA	<del>TFM</del>	LFD						
A	5-26-70	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DMP						
NO	DATE	REVISION	BY	CHKD	APVD						



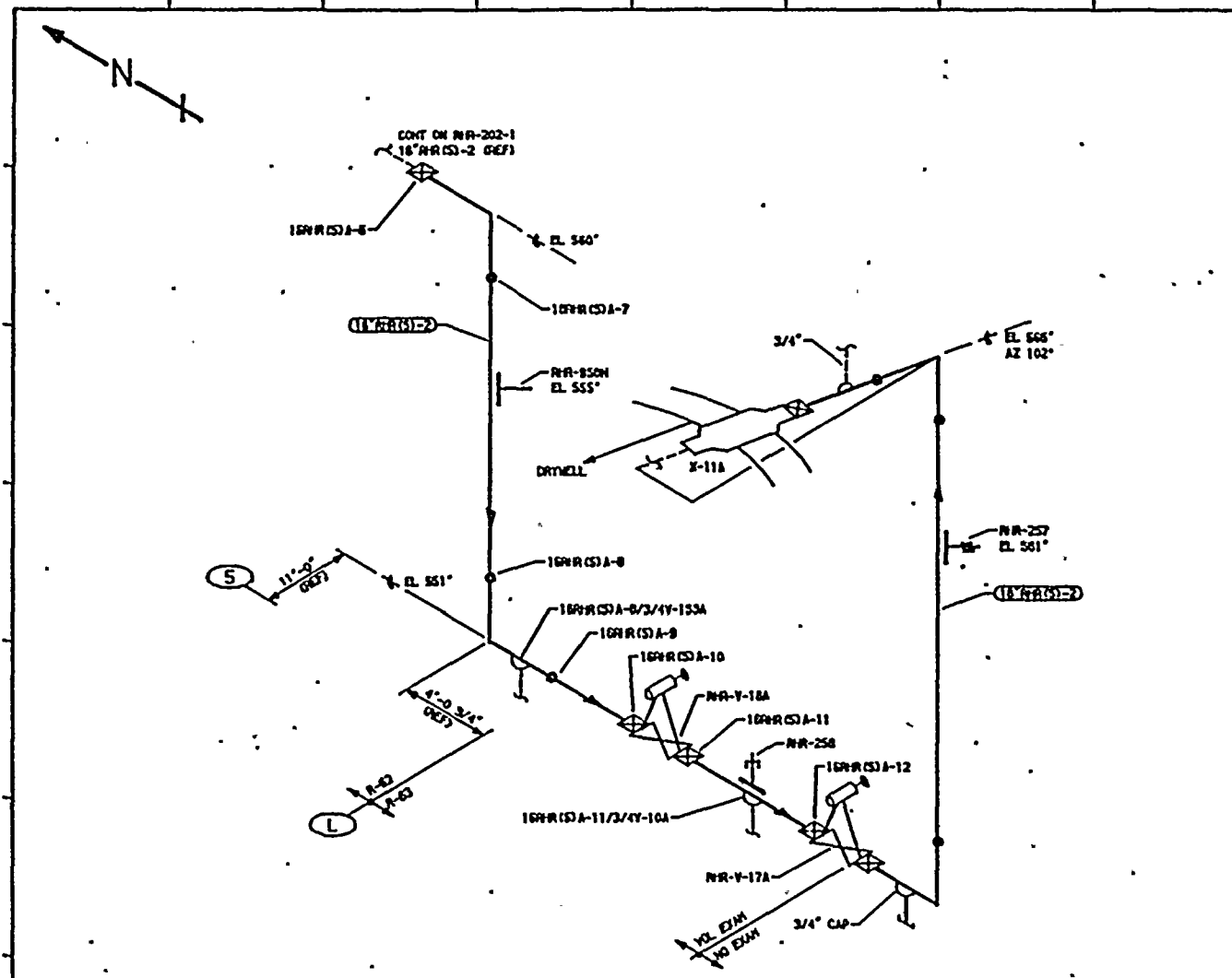












ZONES R-82 & R-83

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

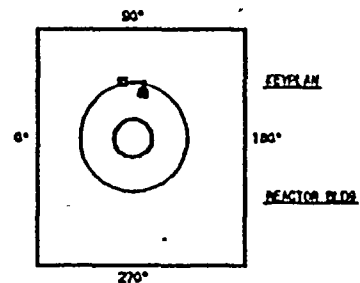
# REFERENCE

ISI - 221-1

DOYLE & CHAIL ISOMETRICS

RHR-853-1.4 REV 8

RHR-853-5.8 REV 7



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. SA KUGLER	DRAWN, K-MCA DATE, 5-12-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM.

RICHLAND, WASHINGTON 99352

RHR-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RHR LOOP A  
DRYWELL SPRAY SUPPLY

DWG NO: RHR-202-2

REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-4-89	CHANGED VISUAL EXAM TO NO EXAM. ADDED LOGO.	K-MCA	DPR	TFH							
3	1-23-86	GENERAL UPDATE, REDRAWN	K-MCA	DPR	TFH							
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH	18\" RHR(S)-2	18	40	0.500	SA 108 GR B	CS	UT-48
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH							
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	LF8							
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAJ	DNP							



A

B

C

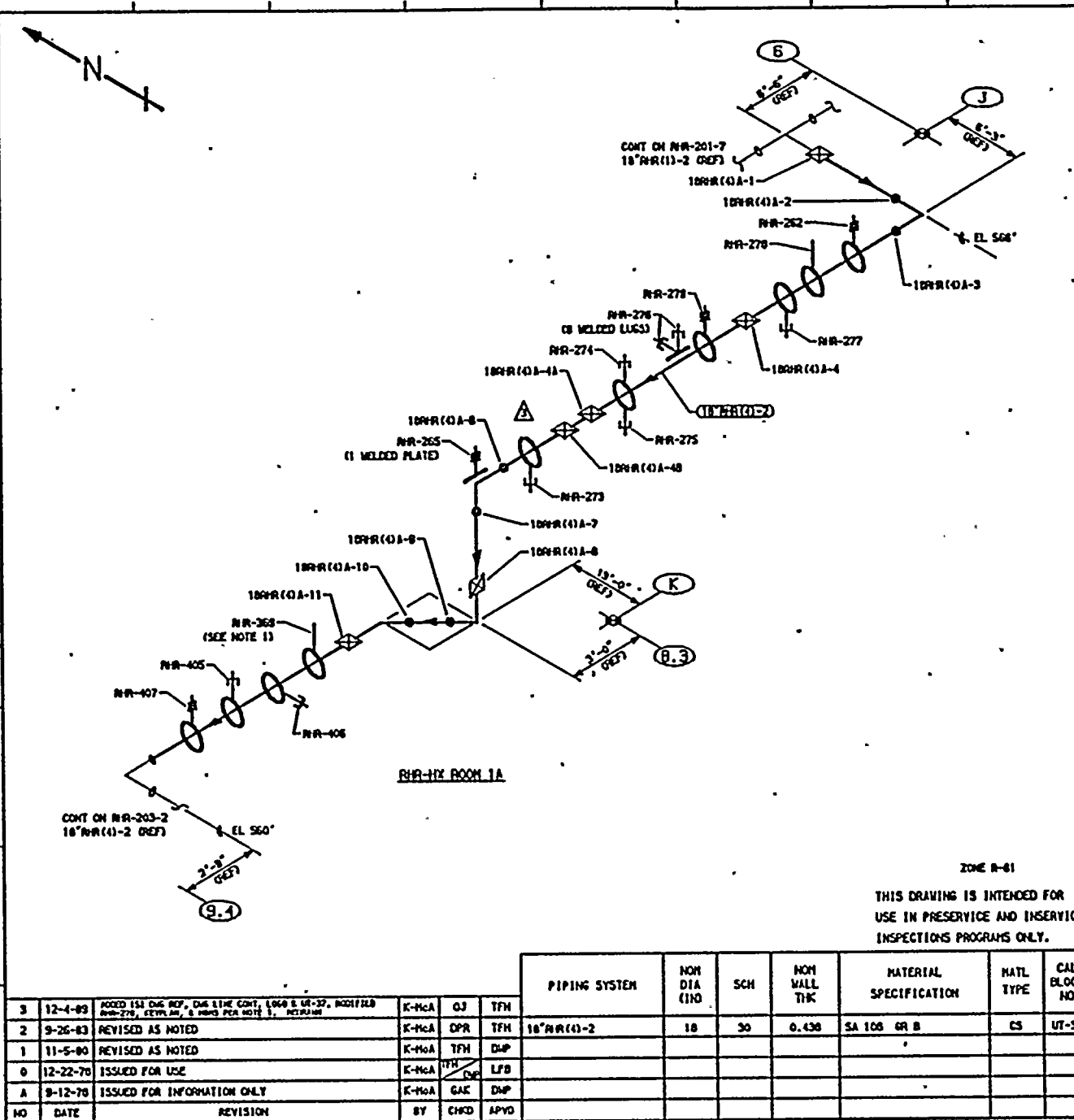
D

E

F

G

H

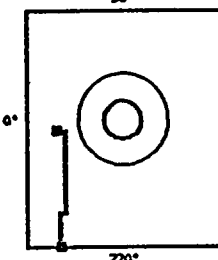


## NOTES

1. RHR-368 CHANGED FROM SHUTTER TO STRUT AND RHR-272 WAS DELETED PER DOC-66-525-2A.

## REFERENCE

ISI - 221-1

BOYCE & CRAIG ISOMETRIC  
RHR-654-1.5 REV 8

SEWPLAN

180°  
REACTOR CORE

QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR, GA KUGLER	DRAWN, K-MCA DATE, 5-12-78



WASHINGTON PUBLIC POWER

SUPPLY SYSTEM

RIDLAND, WASHINGTON 90352

WPP-2

WELD & COMPONENT  
IDENTIFICATION DIAGRAM

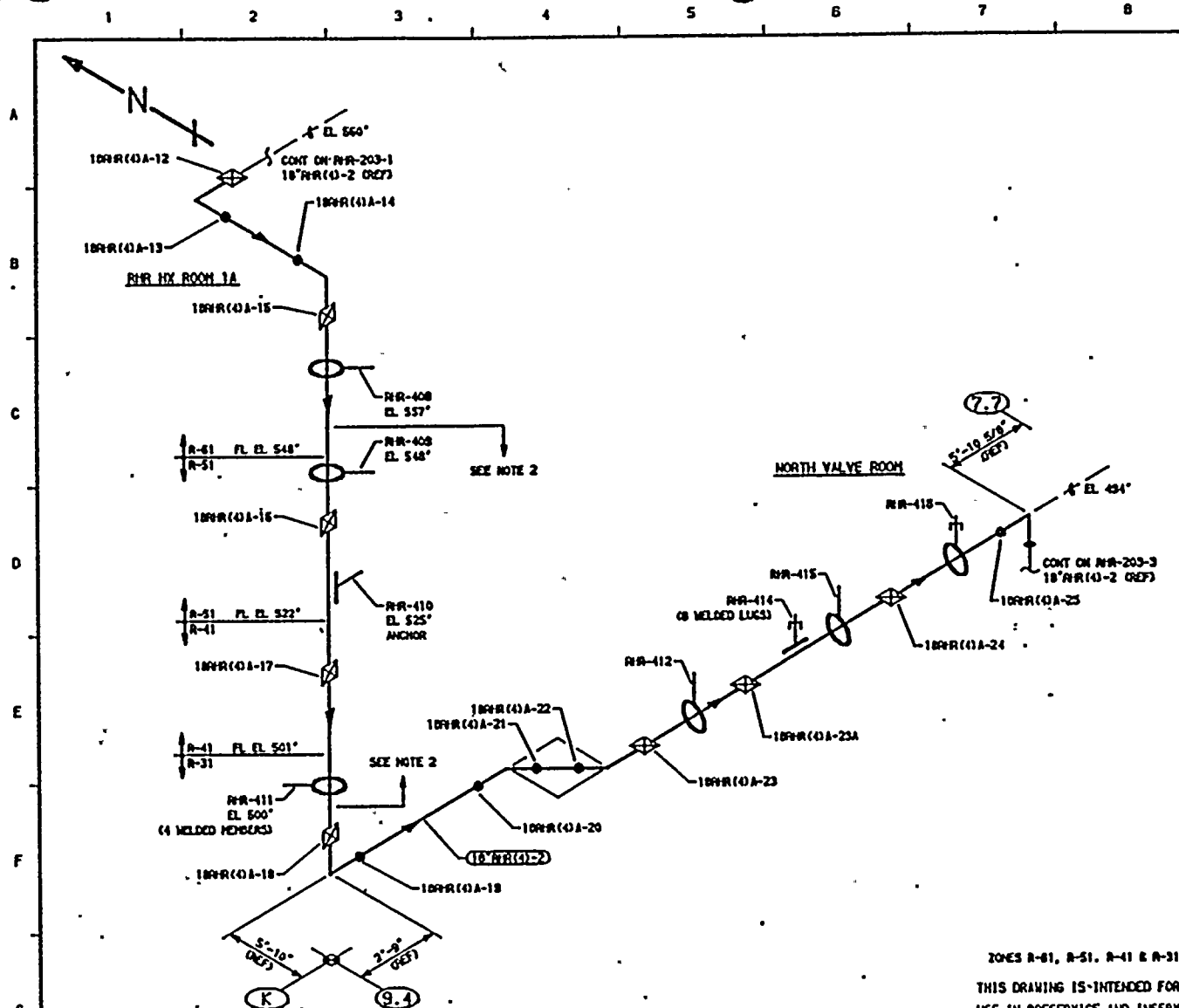
TITLE:

RHR LOOP A TEST LINE

DWS NO. RHR-203-1

REV 3





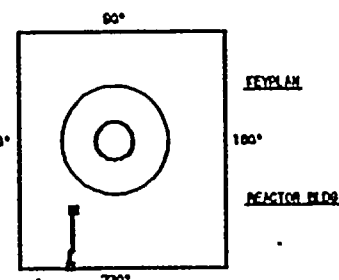
ZONES R-51, R-51, R-41 & R-31  
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

#### NOTES

1. SCAFFOLDING IS REQUIRED.
2. WELDS 18\"/>

#### REFERENCES

ISI - 221-1  
BOYCE & CRAIG ISOMETRICS  
RHR-054-1.5 REV 8  
RHR-054-6.11 REV 9



QUALITY CLASS. 1 ASME CODE CLASS. 2  
ENGR. GA KUGLER DRAWN. K-MCA DATE. 5-15-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIEDLAND, WASHINGTON 98352

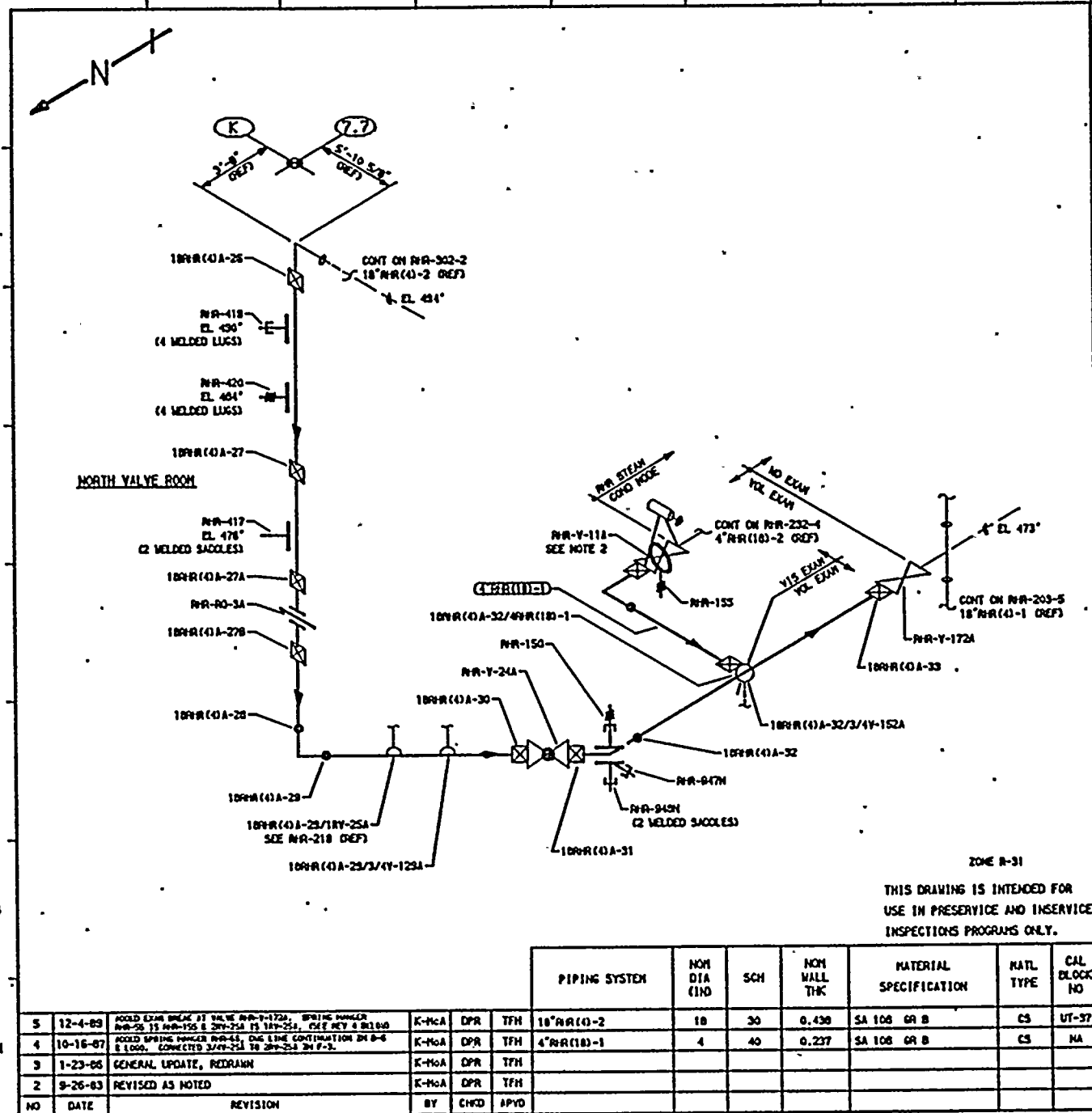
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RHR LOOP A  
TEST LINE  
DWG NO. RHR-203-2 REV 3

						PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	10-16-87	ADDED 151 DWG REF. DUG LINE CONT. NOTE 2, CAL BLOCK NUMBER 8 LOGO. CHANGED RHR-411 TO WELDED, RHR-412 & RHR-416 TO SCAFFOLDING. MODIFIED ELEVATION. RHR-410	K-MCA	DPR	TFH							
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH	18" RHR(1)-2	18	30	0.438	SA 106 GR B	CS	UT-57
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH							
0	12-22-70	ISSUED FOR USE	K-MCA	<del>DPR</del>	LFB							
A	9-12-70	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DWP							
NO	DATE	REVISION	BY	CHKD	APVD							

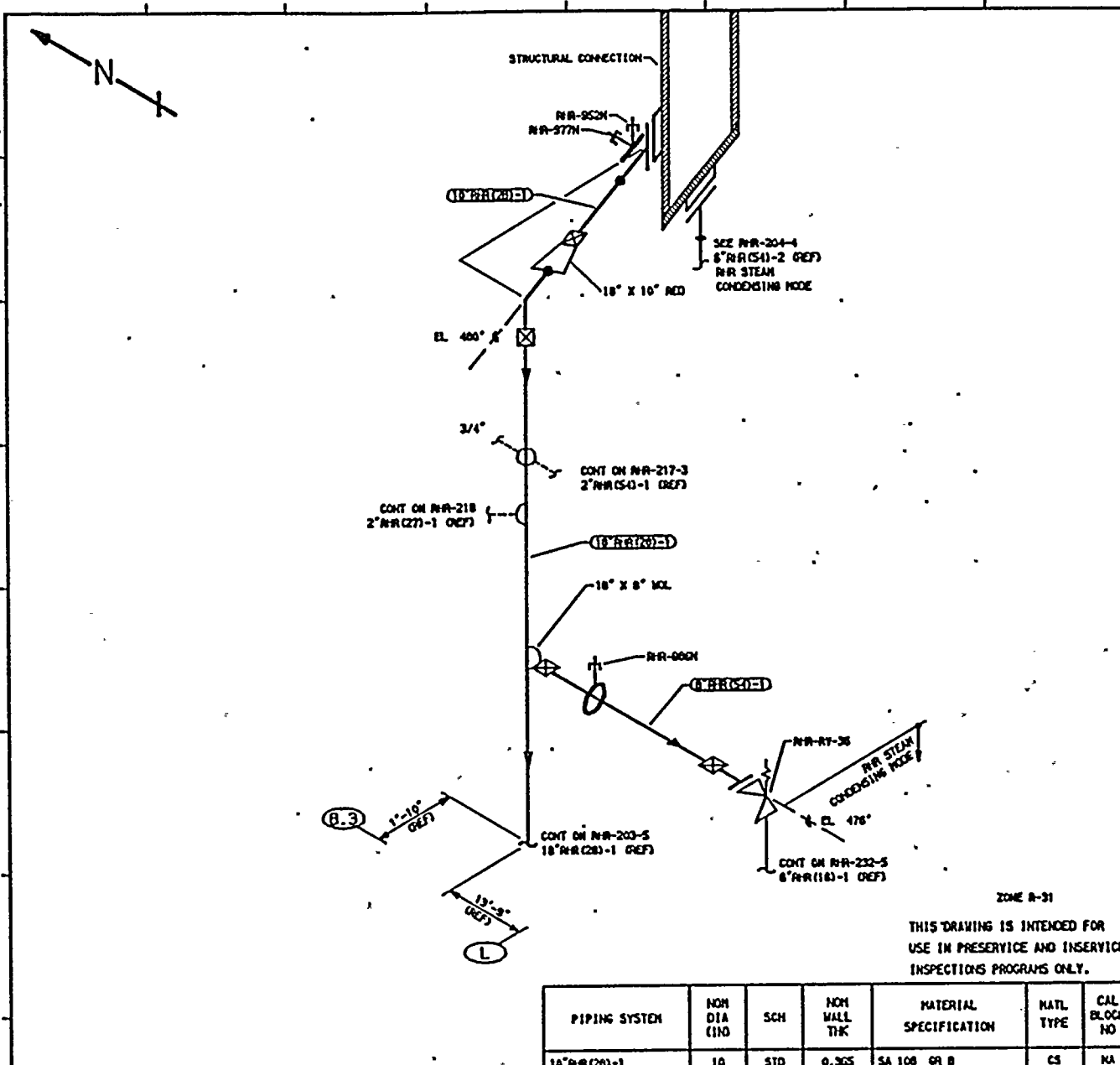








A  
B  
C  
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F  
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H

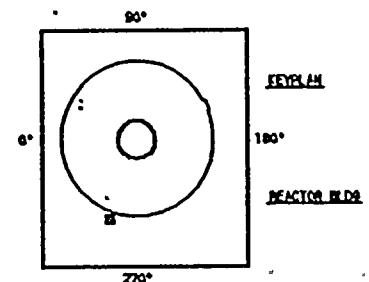


NOTES:

1. ALL WELDS ON THIS DRAWING ARE EXEMPT FROM VOLUMETRIC AND/OR SURFACE EXAMINATION PER INC-1221 (F).
2. DELETED.

REFERENCE:

ISI - 221-1  
BOYCE & CRILL ISOMETRICS  
RHR-067-40.44 REV B  
RHR-054-12.18 REV 15  
RHR-667-18.18 REV 13



QUALITY CLASS: 1	ASME CODE CLASS: 2
ENGR. SA KUGLER	DRAWN: K-McA DATE: 2-23-85



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
BIOLAND, WASHINGTON 98362

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

ZONE B-31

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
18\"RHR(28)-1	10	STD	0.365	SA 106 GR B	CS	NA
18\"RHR(28)-1	18	STD	0.375	SA 106 GR B	CS	NA
8\"RHR(54)-1	8	40	0.322	SA 106 GR B	CS	NA

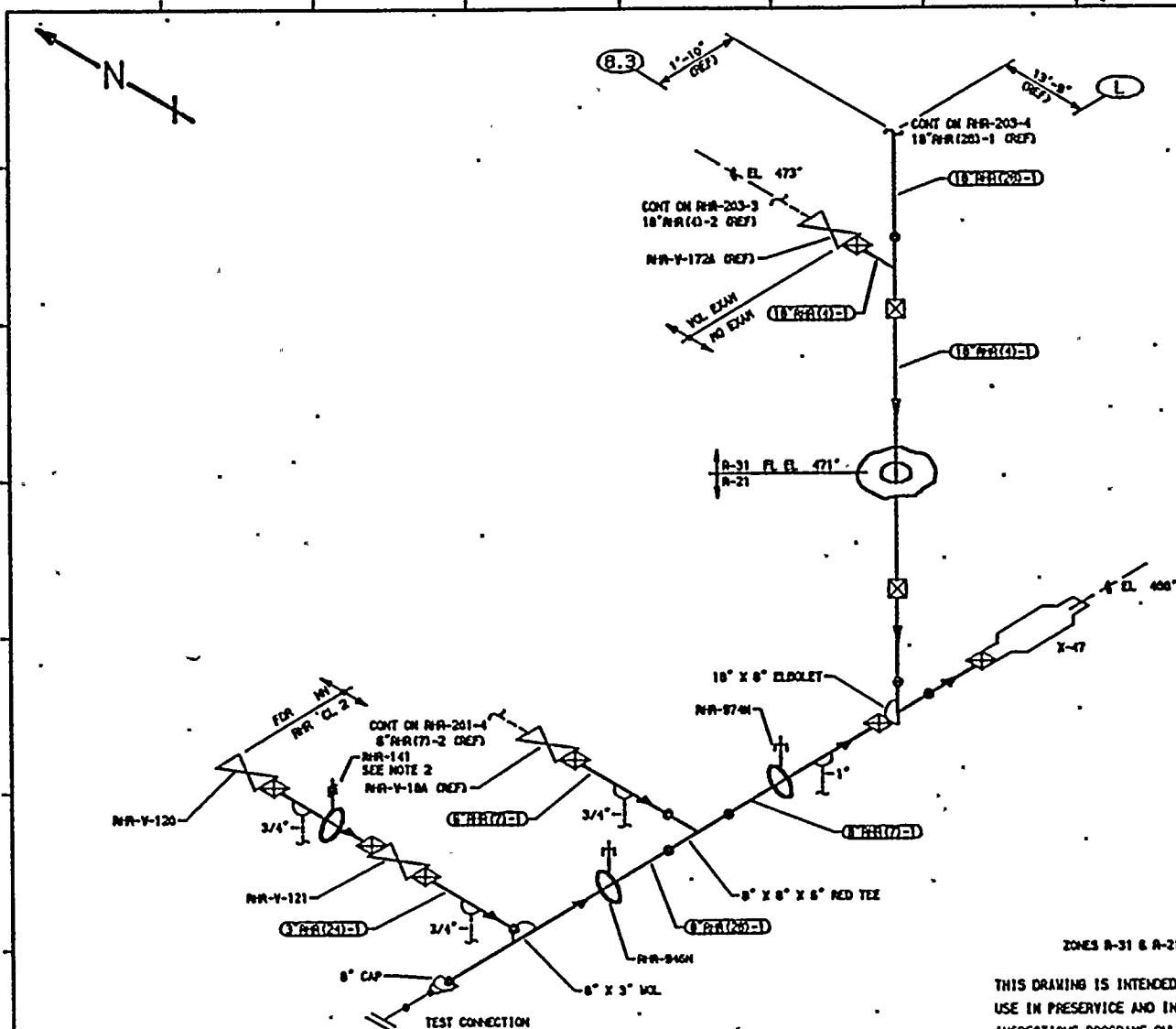
NO	DATE	REVISION	BY	CHKD	APVD
2	12-4-83	RE-DESIGNED NOTE 1, DELETED NOTE 2, CAL BLOCK U-20 & RUMORED WELDS ON 18\"RHR(28)-1.	K-McA	DPR	TFH
1	10-16-87	RUMORED WELDS ON 18\"RHR(28)-1, ADDED ONE LINE CONT, CAL BLOCK U-20, NOTE 2 & 1000, DELETED NOTE 1.	K-McA	DPR	TFH
0	1-24-85	REVISED FOR ISI	K-McA	DPR	TFH

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RHR TEST LINE LOOP A

DWG NO: RHR-203-4 REV 3



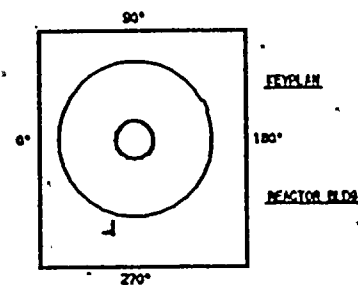


# NOTES:

1. ALL WELDS ON THIS DRAWING ARE EXEMPT FROM VOLUMETRIC AND/OR SURFACE EXAMINATION PER INC-1221 (f) EXCEPT WELDS ON 3" RHR (24)-1 WHICH ARE EXEMPT PER INC-1221 (a).
2. RHR-141 DOES NOT RECEIVE ISI. INFORMATION ONLY.

# REFERENCES:

ISI - Z21-1  
BOYCE & GRILL ISOMETRICS  
RHR-054-12.18 REV 15  
RHR-067-20.22 REV 8  
RHR-067-23 REV 7  
RHR-1068-8 REV 8



ZONES R-31 & R-21

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
18" RHR (20)-1	18	STD	0.375	SA 106 GR B	CS	NA
18" RHR (4)-1	18	STD	0.375	SA 106 GR B	CS	NA
8" RHR (7)-1	8	STD	0.322	SA 106 GR B	CS	NA
8" RHR (20)-1	8	STD	0.322	SA 106 GR B	CS	NA
6" RHR (7)-1	6	40	0.280	SA 106 GR B	CS	NA
3" RHR (24)-1	3	40	0.216	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
2	12-9-82	ADDED TEST CONN PER BOC-92-0056-GA ZH 6-3.	K-MGA	DPR	DRV
1	12-4-83	CORRECTED SCH & WALL THK FOR 18" RHR (4)-1 & 8" RHR (7)-1. ADDED EXAMINATION BREAK AT RHR Y-172A.	K-MGA	DPR	ES
0	1-24-85	REVISED FOR ISI	K-MGA	DPR	TJH

QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR, K-McANDREW	DRAWN, K-MGA DATE, 2-23-85



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RHR TEST LINE LOOP A

DWG NO. RHR-203-5

REV 2



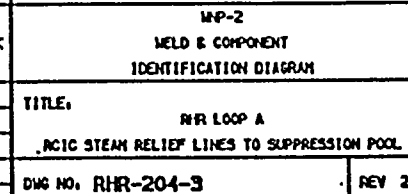








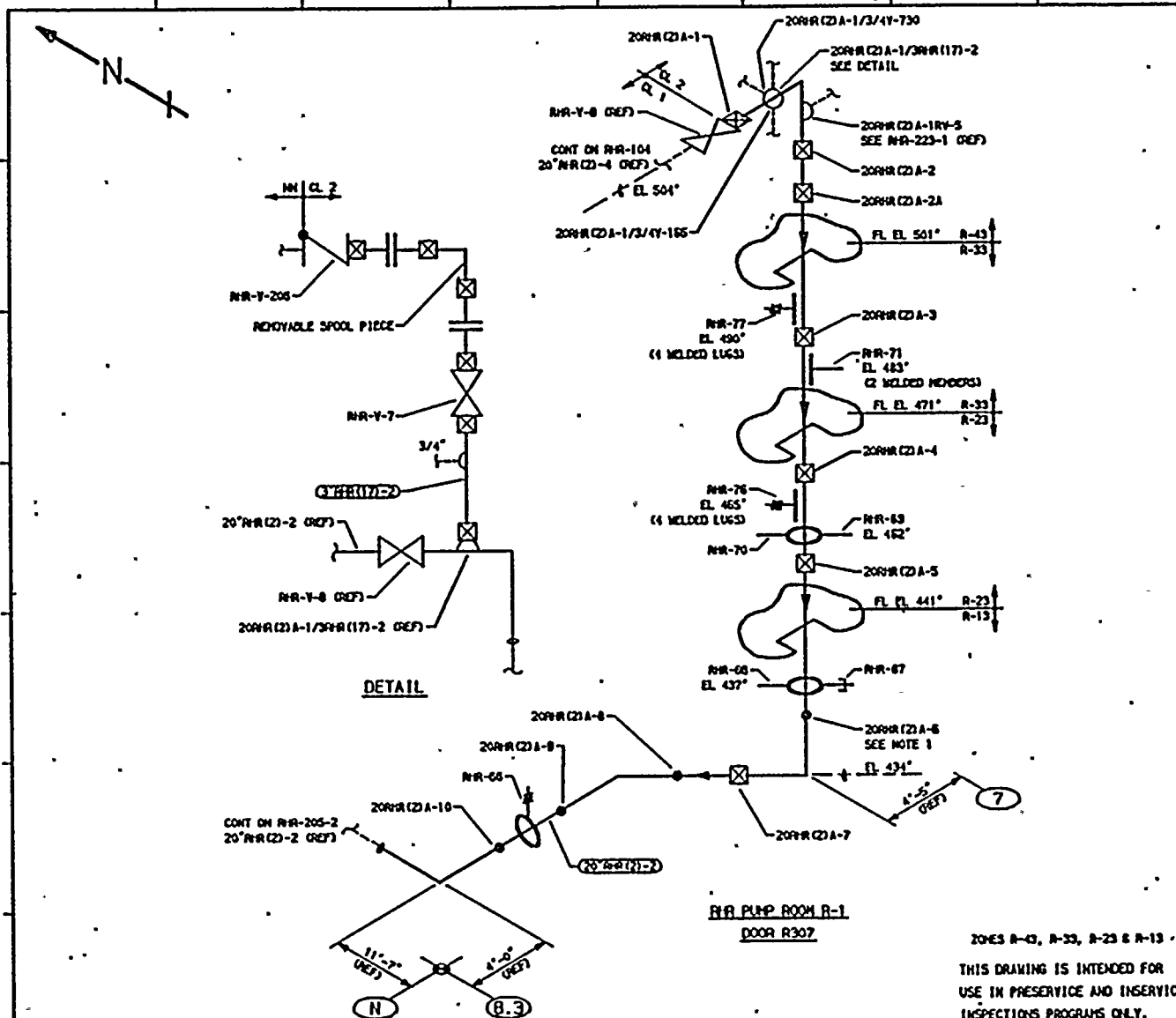










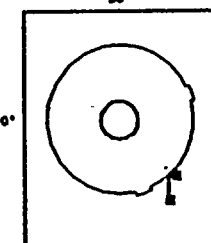


# NOTES

1. ACCESS TO WELD 20\"/>

# REFERENCES

151 - 221-1A  
BOYCE & GRILL ISOMETRIC  
RHR-875-1.5 REV 12



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR, GA KUGLER	DRAWN, K-MCA DATE, 5-19-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
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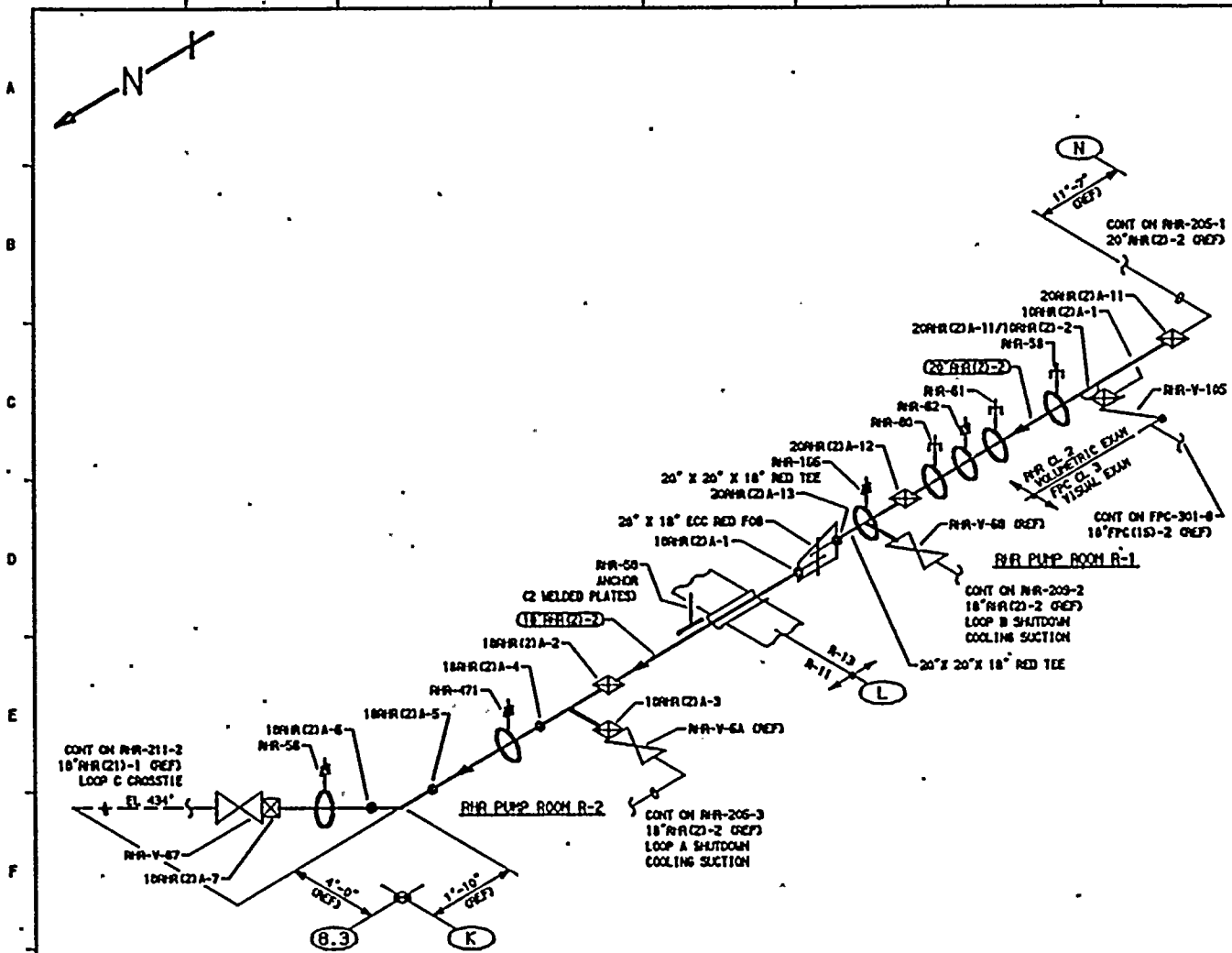
TITLE: RHR LOOP A  
SHUTDOWN COOLING SUCTION

DWG NO. RHR-205-1 REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DTA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-9-92	MODIFIED KEYPLAN ADDED LOGO	K-MCA	DPR	DRW							
3	1-23-86	GENERAL UPDATE, REDRAWN	K-MCA	DPR	TFH							
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH	20"WR(2)-2	20	STD	0.375	SA 106 GR B	CS	UT-4
1	11-5-80	ADDED FIELD WELD 20"WR(2)-2A & AS NOTED	K-MCA	TFH	DWP	3"WR(17)-2	3	80	0.300	SA 106 GR B	CS	NA
0	12-22-76	ISSUED FOR USE	K-MCA	TFH	LFB							
A	9-12-76	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DWP							





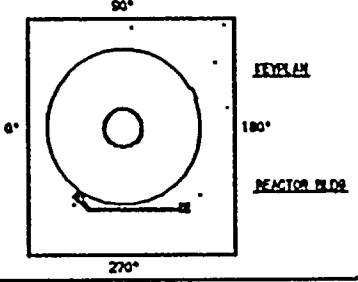


**NOTES**

1. ACCESS TO WELDS 20WRC21A-12 & 13 REQUIRES REMOVAL OF RHR-166.
2. SCAFFOLDING IS REQUIRED.

**REFERENCE**

151 - 221-1A  
BOYCE & CRILL ISOMETRIC  
RHR-875-8.8 REV 7



QUALITY CLASS: 1	ASME CODE CLASS: 2
ENGR: GA KUGLER	DRAWN: K-MCA DATE: 5-19-78

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

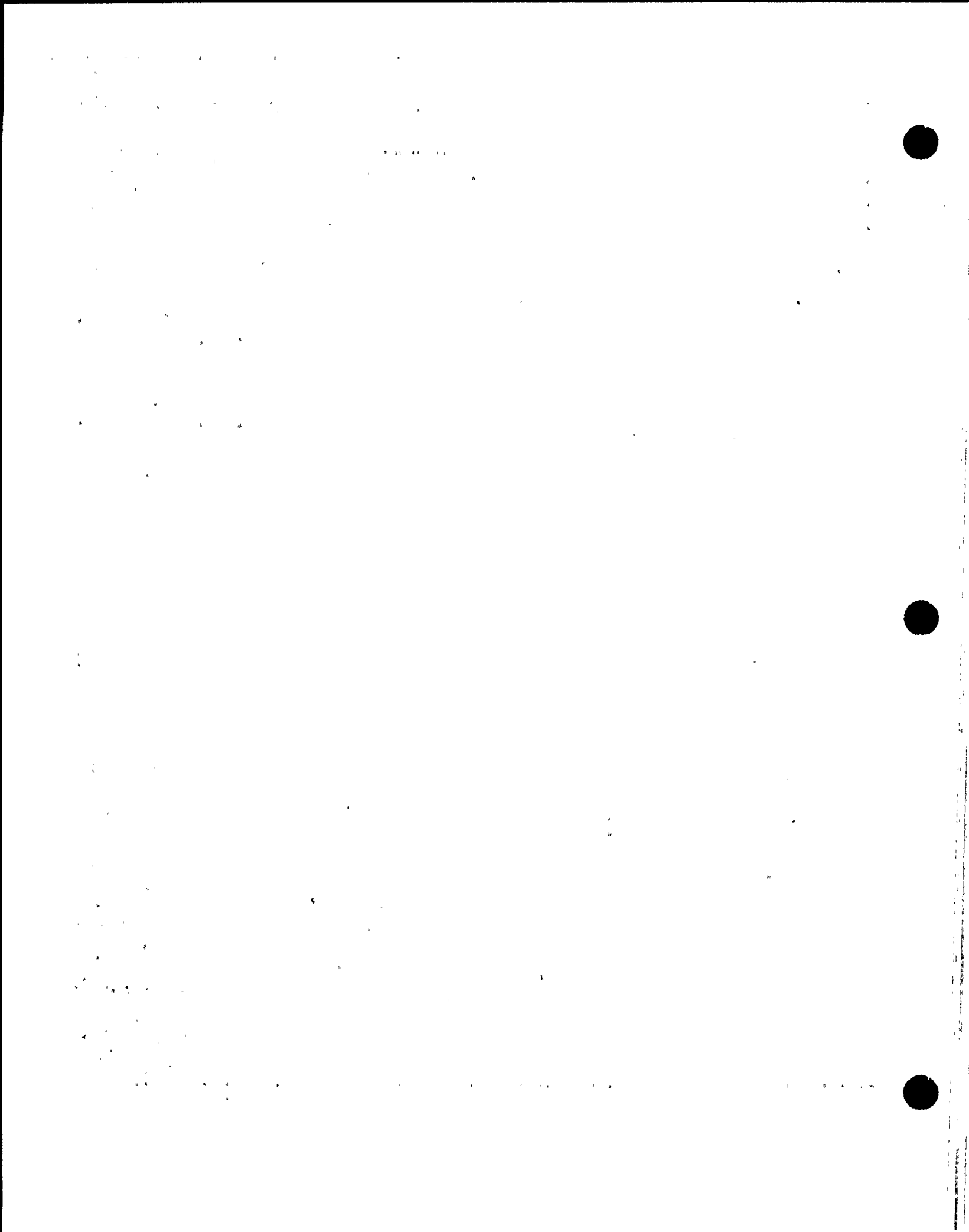
TITLE:  
RHR SHUTDOWN COOLING SUCTION  
& FPC INTERTIE

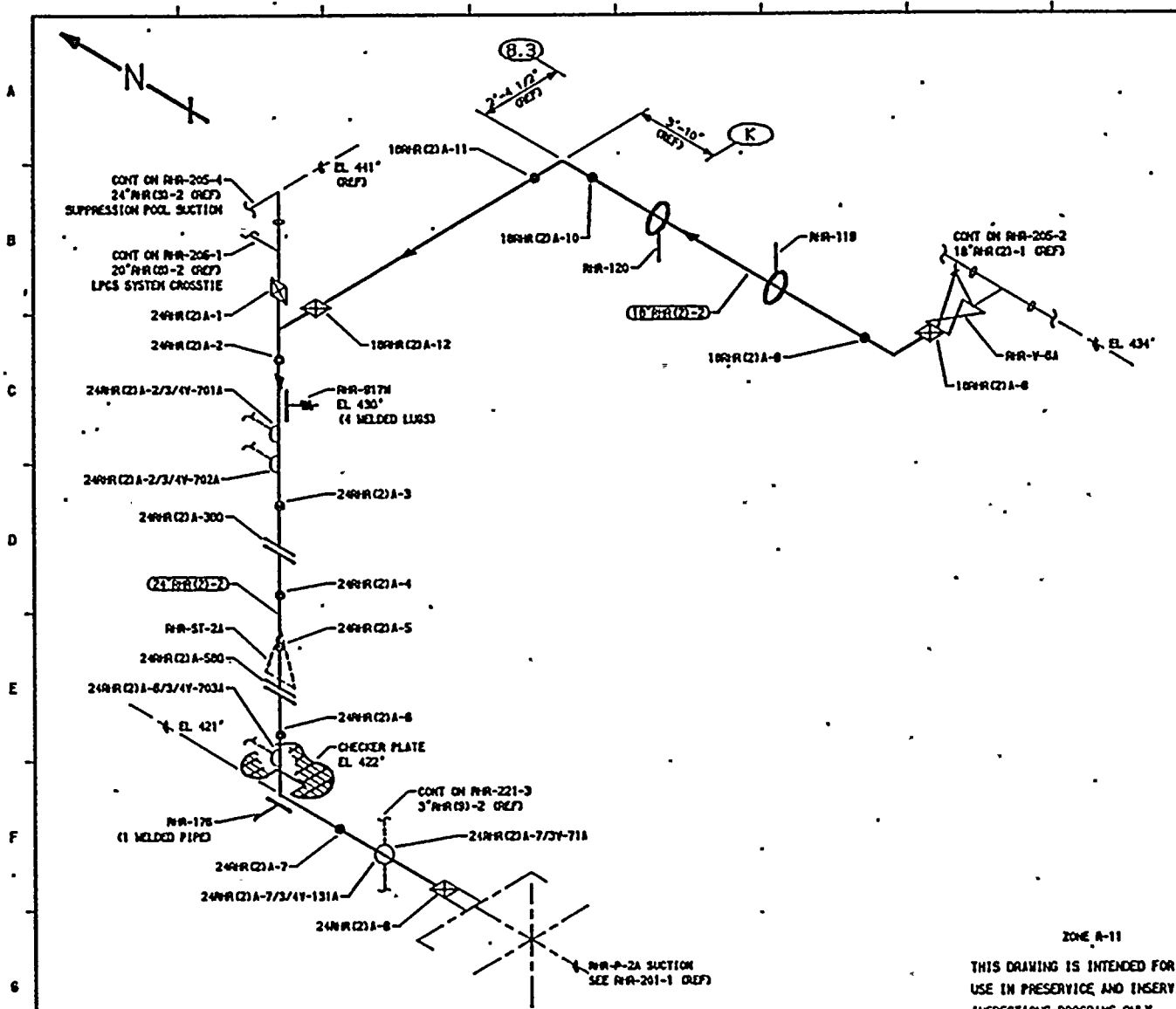
DWG NO: RHR-205-2 REV 3

ZONES R-13 & R-11

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INSPECTIONS PROGRAMS ONLY.

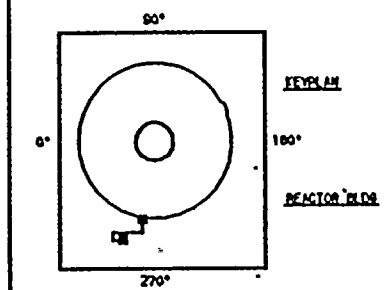
						PIPING SYSTEM	NOM DTA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	10-16-87	CHG RHR-61 TO SHUTDWN, RHR-62 TO SPRING, SURFACE TO VCL EXAM, MODDED T31 DUE ROP, L11E CONT DUE E (1862, MOD EXPLAN, REDRAWN	K-MCA	DPR	TFH							
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH	20"NR(2)-2	20	STD	0.375	SA 106 GR B	CS	UT-45
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH	18"NR(2)-2	18	STD	0.375	SA 106 GR B	CS	UT-20
0	12-22-70	ISSUED FOR USE	K-MCA	TFH DPR	TFH	16"NR(2)-2	10	STD	0.305	SA 106 GR B	CS	NA
A	9-12-70	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DAP							
NO	DATE	REVISION	BY	CHKD	APVD							





**NOTES**  
 1. SCAFFOLDING IS REQUIRED.

**REFERENCES**  
 ISI - 221-1A  
 BOYCE & CRILL (ISOMETRIC  
 RWR-875-13.18 REV 8



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR, GA KUGLER	DRAWN, K-MCA DATE, 5-19-78

WASHINGTON PUBLIC POWER  
**SUPPLY SYSTEM**  
 RICHMOND, WASHINGTON 98352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

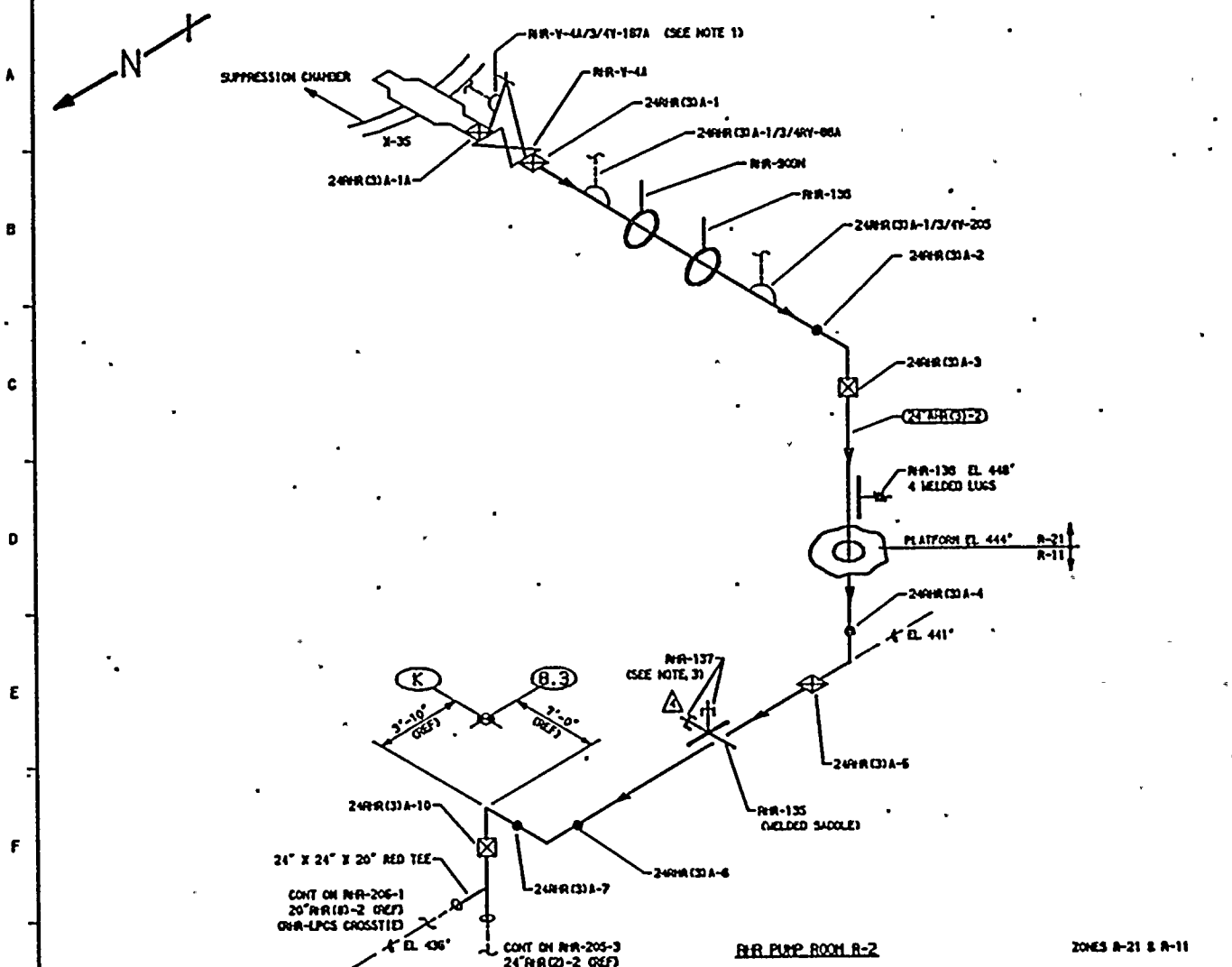
**TITLE:**  
 RWR LOOP A  
 SHUTDOWN COOLING SUCTION

DWG NO. RWR-205-3 REV 4

ZONE A-11  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

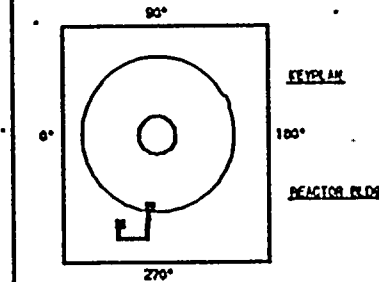
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-9-82	MODIFIED KEYPLAN ADDED LOGO	K-MCA	DPR	DRW	18" RWR(2)-2	18	STD	0.375	SA 106 GR B	CS	UT-20
3	1-23-86	GENERAL UPDATE, REDRAWN	K-MCA	DPR	TFH	24" RWR(2)-2	24	STD	0.375	SA 106 GR B	CS	UT-50
2	9-26-83	ADDED NOTE 1. RWR-971N CHANGED.	K-MCA	DPR	TFH							
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH							
0	12-22-79	ISSUED FOR USE	K-MCA	TFH	LFB							
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAC	DWP							
NO	DATE	REVISION	BY	CHKD	APVD							





- NOTES:**
1. THIS IS A 1/4" CONNECTION WITH VISUAL EXAM EXTENDING TO 3/4"V-187A.
  2. WELD 24\"/>

**REFERENCE:**  
 ISI - 221-1A  
 BOYCE & ORAIL ISOMETRIC  
 RHR-001-1.3 REV 11



QUALITY CLASS: 1	ASME CODE CLASS: 2
ENGR. GA KUGLER	DATE: 5-19-78

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: RHR LOOP A  
 SUPPRESSION POOL SECTION

DWG NO. RHR-205-4 REV 4

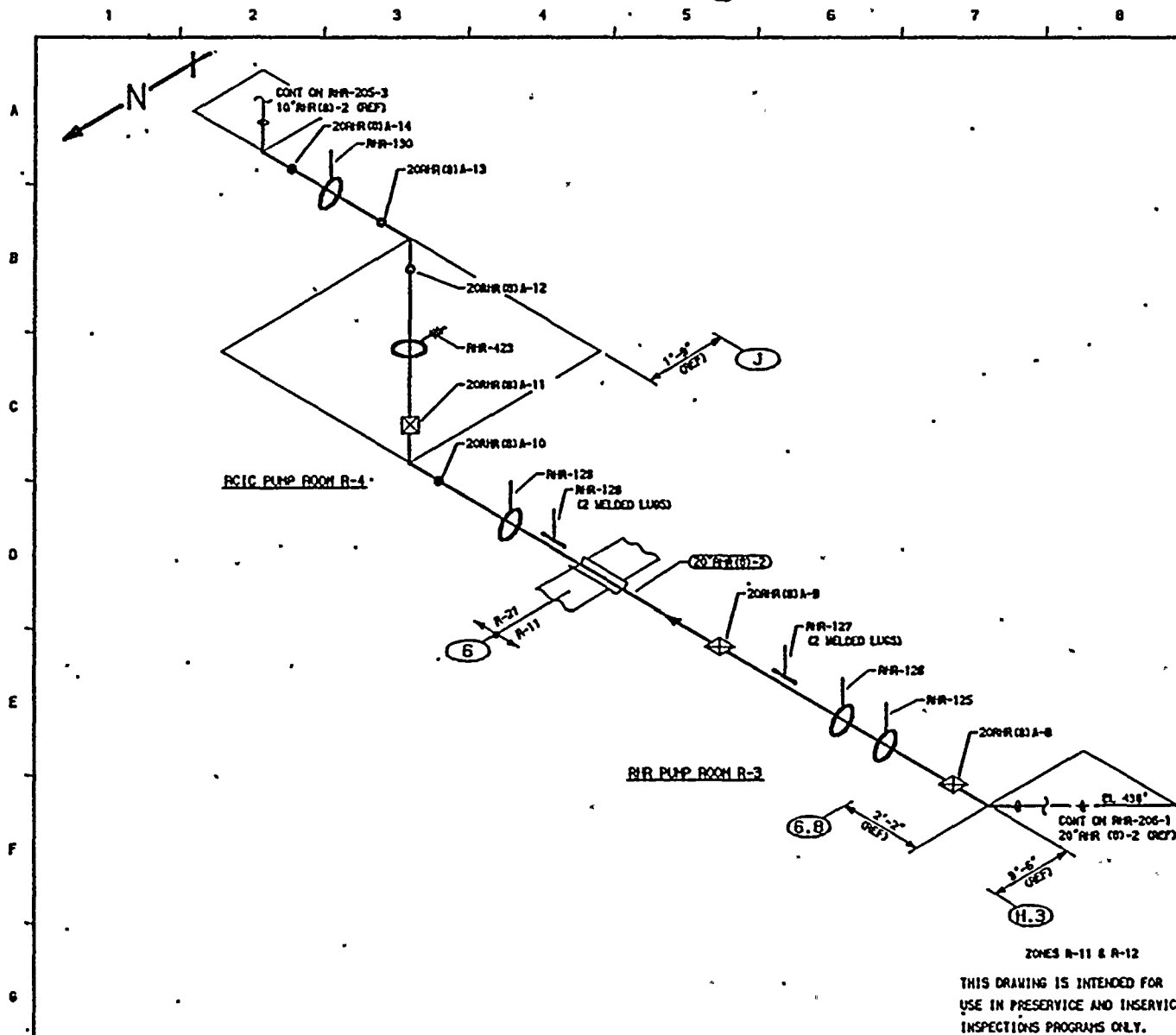
						THE EXISTING PIPING SYSTEM						
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO
4	12-9-82	MODIFIED KEYPLAN & RHR-137 ADDED LOGO	K-McA	DPR	DRW							
3	1-23-86	GENERAL UPDATE	K-McA	DPR	TFH							
2	9-26-83	REVISED HANGERS, REDRAWN.	K-McA	DPR	TFH	24" RHR (33)-2	24	STD	0.375	SA 106 GR B	CS	UT-5
1	11-5-80	DELETED WELDS 24" RHR (33)-2 & 3. AND AS NOTED	K-McA	TFH	DMP							
0	12-22-79	ISSUED FOR USE	K-McA	TFH	DMP							
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-McA	GAK	DMP							

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

ZONES R-21 & R-11

RHR PUMP ROOM R-2





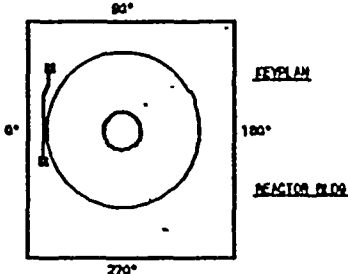
# NOTES

1. SCAFFOLDING IS REQUIRED.

## REFERENCES

151 - 221-1

BOYCE & CHAIL ISOMETRIC  
RHR-081-8.13 REV 5



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENCR. SA KUGLER	DRAWN. K-HCA DATE. 5-22-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

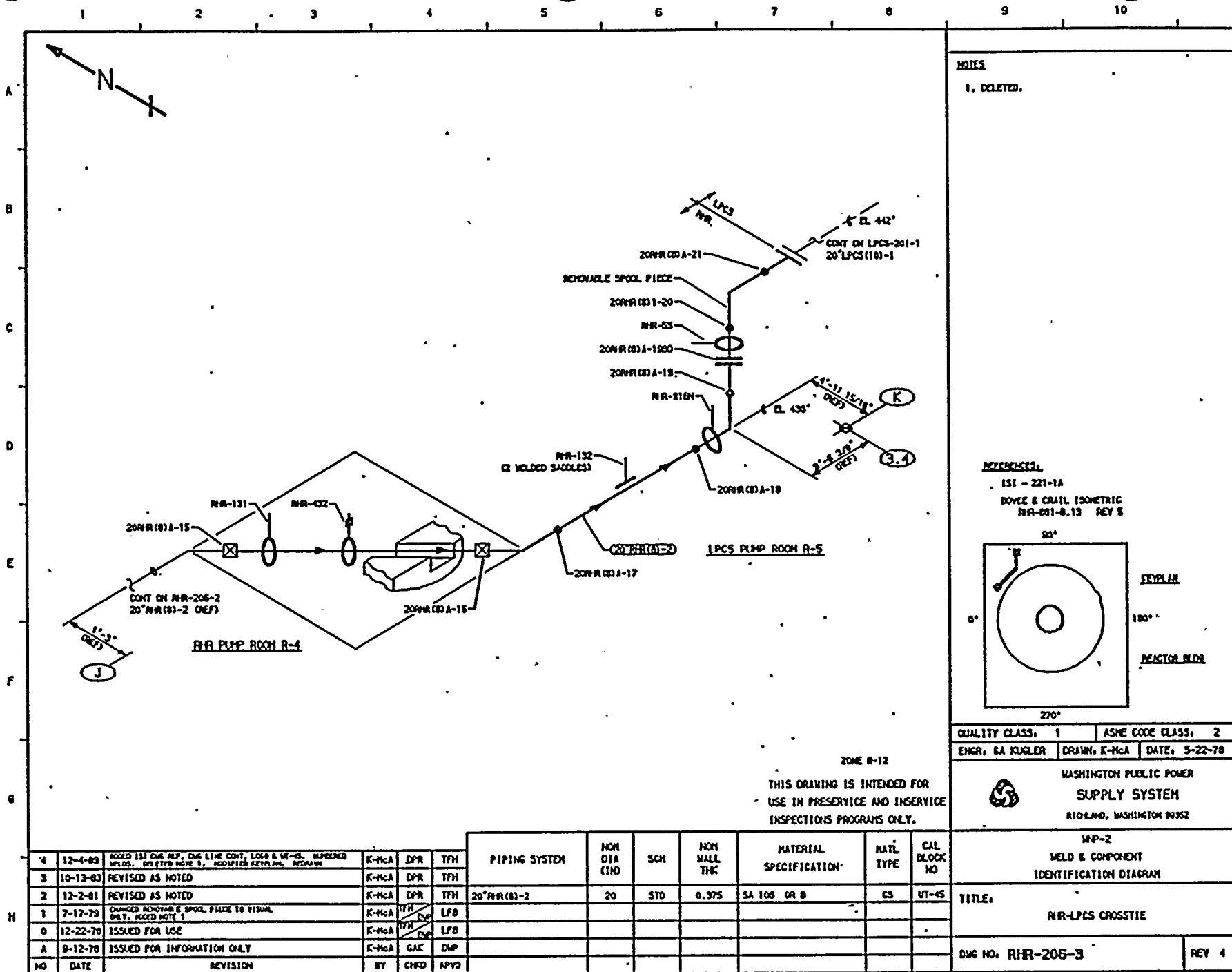
TITLE:  
RHR-LPCS CROSSTIE

DWG NO. RHR-208-2 REV 3

				PIPING SYSTEM			NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	12-4-83	ADDED 151 DUE RFP, DUE LIME CORT, LOGS & WT-MS. RHR-170 LETHAL, RHR-170	K-HCA DPR TFH									
2	9-26-83	REVISED AS NOTED	K-HCA TFH TFH				20" RHR (8)-2	STD	0.375	SA 106 GR B	CS	UT-45
1	12-2-81	REVISED AS NOTED	K-HCA DPR TFH									
0	12-22-78	ISSUED FOR USE	K-HCA TFH LFB									
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-HCA GAK DHP									
NO	DATE	REVISION	BY	CHKD	APVD							

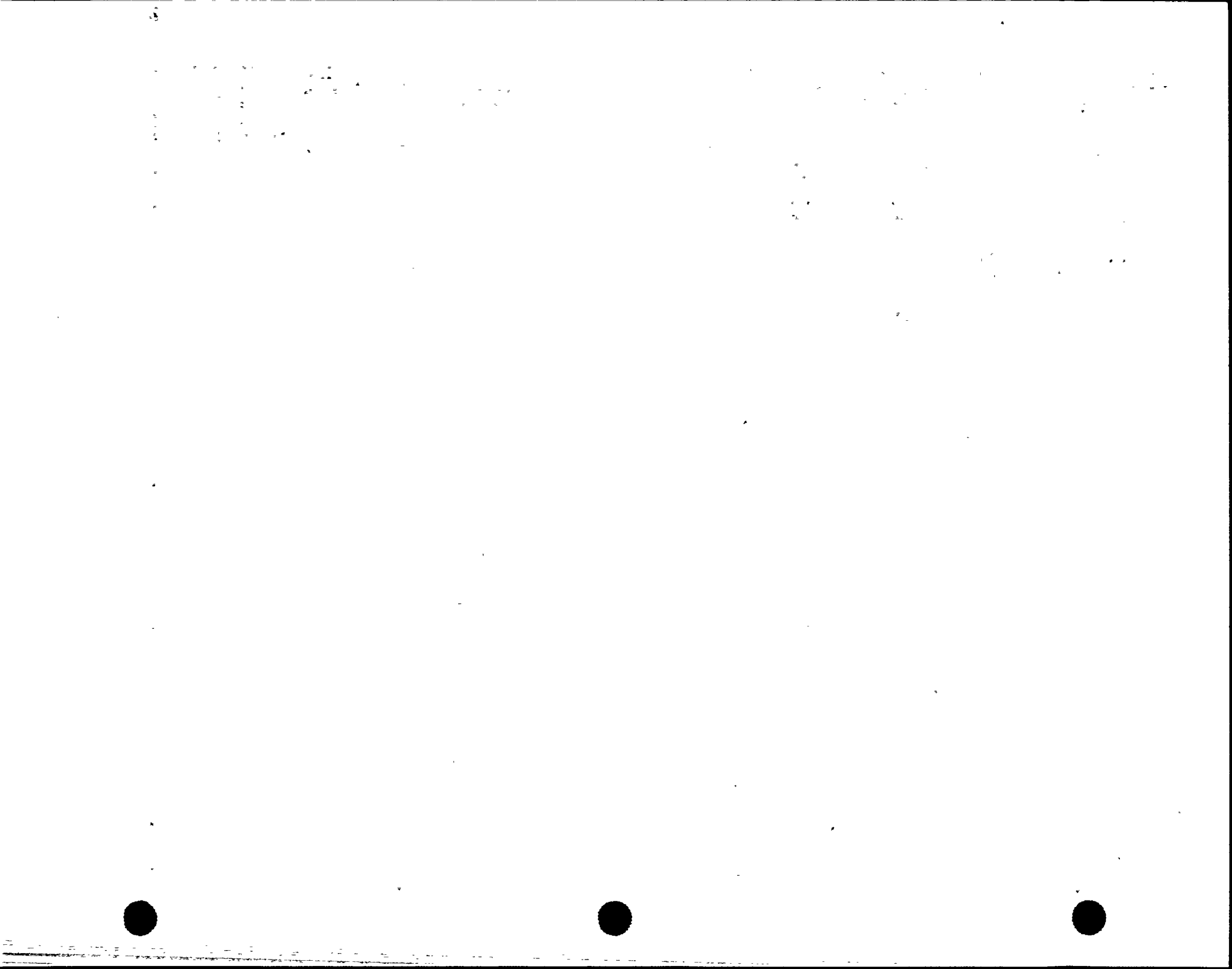


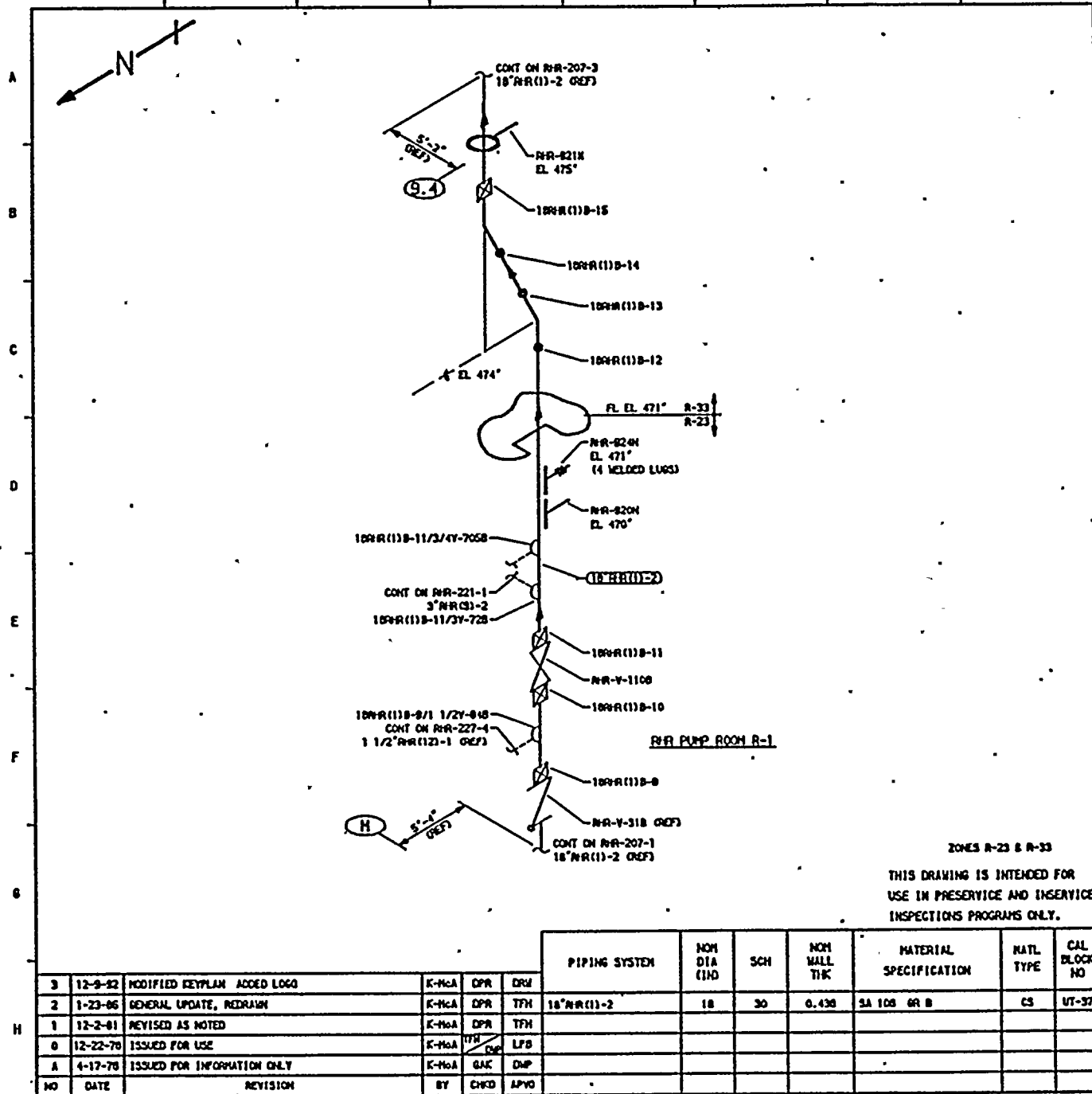






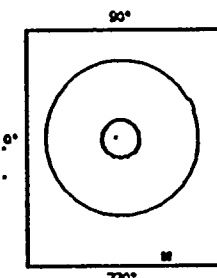






# REFERENCES:

ISI - 221-2A  
 BOYCE & CRAIG ISOMETRIC  
 RHR-808-5.8 REV 3



QUALITY CLASS. 1 ASME CODE CLASS. 2  
 ENGR. GA KUGLER DRAWN. K-MCA DATE. 6-5-78



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 RHR LOOP B  
 SUPPLY TO RHR-10X-18

DWG NO. RHR-207-2

REV 3







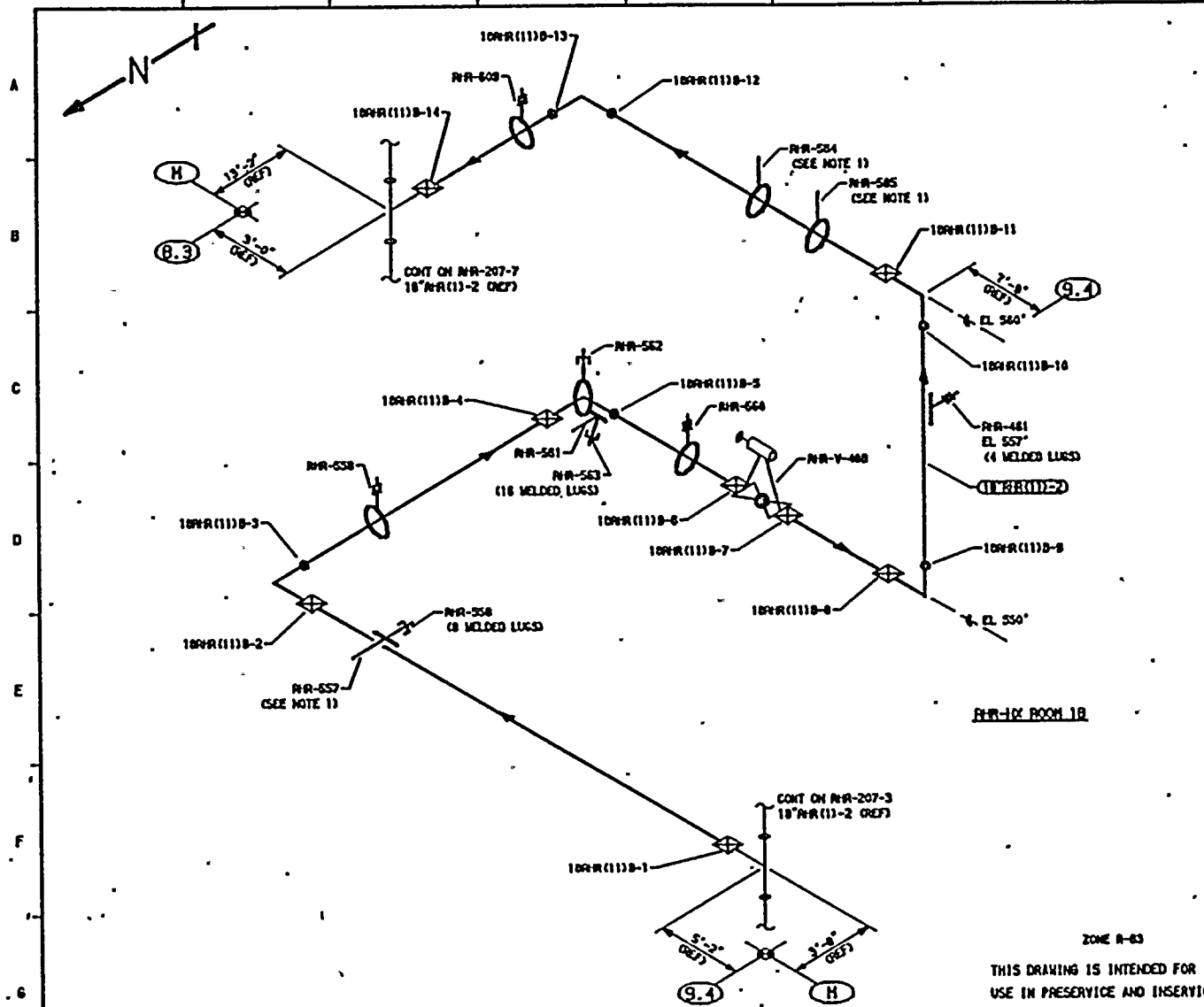










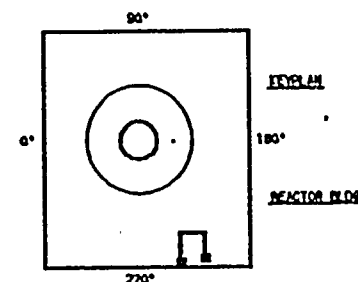


# NOTES

1. RHR-557, RHR-564 & RHR-565 CHANGED FROM SHOLDER TO STUT FOR DOC-64-0525-04, 18.

## REFERENCES

- 151 - 221-2  
BOYCE & CHAIL ISOMETRICS  
RHR-900-1.5 REV 7



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. SA KUELER	DRAWN. K-MCA DATE. 6-7-78

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

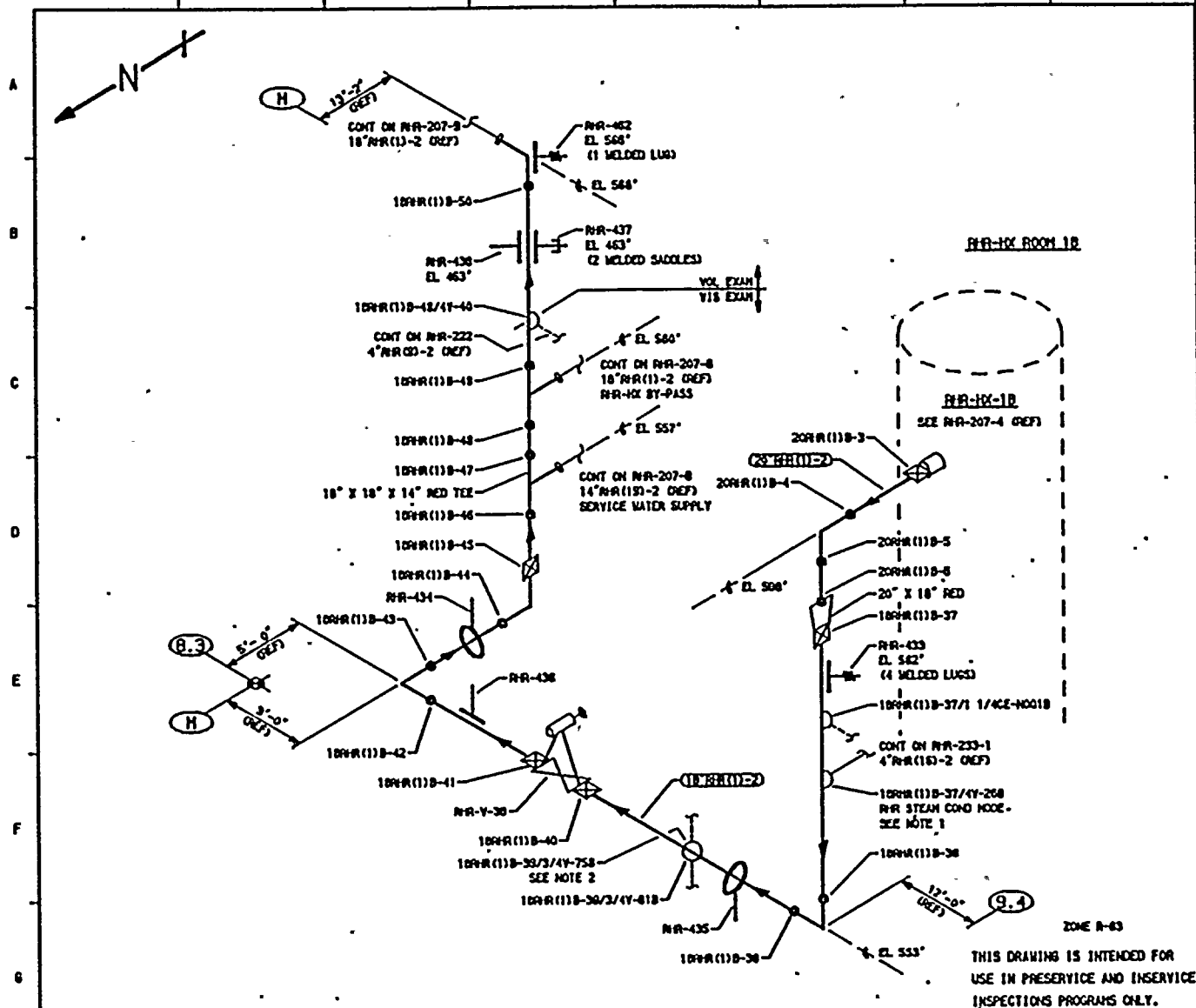
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RHR LOOP B  
RHR HEAT EXCHANGER BYPASS

DWG NO. RHR-207-B REV 3

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	12-4-83	ADDED 151 Dwg REF. ONE LINE CONT. NOTE 1, LOGO & UT-37, NOTIFIED SUPPLY, RECD	K-MCA	DPR	TFH	18"RHR(11)B-2	18	30	0.438	SA 106 GR B	CS	UT-37
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH							
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH							
0	12-22-78	ISSUED FOR USE	K-MCA	DPR	LFB							
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DMP							



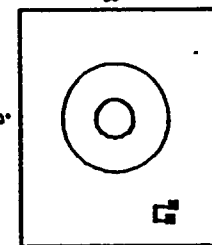


# NOTES:

1. TERMINATE VISUAL EXAM AT Y-85, Y-118 & Y-150B.
2. THIS IS A 1 1/2\"/>

## REFERENCES:

ISI - 221-2  
BOYCE & CRAIG ISOMETRIC  
RHR-609-1.4 REV 11



QUALITY CLASS: 1	ASME CODE CLASS: 2
ENGR. GA KUGLER	DRAWN. K-MCA DATE: 8-7-78

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

WFP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

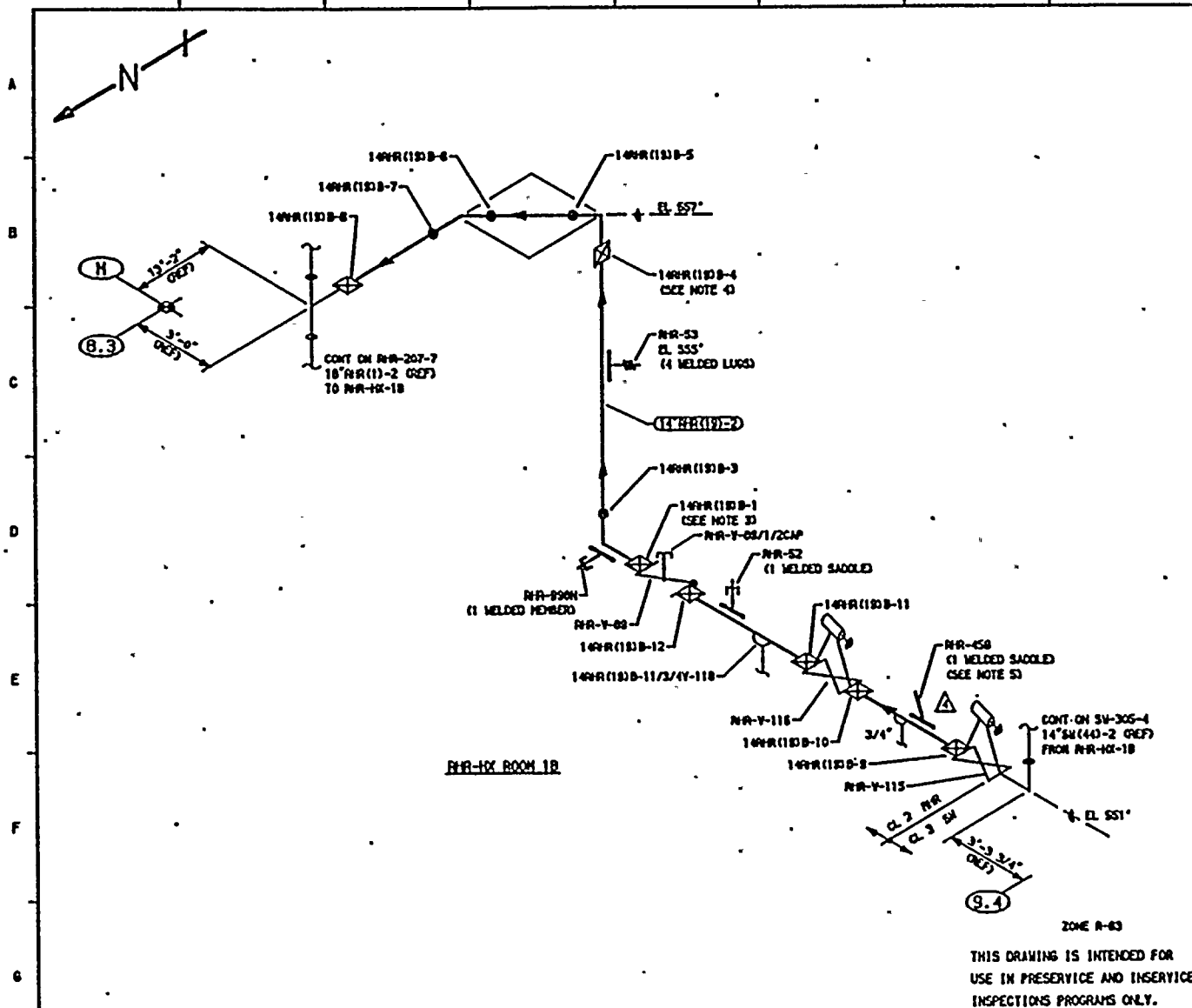
TITLE:  
RHR LOOP B  
SUPPLY FROM RHR-HX-1B

DWG NO. RHR-207-7 REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	10-18-87	ADDED DWG LINE CONT IN F-8 & LOGO.	K-MCA	DPR	TFH							
3	1-23-86	GENERAL UPDATE, REDRAWN	K-MCA	DPR	TFH							
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH	18"RR(1)-2	18	30	0.438	SA 108 GR B	CS	UT-37
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH	20"RR(1)-2	20	30	0.500	SA 108 GR B	CS	UT-8
0	12-22-70	ISSUED FOR USE	K-MCA	<del>DPR</del> LFB								
A	9-12-70	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DMP							





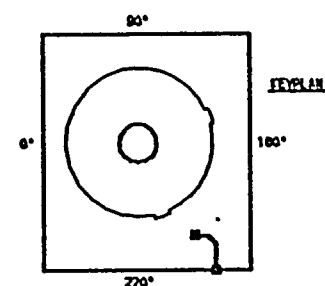


# NOTES

1. DELETED
2. DELETED
3. ELBOW BETWEEN WELDS 14WR(18)B-1 & 3 IS FITTING TO FITTING.
4. SCAFFOLDING IS REQUIRED DOWNSTREAM OF WELD 14WR(18)B-4.
5. RHR-458 CHANGED FROM SADDLE TO STRUT PER BOC-05-0525-18. RHR-54 IS DELETED. STRUCTURAL STEEL FROM RHR-54 IS PART OF RHR-458.

## REFERENCES

ISI - 221-2  
BOYCE & CRAIG ISOMETRIC  
RHR-078-1.4 REV 13



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. GA KUGLER	DRAWN. K-HCA
DATE, 8-8-78	



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

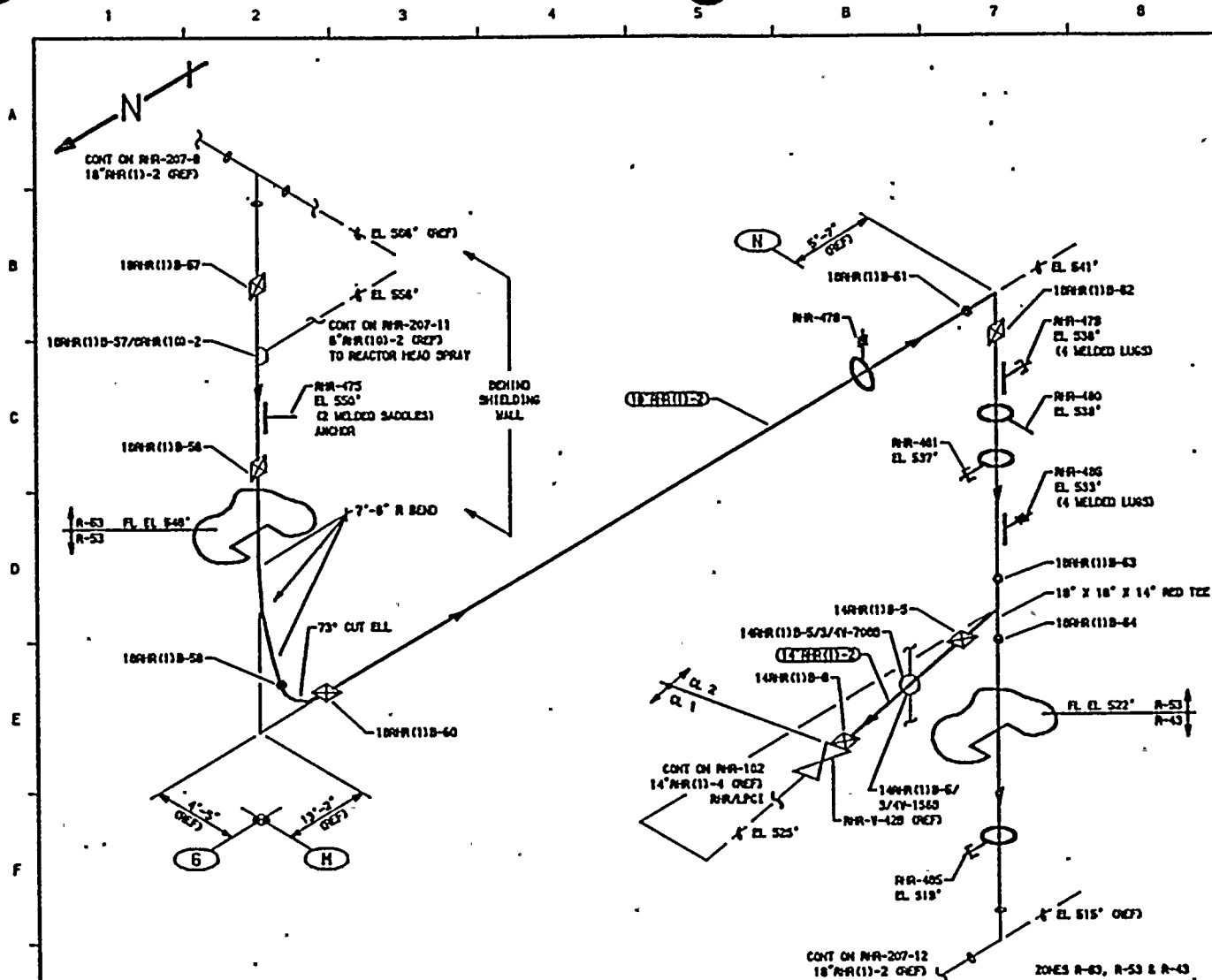
TITLE:  
RHR LOOP B  
SERVICE WATER SUPPLY TO RHR-10X-18 DISCHARGE  
DWS NO. RHR-207-8  
REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	2-20-82	DELETED RHR-54. MODIFIED NOTE 5.	K-HCA	QJ	DPR							
3	12-4-83	ADDED ISI DWS REF, DWS LINE CONT, UT-M, LUGS & WELD NOS 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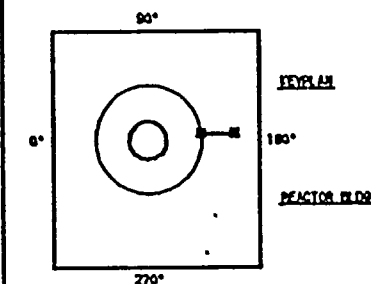








131-221-2  
 BOYCE & CRILL ISOMETRICS  
 RHR-207-10.11 REV 6  
 RHR-207-12.17 REV 10



QUALITY CLASS: 1 ASME CODE CLASS: 2  
 ENGR. CA KUGLER DRAWN. K-HCA DATE: 6-12-78

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

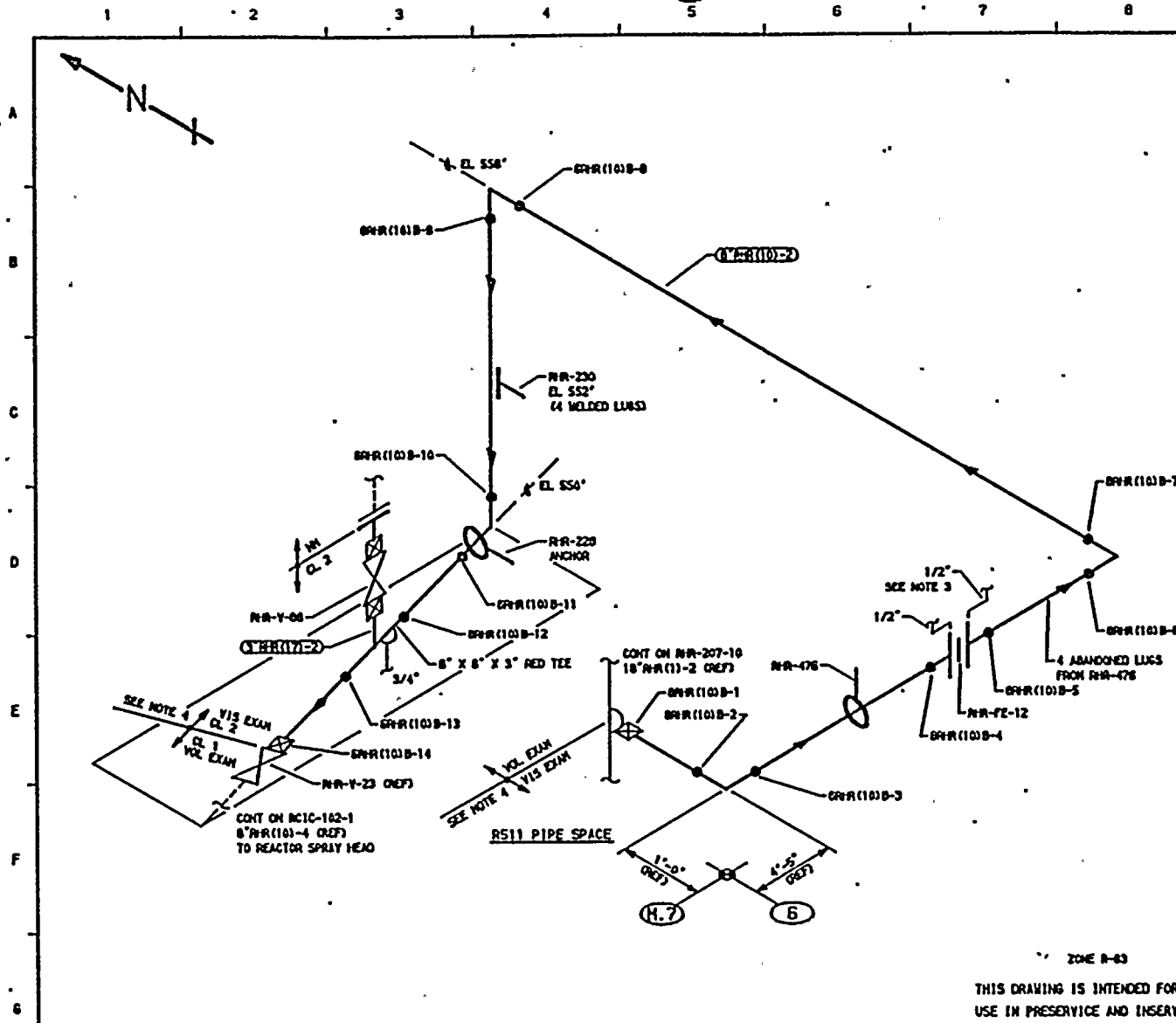
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 SUPPLY FROM RHR-10X-1B

DWG NO. RHR-207-10 REV 3

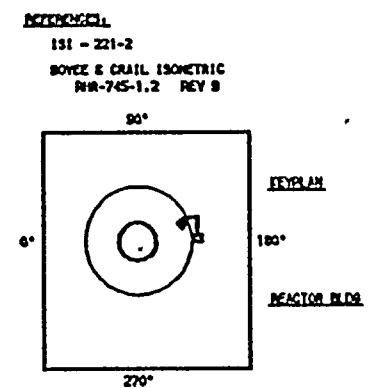
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO
3	12-4-83	ADDED 131 DWG REF, DWG LINE CONT, UT-37, W-38, & LOGS. MODIFIED KEY PLAN, & DRAWING	K-HCA	DPR	TFH	18\"RHR(11)-2	18	30	0.438	SA 106 GR B	CS	UT-37
2	10-13-83	REVISED AS NOTED	K-HCA	DPR	TFH	14\"RHR(11)-2	14	STD	0.375	SA 106 GR B	CS	UT-38
1	12-2-81	REVISED AS NOTED	K-HCA	DPR	TFH							
0	12-22-76	ISSUED FOR USE	K-HCA	TFH	LFD							
A	8-12-76	ISSUED FOR INFORMATION ONLY	K-HCA	GAC	DWP							

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.





- NOTES:**
1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 11A-5000.
  2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
  3. THESE ARE 1/2" CONNECTIONS WITH VISUAL EXAM EXTENDING TO 3/4"-724 & 3/4"-725.
  4. WELD IDENTIFICATION NUMBERS HAVE BEEN REINSTATED IN ORDER TO MAINTAIN CONSISTENCY BETWEEN PSI AND LATER EXAMINATIONS.



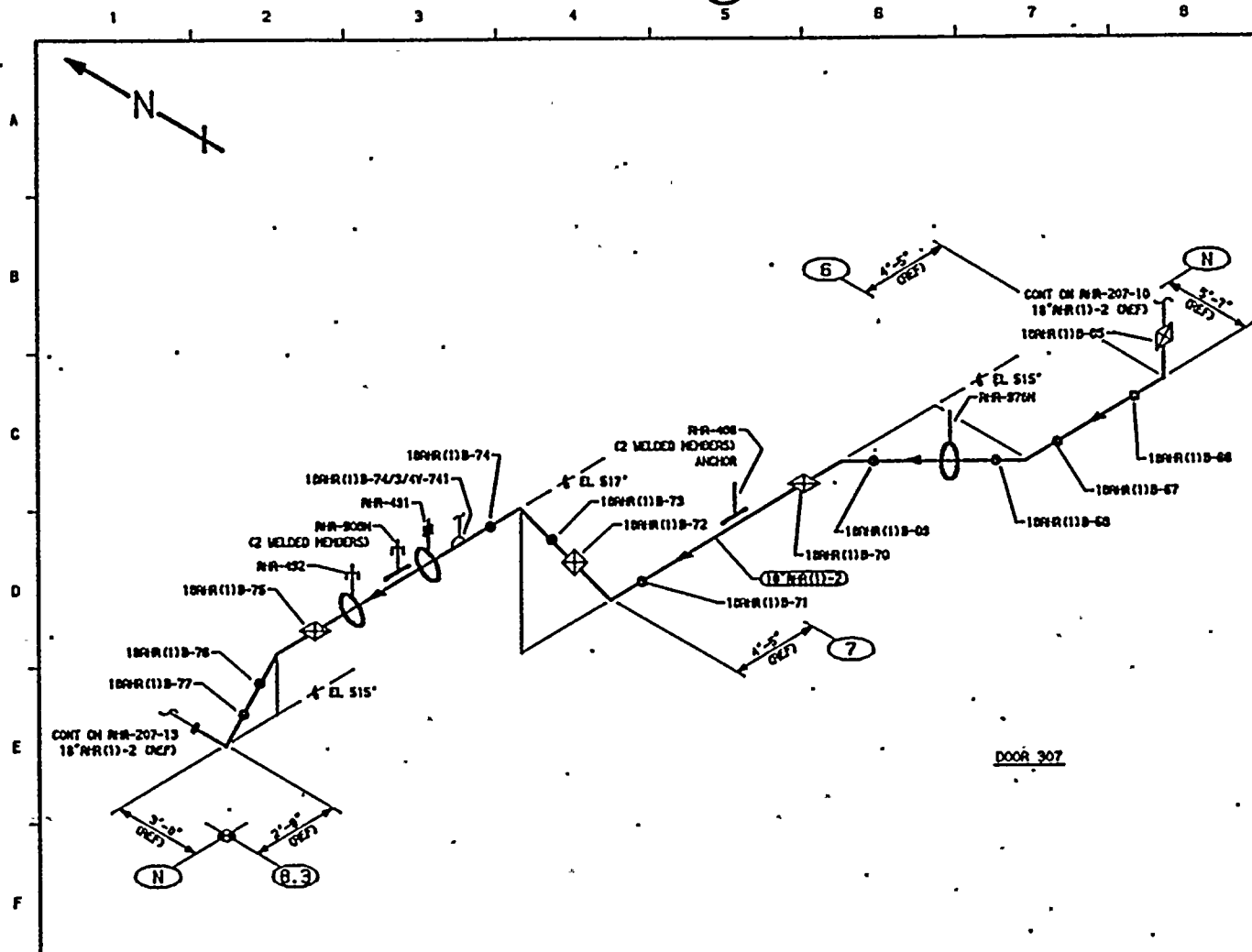
QUALITY CLASS: 1	ASME CODE CLASS: 2
ENGR: SA KUGLER	DRAWN: K-MCA
DATE: 6-12-78	
WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WASHINGTON 99352	
WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: RHR LOOP B REACTOR HEAD SPRAY SUPPLY	
DWG NO: RHR-207-11	REV 4

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 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

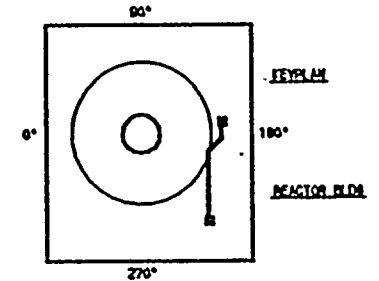
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (INO)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-4-83	ADDED 3/4" BRANCH CONNECTION IN E-3, NOTE 4 & LOGS. REINSTATED WELD IDENTIFICATION NUMBERS, MODIFIED CFWP NO.	K-MCA	DPR	TFH	6" RHR(10)-2	8	40	0.200	SA 106 GR B	CS	NA
3	1-23-86	GENERAL UPDATE, REDRAWN	K-MCA	DPR	TFH	3" RHR(10)-2	3	80	0.300	SA 106 GR B	CS	NA
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH							
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH							
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	LFB							
A	8-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DWP							







151 - 221-2  
 BOYCE & CRAIG ISOMETRIC  
 RHR-828 12.17 REV 10



QUALITY CLASS: 1 ASME CODE CLASS: 2  
 ENGR: GA KUGLER DRAWN: K-MCA DATE: 8-12-78



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: RHR LOOP B  
 SUPPLY FROM RHR-10X-1B

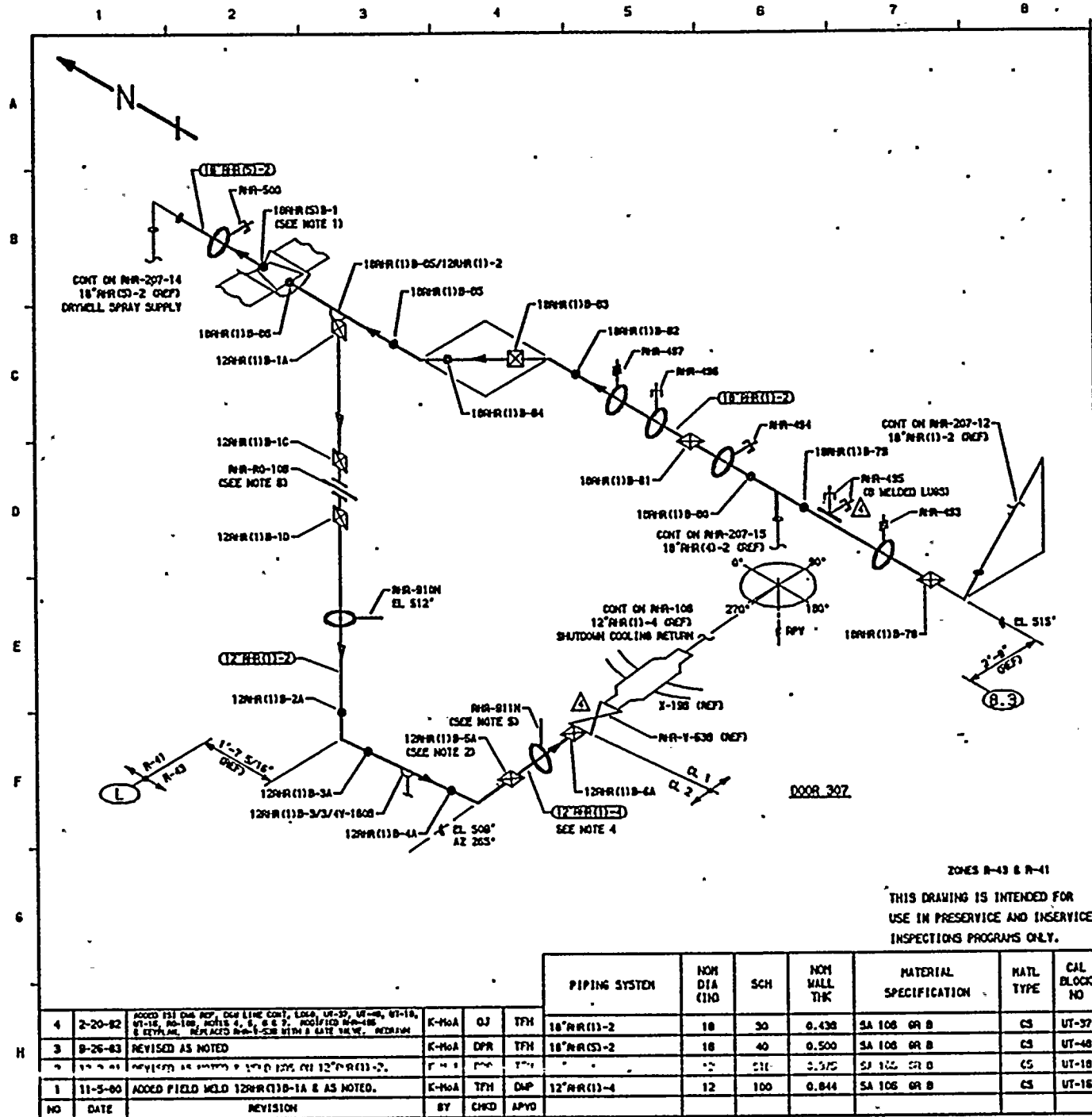
DWG NO. RHR-207-12 REV 3

ZONE R-43

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	12-4-83	ADDED 1ST END REF, END LINE CONT, LONG & WT-37, MODIFIED KEY PLAN, RETURN	K-MCA	DPR	TFH	18\" RHR (1)-2	18	30	0.438	SA 106 GR B	CS	UT-37
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH							
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH							
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	LFB							
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DMP							



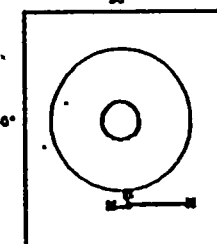


# NOTES:

1. ACCESS TO WELD 18\"/>

# REFERENCES:

ISI - 221-2  
BOYCE & CRILL ISOMETRICS  
RHR-809-18.18 REV 7  
RHR-809-45 REV 8



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. GA KUGLER	DRAWN. K-HCA
DATE. 6-13-78	



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIOLAND, WASHINGTON 98352

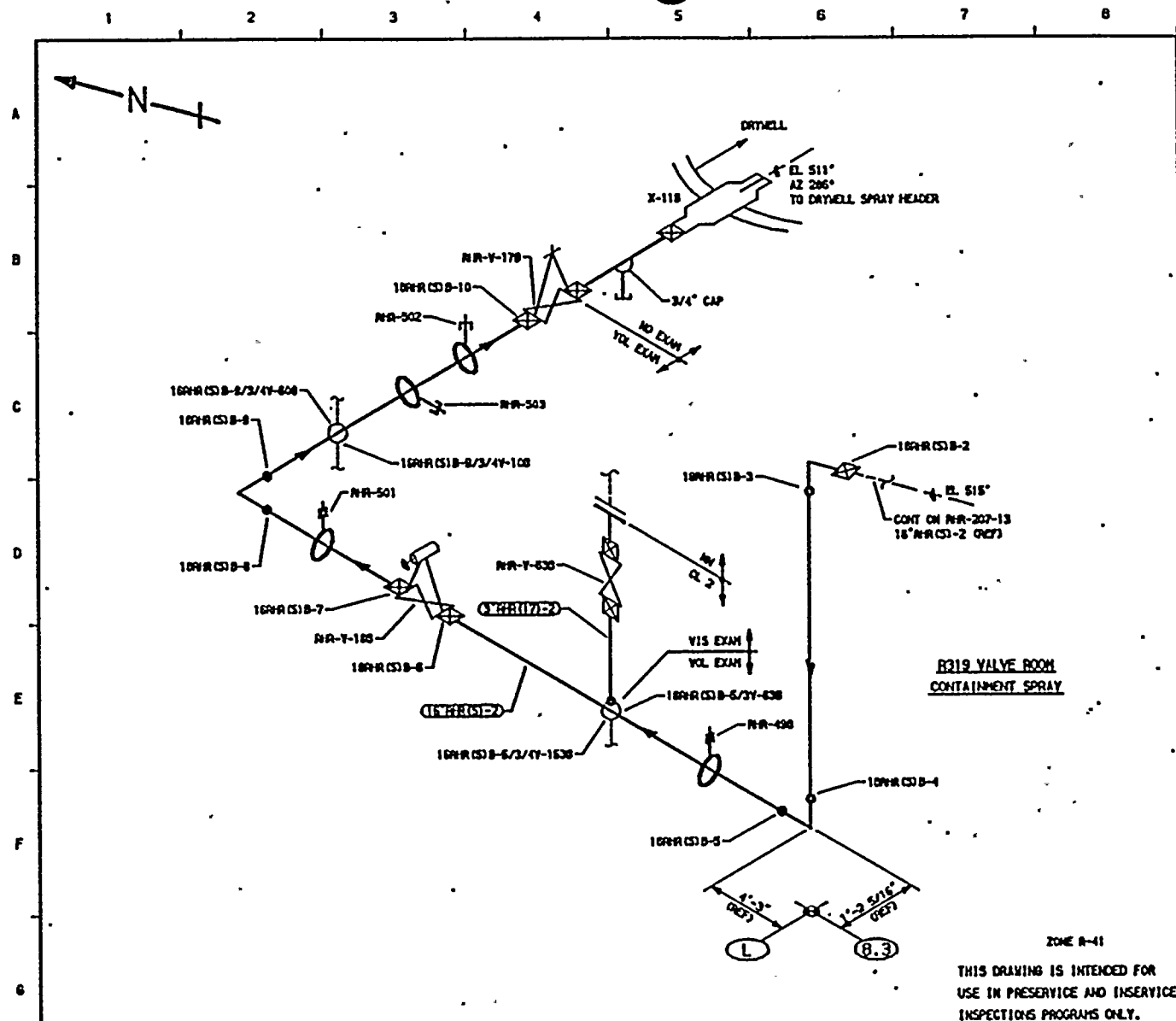
MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RHR LOOP B  
SUPPLY FROM RHR-1X-18  
& SHUTDOWN COOLING RETURN

DWG NO. RHR-207-13

REV 4





ZONE R-41

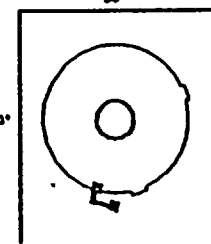
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

# NOTES

1. ACCESS TO WELD 18\"/>

## REFERENCE

151 - 221-2  
BOYCE & CRAIG ISOMETRIC  
RHR-803-20.22 REV 10



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. SA KUGLER	DRAWN. K-McA DATE. 8-14-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RHR LOOP B  
DRYWELL SPRAY SUPPLY

DWG NO. RHR-207-14

REV 4

4	12-4-89	CORRECTED EXAM BREAK AT RHR-Y-178 & LOGS.	K-McA	DPR	TFH
3	1-23-86	GENERAL UPDATE, REDRAWN	K-McA	DPR	TFH
2	9-26-83	REVISED AS NOTED	K-McA	DPR	TFH
1	12-2-81	REVISED AS NOTED	K-McA	DPR	TFH
0	12-22-78	ISSUED FOR USE	K-McA	TFH	LFB
A	8-12-78	ISSUED FOR INFORMATION ONLY	K-McA	GAK	DHP
NO	DATE	REVISION	BY	CHKD	APVD

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
18"RR(CS)-2	18	40	0.500	SA 106 GR B	CS	UT-48
3"RR(17)-2	3	80	0.300	SA 106 GR B	CS	NA



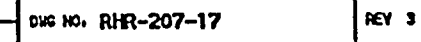










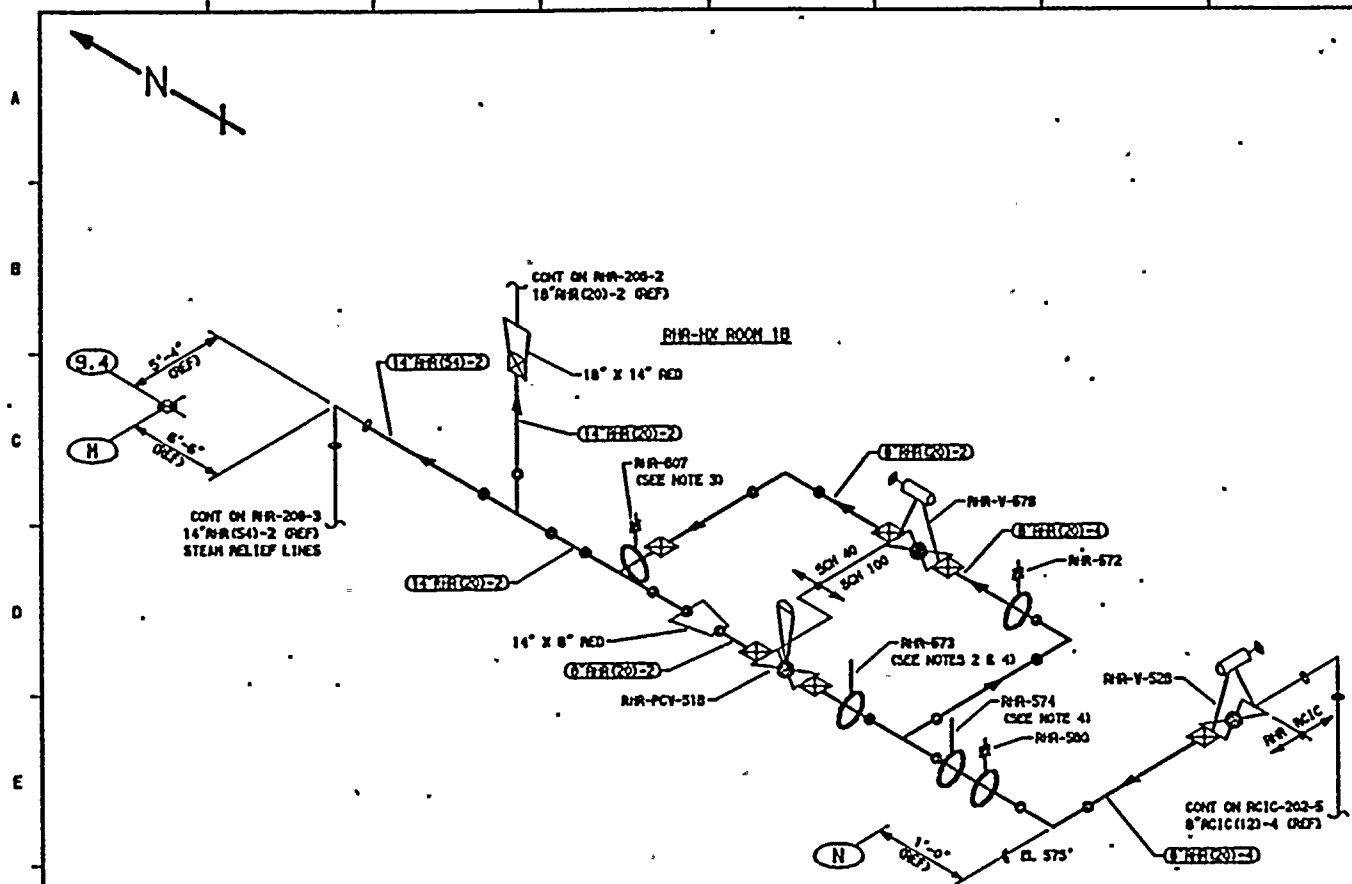


					PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CALC BLOCK NO
3	12-4-89	ADDED ELEVATION, EXAM BREAK AT RWR-V-278 & LOGO.	K-McA	DPR	TFH						
2	1-23-86	GENERAL UPDATE, REDRAWN	K-McA	DPR	TFH	8" NPS (81)-2	8	40	0.280	SA 108 GR B	CS
1	9-26-83	CAPPED LEAK-OFF CONNECTION	K-McA	DPR	TFH	3" NPS (55)-2	3	80	0.300	SA 108 GR B	CS
0	12-22-70	ISSUED FOR USE	K-McA	TFH DPR	LFB						
A	9-12-70	ISSUED FOR INFORMATION ONLY	K-McA	GAK	DMP						
NO	DATE	REVISION	BY	CHKD	APVD						







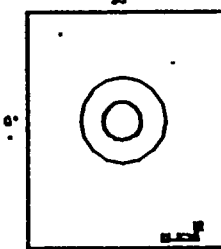


# NOTES:

1. DELETED.
2. CLAMP IS STAMPED RCIC-010M.
3. NAME PLATE IS STAMPED RHR-92. ATTACHMENT IS STAMPED RHR-607.
4. RHR-573 & RHR-574 CHANGED FROM SHUTTER TO STRUT PER DOC-08-0525-18.
5. RHR STEAM CONDENSING MODE IS DE-ACTIVATED AND DOES NOT REQUIRE ISI.

# REFERENCES:

ISI - 221-2A  
BOYCE & CRAIG ISOMETRICS  
RHR-800-15 REV 10  
RHR-800-18.17 REV 11  
90°



ZONE R-73

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

						PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CALC. BLOCK NO.	
2	12-4-83	ADDED ISI OUR REF, Dwg LINE CONT, LOGO, NOTES 4 & 5, DELETED NOTE 1, ADDED REV 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000											
1	9-26-83	REVISED AS NOTED	K-HCA	DPR	TFH	8" RHR(20)-2	8	40	0.322	SA 106 GR B	CS	NA	
0	12-22-70	ISSUED FOR USE	K-HCA	TFH	LFB	14" RHR(20)-2	14	STD	0.375	SA 106 GR B	CS	NA	
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-HCA	GAK	DMP	14" RHR(54)-2	14	STD	0.375	SA 106 GR B	CS	NA	
NO	DATE	REVISION	BY	CHKD	APVD								

QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR: GA KUGLER	DATE: 8-15-78

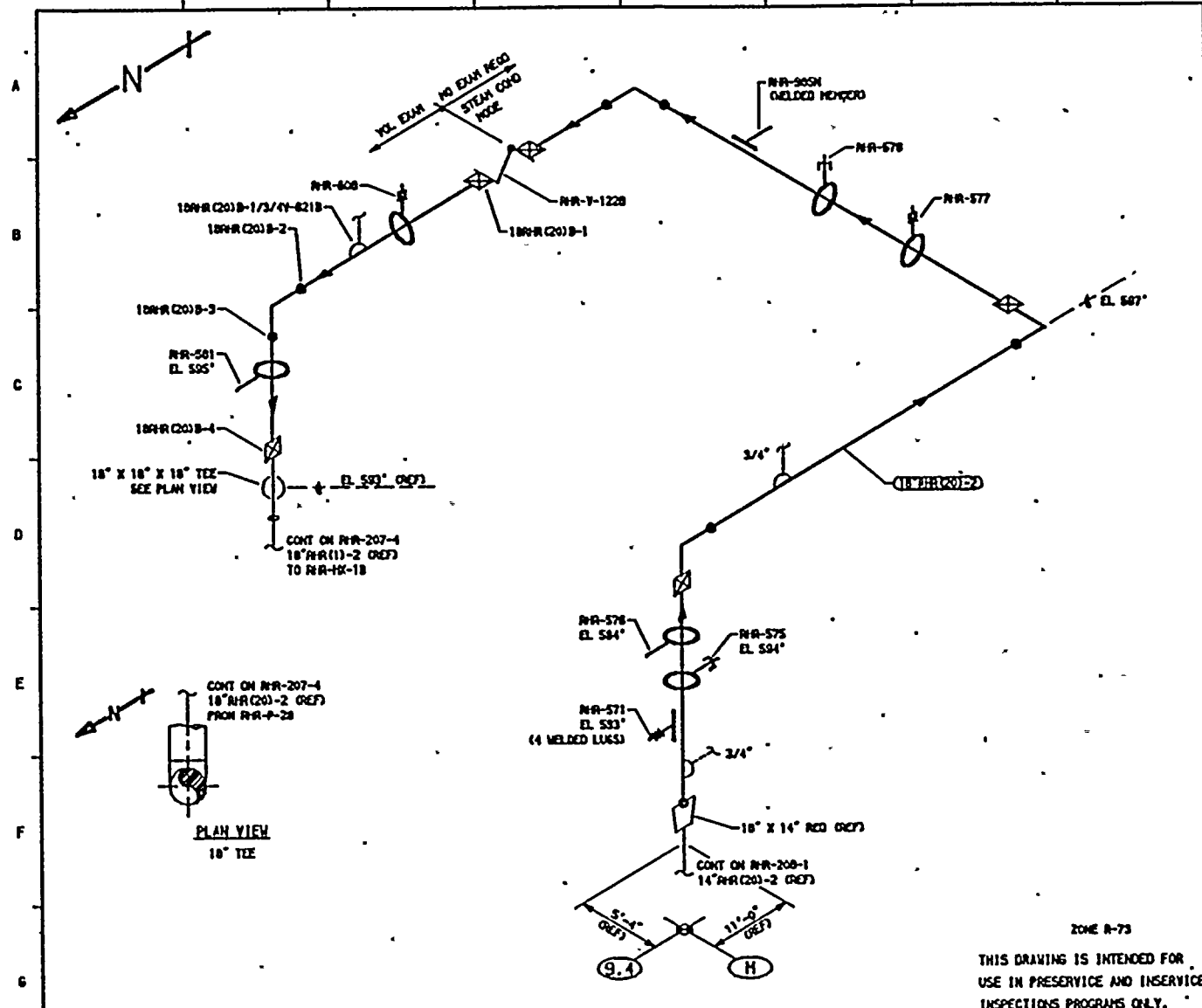
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

MNP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RHR LOOP B  
RCIC STEAM SUPPLY TO RHR-HX-1B  
DWG NO. RHR-208-1  
REV 2





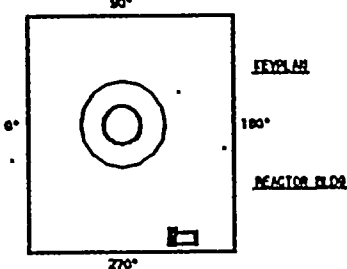


# NOTES

- FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
- PORTIONS OF THIS DRAWING IDENTIFY PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAMINATION FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 11A-5000.
- THE RHR STEAM CONDENSING PORTION OF THIS DRAWING IS DE-ACTIVATED AND DOES NOT REQUIRE ISI.

## REFERENCES

ISI - 221-2, & 221-2A  
BOYCE & CRAIG ISOMETRICS  
RHR-208-18.17 REV 11  
RHR-208-18.20 REV 7



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR: GA KUGLER	DRAWN: K-HCA DATE: 6-15-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

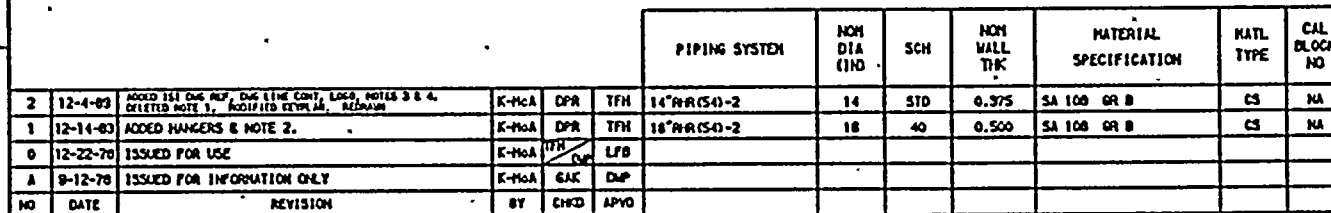
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RHR LOOP B  
RCIC STEAM SUPPLY TO RHR-1X-1B

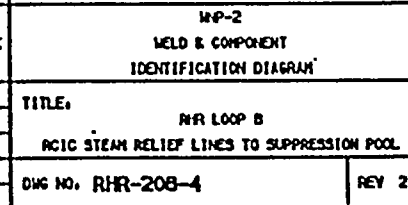
DWG NO. RHR-208-2 REV 2

						PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	12-4-83	CORRECTED EXAM METHOD. ADDED EL TO HANGERS, ISI DWG REF, DUE L DUE CONT, 87-37, NOTE 3 & 4, NO 2 (PLAN) REVISION	K-HCA	DPR	TFH							
2	9-26-83	REVISED AS NOTED	K-HCA	DPR	TFH	18" RHR(20)-2	18	30	0.438	SA 106 GR B	CS	UT-37
1	12-2-81	REVISED AS NOTED	K-HCA	DPR	TFH							
0	12-22-78	ISSUED FOR USE	K-HCA	<del>DPR</del> LFB								
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-HCA	GAK	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							







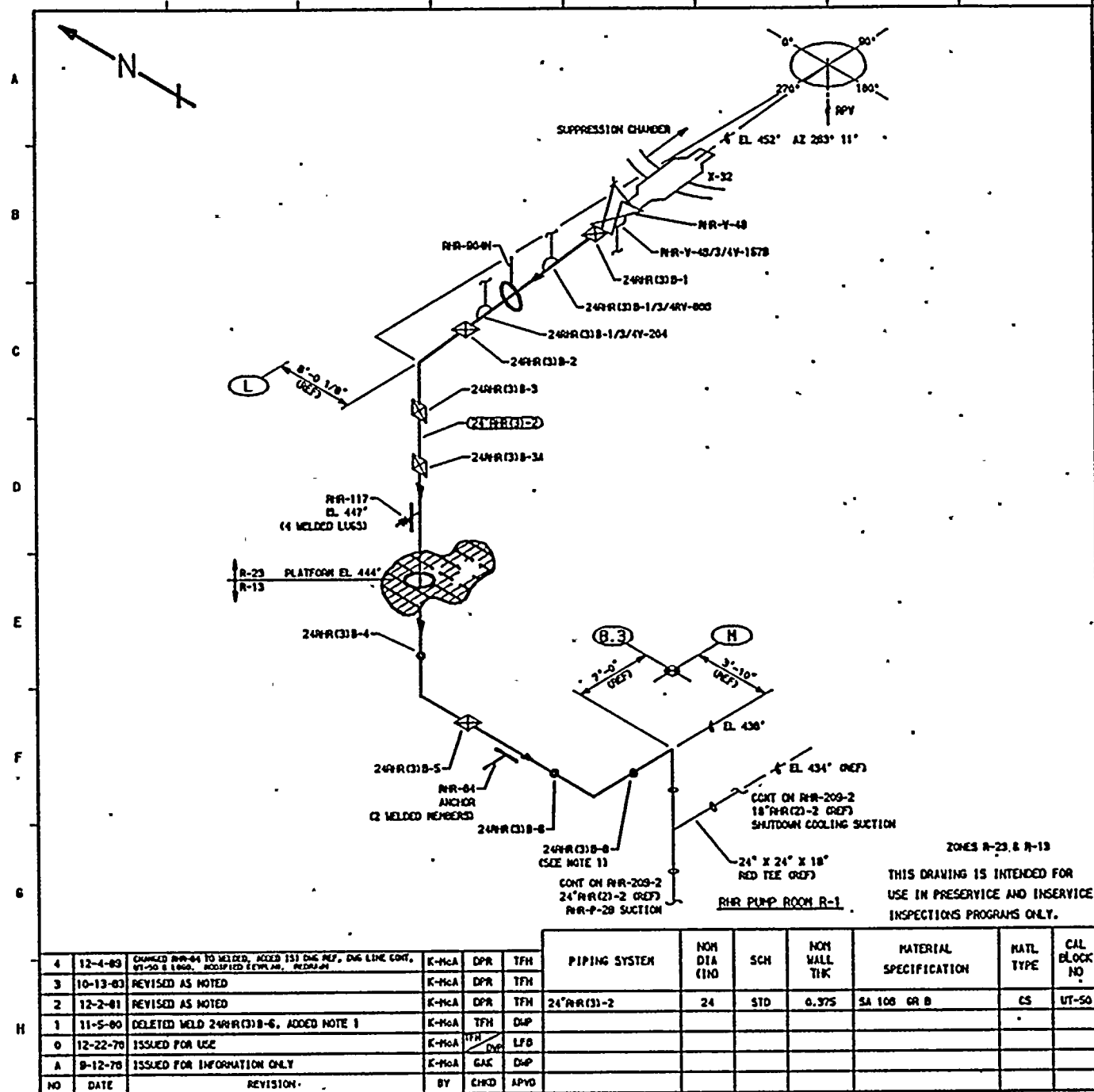




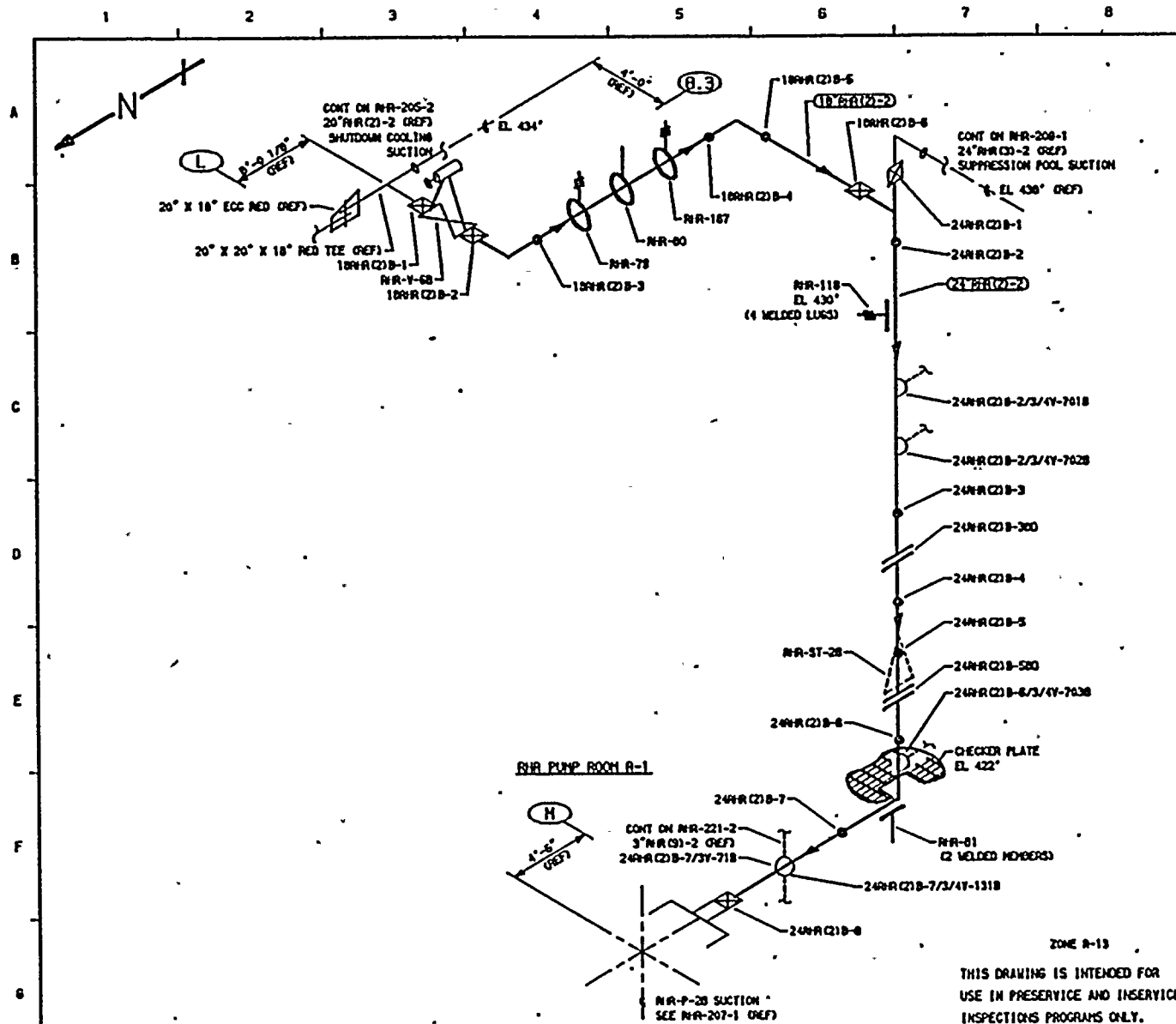










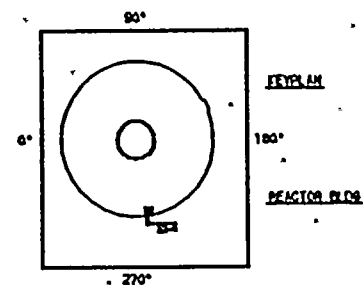


# NOTES

1. SCAFFOLDING IS REQUIRED.

## REFERENCES

ISI - 221-2A  
DOYCE & CRALL ISOMETRIC  
RHR-875-8.12 REV 8



QUALITY CLASS: 1 ASME CODE CLASS: 2  
ENGR. GA KUGLER DRAWN. K-MCA DATE: 8-19-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

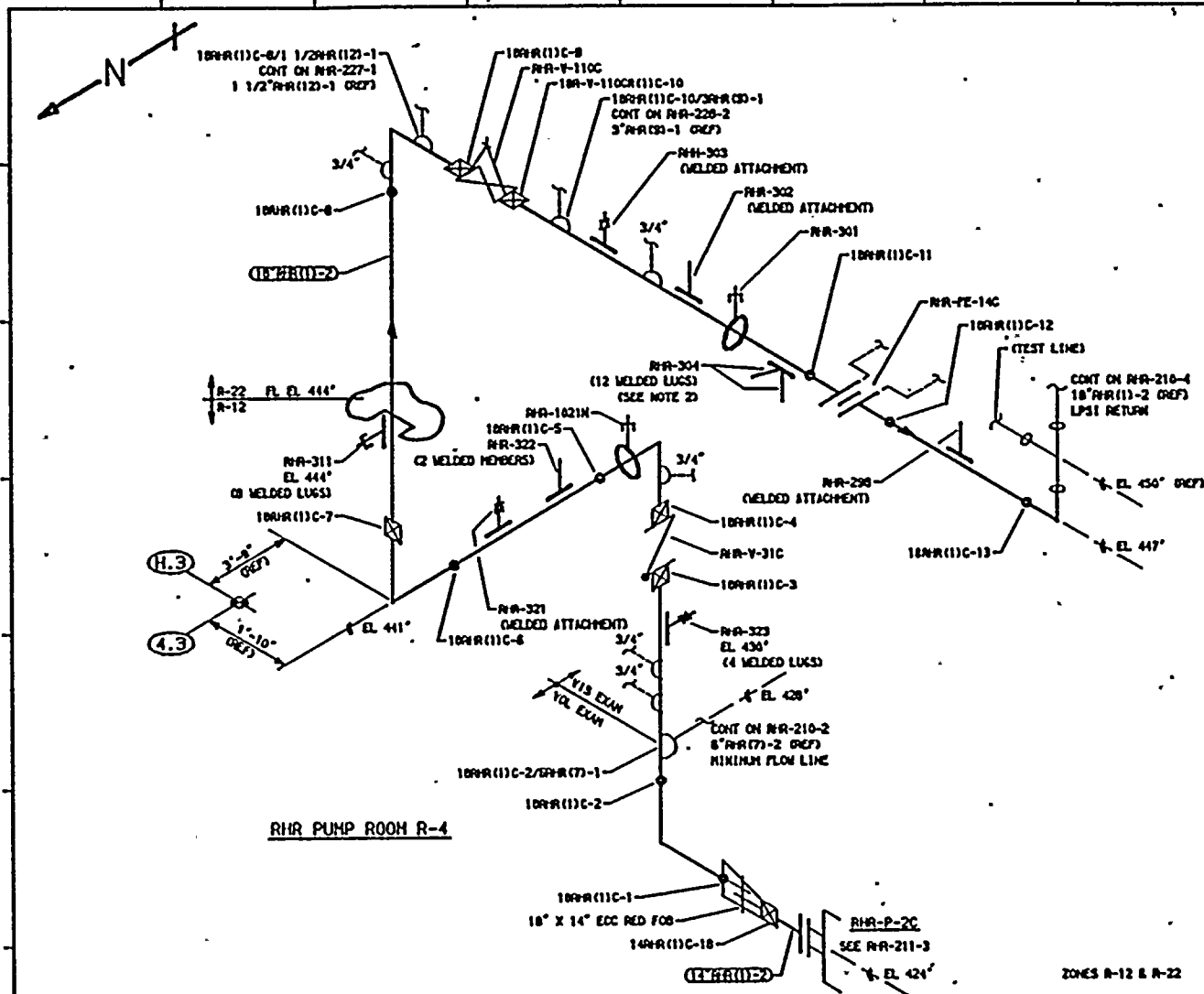
TITLE:  
RHR LOOP B  
SHUTDOWN COOLING SUCTION

DWG NO. RHR-209-2

REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DTA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO
4	12-9-92	MODIFIED KEYPLAN ADDED LOGO	K-MCA	DPR	DRW							
3	1-23-86	GENERAL UPDATE, REDRAWN	K-MCA	DPR	TFH							
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH	18" RHR(2)-2	18	STD	0.375	SA 106 GR B	CS	UT-20
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH	24" RHR(2)-2	24	STD	0.375	SA 106 GR B	CS	UT-50
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	LFD							
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GJK	DMP							



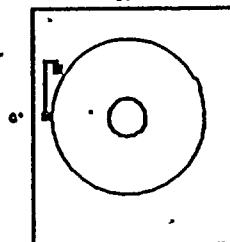


# NOTES

- SCAFFOLDING IS REQUIRED.
- RHR-304 CHANGED FROM SHUTTER TO STRUT PER DDC-06-525-2A.

## REFERENCES

ISI - 221-3  
 BOYCE & GRILL ISOMETRICS  
 RHR-027-1.2 REV 10  
 RHR-027-3.5 REV 12



FRYPLAN

REACTION ROOM

QUALITY CLASS. 1	ASME CODE CLASS. 2
ENGR. GA KUGLER	DRAWN. K-MCA DATE. 8-19-78



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RTO-LAND, WASHINGTON 98352

MP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

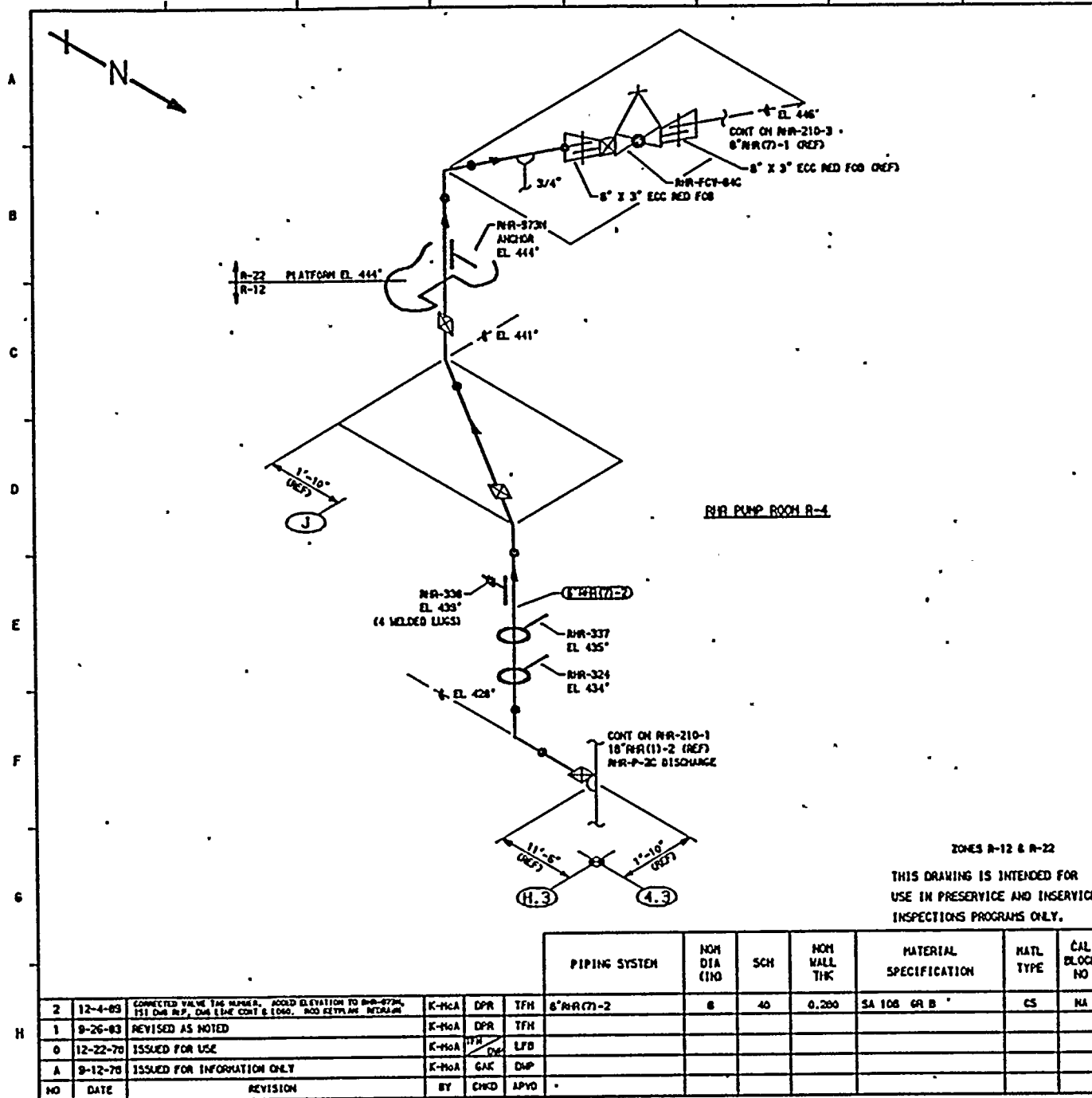
TITLE:	RHR LOOP C LPCS-PUMP-2C DISCHARGE
DWG NO. RHR-210-1	REV 3

					PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	C BL	
3	5-14-90	CHANGED RHR-304 PER NOTE 2. ADDED LOGO.	K-MCA	DJ	TFH							
2	1-23-86	GENERAL UPDATE	K-MCA	DPR	TFH	14"RHR(11)-2	14	STD	0.375	SA 106 GR B	CS	UT
1	10-13-83	REVISED HANGERS. REDRAWN	K-MCA	DPR	TFH	18"RHR(11)-2	18	30	0.438	SA 106 GR B	CS	UT
0	12-22-78	ISSUED FOR USE	K-MCA	<del>TFH</del> DWP	LFD							
A	8-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DWP							
NO	DATE	REVISION	BY	CHKD	APVD							

ZONES R-12 & R-22

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.



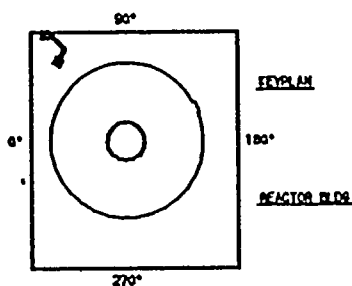


# **NOTES:**

- THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH IWA-5000.
- FOR BRANCH PIPING 4" NON. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## **REFERENCE:**

ISI - 221-3  
 BOYCE & GRILL ISOMETRIC  
 RHR-207-25.30 REV 12



QUALITY CLASS, 1 ASME CODE CLASS, 2  
 ENGR, SA KUGLER DRAWN, K-MCA DATE, 8-20-78



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

MP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE, RHR LOOP C  
 MINIMUM FLOW LINE TO SUPPRESSION POOL

DWG NO, RHR-210-2 REV 2

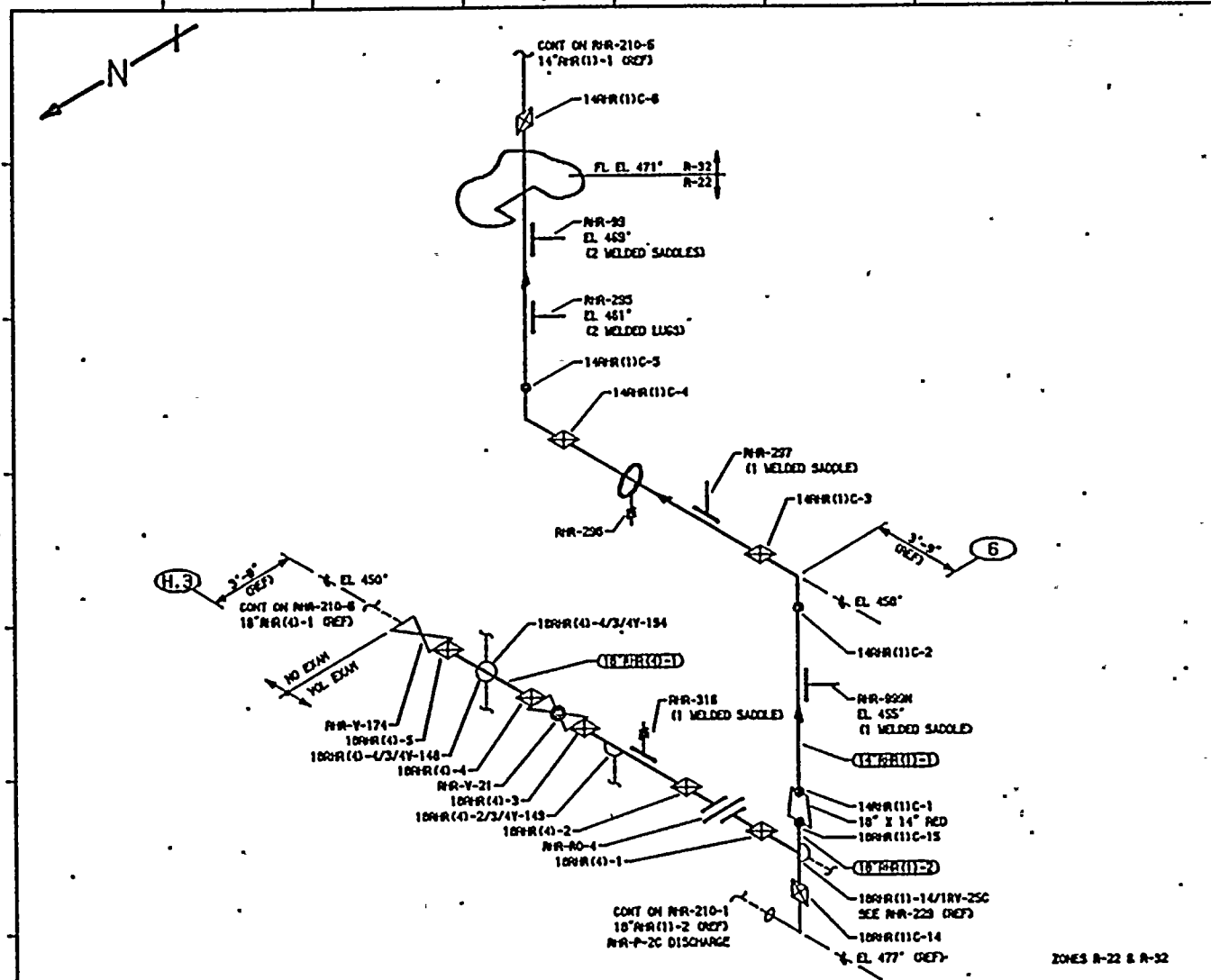






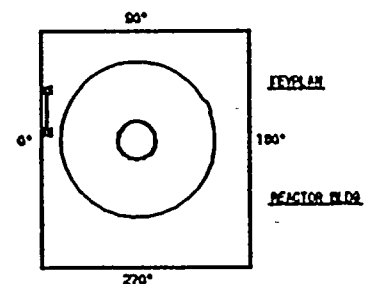
					PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	12-4-83	ADDED EXHA BREAK AT RSR-V-10C & LOGO.	K-MCA	DPR	TFH						
2	1-23-86	GENERAL UPDATE, REDRAWN	K-MCA	DPR	TFH	6"WR(M)-1	8	40	0.280	SA 106 GR B	CS
1	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH						
0	12-22-76	ISSUED FOR USE	K-MCA	<del>DPR</del> TFH	LFB						
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DWP						
NO	DATE	REVISION	BY	CHKD	APVD						





# REFERENCES

ISI - 221-3  
BOYCE & CRILL ISOMETRICS  
RHR-827- 8.8 REV 18  
RHR-827-10.14 REV 7



QUALITY CLASS, 1 ASME CODE CLASS, 2  
ENGR. SA KUGLER DRAWN. K-MCA DATE, 8-20-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RHR LOOP C/LPSI RETURN  
& TEST LINE

DWG NO. RHR-210-4

REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO.
4	12-4-83	ADDED EXAM BREAK AT RHR-Y-174 & LOGO.	K-MCA	DPR	TFH							
3	1-23-86	GENERAL UPDATE, REDRAWN	K-MCA	DPR	TFH							
2	10-13-83	NUMBERED WELDS, ADDED NOTE 3 & AS NOTED	K-MCA	DPR	TFH	14"RHR(1)-2	14	STD	0.375	SA 106 GR B	CS	UT-39
1	12-2-81	ADDED RHR-RO-1 IN F-5	K-MCA	DPR	TFH	18"RHR(1)-2	18	30	0.438	SA 106 GR B	CS	UT-37
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	LFB	18"RHR(1)-1	18	STD	0.375	SA 106 GR B	CS	UT-20
A	8-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DMP							

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

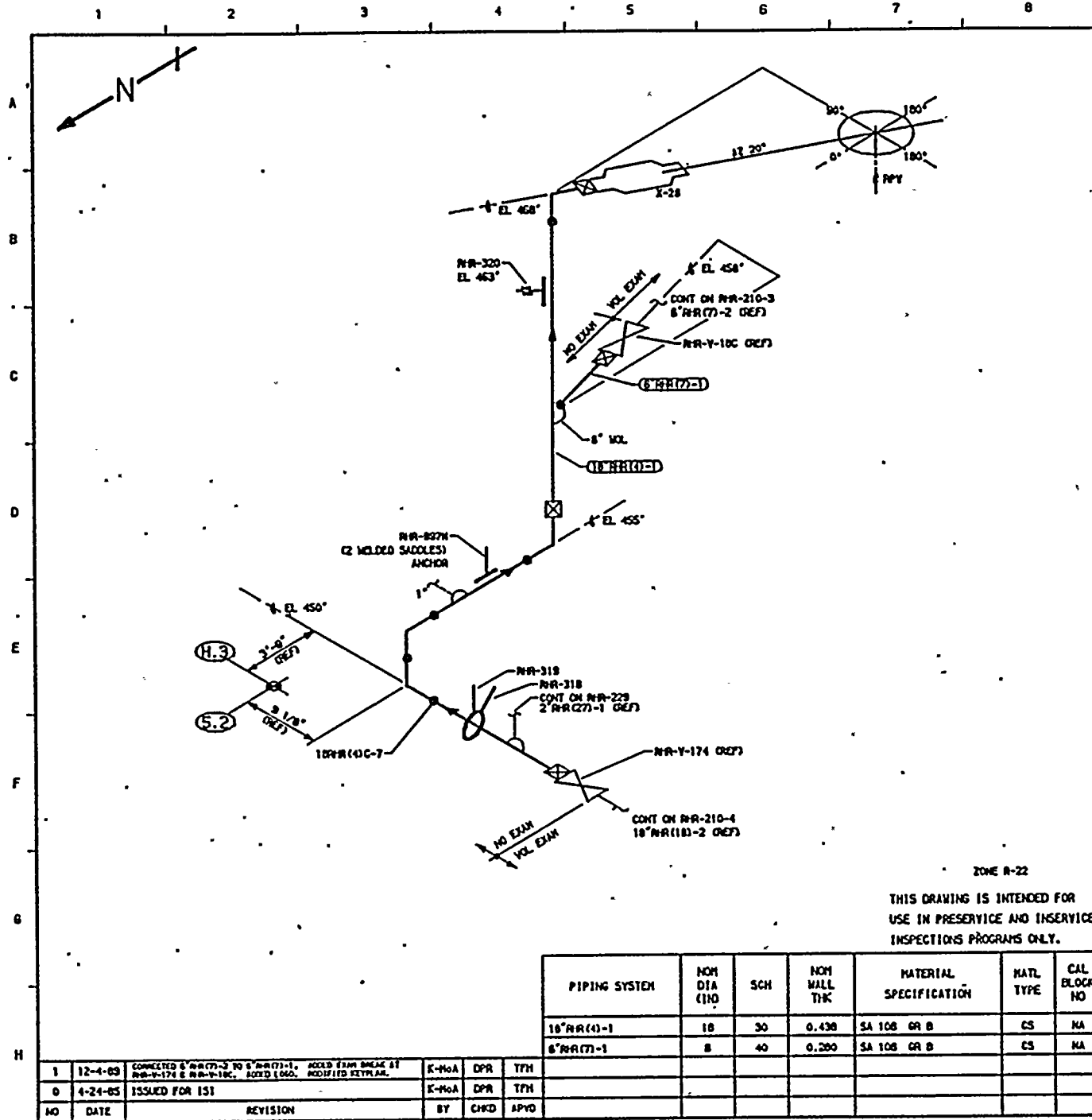
ZONES R-22 & R-32





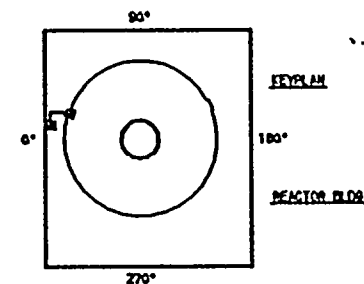
					PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
3	12-9-82	MODIFIED KEYPLAN ADDED LOGO	K-McA	DPR	DRW						
2	1-23-86	GENERAL UPDATE, REDRAWN	K-McA	DPR	TFH	14"NR(1)-2	14	STD	0.375	SA 106 GR B	CS UT-36
1	12-2-83	REVISED AS NOTED	K-McA	DPR	TFH	3"NR(17)-2	3	80	0.300	SA 106 GR B	CS NA
0	12-22-78	ISSUED FOR USE	K-McA	<del>TFH</del> DPR	LFB						
0	9-12-78	ISSUED FOR INFORMATION ONLY	K-McA	GAK	DWP						
NO	DATE	REVISION	BY	CHKD	APYD						





# REFERENCES

ISI - 221-3  
BOYCE & CRILL ISOMETRIC  
RHR-827-S.B REV 18



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR, K-McANDREW	DATE, 2-24-65



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98332

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RHR TEST LINE LOOP C

DWG NO: RHR-210-B REV 1

ZONE R-22

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

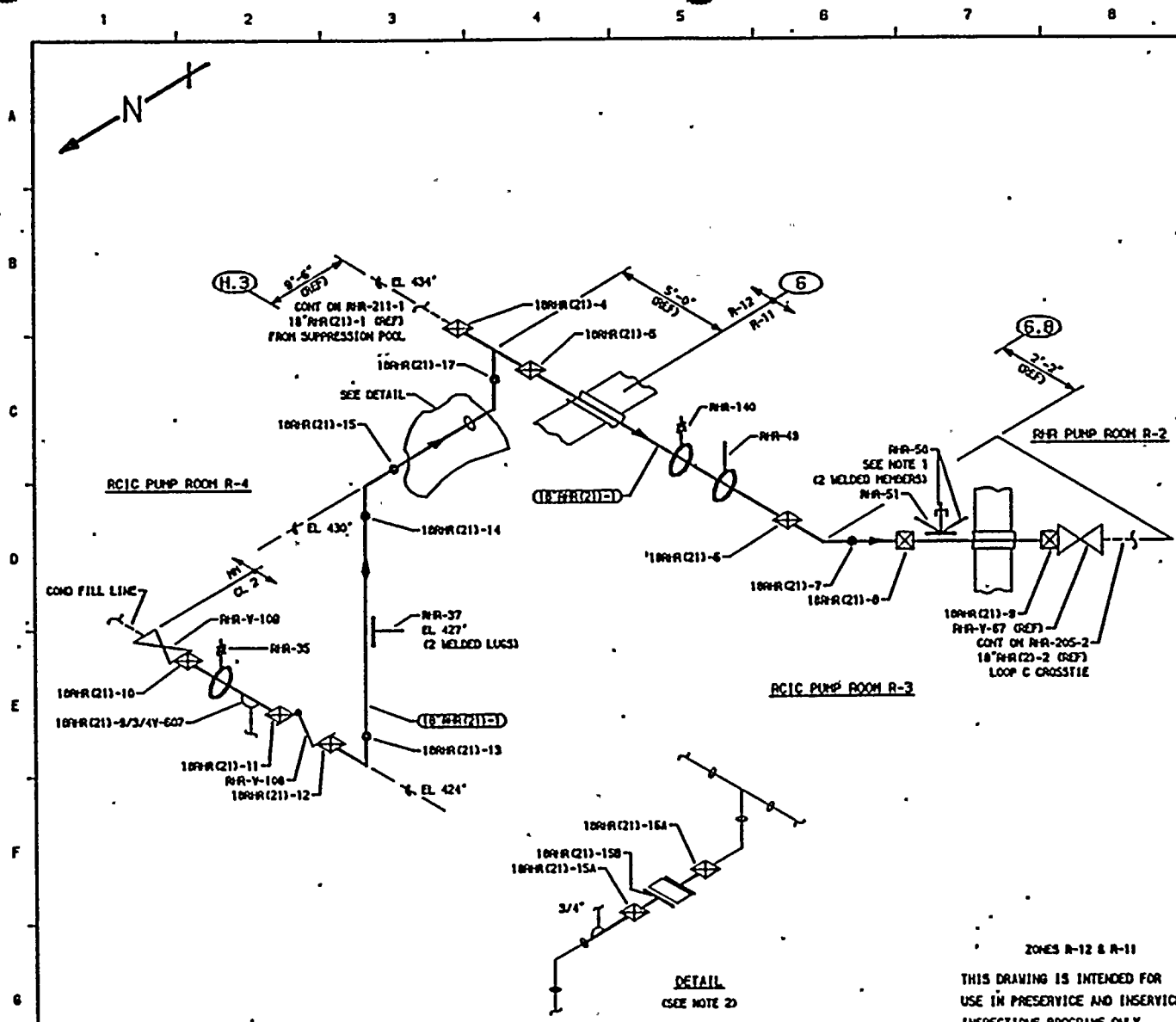
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
18" RHR(4)-1	18	30	0.438	SA 106 GR B	CS	NA
6" RHR(7)-1	6	40	0.280	SA 106 GR B	CS	NA





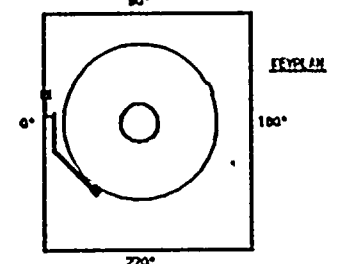






- NOTES**
1. HANGER RHR-50 IS A SHROUD AND A STRUT.
  2. WELD 18"RHR(211)-15A IS A FILLET WELD ON CO OF SLIP-ON FLANGE & WELD 18"RHR(211)-15B IS A FILLET WELD ON IO OF SLIP-ON FLANGE.

**REFERENCES:**  
 ISI - 221-3  
 BOYCE & GRILL ISOMETRIC  
 RHR-000-1.6 REV 7



QUALITY CLASS. 1	ASME CODE CLASS. 2
ENGR. SA KUGLER	DRAWN. K-MCA DATE. 8-21-78

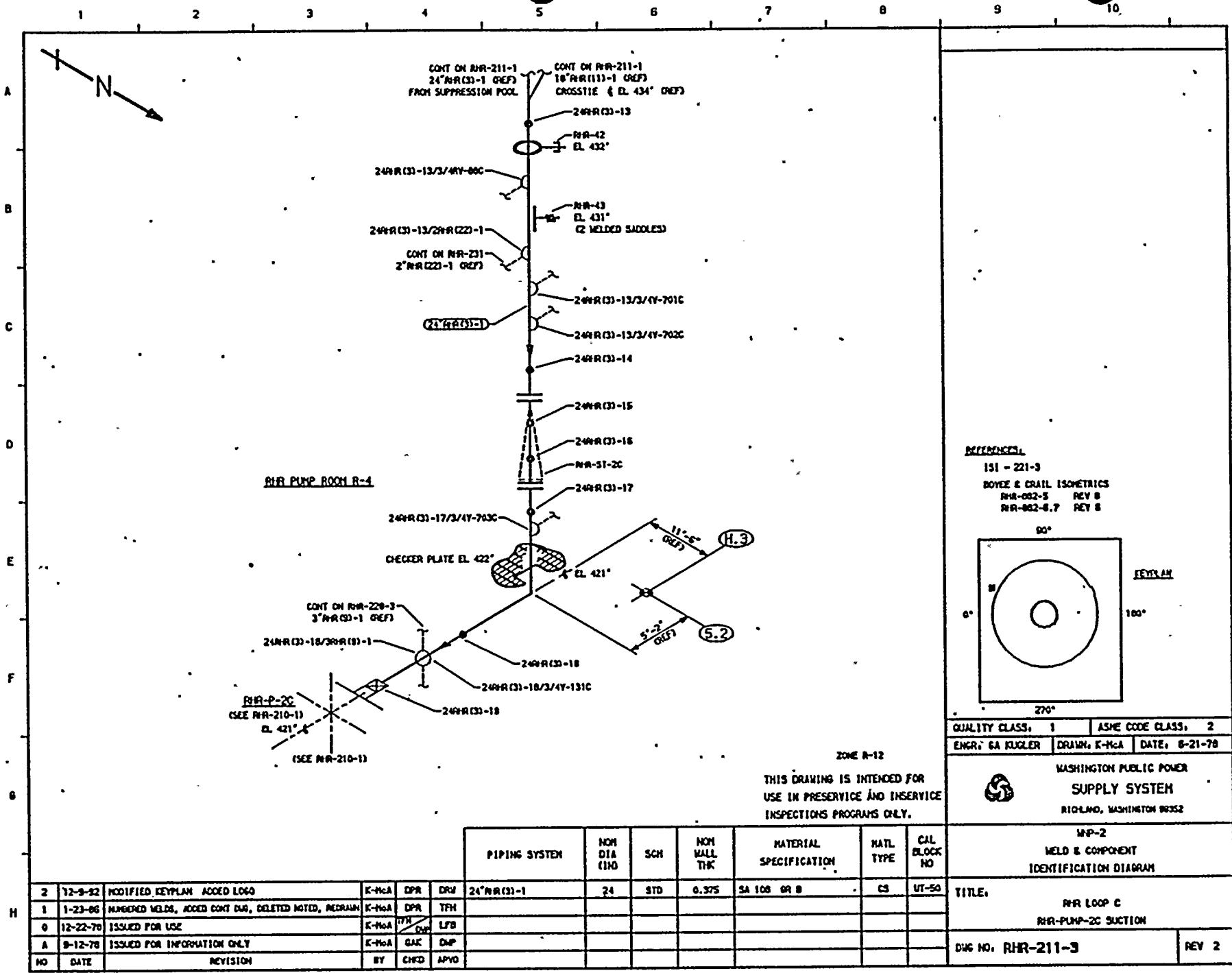
WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98352

ZONES R-12 & R-11  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

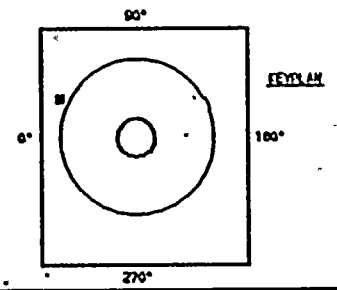
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (110)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-9-82	ADDED DETAIL FOR BOC-30-0027-08	K-MCA	DPR	DRH							
3	10-16-87	ADDED SHROUD RHR-50, NOTE 1 & LOGO.	K-MCA	DPR	TFH							
2	1-23-86	NUMBERED WELDS, DELETED NOTES, REDRAWN	K-MCA	DPR	TFH	18"RHR(211)-1	18	STD	0.375	SA 106 GR B	CS	UT-20
1	8-26-83	REVISED AS NOTED	K-MCA	DPR	TFH							
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	LFB							
A	8-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DMP							

WPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: RHR LOOP C CROSSTIE & COND FILL LINE	
DWG NO. RHR-211-2	REV 4





REFERENCES  
 151 - 221-3  
 BOYCE & CRILL ISOMETRICS  
 RHR-002-5 REV B  
 RHR-002-6.7 REV B



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR: SA KUGLER	DATE: 6-21-78

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98352

MP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: RHR LOOP C  
 RHR-PUMP-2C SUCTION  
 DWG NO: RHR-211-3 REV 2

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

							PIPING SYSTEM	NOM DIA (INO)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2	12-9-82	MODIFIED KEYPLAN ADDED LOGO	K-MCA	DPR	DRW		24\"RHR(3)-1	24	STD	6.375	SA 106 GR B	CS	UT-50
1	1-23-86	NUMBERED WELDS, ADDED CONT DWS, DELETED NOTED, REDRAWN	K-MCA	DPR	TFH								
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	LFB								
A	8-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	GAK	DNP								
NO	DATE	REVISION	BY	CHKD	APVD								

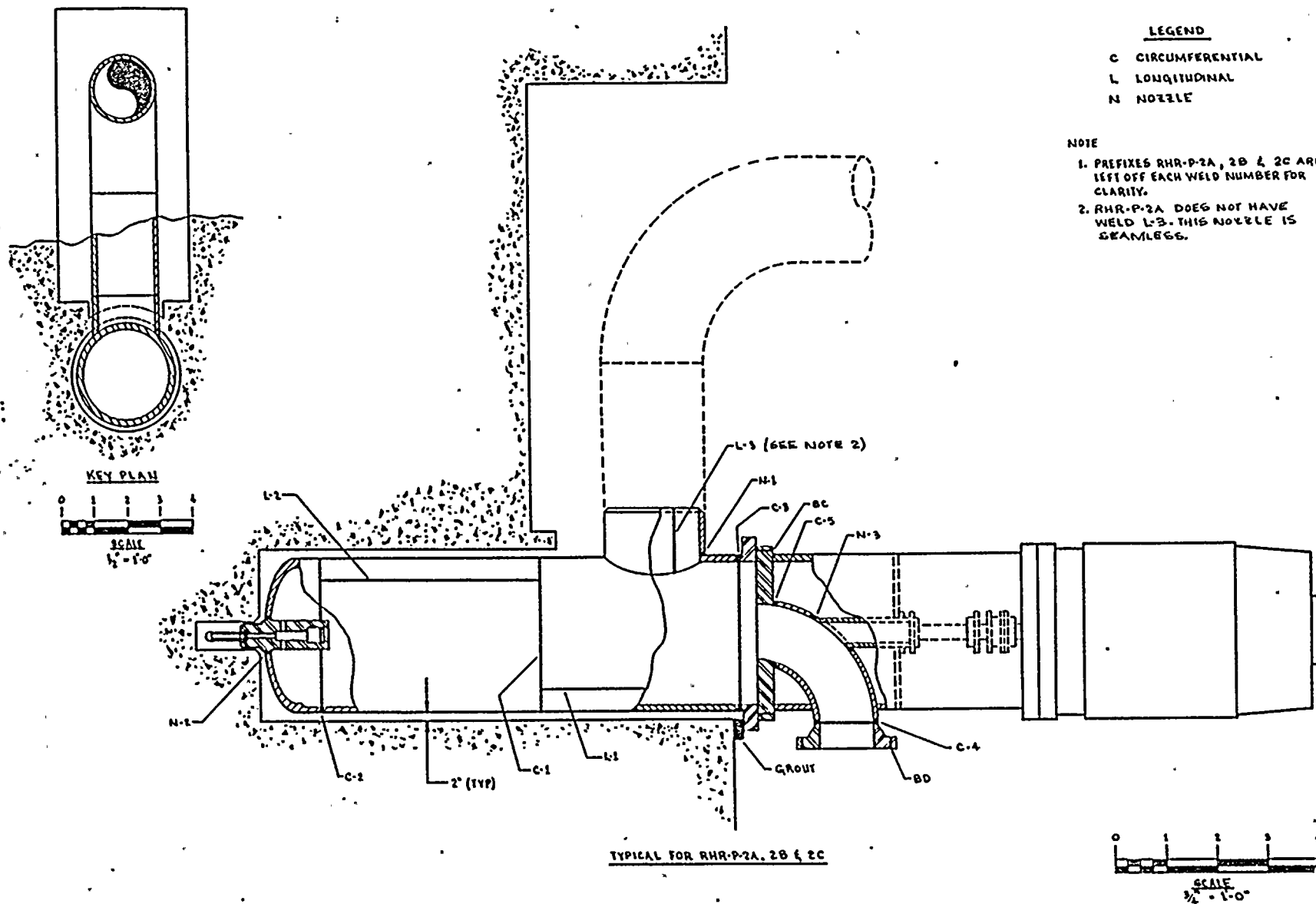








10-11 P



THIS DRAWING IS INTENDED  
FOR USE IN PRESERVICE AND  
INSERVICE INSPECTION  
PROGRAMS ONLY

**WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM**  
RICHLAND, WASHINGTON 99353

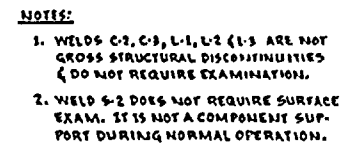
2	12-28	REVISED TO INCLUDE RHR-P-2C (NOTE 2)	K-M-A	DR	TFR
1	11-11	REDRAWN	K-M-A	APPD	2/6
0	11-22	ISSUED FOR USE	K-M-A	APPD	2/6

ENGINEER J MOYLE  
DRAWN K-M-ANDREW  
DATE 10-24-18

WHP-2  
WELD & COMPONENT IDENTIFICATION DIAGRAM  
RHR-P-2A, 2B & 2C WELD-6  
DWG NO RHR-213  
REV 2

NO	DATE	REVISION	BY	CHKD	APPVD	NO	DATE	REVISION	BY	CHKD	APPVD
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- C CIRCUMFERENTIAL
- L LONGITUDINAL
- S INTERGALLY WELDED  
SUPPORT
- BD BOLTING



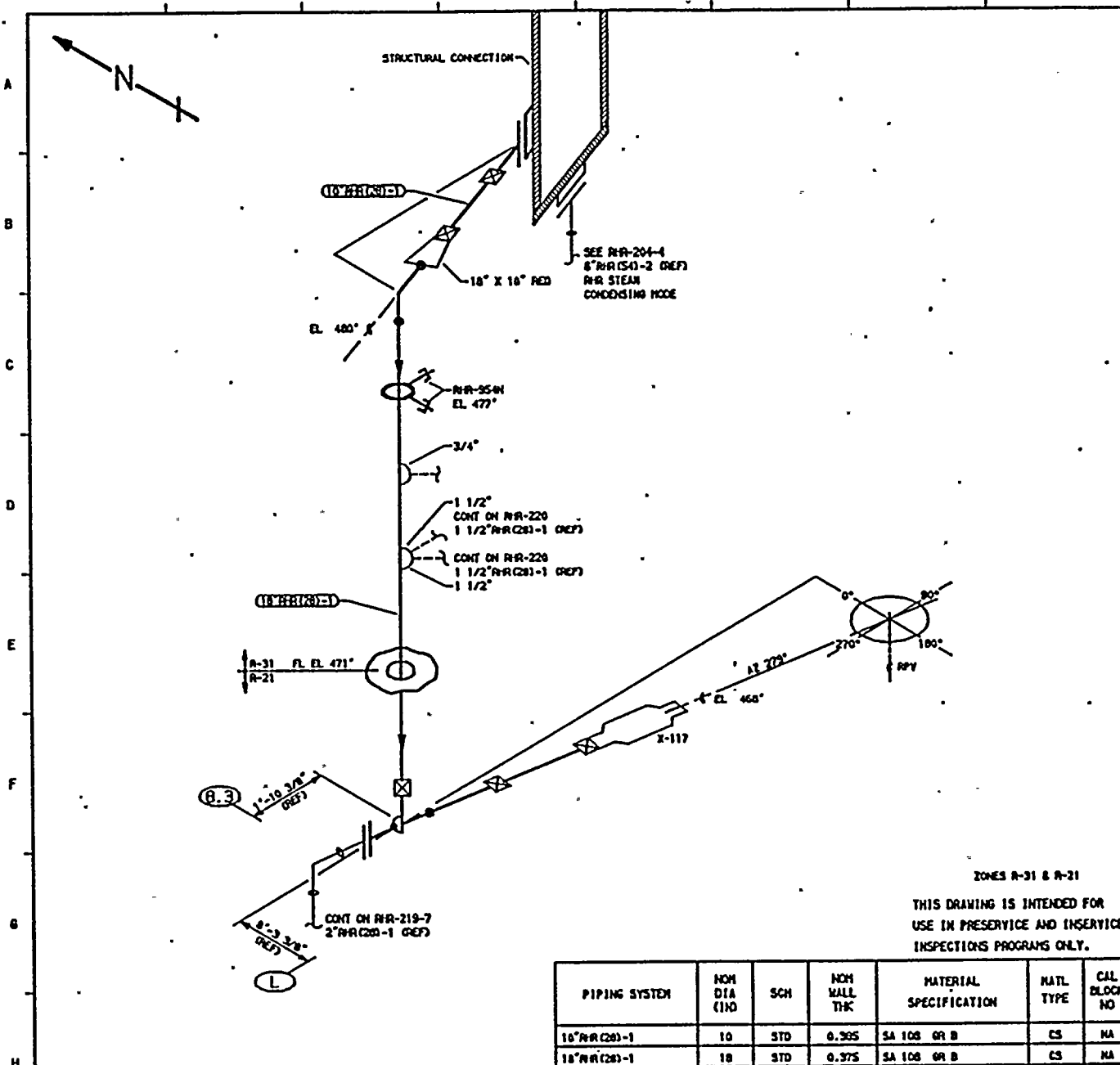
	NOM DIA	NOM WALL THK	MATERIAL SPECIFICATION	CAL BLOCK NO
SHELL	58"	1.0	SA 516 GR70	UT-42
NOZZLE	20"	3.75	SA 105 GR II	UT-42



REV 1

NO	DATE	REVISION	BY	CHKD	APPVD	NO	DATE	REVISION	BY	CHKD	APPVD
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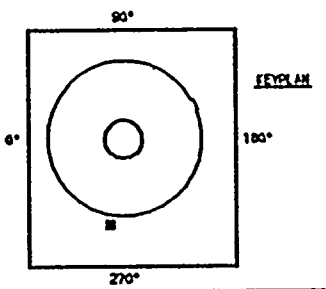


**NOTES**

1. ALL WELDS ON THIS DRAWING ARE EXEMPT FROM VOLUMETRIC AND/OR SURFACE EXAMINATION PER INC-1221 (7).

**REFERENCES:**

ISI - 221-1  
 BOYCE & CRILL ISOMETRIC  
 RHR-067-40.44 REV B



QUALITY CLASS. 1	ASME CODE CLASS. 2
ENGR. K-McANDREW	DRAWN. K-McA DATE. 2-23-85

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 BLOOMING, WASHINGTON 90352

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

**TITLE:** RELIEF LINE TO SUPPRESSION POOL

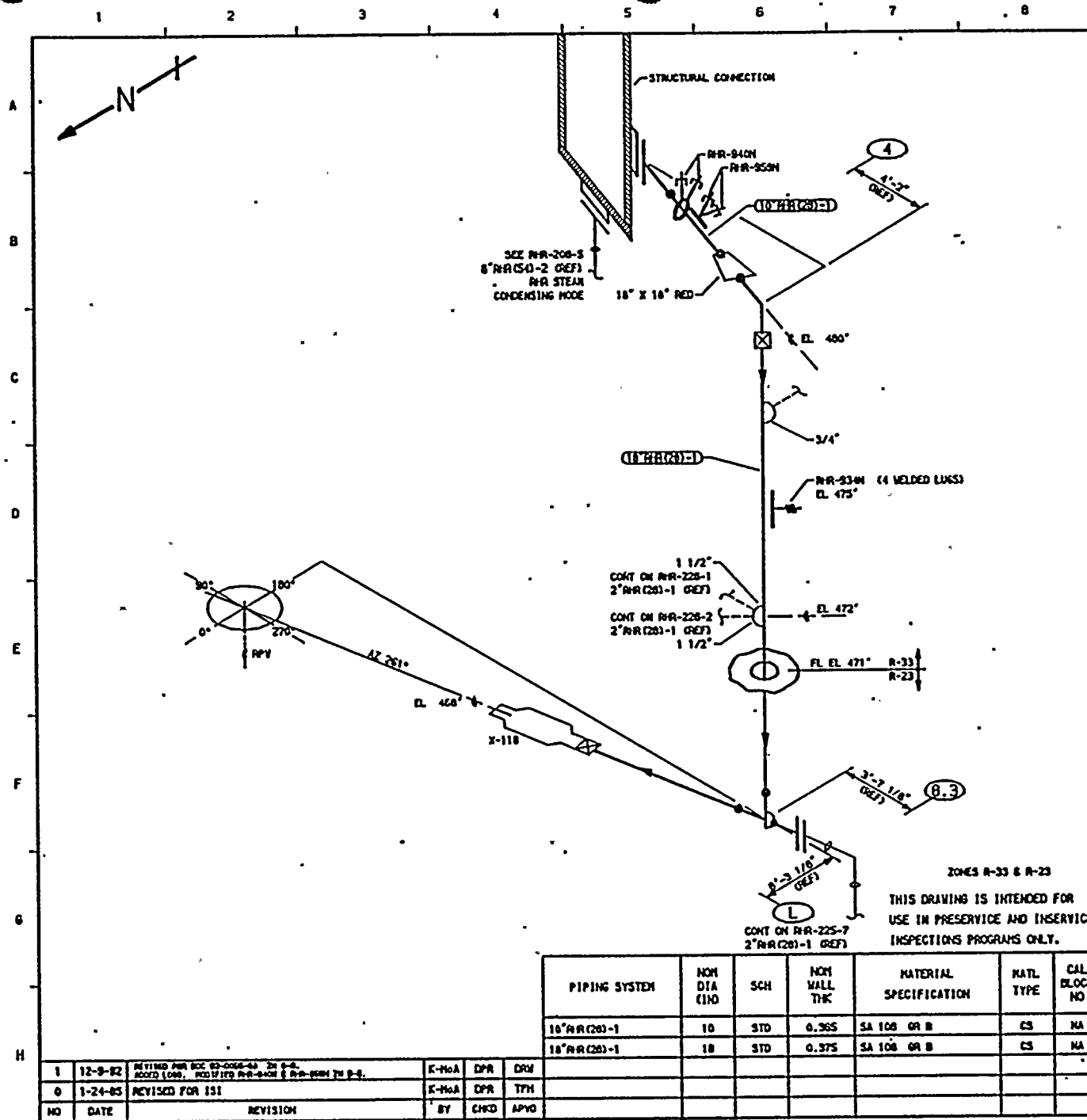
DWG NO. RHR-216 REV 1

ZONES R-31 & R-21  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
18" RHR (281)-1	18	STD	0.305	SA 106 GR B	CS	NA
18" RHR (281)-1	18	STD	0.375	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	REVISED FOR ISI	K-McA	DPR	DRW
0	1-24-85	REVISED FOR ISI	K-McA	DPR	TPH



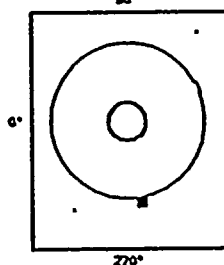


# NOTES

- ALL WELDS ON THIS DRAWING ARE EXEMPT FROM VOLUMETRIC AND/OR SURFACE EXAMINATION PER IWC-1221 (1).

## REFERENCE

ISI - 221-2  
BOYCE & GRAIL ISOMETRIC  
RHR-826-34.35 REV 8



KEY PLAN

QUALITY CLASS, 1 ASME CODE CLASS, 2  
ENGR, K-McANDREW DRAWN, K-McA DATE, 2-23-85

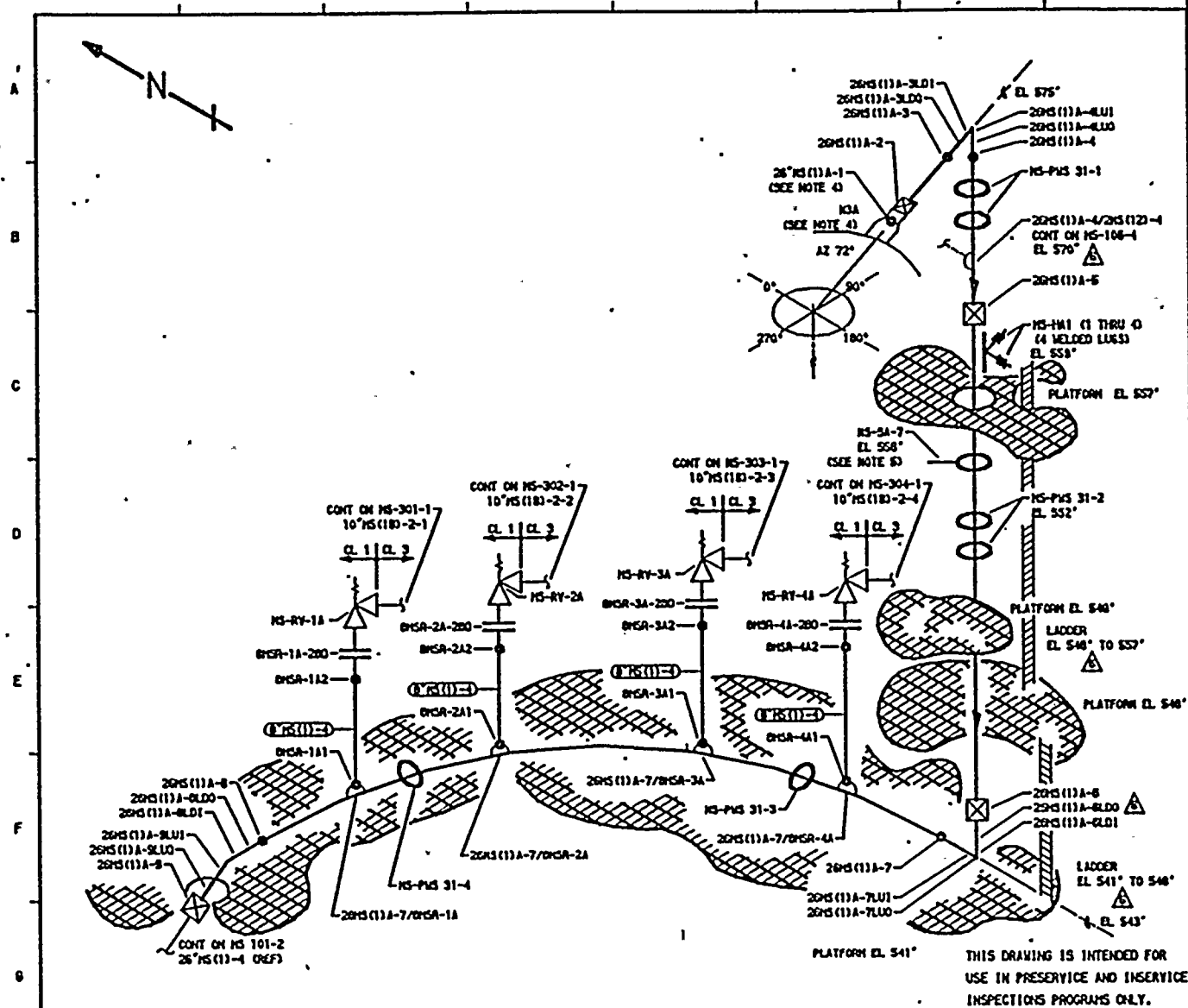


WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMONT, WASHINGTON 98352

W-P-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM





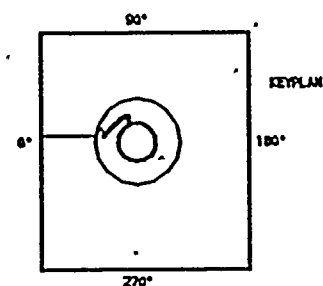


# NOTES:

1. WELD 26MS(11A)-1 UTILIZED CAL BLOCK UT-104.
2. ACCESS TO WELDS 26MS(11A)-1 THRU 26MS(11A)-5 REQUIRES TEMPORARY SCAFFOLDING.
3. ACCESS TO WELD 26MS(11A)-7 REQUIRES REMOVAL OF MS-515.
4. FOR NOZZLE ASSEMBLY DETAILS SEE RPY-107.
5. MS-SA-7 CHANGED FROM SAUNDER TO STUT, MS-SA-5, MS-SA-6, MS-SA-8 & MS-SA-10 WERE DELETED PER DOC-06-0525-1A.

# REFERENCES:

- ISI - 229-1  
 GENERAL ELECTRIC DRAWINGS  
 761 E 922 131 C 8031  
 131 C 7731 131 C 8030  
 131 C 8403 131 C 8046  
 131 C 0501  
 CBI NUCLEAR CO  
 SS, REV 3, MS NOZZLE  
 BOYCE CHAIL/GERI  
 DC/6-211A REV 7



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. D TIMPINS	DATE, 1-10-78

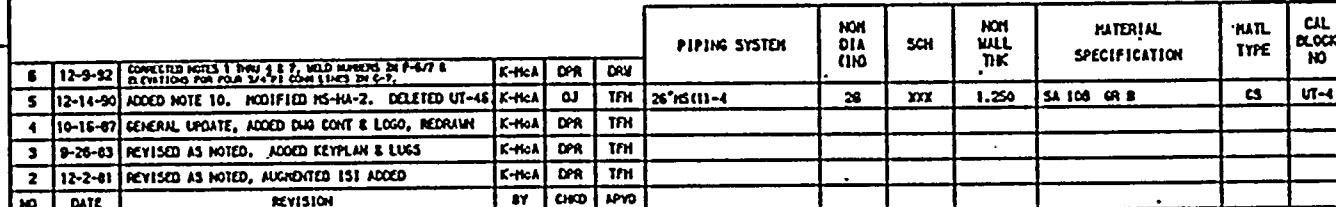
WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

W-P-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

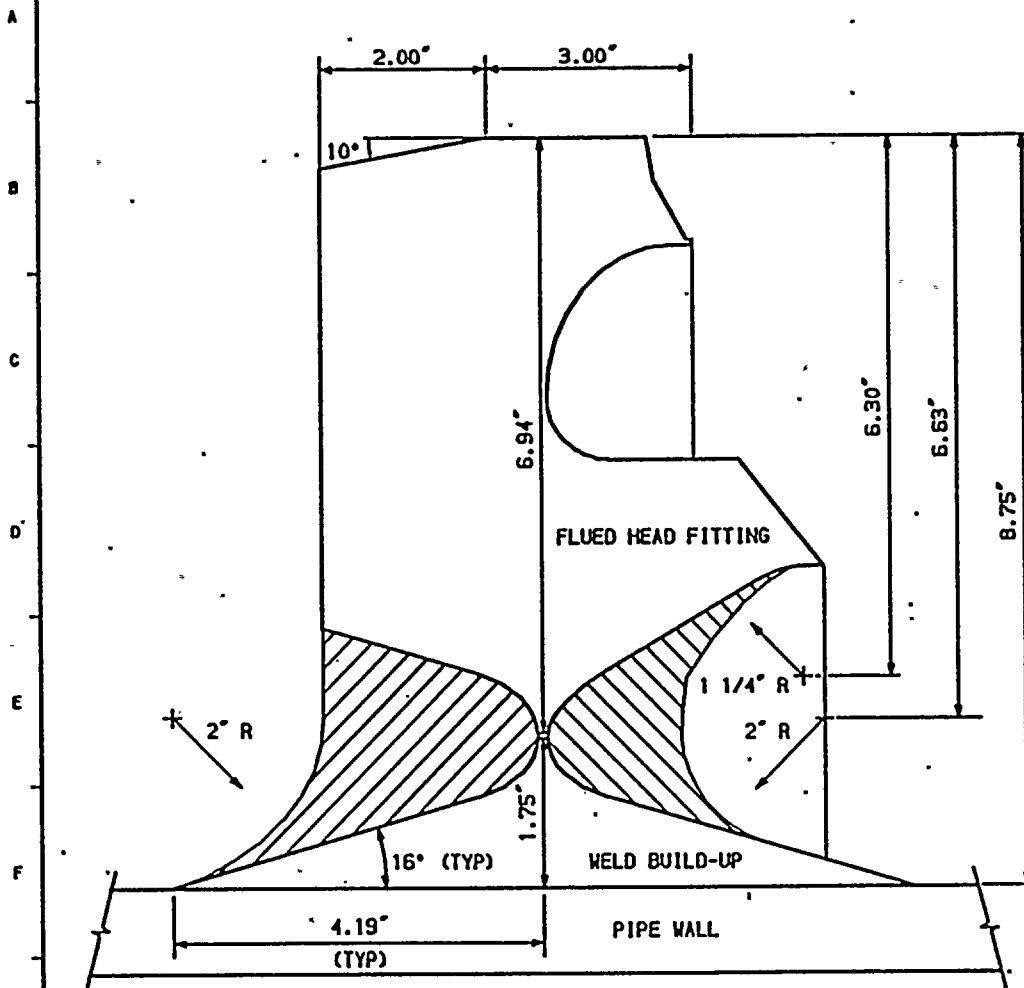
TITLE:  
 MAIN STEAM LINE A

DWG NO. MS-101-1 REV 6

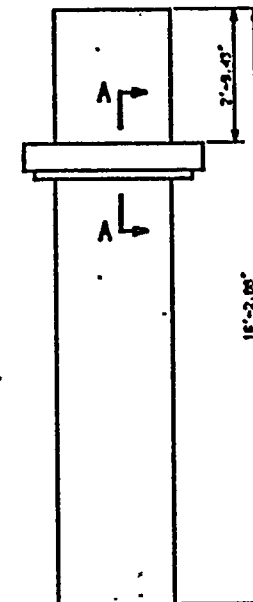
						PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8	12-9-82	CORRECTED WELD NUMBERS IN P-8 & C-8 ON B-6. ADDED ELEVATIONS FOR 26"MS, 2"MS & 1"ADORN.	K-HCA	DPR	DRW							
5	12-14-90	ADDED 1ST DUE MFP, DUE LINE CONT, NOTE 6 & MFA ELEVATIONS, MODIFIED LOGO, KEYPLAN & MS-M-1. DELETED UT-46. REDRAWN	K-HCA	OJ	TFH	26"MS(1)-4	26	XXX	1.125	SA 106 GR B	CS	UT-4
4	9-16-83	ADDED UT-46, LUGS & AS NOTED. ADDED KEYPLAN.	K-HCA	DPR	TFH	8"MS(1)-4	8	160	0.306	SA 106 GR B	CS	UT-2
3	12-2-81	REVISED AS NOTED	K-HCA	DPR	TFH							
2	8-30-79	ADDED NOTE 4. REVISED AS NOTED	K-HCA	TFH	LFB							
NO	DATE	REVISION	BY	CHKD	APVD							





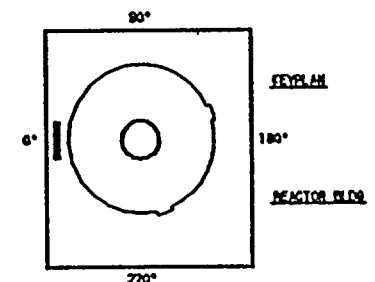


SECTION A-A



NOTES

1. THIS DETAIL OF THE RAIN STEAM FLUED HEAD IS ASSOCIATED WITH MS-101-2, MS-102-2, MS-103-2 & MS-104-2.



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. D TIMMINS	DATE, 4-24-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
BIOLEND, WASHINGTON 98362

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RAIN STEAM FLUED HEAD

DWG NO. MS-101-3

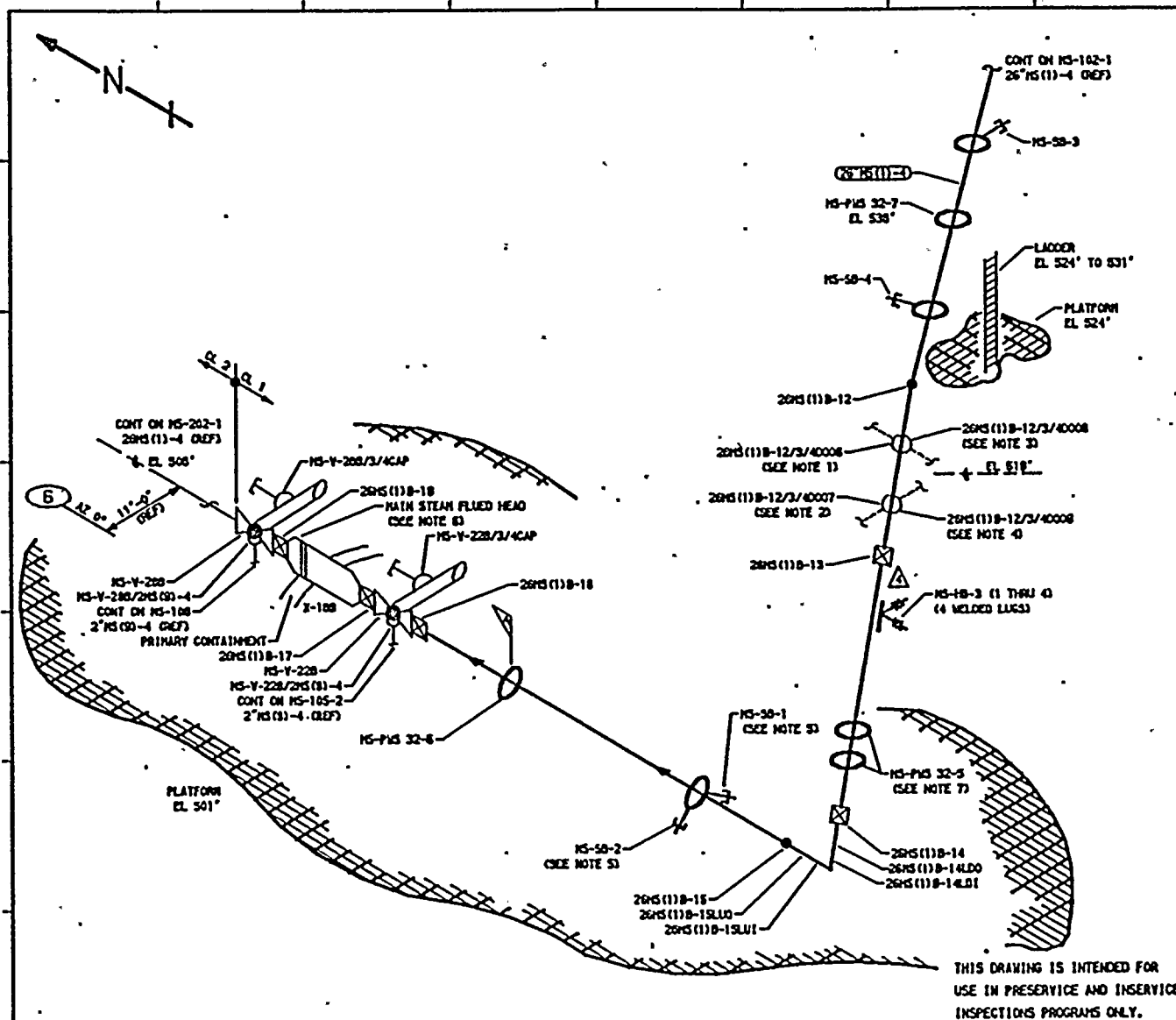
REV 1

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

						PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO
						26"MS(11)-4	26	XXX	1.125	SA 106 GR B	CS	UT-4
1	12-9-82	MODIFIED LOGO. ADDED KEYPLAN. REDRAWN	K-HoA	DPR	DRY	FLUED HEAD	NA	NA	NA	SA 105	CS	UT-4
2	11-27-70	ISSUED FOR USE	K-HoA	DMP	LFB							
3	5-19-70	ISSUED FOR INFORMATION ONLY	K-HoA	CH	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							







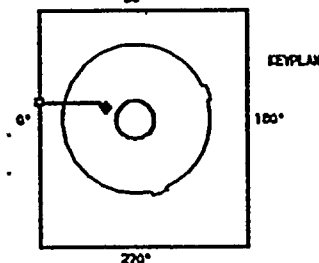
# NOTES

1. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-304) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
2. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-304) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
3. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-304) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
4. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-304) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
5. ACCESS TO WELD 26WS(1)B-15 REQUIRES REMOVAL OF COLLAR FOR MS-50-1 & MS-50-2.
6. FOR EXAM OF MAIN STEAM FLUED HEAD SEE DWG MS-103-3.
7. ACCESS TO WELD 26WS(1)B-14 IS RESTRICTED BY MS-PWS 32-5.

# REFERENCES

GENERAL ELECTRIC DRAWINGS  
 761 E 932 131 C 8403  
 131 C 7732 131 C 8028  
 131 C 8047 131 C 8029  
 131 C 8501 131 C 8030

BOYCE CRILL/GERI  
 DC/6-212 REV B  
 131 - 229-1



QUALITY CLASS, 1 ASME CODE CLASS, 1  
 ENGR, D TIMPINS DRAWN, K-MEA DATE, 1-17-78

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

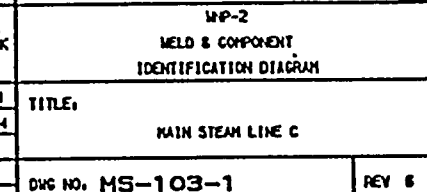
TITLE, MAIN STEAM LINE B

DWG NO, MS-102-2 REV 4

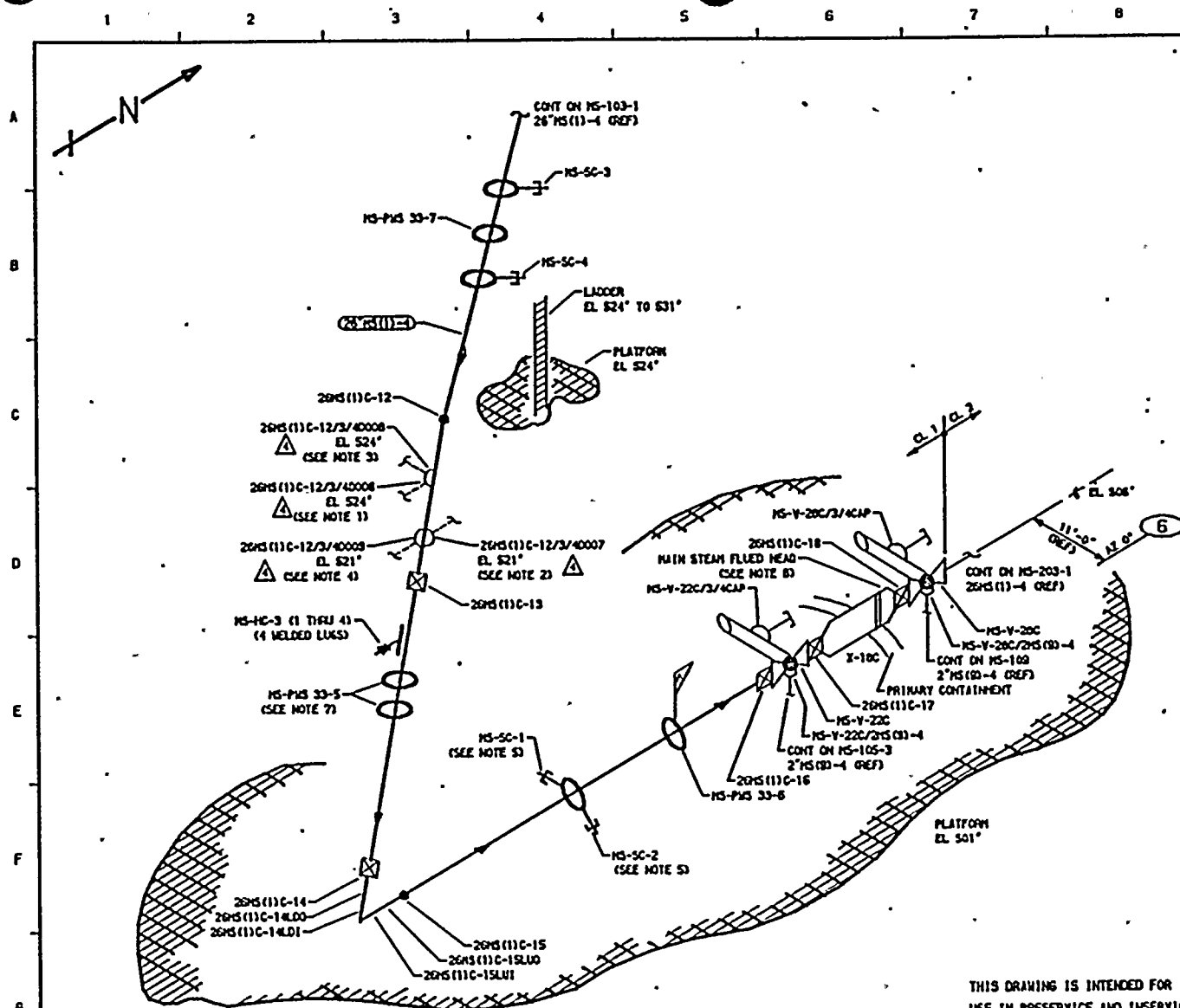
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-9-92	CORRECTED WELD NUMBERS 26WS(1)B-15, 15LUU, 15LUU ZONE 6-6, DELETED MS-50-3, MODIFIED MS-50-3	K-MEA	DPR	DRW							
3	10-16-87	GENERAL UPDATE, ADDED DWG CONT & LOGO, REDRAWN	K-MEA	DPR	TFH							
2	9-26-83	ADDED UT-48, LUGS & AS NOTED, 8-KEYPLAN	K-MEA	DPR	TFH	26"MS(1)-4	26	XXX	1.250	SA 106 GR B	CS	UT-4
1	12-2-81	REVISED AS NOTED, AUGMENTED ISI ADDED	K-MEA	DPR	TFH							
0	11-27-78	ISSUED FOR USE	K-MEA	DWP	LFB							
A	4-21-78	ISSUED FOR INFORMATION ONLY	K-MEA	DCT	DWP							











# NOTES

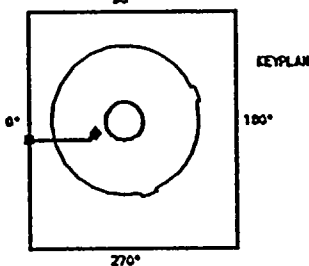
1. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-710) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
2. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-710) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
3. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-704) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
4. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-704) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
5. ACCESS TO WELD 20MS(11)C-15 REQUIRES REMOVAL OF MS-SC-1 & MS-SC-2.
6. FOR EXAM OF MAIN STEAM FLUED HEAD SEE DWG MS-103-3.
7. ACCESS TO WELD 20MS(11)C-14 IS RESTRICTED BY MS-PMS 33-5.

# REFERENCES

GENERAL ELECTRIC DRAWINGS  
761 E 952 131 C 8463  
131 C 7733 131 C 8028  
131 C 8047 131 C 8029  
131 C 8501 131 C 8030

BOYCE CRALL/GERI  
DC/G-213 REV B

131 - 229-2



QUALITY CLASS. 1 ASME CODE CLASS. 1  
ENGR. D TIMMINS DRAWN. K-MCA DATE. 1-19-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

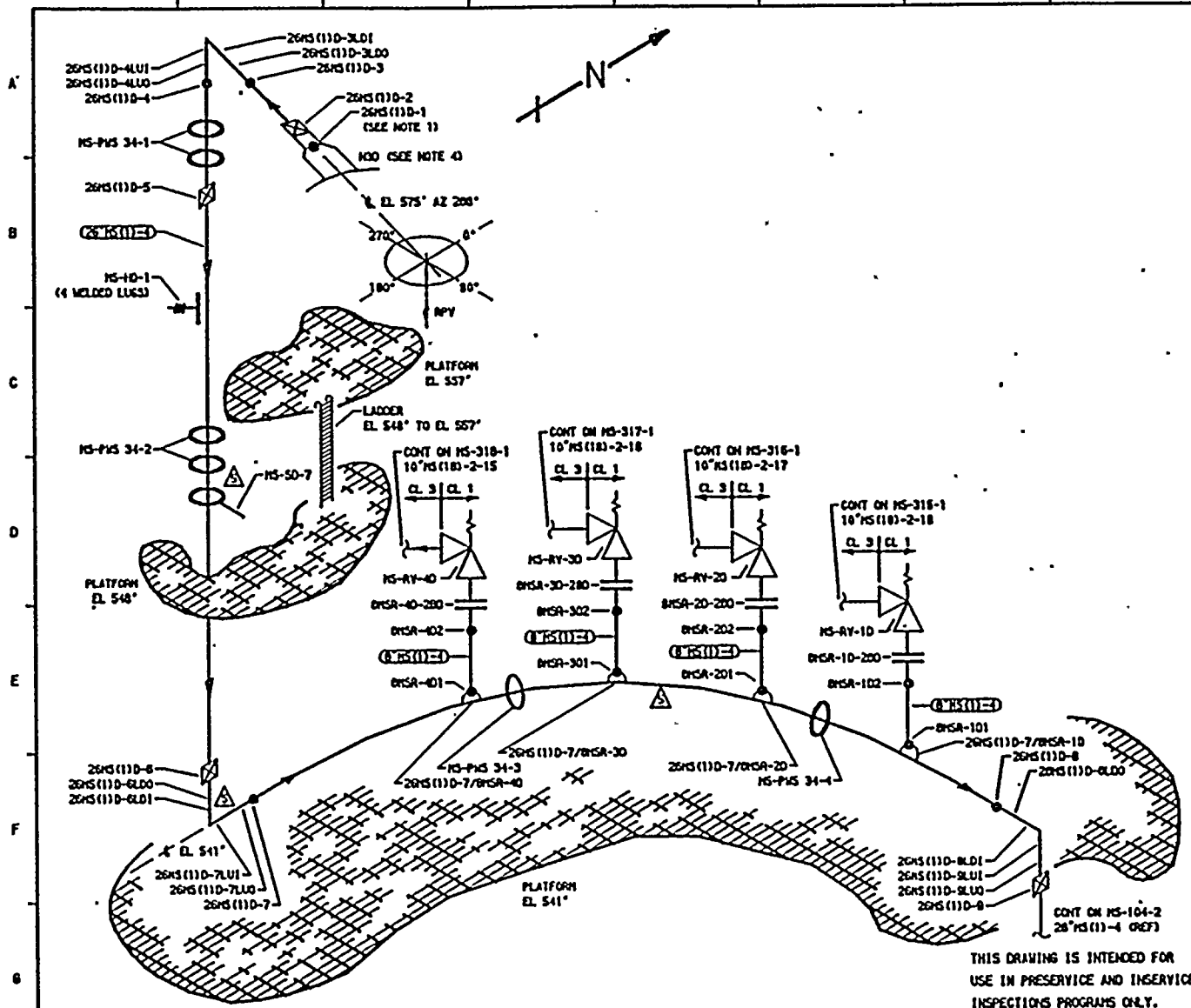
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: MAIN STEAM LINE C  
DWG NO. MS-103-2 REV 4

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DTA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-9-82	CORRECTED ORIENTATION & ELEVATION FOR 3/4"PI CONT.	K-MCA	DPR	CRV							
3	10-16-87	GENERAL UPDATE, ADDED DWG CONT & LOGO, REDRAWN	K-MCA	DPR	TFH							
2	9-26-83	REVISED AS NOTED. ADDED KEYPLAN & LOGO	K-MCA	DPR	TFH	20MS(11)-4	20	XXX	1.250	SA 108 GR B	CS	UT-4
1	12-2-81	REVISED AS NOTED, AUGMENTED 1ST ADDED	K-MCA	DPR	TFH							
0	11-27-70	ISSUED FOR USE	K-MCA	DMP	LFB							
A	4-21-78	ISSUED FOR INFORMATION ONLY	K-MCA	DCT	DMP							





THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

#### NOTES:

1. WELD 26MS(110)-1 UTILIZES CAL BLOCK UT-104.
2. ACCESS TO WELDS 26MS(110)-1 THRU 26MS(110)-5 REQUIRES TEMPORARY SCAFFOLDING.
3. DELETED
4. FOR NOZZLE ASSEMBLY DETAILS SEE RPY-107.
5. MS-50-7 CHANGED FROM SHAFTER TO STRUT PER DOC-06-0525-SC-023.
6. MS-50-3, MS-50-8, MS-50-9 & MS-50-10 WERE DELETED PER DOC-06-0525-SC-023.

#### REFERENCES:

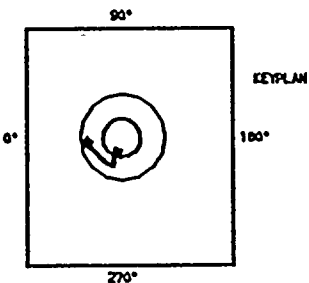
ISI - 229-2

#### GENERAL ELECTRIC DRAWINGS

761 E 932 131 C 8048  
131 C 7734 131 C 8030  
131 C 8403 131 C 8031  
131 C 8501

#### CBR NUCLEAR CO

SS, RCV 3, MS NOZZLE  
BOYCE CRALL/GERI  
DC/6-214 REV 8



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. D TIMPINS	DATE, 1-19-79



WASHINGTON PUBLIC POWER

SUPPLY SYSTEM

RIOGLAND, WASHINGTON 98302

MP-2

WELD & COMPONENT  
IDENTIFICATION DIAGRAM

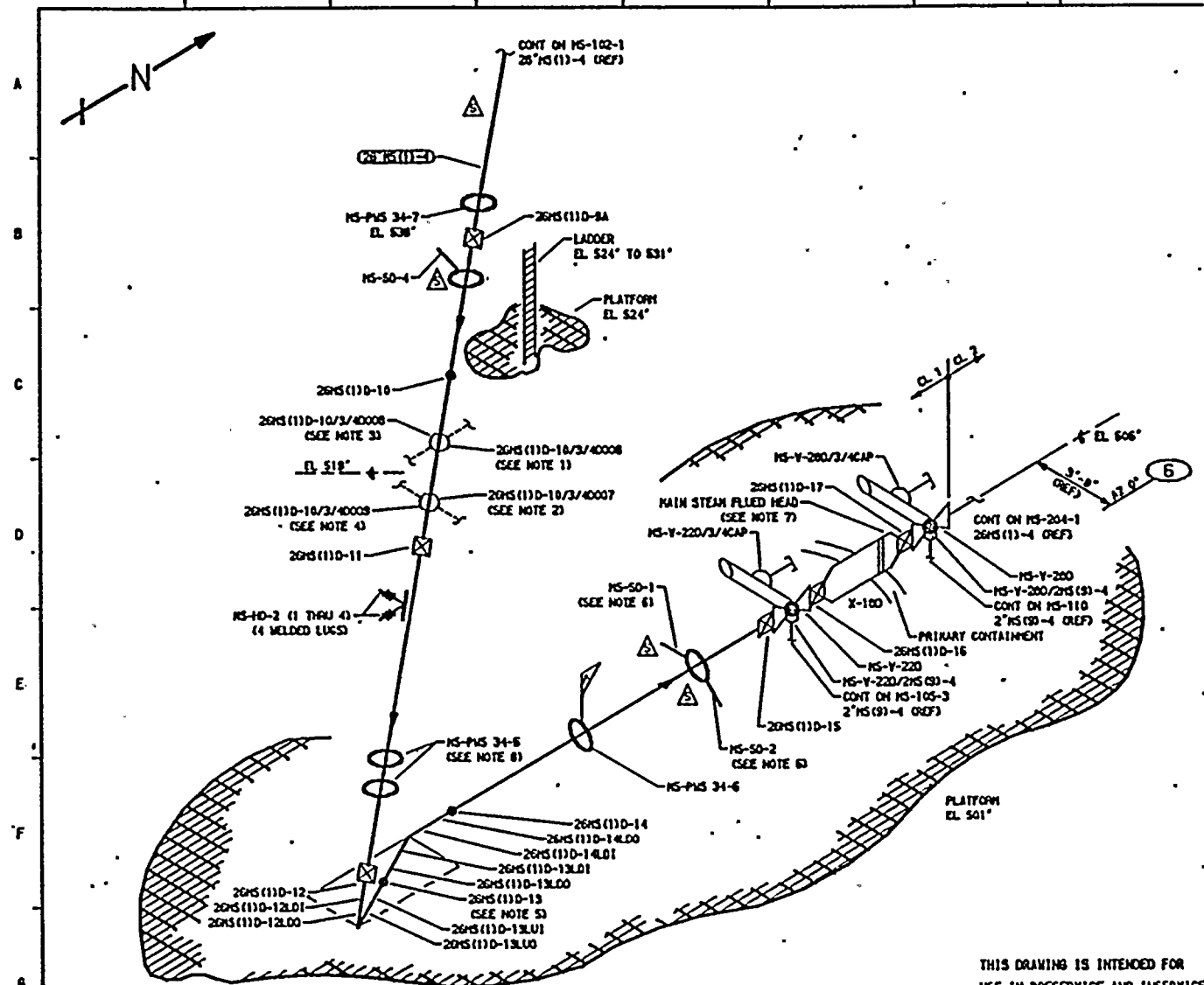
TITLE: MAIN STEAM LINE D

DWG NO. MS-104-1

REV 5

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (110)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
5	12-9-82	ADDED NOTES 5 & 6. DELETED UT-48 & NOTE 3.	K-HCA	DPR	DRW							
4	10-18-87	ADDED MS-50-9, MS-50-10, 131 Dwg REF & LOGO. REDRAWN	K-HCA	DPR	TFH							
3	9-26-83	ADDED UT-46, LUGS & AS NOTED ADDED KEYPLAN	K-HCA	DPR	TFH							
2	11-5-80	ADDED NOTE 4. REVISED AS NOTED	K-HCA	TH	DMP	26MS(110)-4	26	XXX	1.125	SA 106 GR B	CS	UT-4
1	1-10-79	CAL BLOCK REFERENCE CHANGED (FOR 8" PIPING)	K-HCA	TH	DMP	8"MS(11)-4	8	180	0.908	SA 106 GR B	CS	UT-24
0	11-27-70	ISSUED FOR USE	K-HCA	DMP	LFB							
A	4-21-78	ISSUED FOR INFORMATION ONLY	K-HCA	DCT	DMP							





# NOTES

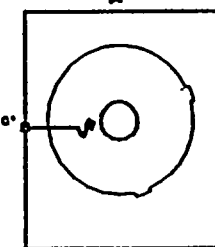
1. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-114) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
2. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-113) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
3. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-704) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
4. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT (X-704) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
5. WELD 26HS(11A)-13 IS FITTING TO FITTING.
6. ACCESS TO WELD 26HS(11D)-15 REQUIRES REMOVAL OF MS-50-1 & MS-50-2.
7. FOR EXAM OF MAIN STEAM FLUED HEAD SEE DWG MS-101-3.
8. ACCESS TO WELD 26HS(11A)-12 IS RESTRICTED BY MS-PMS 34-5.
9. MS-50-1, MS-50-2 & MS-50-4 WERE CHANGED FROM SHROUD TO STRUT PER DOC-88-0525-SC-023.
10. MS-50-3 WAS DELETED PER DOC-88-0525-SC-023.

# REFERENCES

## GENERAL ELECTRIC DRAWINGS

761 E 952 131 C 8048  
131 C 7734 131 C 8030  
131 C 8463 131 C 8031  
131 C 8501

BOYCE CRAIL/GERI  
DC/6-214 REV 8  
151 - 223-2



QUALITY CLASS. 1 ASME CODE CLASS. 1  
ENGR. D TIMMINS DRAWN. K-MCA DATE. 1-29-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (INO)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
5	12-9-92	ADDED NOTES 9 & 10. DELETED UT-48.	K-MCA	DPR	DRV							
4	10-18-87	GENERAL UPDATE. ADDED DWG CONT & LOGO, REDRAWN	K-MCA	DPR	TFH							
3	9-26-83	REVISED AS NOTED. ADDED KEYPLAN	K-MCA	DPR	TFH							
2	12-2-81	REVISED AS NOTED. AUGMENTED 151 ADDED	K-MCA	DPR	TFH	26"MS(11)-4	26	XXX	1.250	SA 106 GR B	CS	UT-4
1	8-30-79	ADDED FIELD WELD 26HS(11D)-8A ZH B-2	K-MCA	DPR	LFB							
0	11-27-70	ISSUED FOR USE	K-MCA	DNP	LFB							
A	4-21-78	ISSUED FOR INFORMATION ONLY	K-MCA	DCT	DNP							

MP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE: MAIN STEAM LINE D
DWG NO. MS-104-2
REV 5

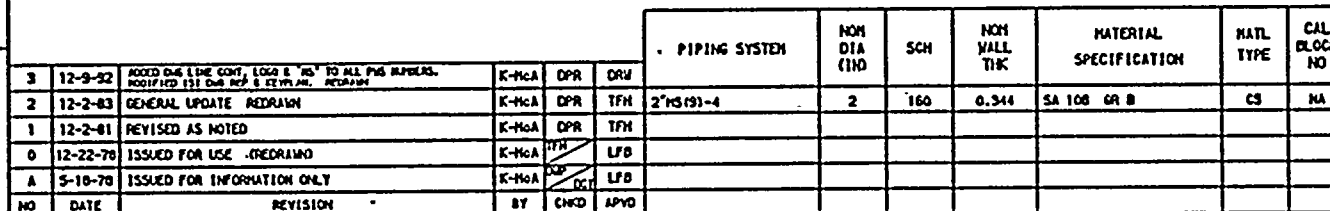




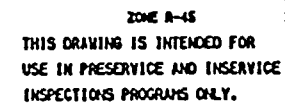


				THE REVISION PROCEDURE SHEET								
				PIPING SYSTEM			NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CALC BLOC NO
3	2-20-82	ADDED 154 DWS REV. DWS LINE CONT. HO-PDS 53-15, HO-PDS 53-18 & HO-PDS 53-19. MODIFIED COOD & SETPLANE PERMAN	K-MCA	QJ	DPR							
2	12-2-83	REVISED AS NOTED ADDED KEYPLAN	K-MCA	DPR	TFH	3"MS(9)-4	3	160	0.438	SA 106 GR B	CS	NA
1	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH							
0	12-22-79	ISSUED FOR USE ORDRAWD	K-MCA	TFH	LFB							
A	5-10-79	ISSUED FOR INFORMATION ONLY	K-MCA	DT	DHP							
NO	DATE	REVISION	BY	CHKD	APVD							











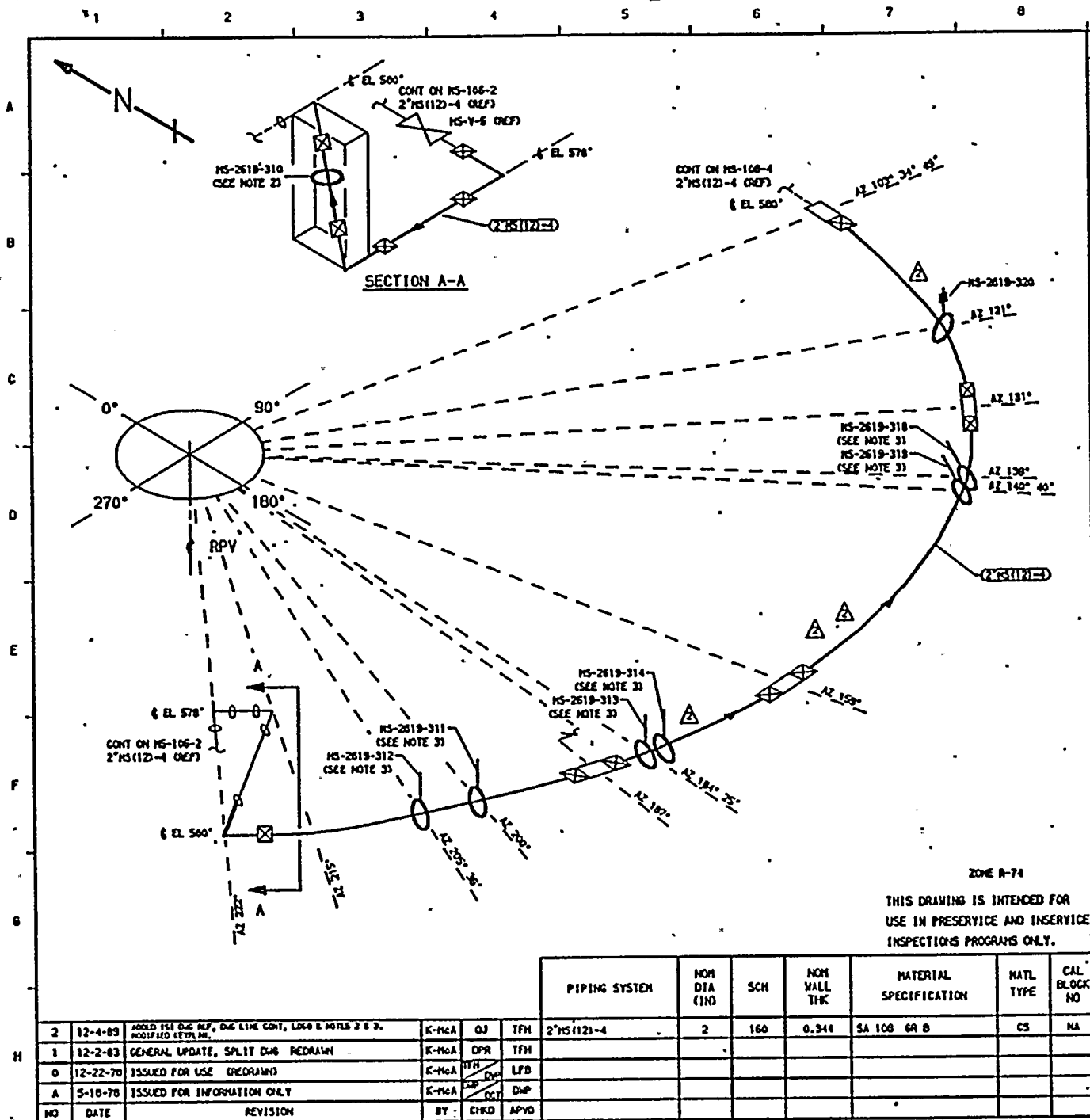










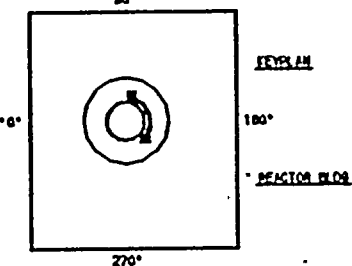


# NOTES

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH IVA-5000.
2. MS-2619-310 CHANGED FROM SHOULDER TO STRUT PER DOC-88-0525-0A.
3. MS-2619-311, -312, -313, -314, -318 & -319 CHANGED FROM SHOULDER TO STRUTS. MS-2619-315, -316, -317, -321 & -322 WERE DELETED PER DOC-88-0525-2A.

# REFERENCES

ISI - 229-1  
BURNS & ROE DRAWING  
1020 SH 52 REV 3  
WSH/DOO/NGER  
MS-2619-3 REV 8



QUALITY CLASS, 1 ASME CODE CLASS, 1  
ENGR, K-McANDREW DRAWN, K-MCA DATE, 4-13-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MAIN STEAM REACTOR VESSEL HEAD VENT

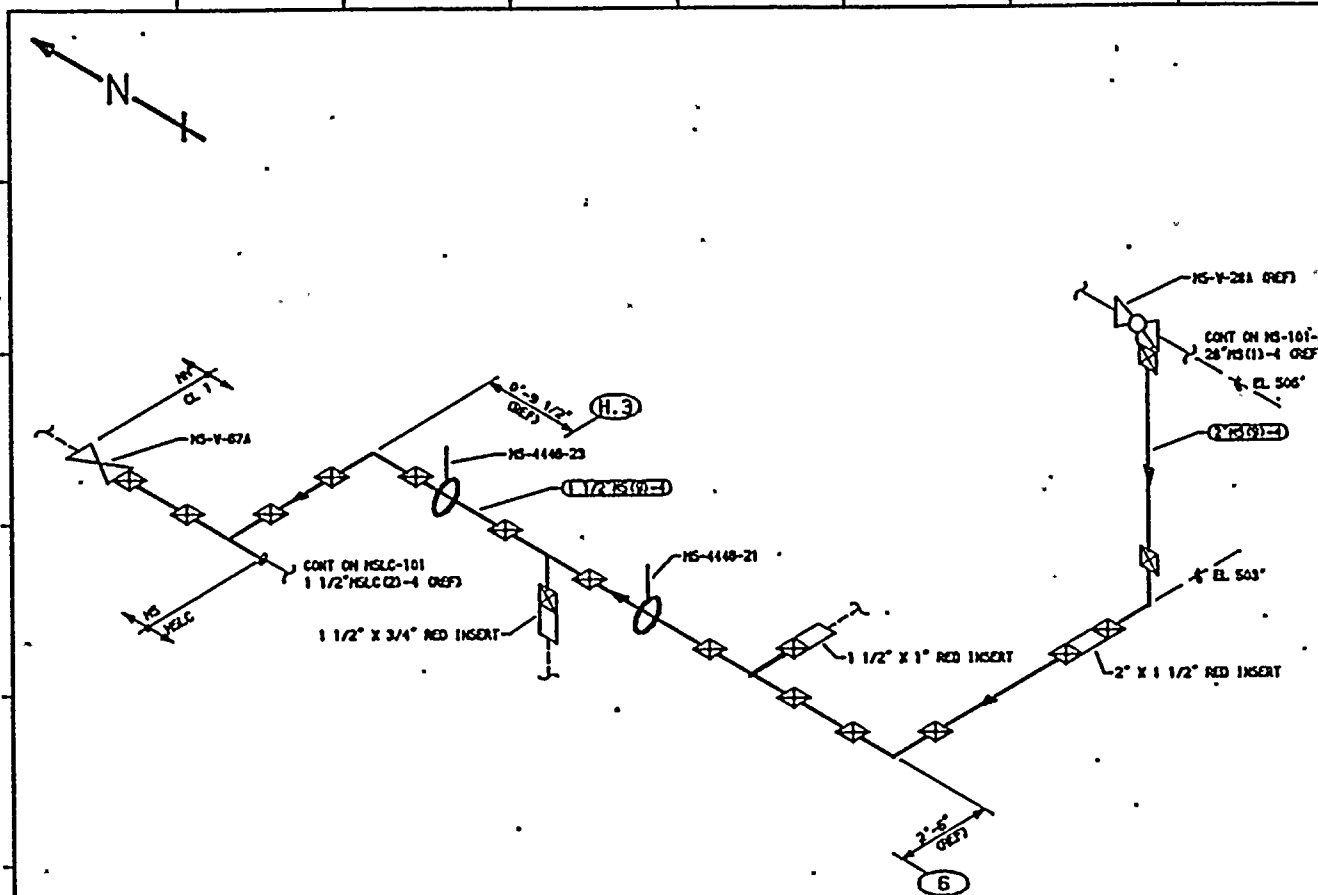
DWG NO, MS-106-3 REV 2





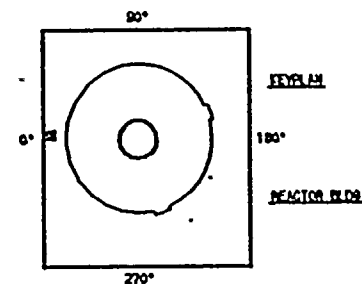
SECRET





# REFERENCES:

ISI - 229-1A & 229-3  
BOYCE & GRILL ISOMETRIC  
MS-4448-2 REV B



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR, K-McANDREW	DRAWN, K-McA DATE, 1-17-68



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMO, WASHINGTON 98362

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-Y-28A TO LOW PRESSURE MANIFOLD

DWG NO. MS-107

REV 0

ZONE R-42

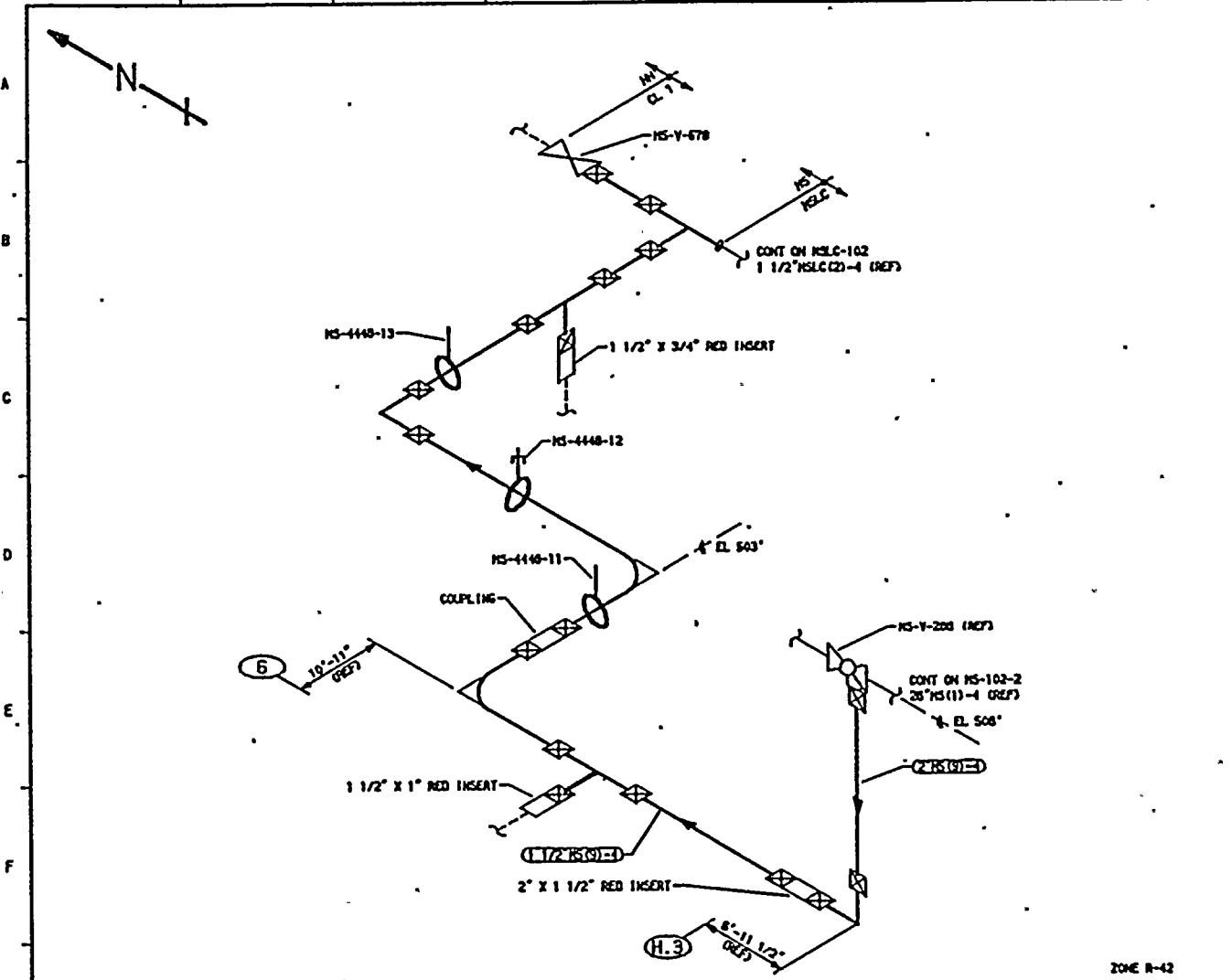
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2" MS(9)-4	1 1/2	160	0.281	SA 106 GR B	CS	NA
2" MS(9)-4	2	160	0.344	SA 106 GR B	CS	NA

NO	DATE	ISSUED FOR USE	BY	CHKD	APVD	TRN
0	10-18-67	ISSUED FOR USE	K-McA	DPR	TFH	
		REVISION				

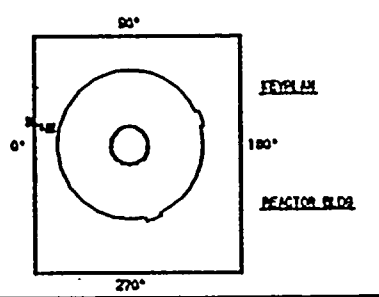






**REFERENCES**

131 - 228-1A & 228-3  
BOYCE & CRILL ISOMETRIC  
MS-4448-1 REV 11



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR, K-McANDREW	DATE, 1-17-68

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

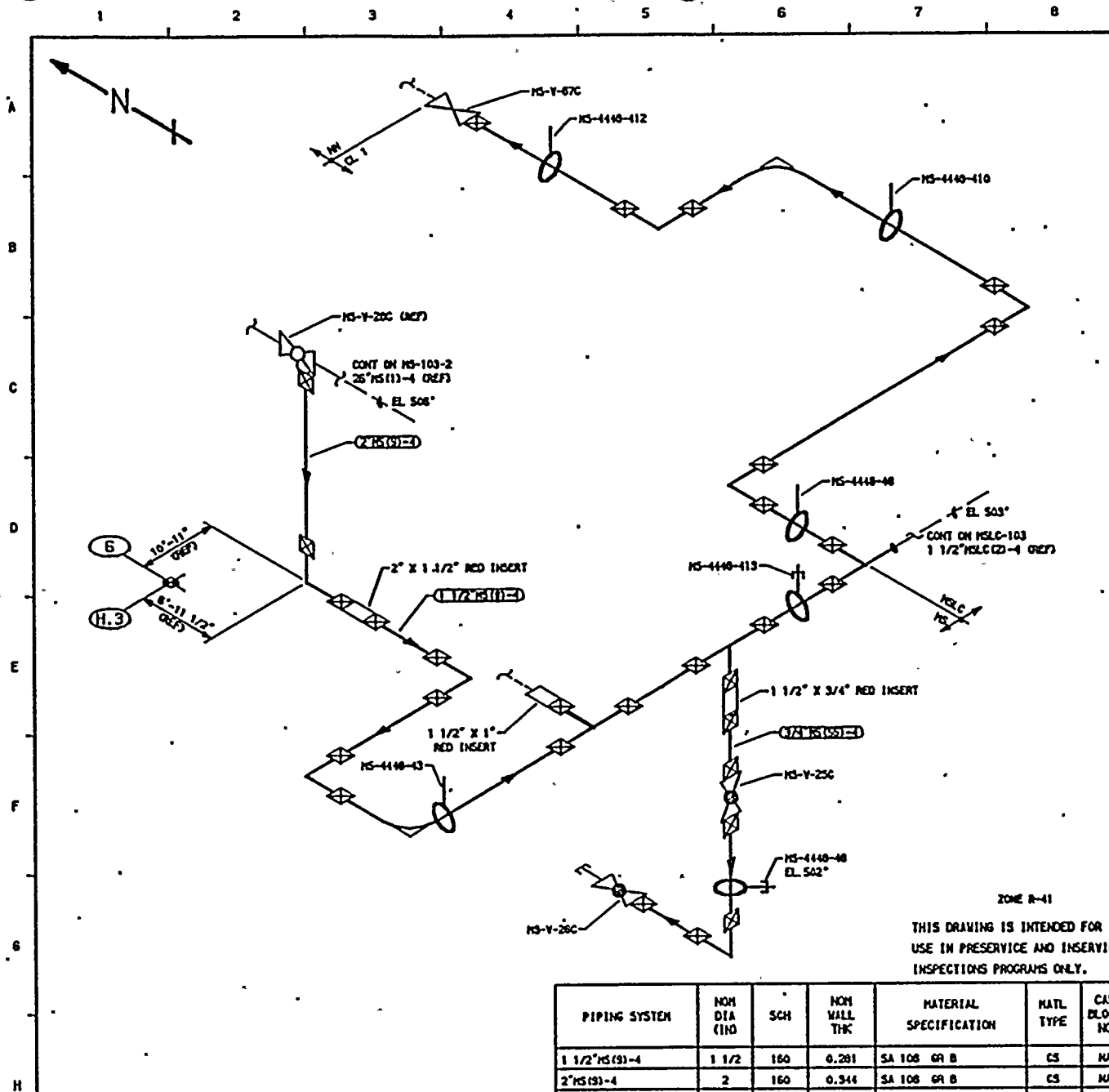
TITLE, MS-V-288 TO LOW PRESSURE MANIFOLD	REV 0
DWG NO, MS-108	

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2" MS(91)-4	1 1/2	160	0.281	SA 106 GR B	CS	NA
2" MS(91)-4	2	160	0.344	SA 106 GR B	CS	NA

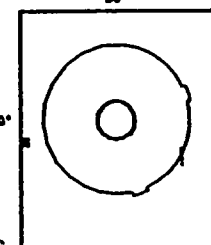
0	10-16-67	ISSUED FOR USE	K-McA	OPR	TFH
NO	DATE	REVISION	BY	ENGR	APVD





PETERSONCELL

131 - 228-2A & 228-3  
BOYCE & GRILL ISOMETRIC  
MS-4448-4 REV 10



FLYPLAN

REACTOR BLDG

QUALITY CLASS, 1 ASME CODE CLASS, 1  
ENGR, K-McANDREW DRAWN, K-McA DATE, 1-17-68



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
BIOLEND, WASHINGTON 98352

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-Y-28C TO LOW PRESSURE MANIFOLD

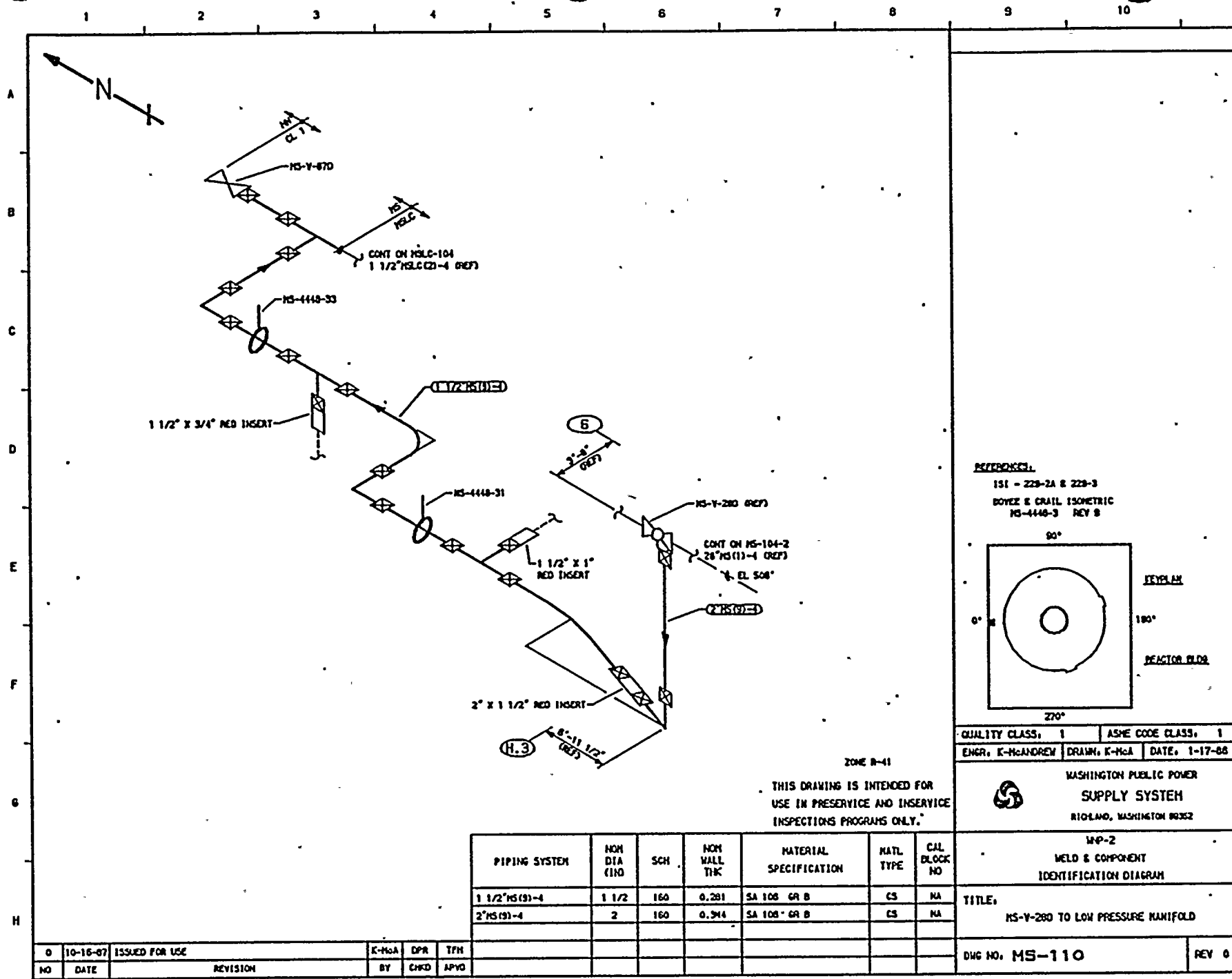
DWG NO. MS-109

REV 0

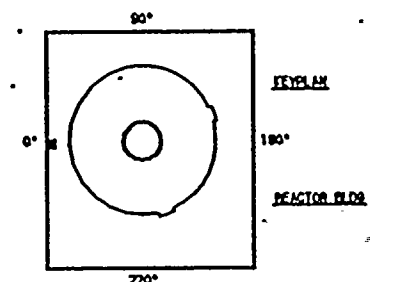
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2"MS(9)-4	1 1/2	160	0.281	SA 106 GR B	CS	NA
2"MS(9)-4	2	160	0.344	SA 106 GR B	CS	NA
3/4"MS(55)-4	3/4	160	0.219	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD	E-McA	DPR	TTH
0	12-4-63	ISSUED FOR USE						






REFERENCE:  
 ISI - 228-2A & 228-3  
 BOYCE & CRAIL ISOMETRIC  
 MS-4448-3 REV B



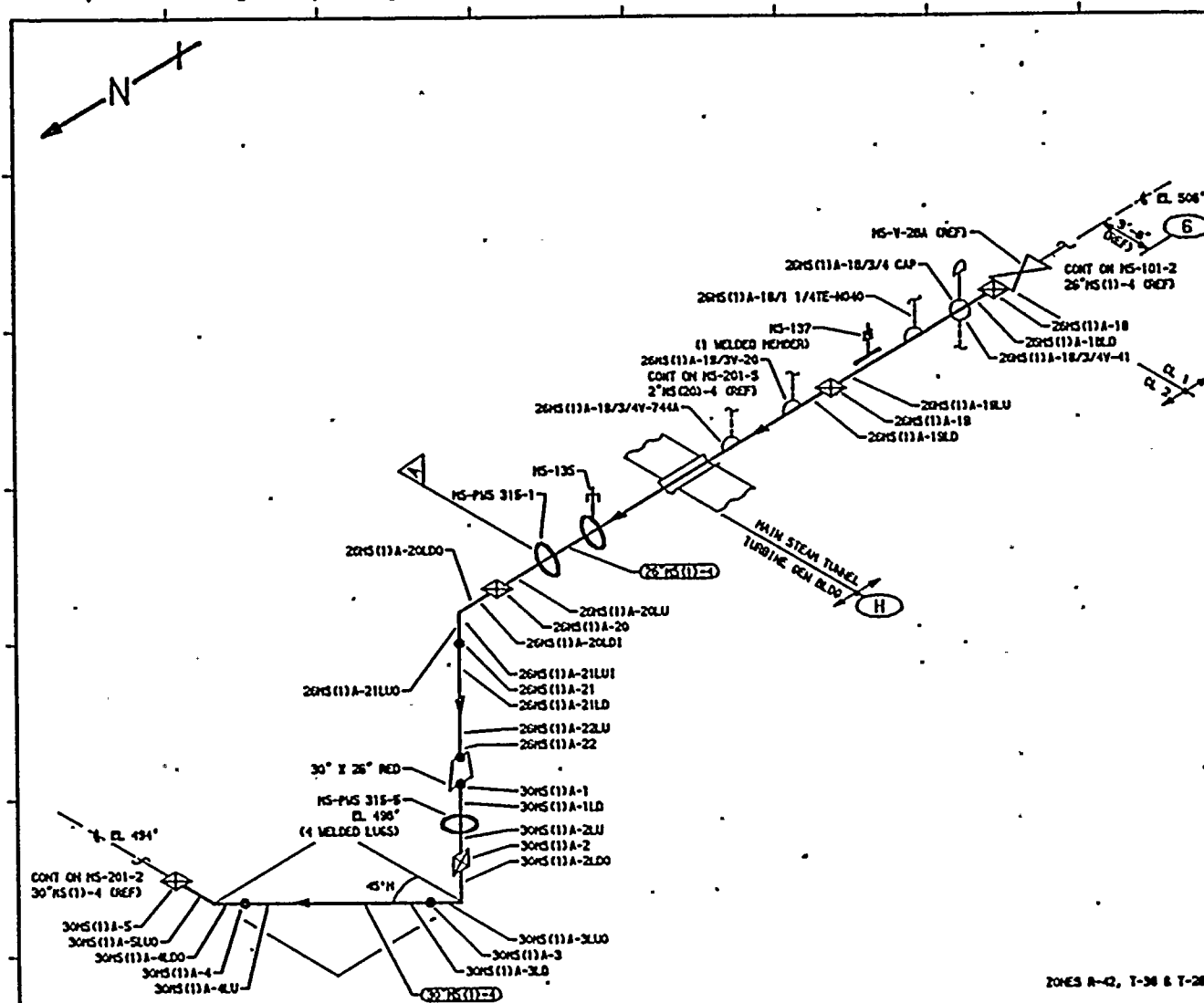
THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2"MS(3)-4	1 1/2	160	0.281	SA 106 GR B	CS	NA
2"MS(3)-4	2	160	0.314	SA 106 GR B	CS	NA

QUALITY CLASS, 1		ASME CODE CLASS, 1	
ENGR, K-McANDREW	DRAWN, K-McA	DATE, 1-17-66	
 WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WASHINGTON 99352			
WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM			
TITLE: MS-Y-280 TO LOW PRESSURE MANIFOLD			
DWG NO. MS-110			REV 0

NO	DATE	REVISION	BY	CHKD	APVD
0	10-16-67	ISSUED FOR USE	K-McA	DPR	TFH





**NOTES**

- SCAFFOLDING IS REQUIRED.

**REFERENCE:**

ISI - 229-1A  
 BOYCE & GRILL ISOMETRIC  
 MS-201-1.3 REV 12

**QUALITY CLASS, 1** **ASME CODE CLASS, 2**

**ENGR. D TIMMINS** **DRAWN. K-McA** **DATE, 2-1-78**

**WASHINGTON PUBLIC POWER**  
**SUPPLY SYSTEM**  
 RICHLAND, WASHINGTON 99352

**WP-2**  
**WELD & COMPONENT**  
**IDENTIFICATION DIAGRAM**

**TITLE:** **MAIN STEAM LINE A**

**DWG NO. MS-201-1** **REV 4**

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-9-82	ADDED ISI DUE TO P & Dwg E LINE CONT. MODIFIED REVISION	K-McA	DPR	DRW							
3	9-26-83	REVISED AS NOTED	K-McA	DPR	TFH							
2	12-2-81	REVISED AS NOTED, AUGMENTED ISI ADDED	K-McA	DPR	TFH	26"MS(11)-4	26	XXX	1.125	SA 155 CL 1 KCF 70	CS	UT-3
1	11-5-80	DELETED WELDS 30HS(11)A-2LD1, 2LU1, 4LD1 SLUT & NOTED	K-McA	TFH	DWP	30"MS(11)-4	30	XXX	1.250	SA 155 CL 1 KCF 70	CS	UT-1
0	1-9-79	ISSUED FOR USE	K-McA	CH	DWP							
A	4-24-78	ISSUED FOR INFORMATION ONLY	K-McA	CH	DWP							
NO		REVISION										

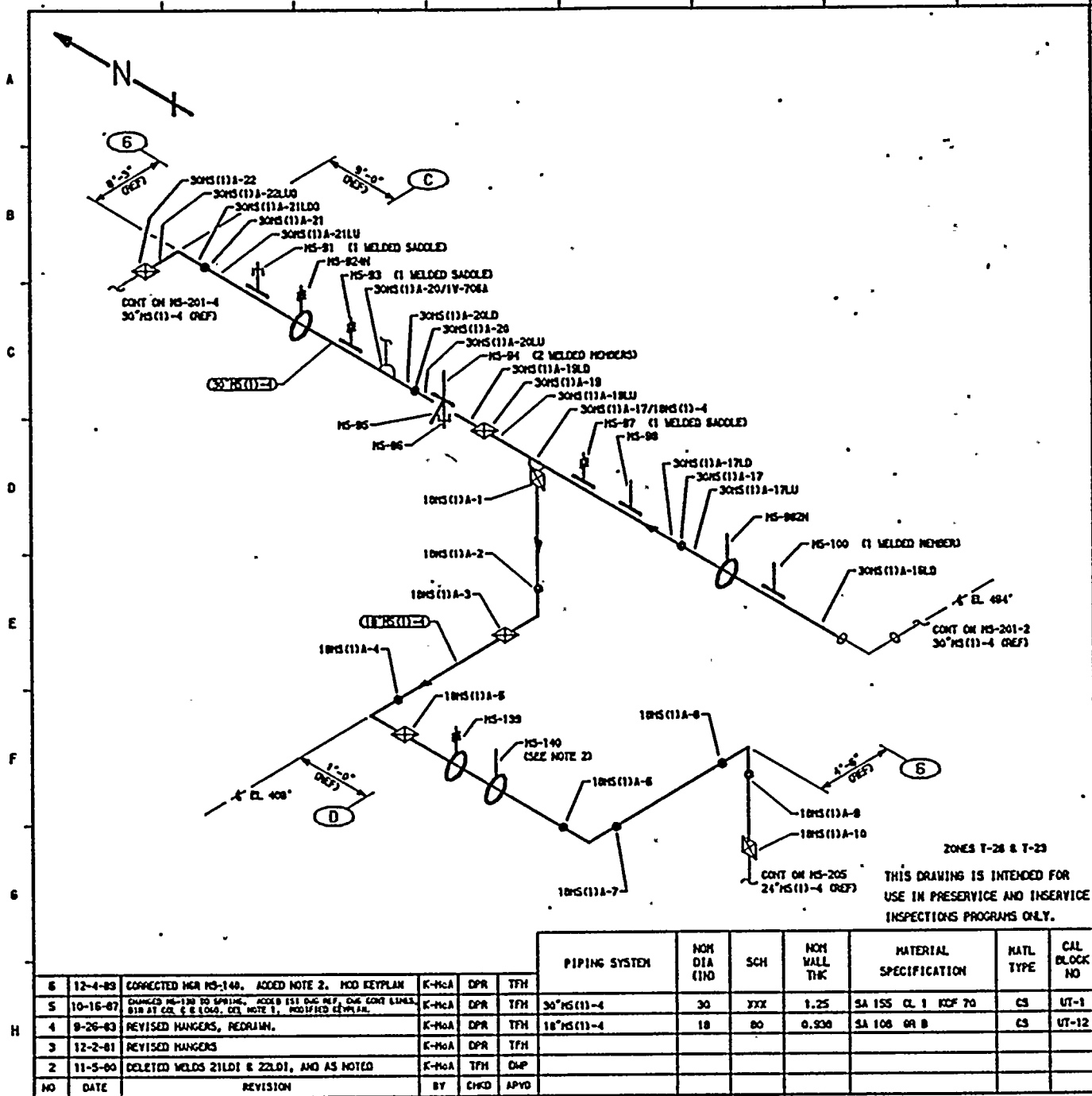
ZONES R-42, T-36 & T-28

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

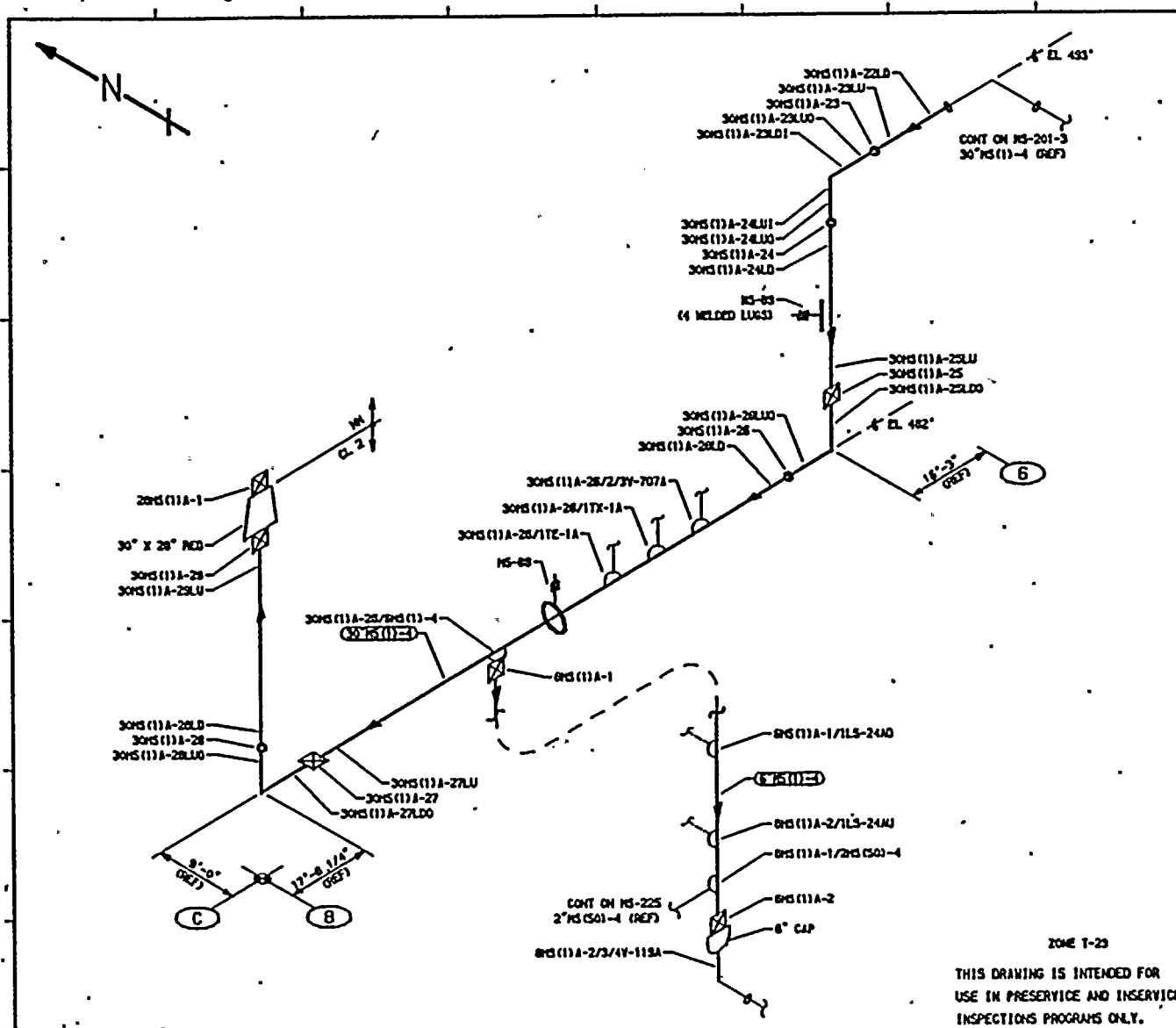










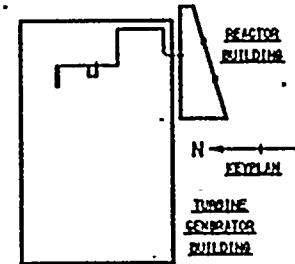


**NOTES**

1. DELETED.
2. SCAFFOLDING IS REQUIRED.

**NOTES**

151 - 229-1A & 229-4  
 BOYCE & GRILL ISOMETRICS  
 NS-528-7.10 REV 8  
 NS-528-11.12 REV 7  
 NS-528-13 REV 10



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. D TIMMINS	DRAWN, K-McA DATE, 1-25-78



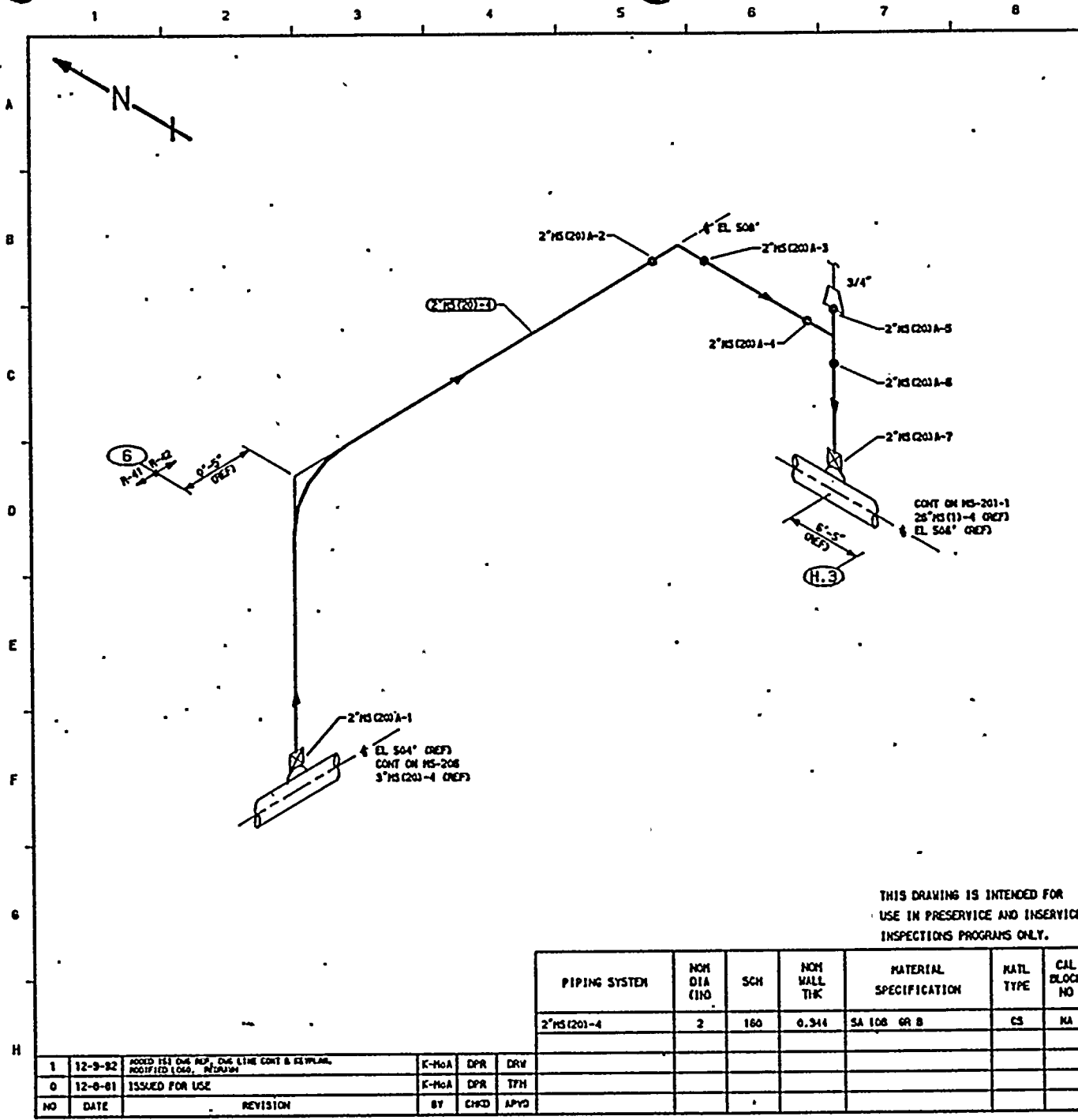
WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

ZONE T-23  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
5	2-20-82	ADDED UT-28.	K-McA	QJ	DPR							
4	10-18-87	ADDED (1) DWS REFERENCE, LINE CONTINUATION DWG & LOGO. DELETED NOTE 1, MODIFIED KEYPLAN, REORIGIN.	K-McA	DPR	TFH							
3	9-26-83	REVISED AS NOTED	K-McA	DPR	TFH							
2	12-2-81	REVISED AS NOTED	K-McA	DPR	TFH	30" NS(1)-4	30	XXX	1.250	SA 155 CL 1 KCF 70	CS	UT-1
1	11-5-80	DELETED WELDS 25LD1, 25LU1, 27LU1 & 28LU1 & AS NOTED.	K-McA	TFH	DMP	6" NS(1)-4	6	80	0.432	SA 108 GR B	CS	UT-28
0	1-9-79	ISSUED FOR USE	K-McA	EXT	DMP	28" NS(1)-4	28	XXX	1.420	SA 155 CL 1 KCF 70	CS	UT-2
A	4-20-78	ISSUED FOR INFORMATION ONLY	K-McA	EXT	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							

WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE, MAIN STEAM LINE A
DWG NO. MS-201-4
REV 5





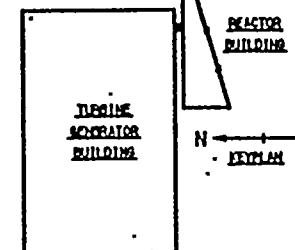
# NOTES:

- FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
- THIS DRAWING IDENTIFIES PIPING WELDS THAT REQUIRE AUGMENTED ISI.

## REFERENCE:

ISI - 229-1

BOYCE & ORRILL ISOMETRIC  
MS-1201-1 REV B



QUALITY CLASS: 1 ASME CODE CLASS: 2  
ENGR: K-McANDREW DRAWN: K-McA DATE: 12-4-81



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2"MS (201)-4	2	160	0.314	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	ADDED ISI ONE SUP. ONE LINE CONT & KEYPLAN, MODIFIED LOGS, INFORMATION	K-McA	DPR	DRW
0	12-6-81	ISSUED FOR USE	K-McA	DPR	TTH

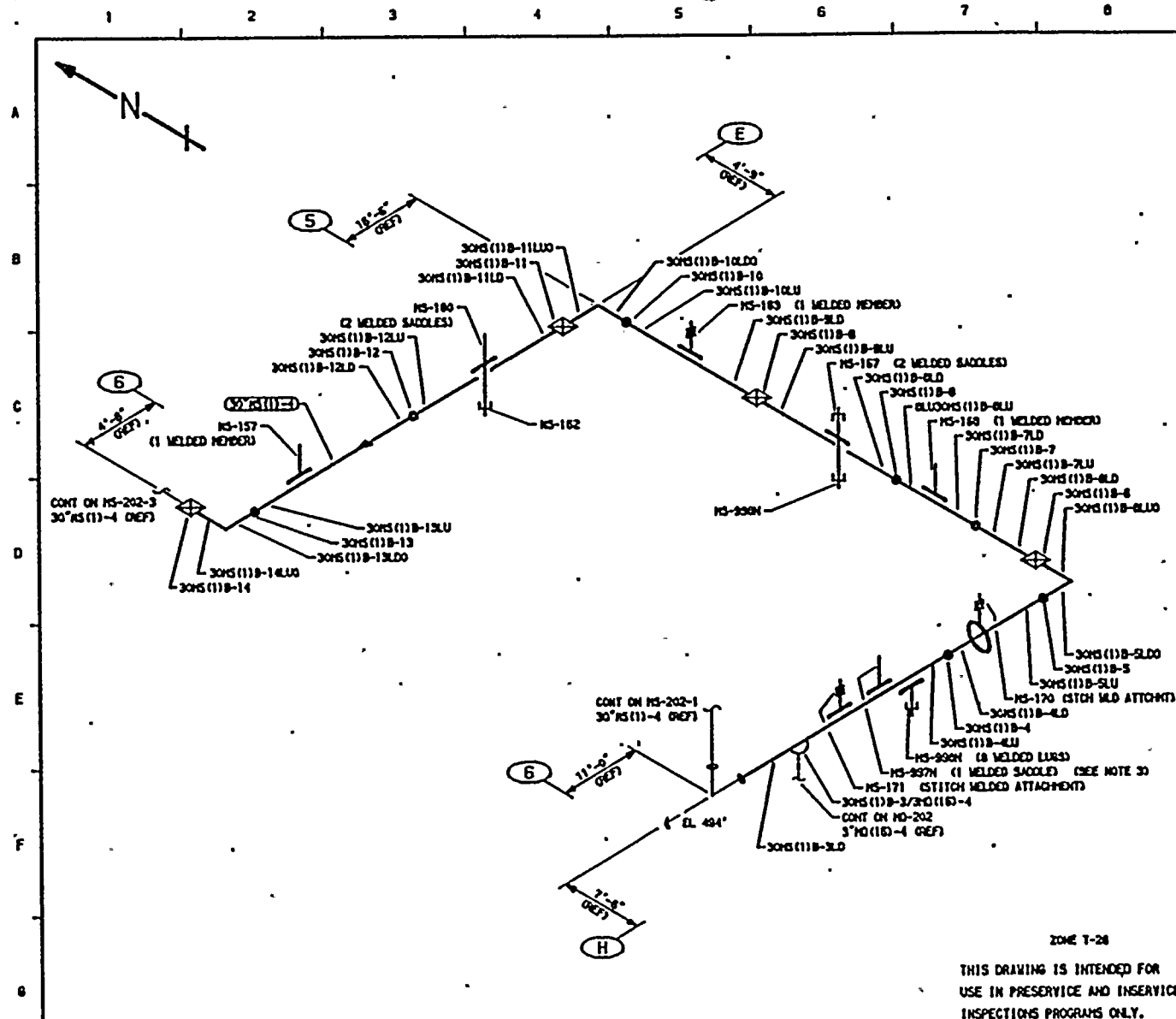
WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE: MAIN STEAM PRESSURE STABILIZATION LINE
DWG NO. MS-201-5
REV 1









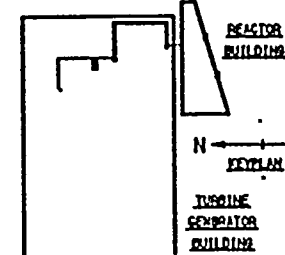


#### NOTES

1. DELETED.
2. SCAFFOLDING IS REQUIRED.
3. MS-927H CHANGED FROM SHOULDER TO STRUT PER DOC-08-0525-0A.

#### NOTES:

ISI - 229-1A  
BOYCE & CRILL ISOMETRIC  
MS-529-4.7 REV 8



QUALITY CLASS, 1 ASME CODE CLASS, 2  
ENGR. D TIMMINS DRAWN, K-MCA DATE, 2-2-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

MAP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE, MAIN STEAM LINE B

DWG NO. MS-202-2

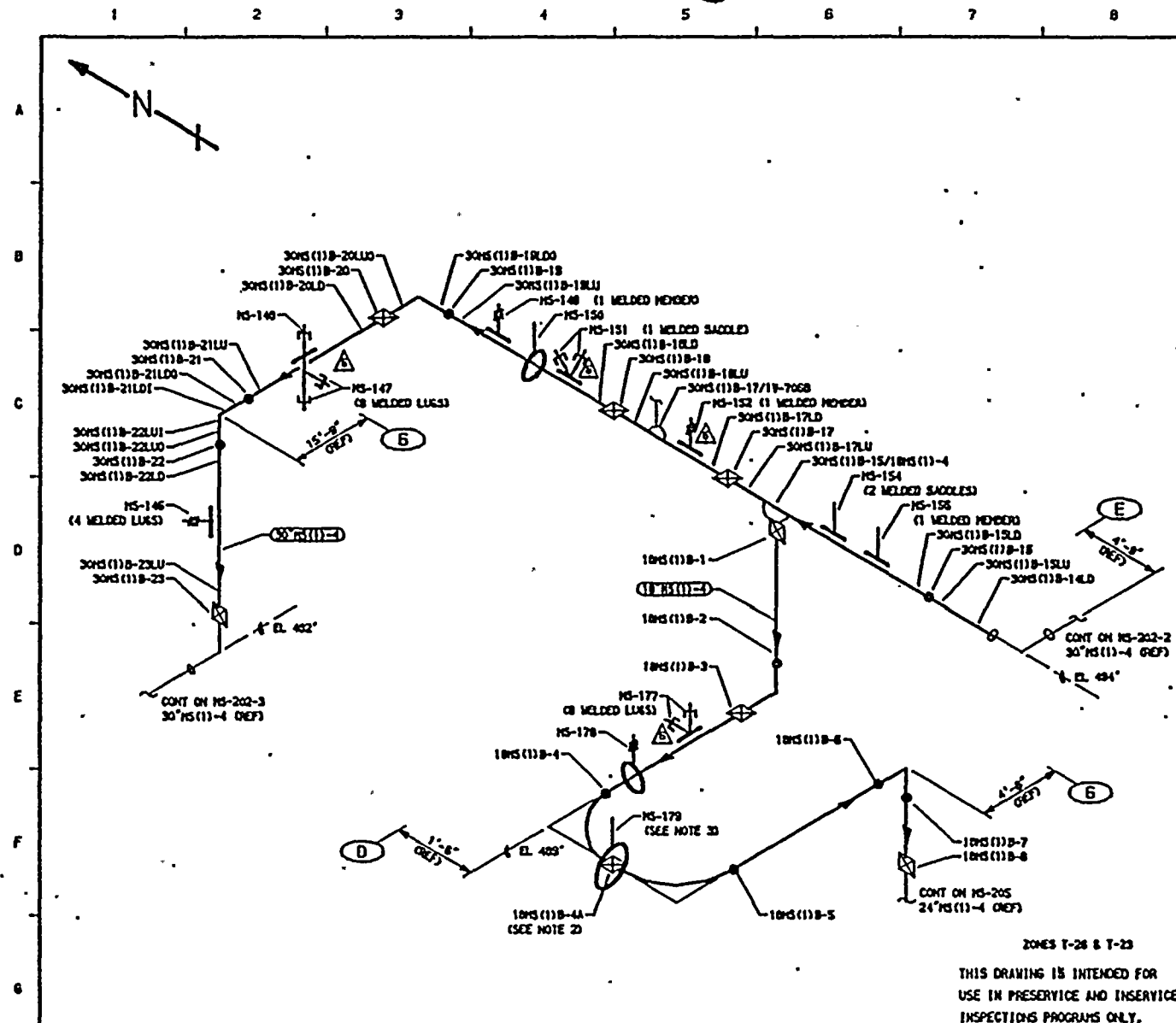
REV 5

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
5	12-4-83	CORRECTED MSA MS-907H. ADDED NOTE 3. MOD KEYPLAN	K-MCA	DPR	TFH	30"MS(11)-4	30	XXX	1.250	SA 155 CL 1 XCF 70	CS	UT-1
4	10-16-87	CHANGED HANGER MS-148 TO RIGID. DELETED NOTE 1. ADDED 151 DUE REF. LINE CONTINUATION DUE 8 LOAD. MODIFIED KEYPLAN.	K-MCA	DPR	TFH							
3	10-13-83	REVISED HANGERS, REDRAWN	K-MCA	DPR	TFH							
2	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH							

ZONE T-28

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.



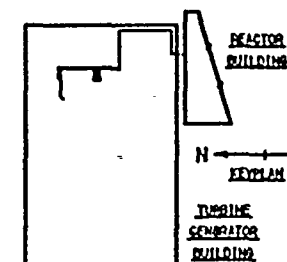


# NOTES:

1. DELETED
2. WELD 10MS(11)B-4A IS FITTING TO FITTING. MS-179 IS 1 1/2" FROM WELD 10MS(11)B-4A CENTERLINE.
3. MS-179 CHANGED FROM SHUBBER TO STRUT PER DOC-08-0525-0A.

# REFERENCES:

131 - 229-1A  
BOYCE & ORILL ISOMETRIC  
MS-529-8.11 REV 9



QUALITY CLASS, 1 ASME CODE CLASS, 2  
ENGR. D TIMPINS DRAWN, K-MCA DATE, 2-3-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDLAND, WASHINGTON 98352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MAIN STEAM LINE B

DWG NO. MS-202-3

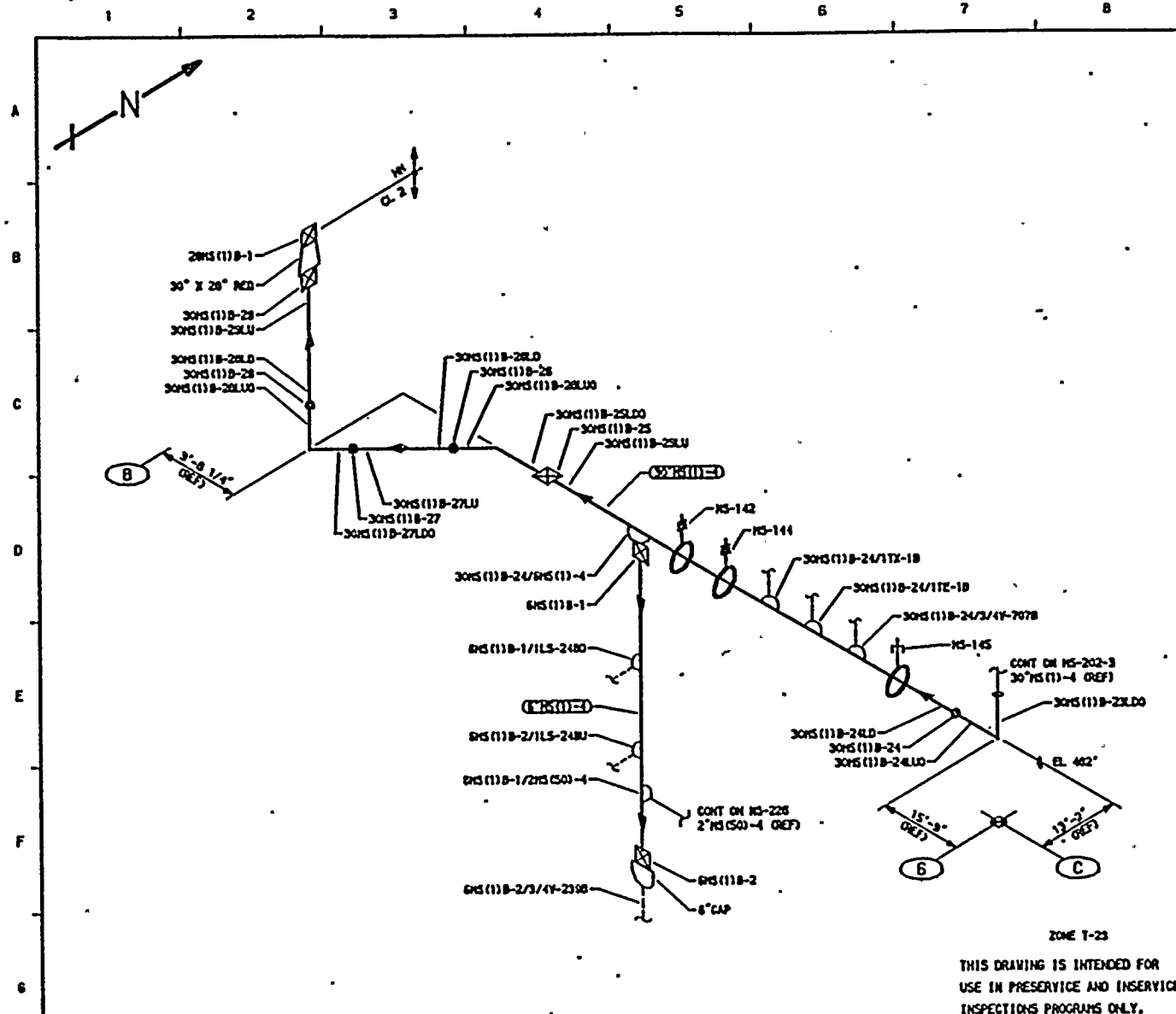
REV '6

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DTA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8	2-20-82	CORRECTED MIN T46 MS-152. MODIFIED MS-147, MS-151 & MS-177.	K-MCA	DJ	DPR							
5	12-4-83	ADDED 131 DWG REF. DWG 131E CONT. LOGS & NOTE 3. DELETED NOTE 1. MODIFIED KEY PLAN.	K-MCA	DPR	TFH							
4	12-2-83	REVISED HANGERS REDRAWN	K-MCA	DPR	TFH	30"MS(11)-4	30	XXF	1.25	SA 155 CL 1 XCF 70	CS	UT-1
3	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH	18"MS(11)-4	18	BO	0.306	SA 106 GR B	CS	UT-12
2	11-5-80	ADDED FIELD WELD 10MS(11)B-4A & AS NOTED	K-MCA	TFH	DMP							
1	7-17-79	DEL. TEXT & CORRESPONDING WELD. ADDED WELD IN 8-6 & REF IN 8-4	K-MCA	TFH	LFB							
NO												

ZONES T-26 & T-23

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.



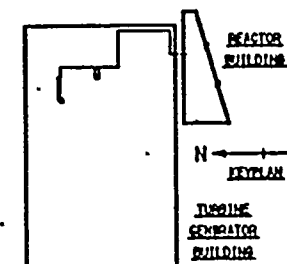


# NOTES

1. DELETED.
2. SCAFFOLDING IS REQUIRED.

## REFERENCES

ISI - 229-1A & 229-4  
BOYCE & CRAIG ISOMETRICS  
MS-229-12 REV 7  
MS-229-13 REV 10



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. D TIMMINS	DATE, 1-30-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: MAIN STEAM LINE B

DWG NO. MS-202-4

REV 4

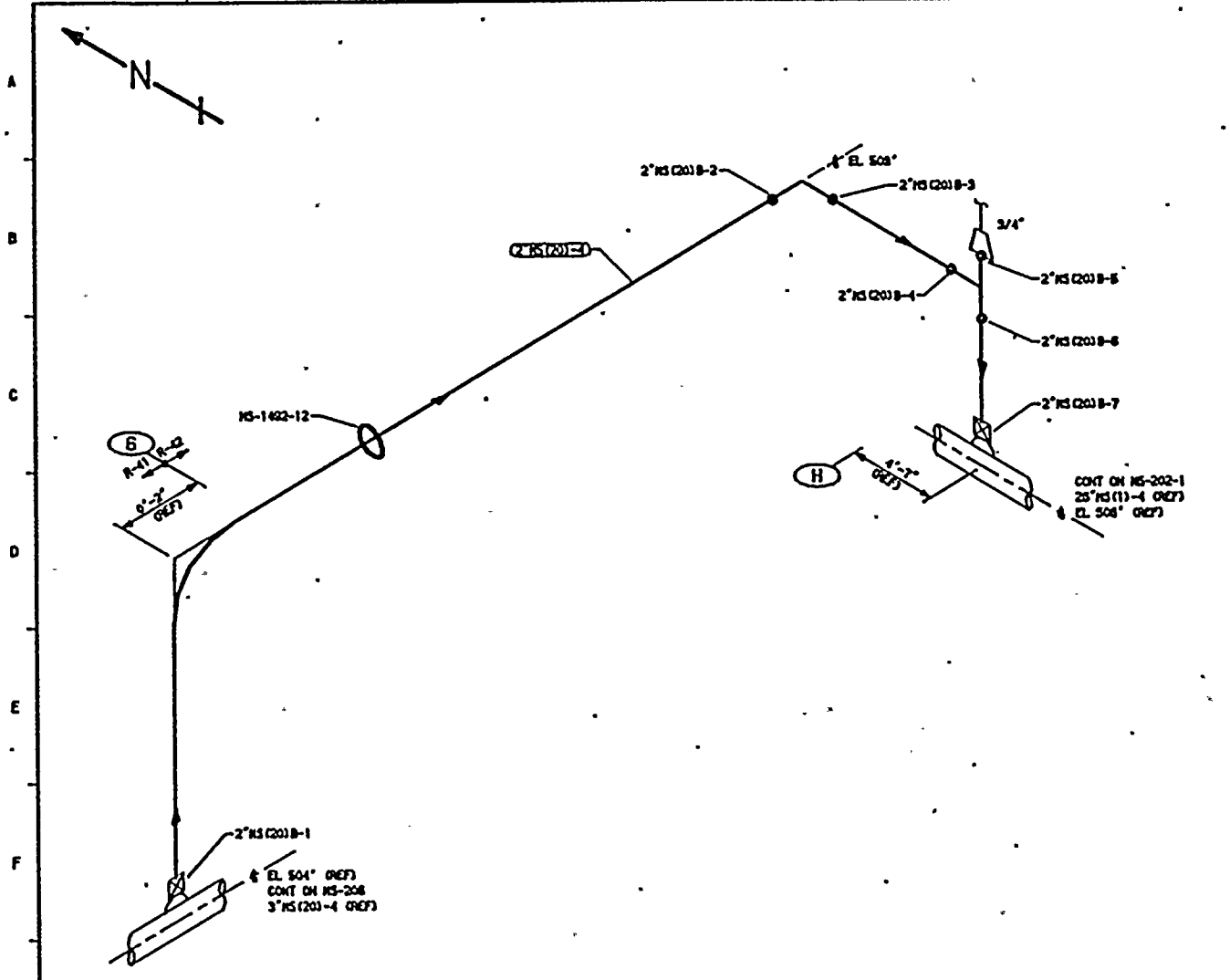
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	2-20-82	ADDED UT-28.	K-MCA	OJ	DPR							
3	10-15-87	ADDED ISI DIA REFERENCE, LINE CONTINUATION DIA & LOGS. DELETED NOTE 1. MODIFIED CRYSTALLINE STRUCTURE.	K-MCA	DPR	TFH							
2	9-26-83	REVISED AS NOTED	K-MCA	DPR	TFH	30\"MS(11)-4	30	XXX	1.250	SA 155 CL 1 ECF 70	CS	UT-1
1	11-5-80	DELETED WELDS 25LD1, 24LU1, 26LU1, 27LD1 & AS NOTED	K-MCA	TFH	DMP	8\"MS(11)-4	8	BO	0.432	SA 108 GR B	CS	UT-28
0	1-9-79	ISSUED FOR USE	K-MCA	TFH	DMP	28\"MS(11)-4	28	XXX	1.420	SA 155 CL 1 ECF 70	CS	UT-2
A	4-20-78	ISSUED FOR INFORMATION ONLY	K-MCA	CH	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							

ZONE T-23

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.





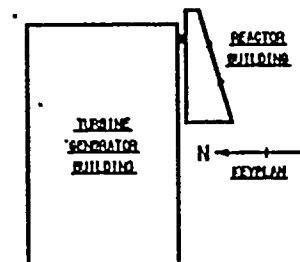


# NOTES:

1. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
2. THIS DRAWING IDENTIFIES PIPING WELDS THAT REQUIRE AUGMENTED ISI.

## REFERENCES:

ISI - 229-1  
BOYCE & GRILL ISOMETRIC  
MS-1202-1 REV 9



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. K-McANDREW	DRAWN. K-McA DATE, 12-4-81



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (INO)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2"MS (201)-4	2	160	0.344	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	ADDED ISI ONE REF, ONE LINE CONT & KEYPLAN, MODIFIED LOGS, "REVISION"	K-McA	DPR	DRW
0	12-9-81	ISSUED FOR USE	K-McA	DPR	TFH

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: MAIN STEAM  
PRESSURE STABILIZATION LINE

DWG NO. MS-202-5 REV 1







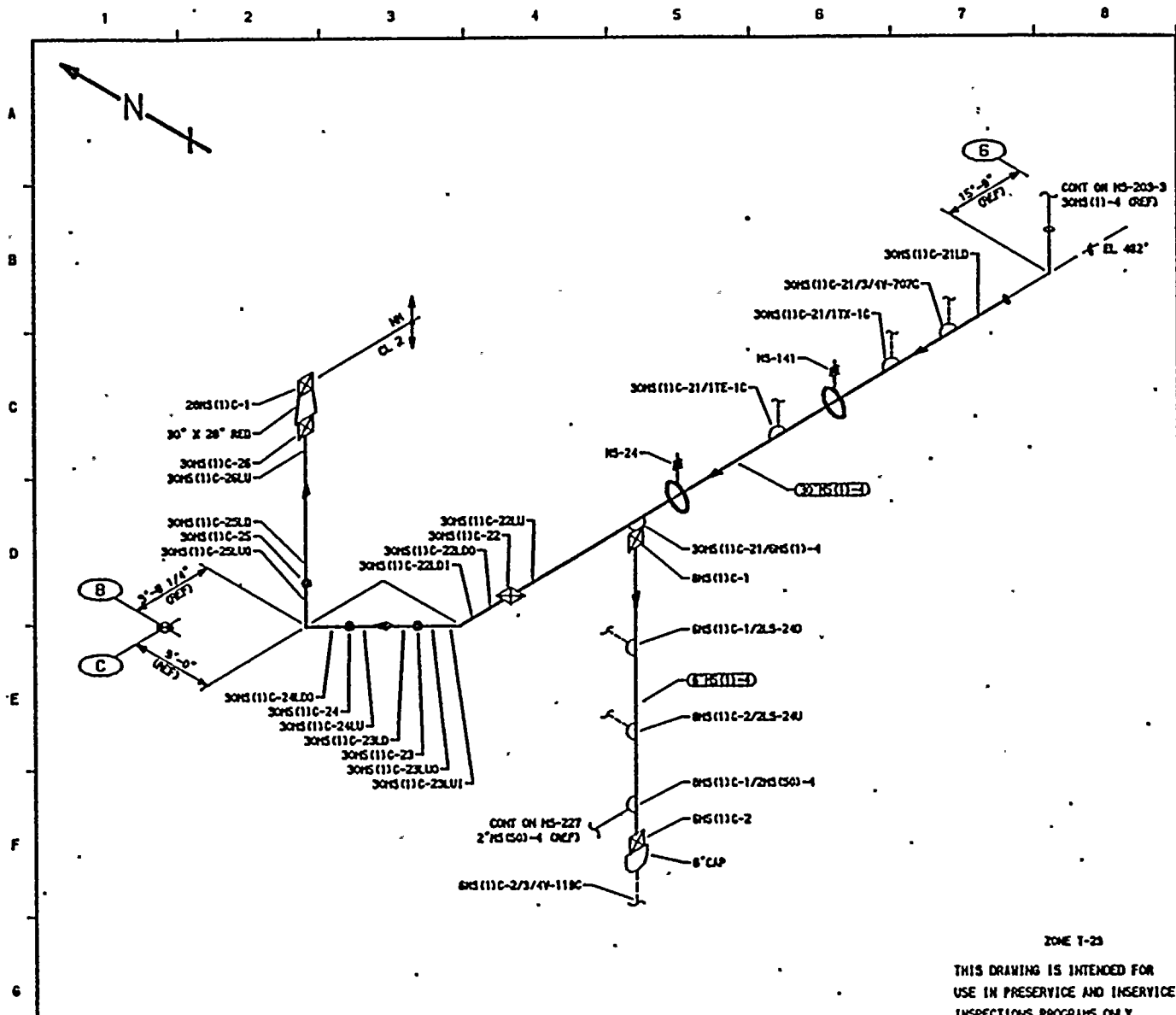










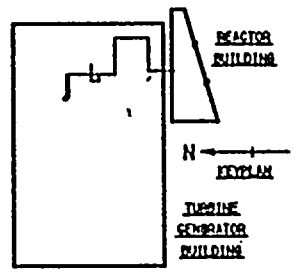


# NOTES

1. DELETED.
2. SCAFFOLDING IS REQUIRED.

## REFERENCES

ISI - 229-2A & 229-4  
 BOYCE & CRILL ISOMETRICS  
 MS-530-11 REV B  
 MS-530-12 REV 10



QUALITY CLASS. 1	ASME CODE CLASS. 2
ENGR. D TIMPINS	DRAWN. K-McA DATE. 2-7-78



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	TITLE: MAIN STEAM LINE C
DWG NO. MS-203-4	REV 4

ZONE T-23

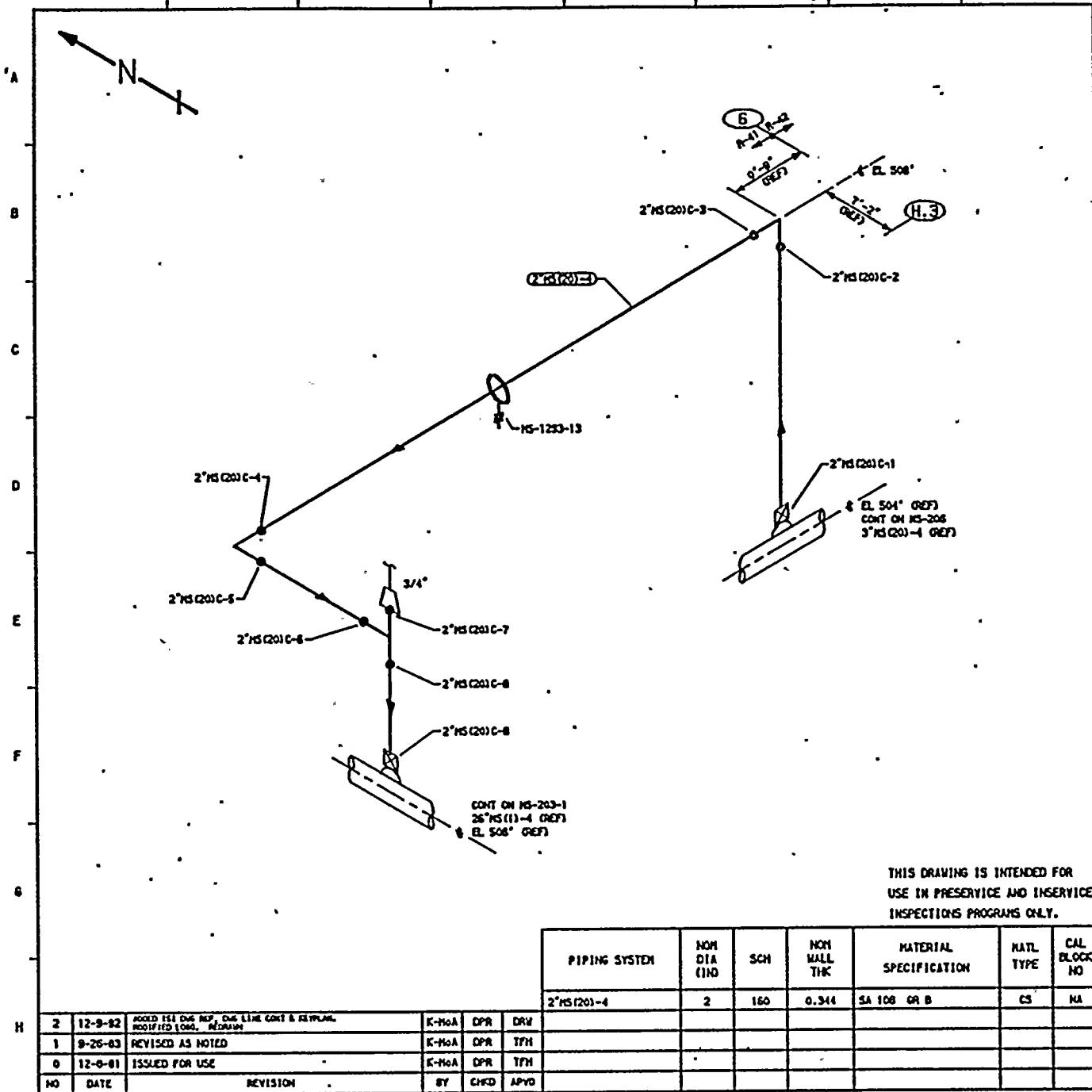
THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	2-20-82	ADDED UT-28	K-McA	CJ	DPR							
3	10-16-87	ADDED ISI DWG REFERENCE, LINE CONTINUATION DWG & LOGO, DELETED NOTE 1, MODIFIED KEYPLAN, HEADLINE.	K-McA	DPR	TFH							
2	9-26-83	REVISED AS NOTED	K-McA	DPR	TFH	30"HS(11)-4	30	XXX	1.250	SA 155 CL 1 KCF 70	CS	UT-1
1	11-5-80	DELETED WELDS 24LD1, 25LU1 & AS NOTED	K-McA	TFH	DMP	8"HS(11)-4	8	80	0.432	SA 108 GR B	CS	UT-20
0	1-9-79	ISSUED FOR USE	K-McA	TFH	DMP	28"HS(11)-4	28	XXX	1.420	SA 155 CL 1 KCF 70	CS	UT-2
A	4-20-78	ISSUED FOR INFORMATION ONLY	K-McA	TFH	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							



11-10-78



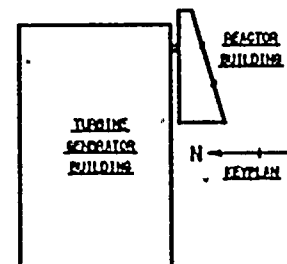


#### NOTES:

- FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
- THIS DRAWING IDENTIFIES PIPING WELDS THAT REQUIRE AUGMENTED ISI.
- SCAFFOLDING IS REQUIRED.

#### REFERENCES:

ISI - 229-2  
BOYCE & ORILL ISOMETRIC  
MS-1203-1 REV 8



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR. K-McANDREW	DATE: 12-7-81



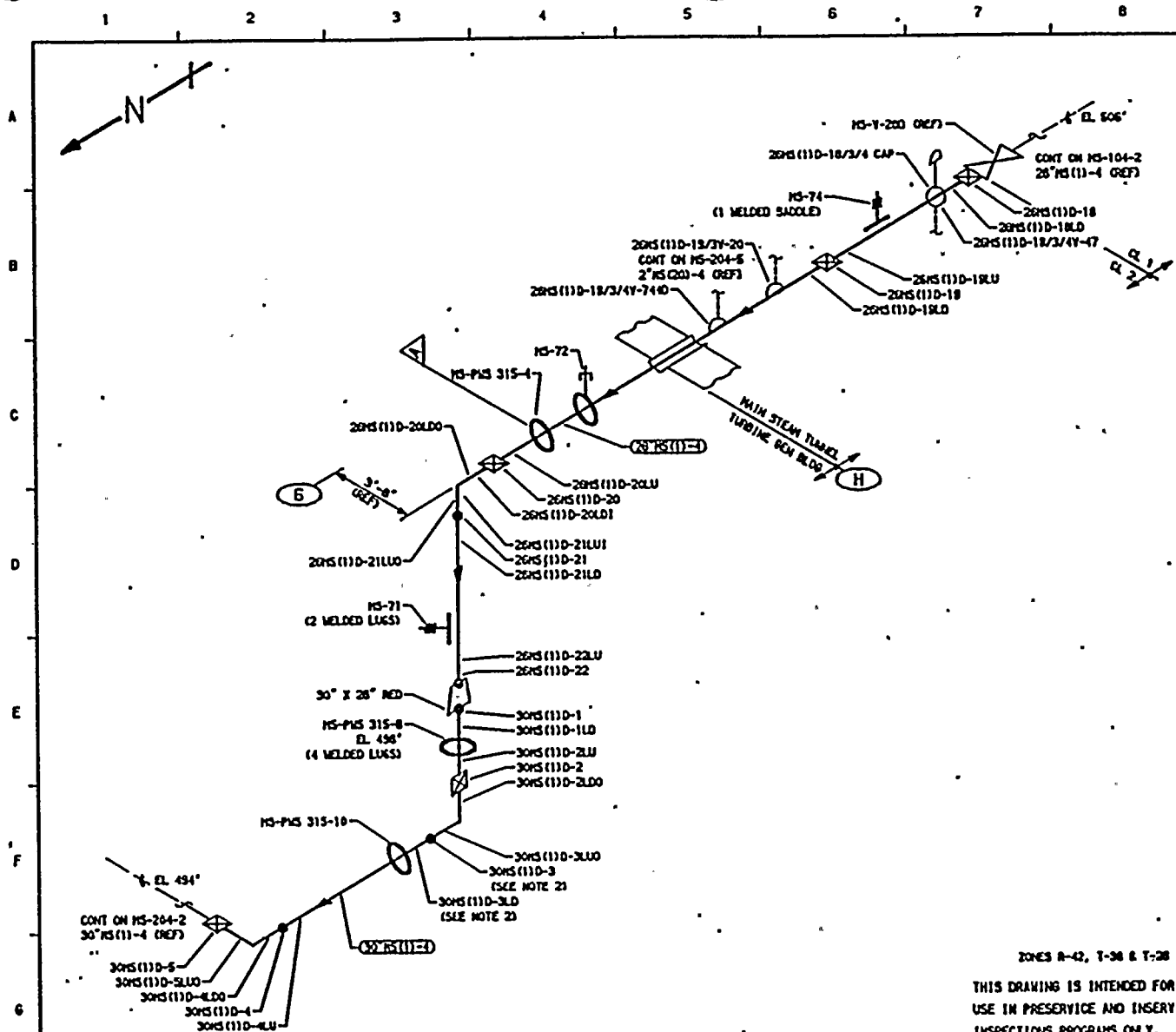
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMONT, WASHINGTON 98352

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MAIN STEAM  
PRESSURE STABILIZATION LINE

DWG NO. MS-203-5 REV 2



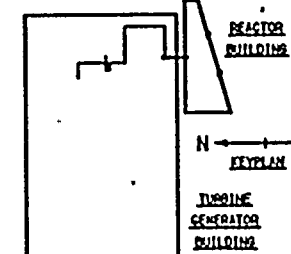


# NOTES

1. SCAFFOLDING IS REQUIRED.
2. ACCESS TO WELDS 30MS(110)-3LD & 30MS(110)-3 requires removal of MS-PMS 315-10.

# REFERENCES

ISI - 229-2A  
BOYCE & CRAIG ISOMETRIC  
MS-531-1.3 REV 11



QUALITY CLASS, 1 ASME CODE CLASS, 2  
ENGR. D TIMMINS DRAWN: K-MCA DATE: 2-8-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
BIOLAND, WASHINGTON 98352

MAP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: MAIN STEAM LINE D

DWG NO. MS-204-1

REV 4

NO	DATE	REVISION	BY	CHKD	APVD
4	12-9-82	ADDED ISI DWG REF & DWG LINE COND. MODIFIED REPLAS & 1050. RETURN	K-MCA	DPR	DRW
3	9-25-83	REVISED AS NOTED	K-MCA	DPR	TFH
2	12-2-81	REVISED AS NOTED, AUGMENTED ISI ADDED	K-MCA	DPR	TFH
1	11-5-80	DELETED WELDS 2LD, 3LU, 4LD & 5LU.	K-MCA	TFH	DAP
0	1-9-79	ISSUED FOR USE	K-MCA	TFH	DAP
A	4-24-78	ISSUED FOR INFORMATION ONLY	K-MCA	TFH	DAP

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
20MS(110)-4	20	XXX	1.125	SA 155 CL 1 KCF 70	CS	UT-3
30MS(110)-4	30	XXX	1.250	SA 155 CL 1 KCF 70	CS	UT-1

ZONES R-42, T-36 & T-38

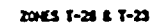
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INSPECTIONS PROGRAMS ONLY.









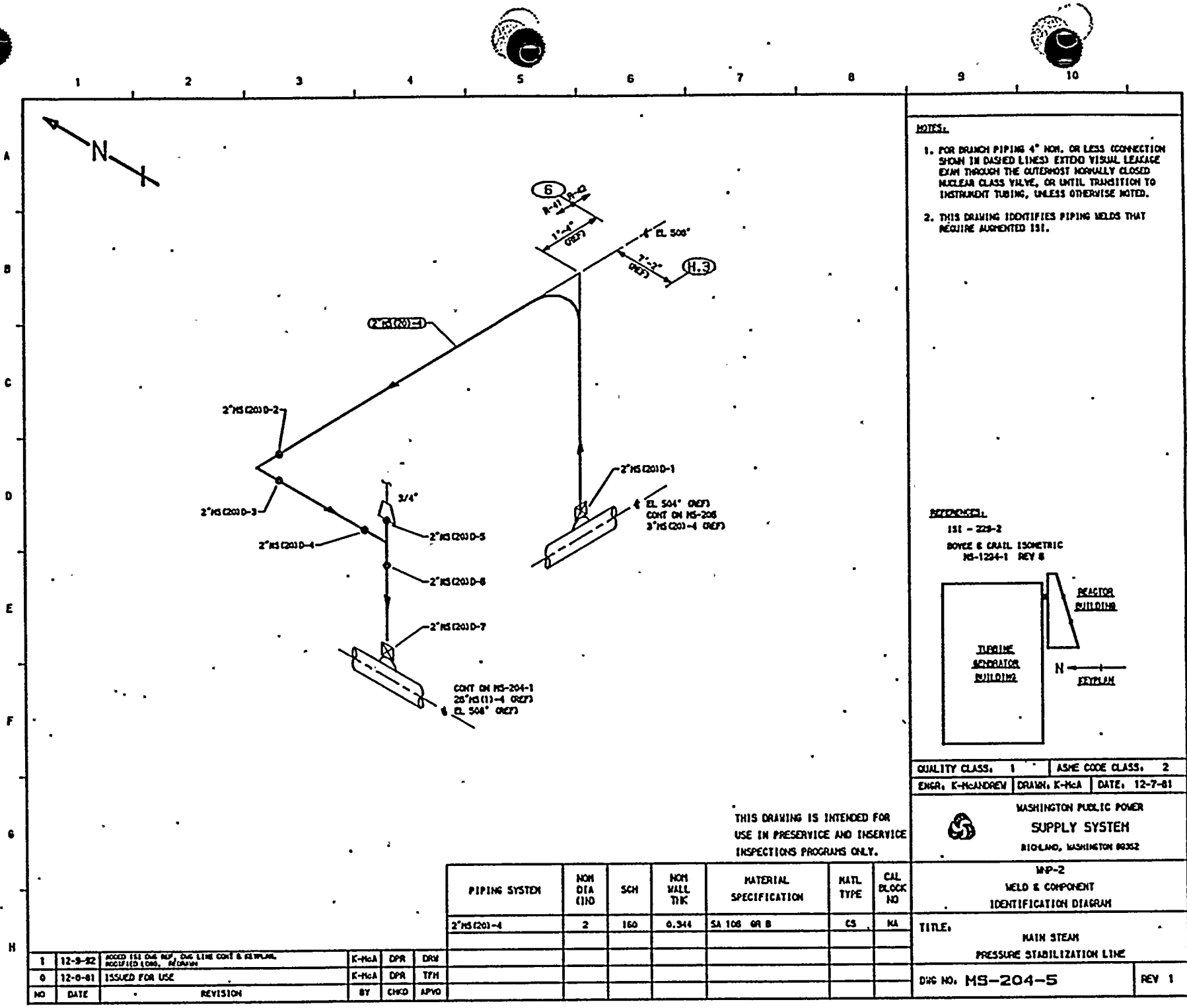


5	5-14-90	ADDED 134 DNR REP. OUR LINE CONT. LOG# 6 NOTE 3. MODIFIED ITEM 20, RD-73 & RD-57. RETURN	K-MGA	OJ	TFH	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MTRL TYPE	CAL BLOCK NO
4	12-2-83	GENERAL UPDATE REDRAIN	K-MGA	DPR	TFH							
3	12-2-81	REVISED AS NOTED	K-MGA	DPR	TFH							
2	11-5-80	REDRAIN ADDED PM 4A, NOTE 2, AND MODIFIED SUPPORT NOS.	K-MGA	DPR	TFH							
1	9-13-79	DELETED TEE AND CORRESPONDING WELDS. ADDED WEL IN B-S	K-MGA	DPR	TFH							
0	1-9-79	ISSUED FOR USE	K-MGA	DPR	TFH							
A	4-20-78	ISSUED FOR INFORMATION ONLY	K-MGA	DPR	TFH							
NO	DATE	REVISION	BY	CHKD	APVD							

## REV 5

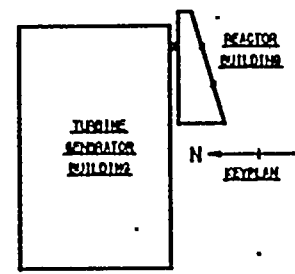







- NOTES:**
1. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
  2. THIS DRAWING IDENTIFIES PIPING WELDS THAT REQUIRE AUGMENTED ISI.

**REFERENCE:**  
 ISI - 223-2  
 BOYCE & GRILL ISOMETRIC  
 MS-1234-1 REV 8



QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR, K-McANDREW	DRWN, K-McA DATE, 12-7-81
 WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHMOND, WASHINGTON 98352	
WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE, MAIN STEAM PRESSURE STABILIZATION LINE	
DWG NO, MS-204-5	REV 1

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2"MS (201)-4	2	160	0.344	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-3-82	ADDED ISI ONE REF, ONE LINE CONT & KEYPLAN, MODIFIED LOGS, REVISION	K-McA	DPR	DRW
0	12-6-81	ISSUED FOR USE	K-McA	DPR	TTH



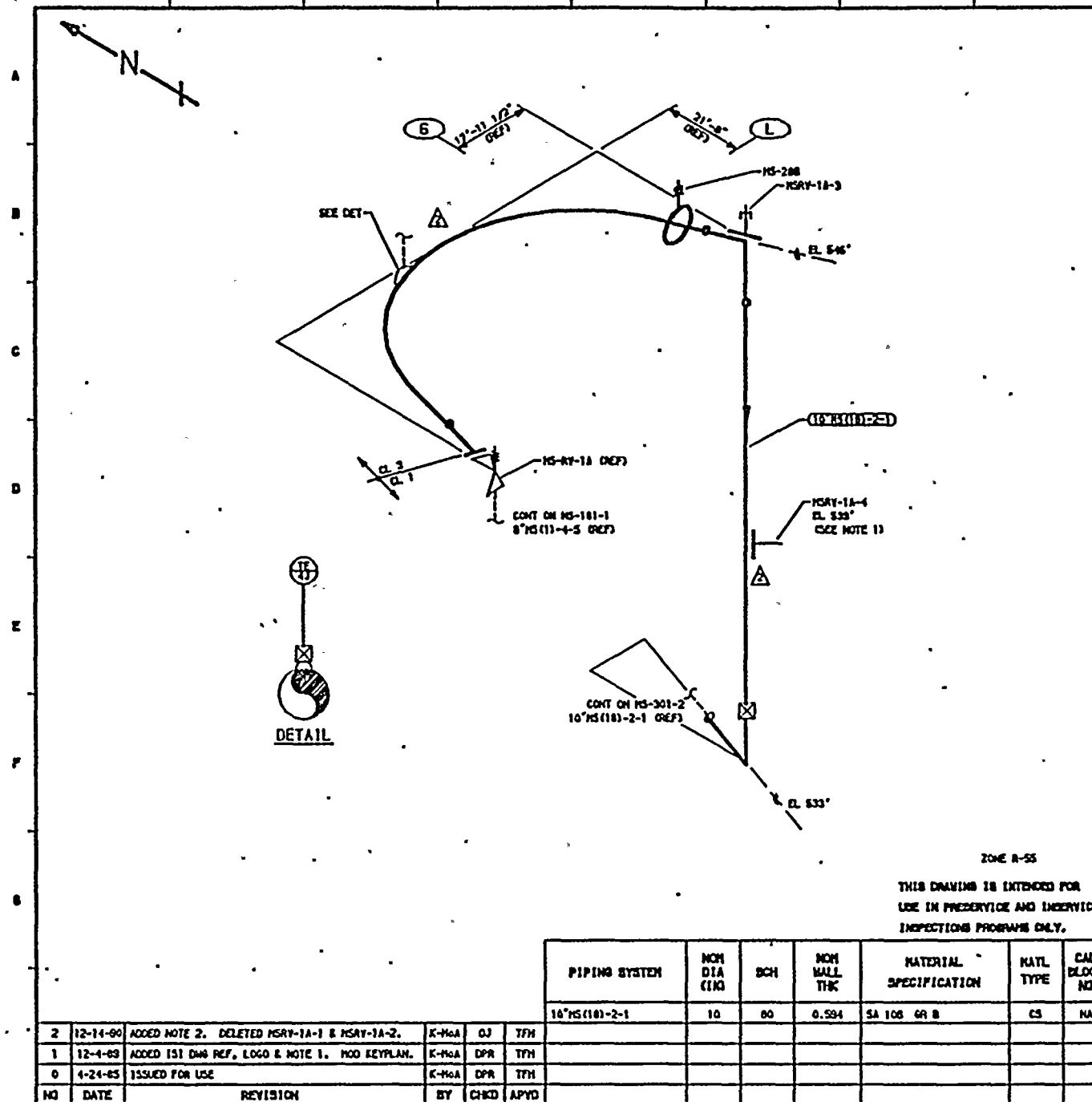










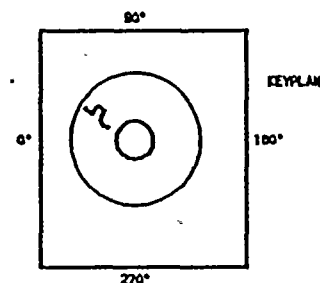


# NOTES

- MS-RV-1A-1 CHANGED FROM SHOULDER TO STRUT PER DOC-86-6525-4A.
- MS-RV-1A-1 & MS-RV-1A-2 WERE DELETED PER DOC-86-6525-4A.

## REFERENCES

ISI - 229-1  
BOYCE & GRAY ISOMETRIC  
MS-547-1 REV 10



QUALITY CLASS, 1 ASME CODE CLASS, 3  
ENGR, K-MANDRENN DRAIN, K-MGA DATE, 12-29-92



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

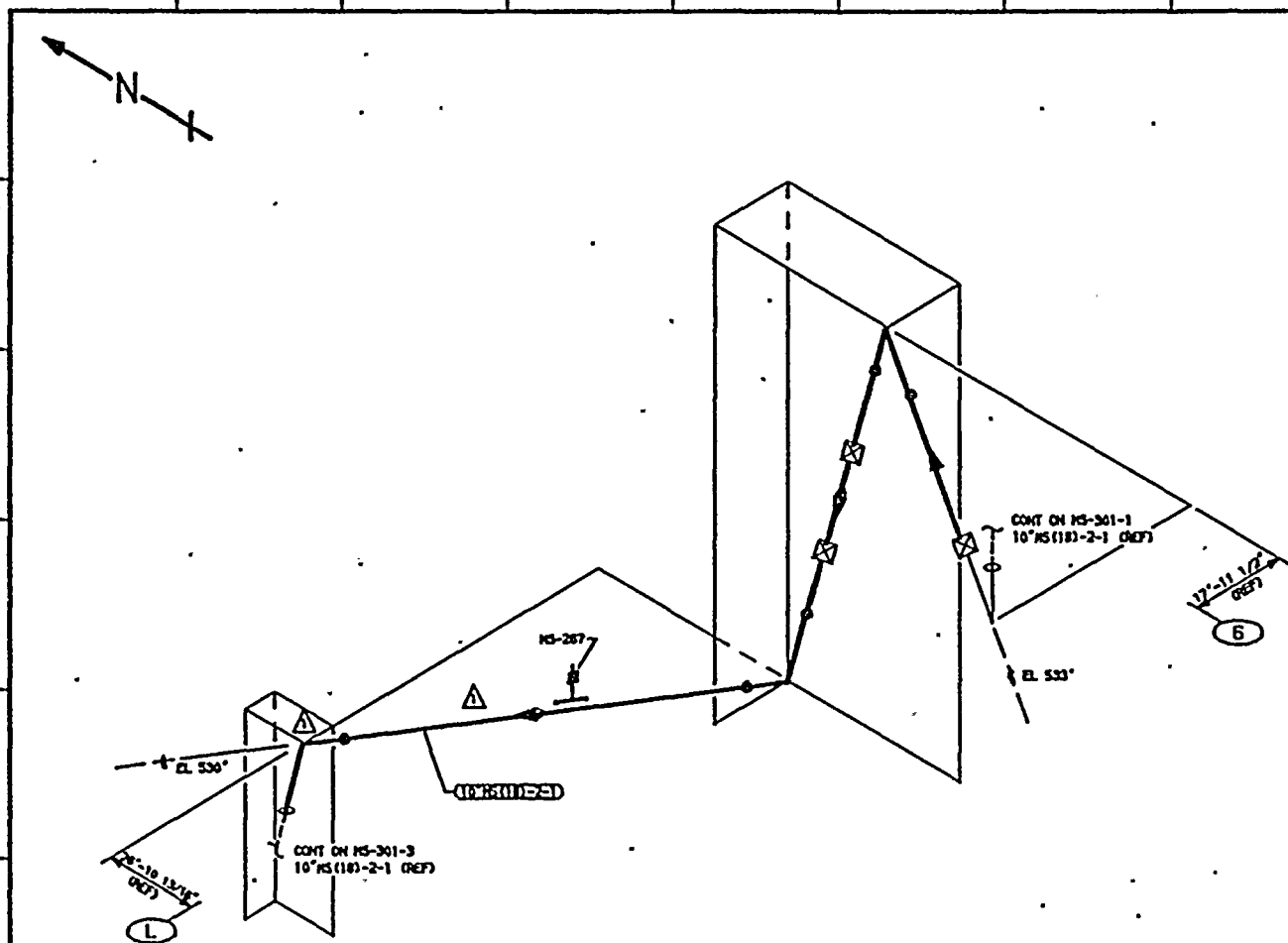
WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RV-1A DISCHARGE

DWG NO, MS-301-1

REV 2



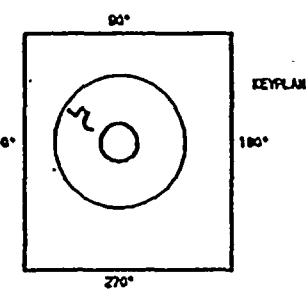


# NOTES

- MS-RV-1A-3 & MS-RV-1A-6 WERE DELETED PER DOC-88-6525-4A.

# REFERENCES

- 151 - 229-1  
BOYCE & CRILL ISOMETRIC  
MS-547-2 REV 5



QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR. K-MOANDREM DRAWN K-MoA DATE: 12-29-82



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99292

ZONE R-55

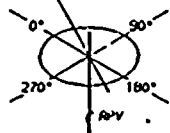
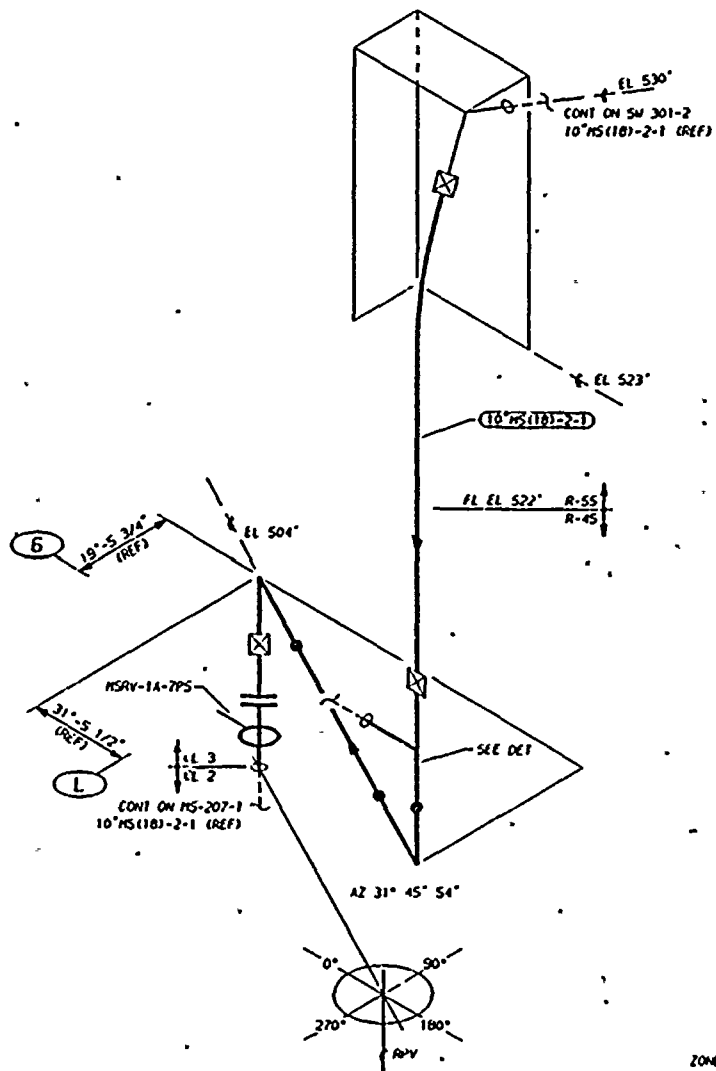
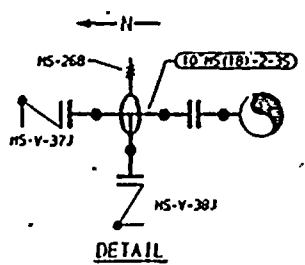
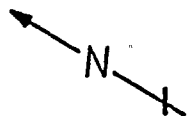
THIS DRAWING IS EXTENDED FOR  
USE IN PRESERVICE AND UNDERVISE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(10)-2-1	10	80	0.584	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-14-90	ADDED LOGS & NOTE 1. MODIFIED 151 DIA REF & KEYPLAN. DELETED MS-RV-1A-3 & MS-RV-1A-6.	K-MoA	GJ	TFH
0	4-24-85	ISSUED FOR USE	K-MoA	DPR	TFH

WSP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: MS-RV-1A DISCHARGE	
DWG NO. MS-301-2	REV 1



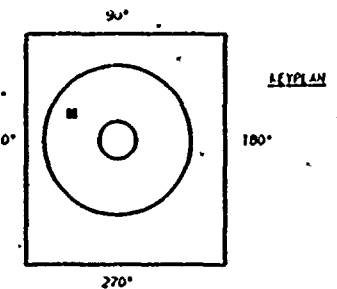


ZONES R-45 & R-55

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

REFERENCES:

151 - 229  
BOYCE & CRAIG ISOMETRIC  
MS-517-3 REV 13



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-McA DATE, 12-29-82

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMONT, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RV-1A DISCHARGE

DWG NO, MS-301-3 REV 0

PIPING SYSTEM	NOM DIA (IND)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-1	10	80	0.594	SA 106B GR B	CS	NA
10"MS(18)-2-35	10	80	0.594	SA 106B GR B	CS	NA

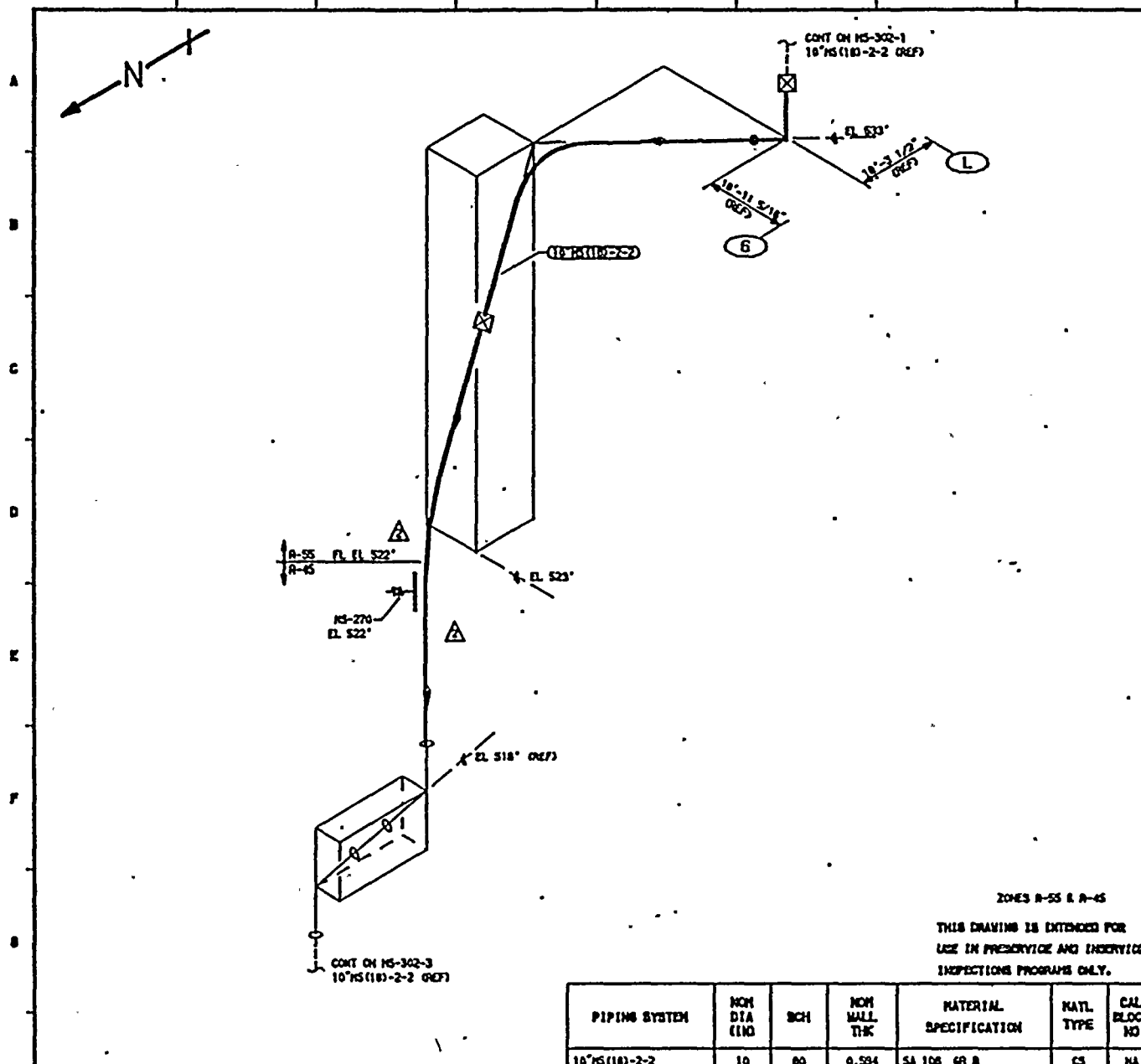
0	8-28-85	ISSUED FOR USE	12/2/82	1.11
NO	DATE	REVISION	BY	CHKD



							PIPING SYSTEM	NOM DIA (IN)	DCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO	WFP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
							18"MS(18)-2-2	10	00	0.594	SA 106 GR B	CS	NA	TITLE:  MS-RY-2A DISCHARGE	
1	12-14-90	ADDED LOGO & NOTE 1. MODIFIED ISL DIA AND KEYPLANS, DELETED REAR-2A-1 & REAR-2A-3.					K-McA	QJ	TFH						
0	4-24-05	ISSUED FOR USE					K-McA	OPR	TFH						
NO	DATE	REVISION					BY	CHKD	APVD					DWG NO. MS-302-1	REV 1





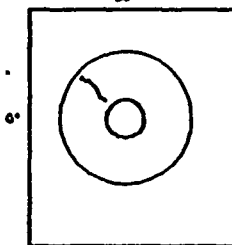


# NOTES

- MS-RY-2A-4 & MS-RY-2A-5 WERE DELETED PER DOC-06-0625-1A.

# REFERENCES

ISI - 229-1  
BOYCE & GRAIL ISOMETRIC  
MS-546-3.4 REV 3



KEYPLAN

QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR: K-MOANDREY DRAIN: K-MoA DATE: 1-3-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

INF-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RY-2A DISCHARGE

DWG NO. MS-302-2

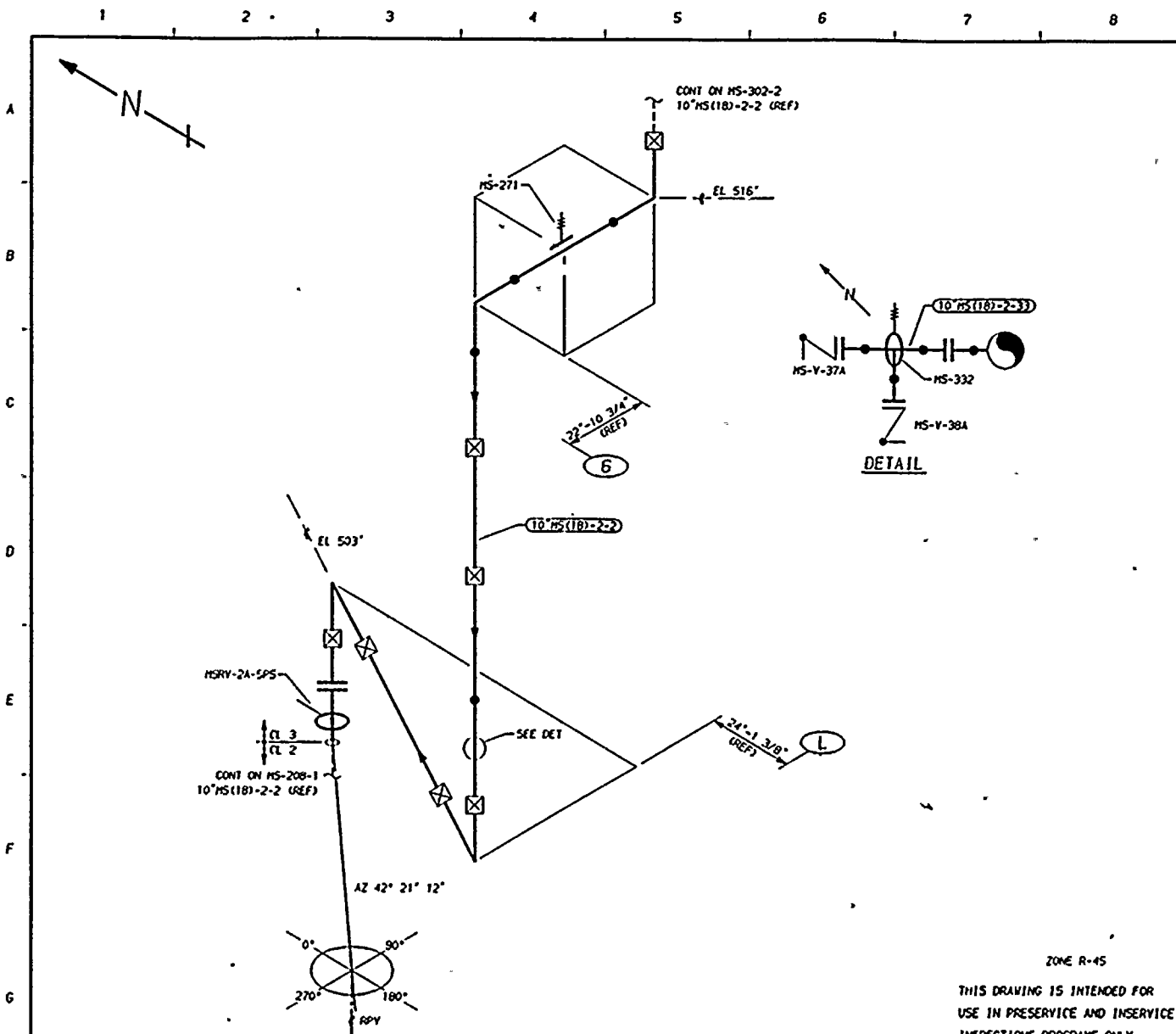
REV 2

ZONES A-55 & A-45

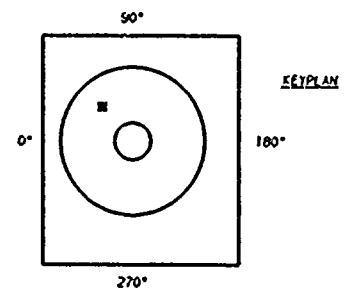
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USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO
2	12-14-80	ADDED LOGO & NOTE 1. MODIFIED ISI DWG REF & KEYPLAN. DELETED MS-RY-2A-4 & MS-RY-2A-5	K-MoA	OJ	TFH	10"MS(18)-2-2	10	80	0.504	SA 106 GR B	CS	NA
1	10-16-87	CHANGED MS-RY-2A-5 TO SHOULDER IN D-3. ADDED LOGO.	K-MoA	DPR	TFH							
0	4-24-85	ISSUED FOR USE	K-MoA	DPR	TFH							





REFERENCES:  
 151 - 229  
 BOYCE & CRAIG ISOMETRIC  
 MS-548-5 REV 14



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-McA
DATE, 1-3-83	

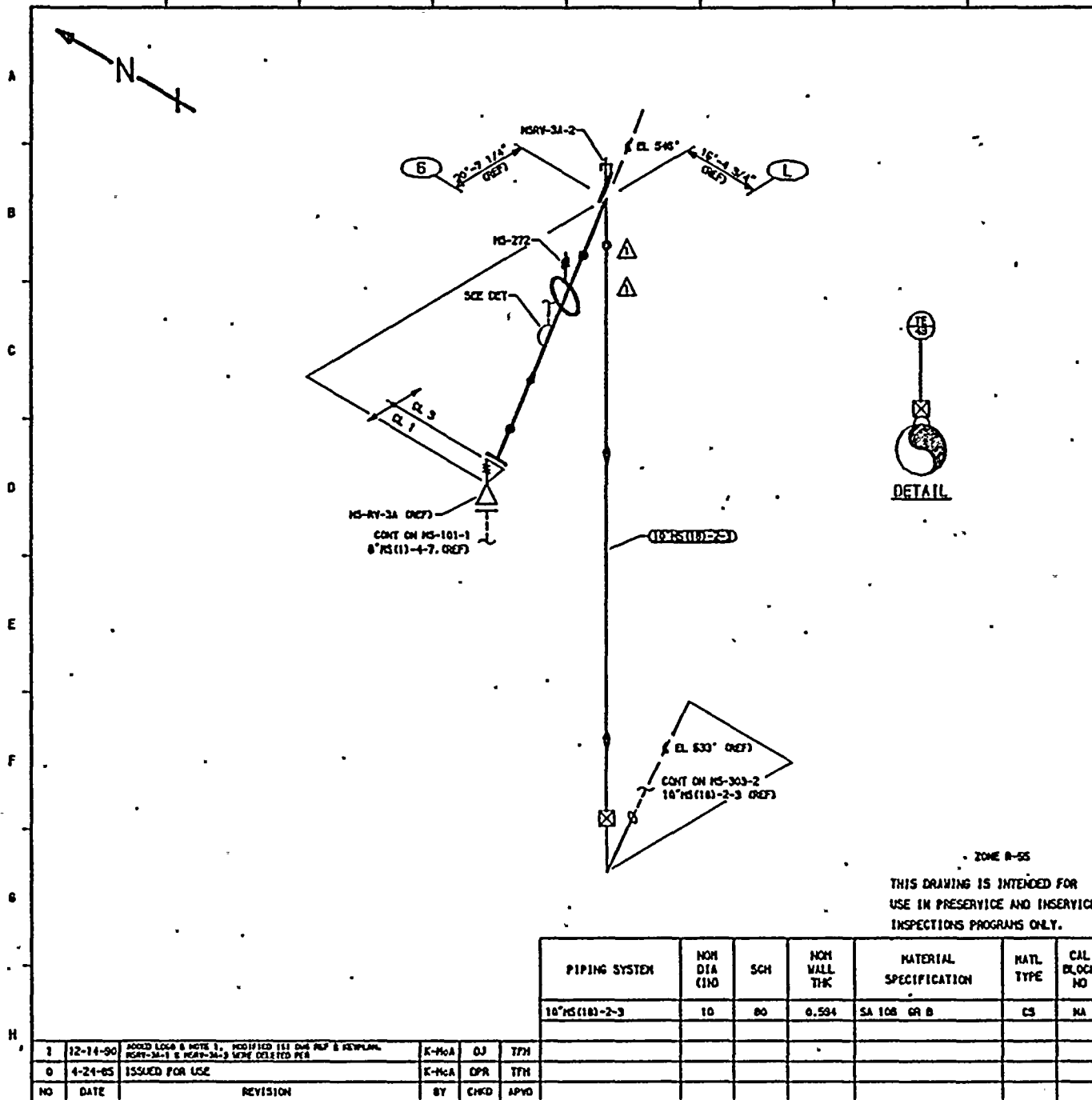
WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

MAP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE: MS-RV-2A DISCHARGE
DWG NO: MS-302-3
REV 0

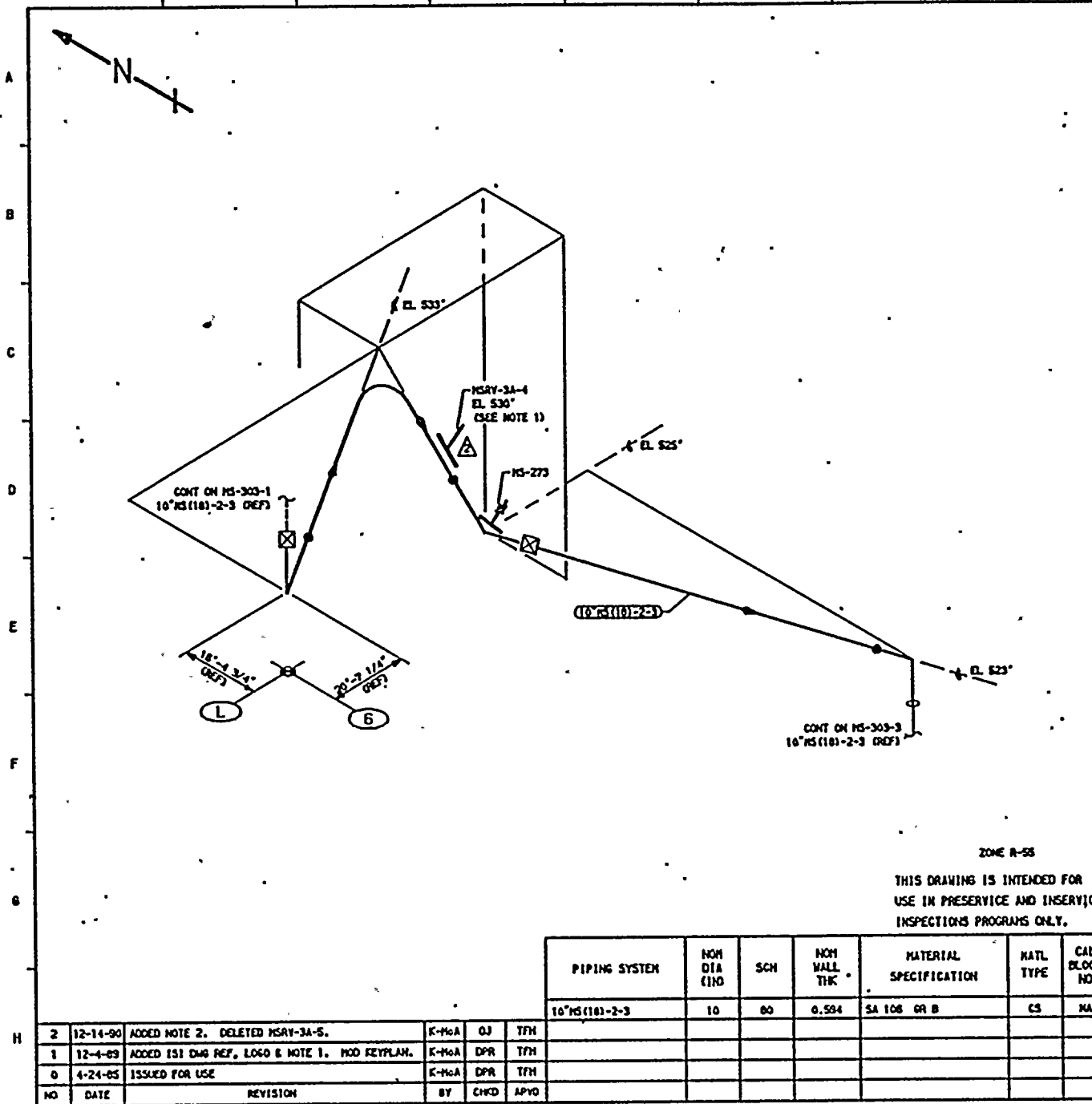
THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10" MS(18)-2-2	10	80	0.594	SA 106B GR B	CS	NA
10" MS(18)-2-33	10	80	0.594	SA 106B GR B	CS	NA

0	1-3-83	ISSUED FOR USE	1-3-83	2-11	1-3-83
NO	DATE	REVISION	BY	CHKD	APVD





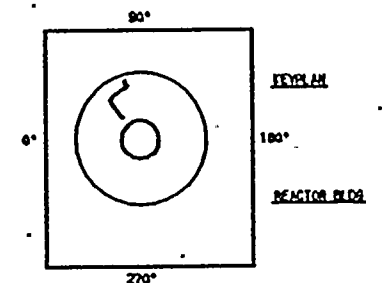


# NOTES

- MSRY-3A-4 CHANGED FROM SLUDDER TO STRUT PER DOC-88-0525-0A.
- MSRY-3A-5 WAS DELETED PER DOC-88-0525-0A.

## REFERENCES

ISI - 229-1  
BOYCE & CRILL ISOMETRIC  
MS-549-2.3 REV B

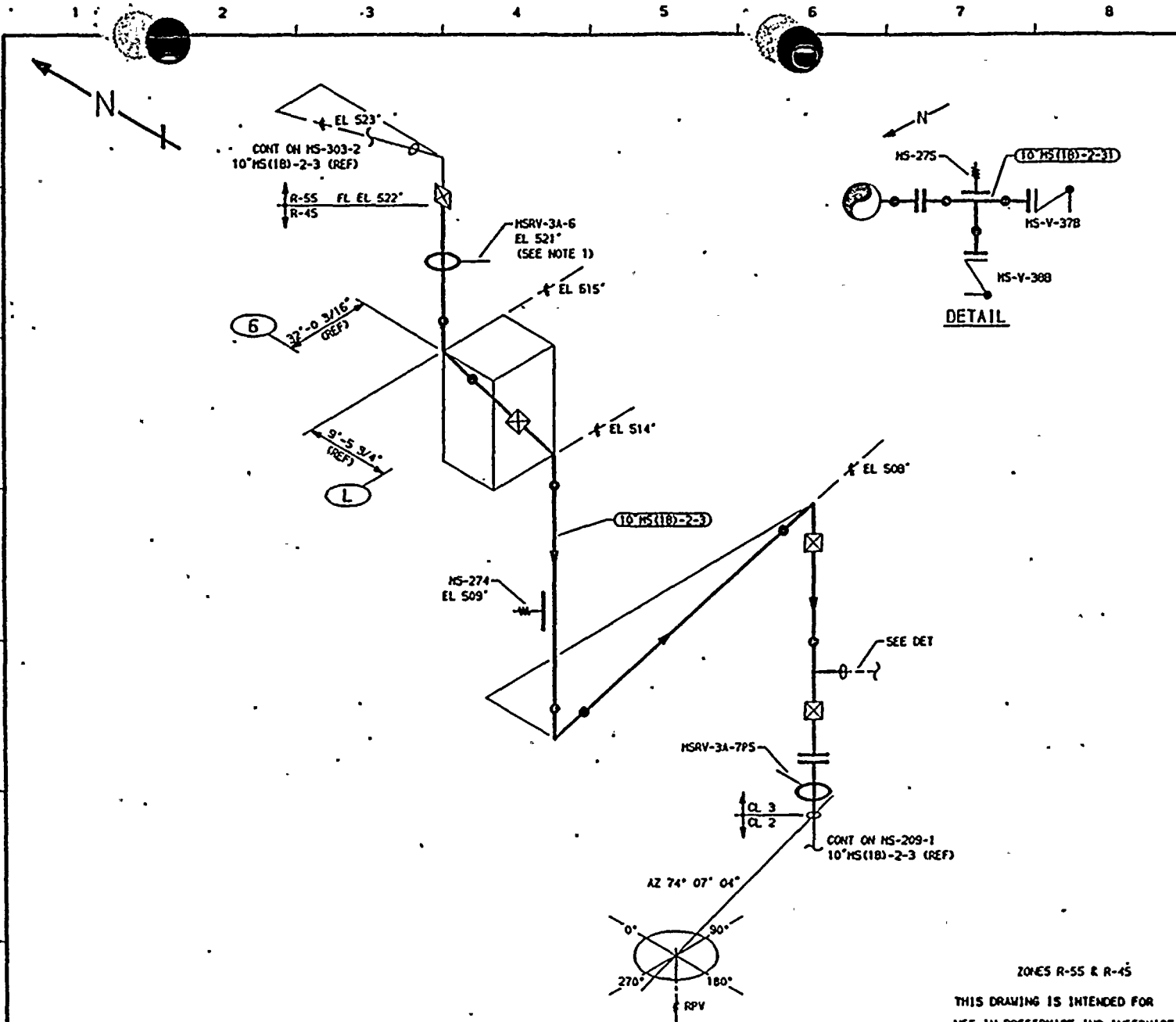


QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR. K-McANDREW	DRAWN. K-McA DATE: 1-3-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
R10/LMO, WASHINGTON 98352

WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE: MS-RY-3A DISCHARGE
DWG NO: MS-303-2
REV 2

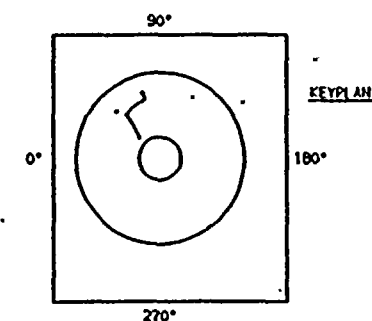


# NOTES

- MSRV-3A-6 CHANGED FROM SHUTTER TO STRUT PER BOC-86-0525-0A.

## REFERENCES

- ISI - 229-1  
BOYCE & CRAIG ISOMETRIC  
MS-549-4.5 REV 12



QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR: K-McANDREW DRAWN: K-McA DATE: 1-4-83

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WIP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM  
TITLE:  
MS-RV-3A DISCHARGE

DWG NO: MS-303-3 REV 1

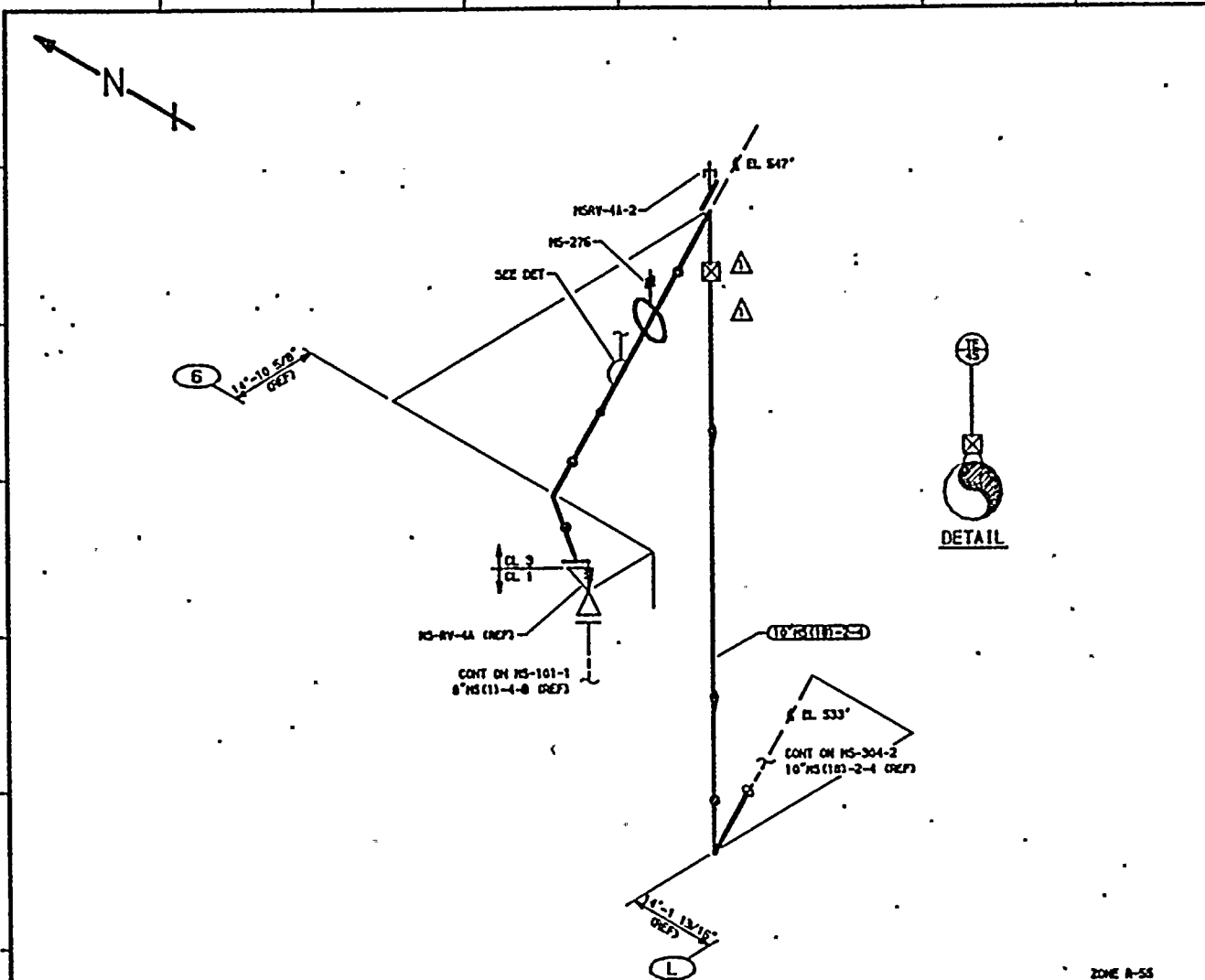
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-3	10	80	0.594	SA 106 GR B	CS	NA
10"MS(18)-2-31	10	80	0.594	SA 106 GR B	-CS	NA

1	12-1-89	ADDED ISI DWG REF, LOGO & NOTE 1. MOD KEYPLAN.	K-McA	DPR	TFH
0	4-24-85	ISSUED FOR USE	K-McA	DPR	TFH
NO	DATE	REVISION	BY	CHKD	APVD

ZONES R-55 & R-45  
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.





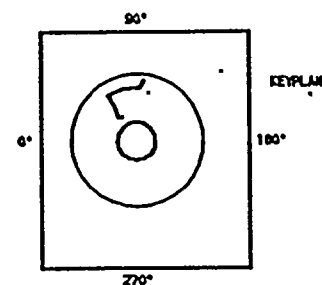


# NOTES

- MS-RV-4A-1 & MS-RV-4A-3 WERE DELETED PER BOC-06-0525-4A.

## REFERENCES

ISI - 223-1  
BOYCE & CRAIL ISOMETRIC  
MS-550-1.2 REV 8



QUALITY CLASS. 1 ASME CODE CLASS. 3  
ENGR. K-McANDREW DRAWN. K-McA DATE. 1-4-83

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RV-4A DISCHARGE

DWG NO. MS-304-1

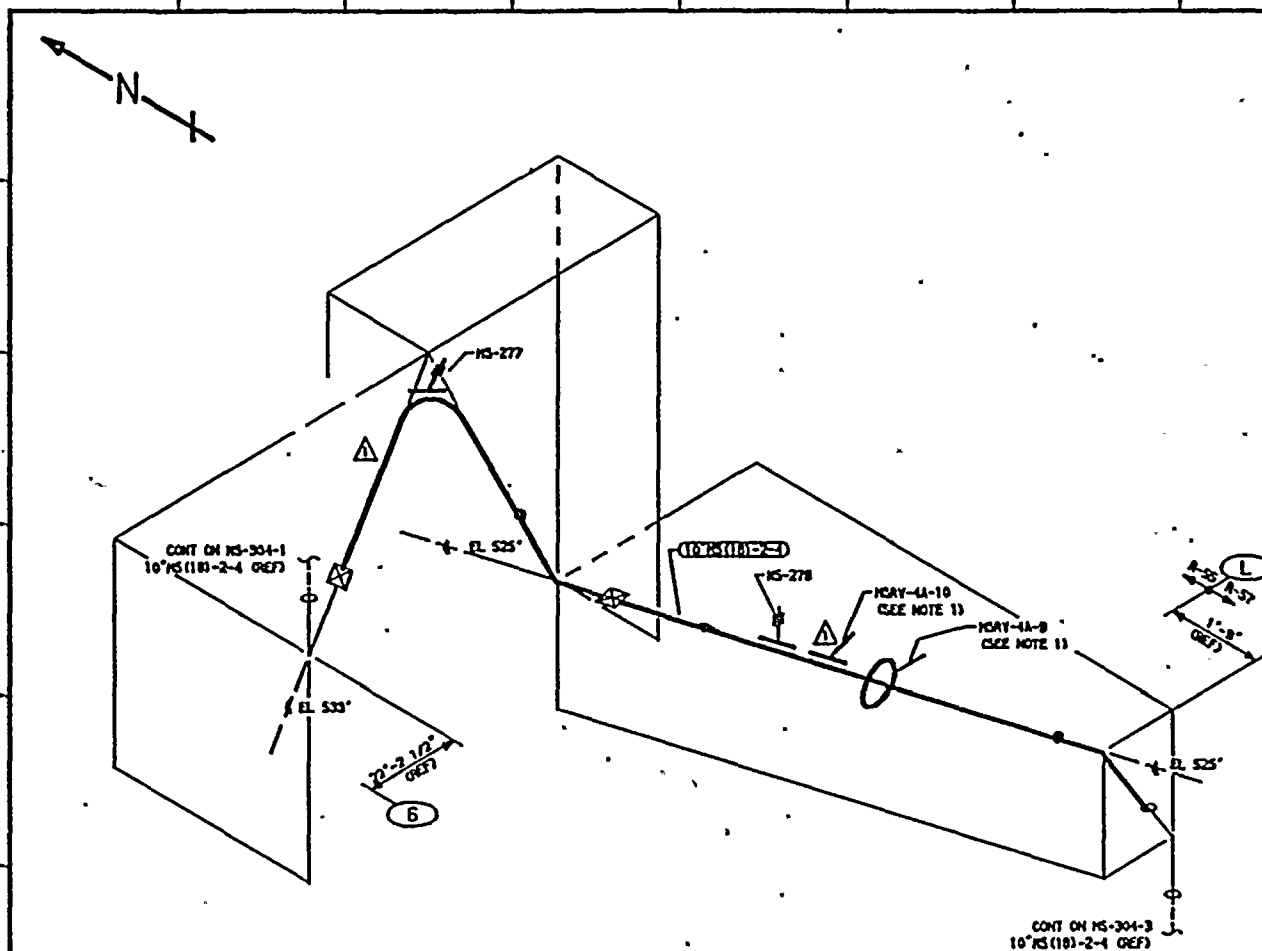
REV 1

ZONE B-55  
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTION PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(118)-2-4	10	80	0.594	SA 108 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-14-90	ADDED LOGO & NOTE 1. MODIFIED THE DWG NO. & KEYPLAN. DELETED MS-RV-4A-1 & MS-RV-4A-3.	K-McA	OJ	TFH
0	4-24-83	ISSUED FOR USE	K-McA	DPR	TFH



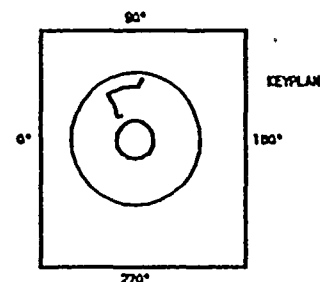


# NOTES

- MSRY-4A-8 & MSRY-4A-10 CHANGED FROM SHOULDER TO STRUT. MSRY-4A-4, MSRY-4A-5 & MSRY-4A-6 WERE DELETED PER BOC-66-6525-4A.

# REFERENCES

ISI - 229-1  
BOYCE & GRILL ISOMETRIC  
MS-550-3.4 REV B



QUALITY CLASS: 1 ASME CODE CLASS: 3

ENGR: K-MANDREY DRAWN: K-M&A DATE: 1-4-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98801

ZONES R-55 & R-57

THIS DRAWING IS INTENDED FOR  
USE IN PRECISYCE AND INCORVCE  
INSPECTION PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	DCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-4	10	80	0.584	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-14-80	ADDED LOGO & NOTE 1. MODIFIED ISI Dwg REF & KEYPLAN.	K-M&A	OJ	TFH
0	4-24-83	ISSUED FOR USE	K-M&A	DPR	TFH

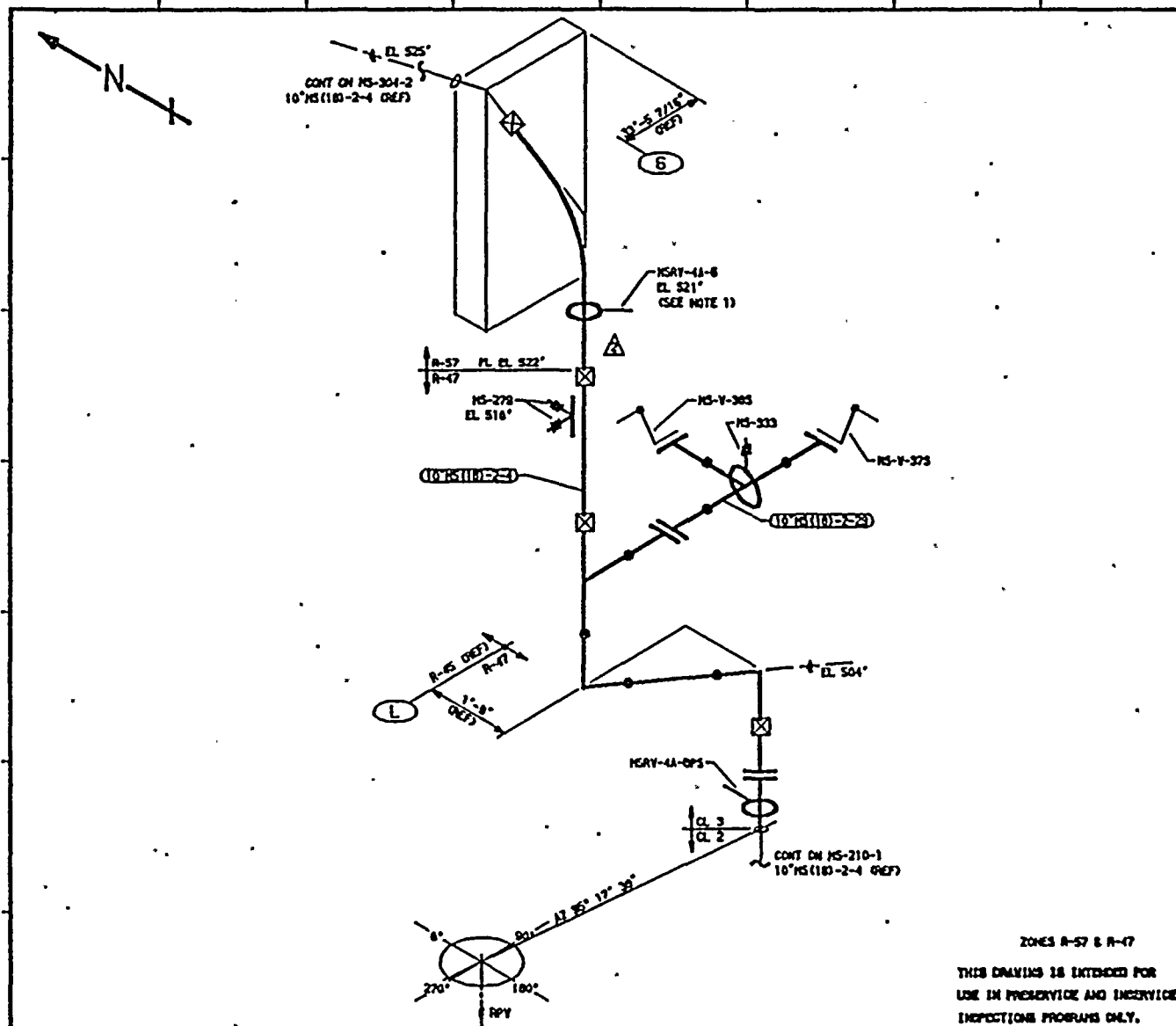
WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RV-4A DISCHARGE

DWG NO: MS-304-2

REV -1





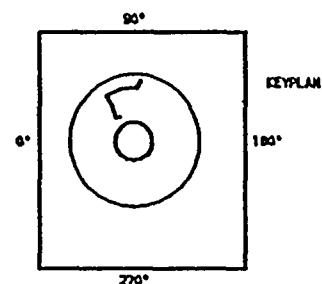
# NOTES

1. MSRY-4A-6 CHANGED FROM SLINGER TO STRUT PER DOC-66-0525-4A.
2. MSRY-4A-7 WAS DELETED PER DOC-66-0525-4A.

## REFERENCE

151 - 229-1

BOYCE & CRAIG ISOMETRIC  
MS-550-5.8 REV 14



QUALITY CLASS. 1 ASME CODE CLASS. 3  
ENGR. K-MANOREN DRAWN. K-MOA DATE. 1-4-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RV-4A DISCHARGE

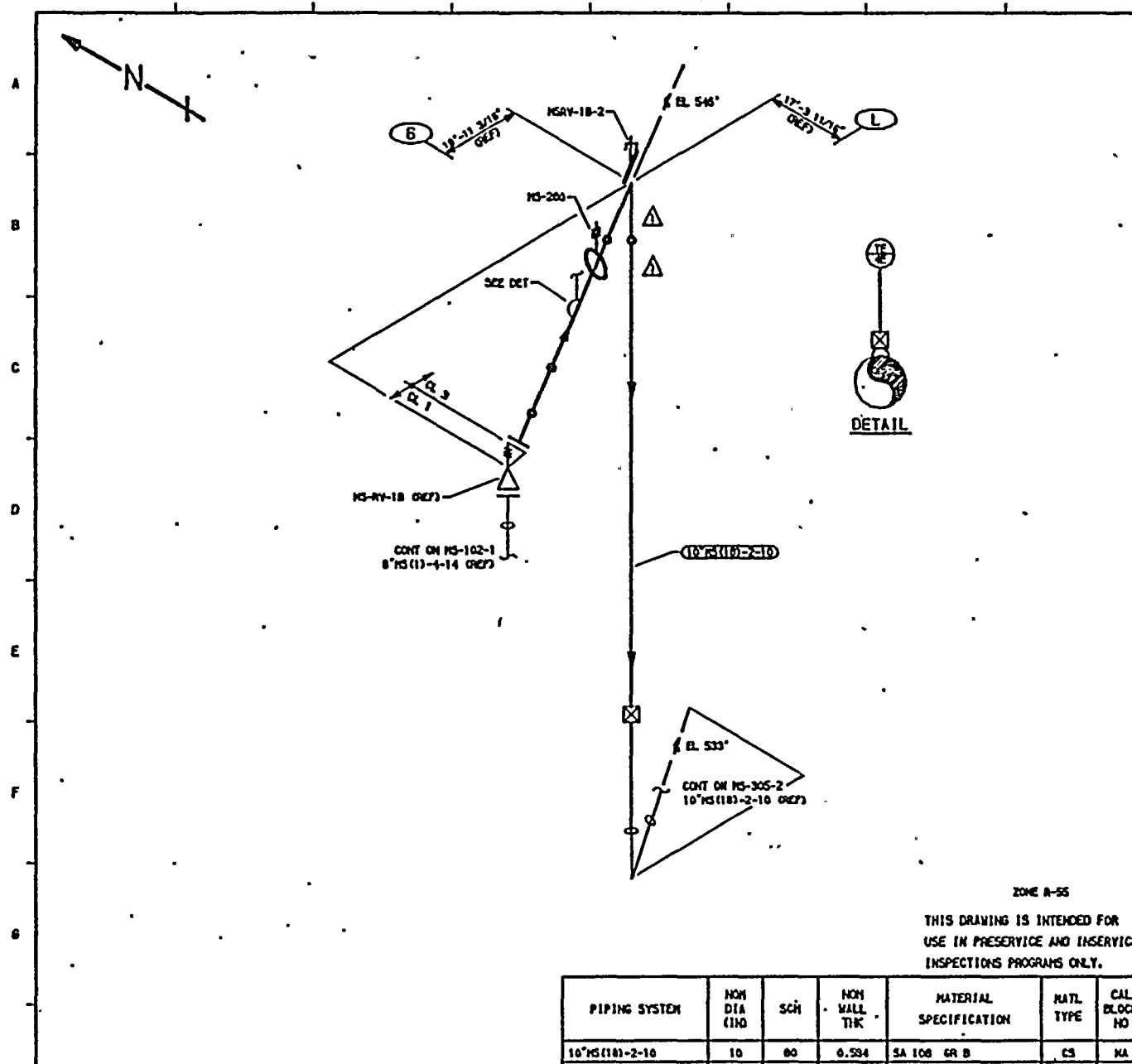
DWG NO. MS-304-3

REV 2

NO	DATE	REVISION	BY	CHKD	APVD
2	12-14-80	ADDED NOTE 2, DELETED MSRY-4A-7.	K-MOA	OJ	TFH
1	12-4-83	ADDED 151 DWG REF, LOGO & NOTE 1. MOD KEYPLAN.	K-MOA	DPR	TFH
0	4-24-83	ISSUED FOR USE	K-MOA	DPR	TFH

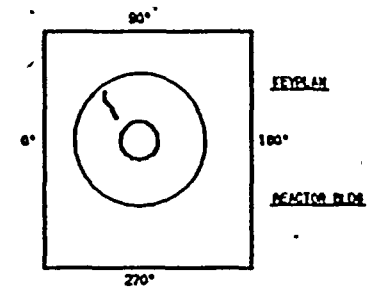
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(180)-2-4	10	80	0.594	SA 106 GR B	CS	NA
10"MS(180)-2-29	10	80	0.594	SA 106 GR B	CS	NA

ZONES R-57 & R-47  
THIS DRAWING IS INTENDED FOR  
USE IN PRESENTATION AND INSERVICE  
INSPECTION PROGRAMS ONLY.



**NOTES**  
 1. MSRY-18-1 & MSRY-18-3 WERE DELETED PER  
 DDC 08-0525-02-022.

**REFERENCES:**  
 ISI - 229-1  
 BOYCE & CHAIL ISOMETRIC  
 MS-530-1 REV 0



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR. K-McANDREW	DRAWN. K-McA DATE, 1-5-83

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98352

ZONE A-55  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

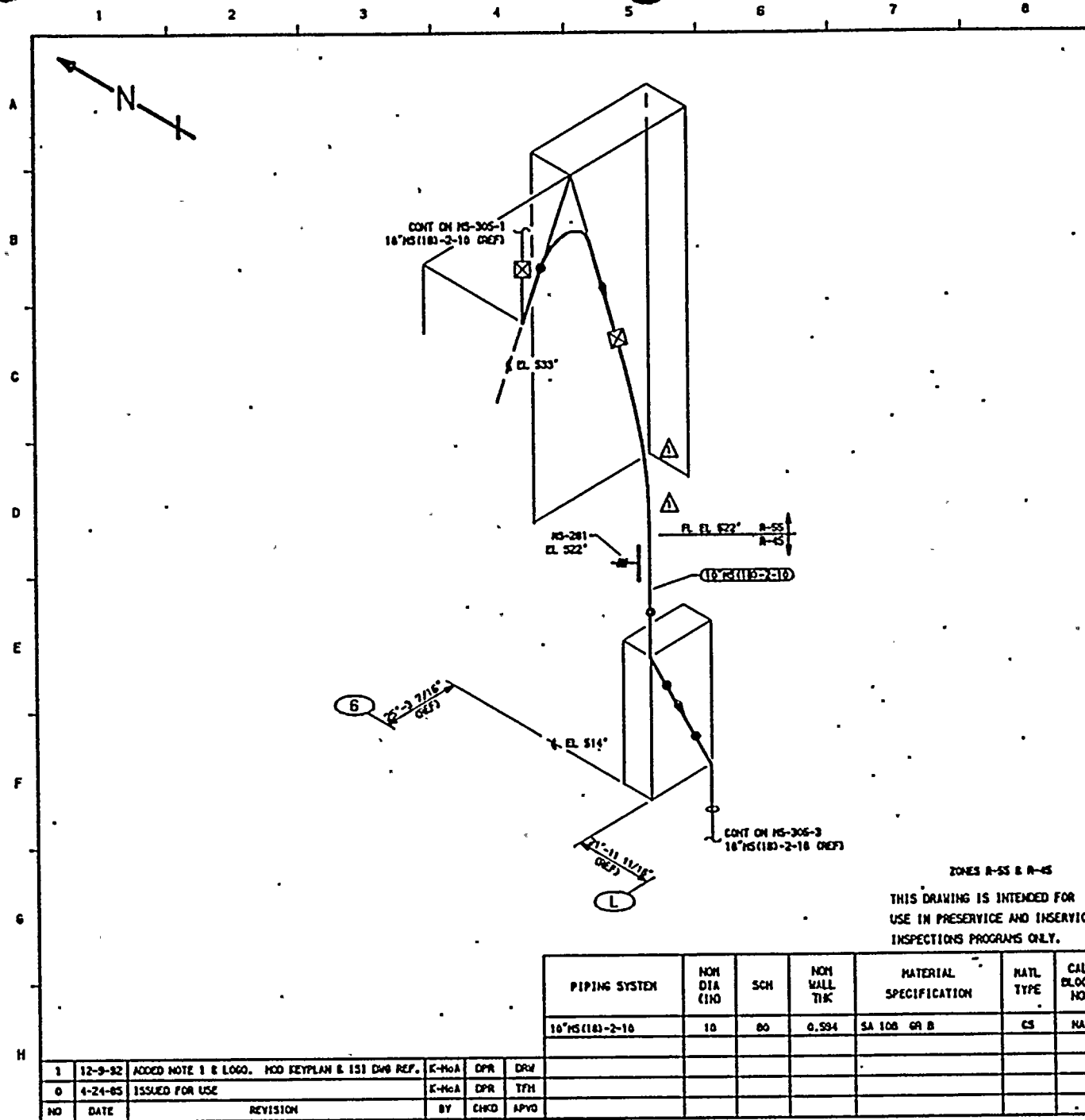
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-10	10	80	0.584	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	ADDED NOTE 1 & LOGO. MOD KEYPLAN & ISI DWG REF.	K-McA	DPR	DRW
0	1-21-83	ISSUED FOR USE	K-McA	DPR	TFF

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM  
 TITLE: MS-RY-18 DISCHARGE  
 DWG NO. MS-305-1 REV 1







**NOTES**

1. MS-RV-18-4 & MS-RV-18-5 WERE DELETED FOR  
DOC 88-0525-0E-022.

**REFERENCES**

151 - 229-1  
BOYCE & CHAIL ISOMETRIC  
MS-530-2.3 REV B

90°


0°

270°

**KEYPLAN**

180°

**REACTOR BLDG**

QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR. K-McANDREW	DATE, 1-5-83
 WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WASHINGTON 99352	
WPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: MS-RV-18 DISCHARGE	
DWG NO. MS-305-2	REV 1

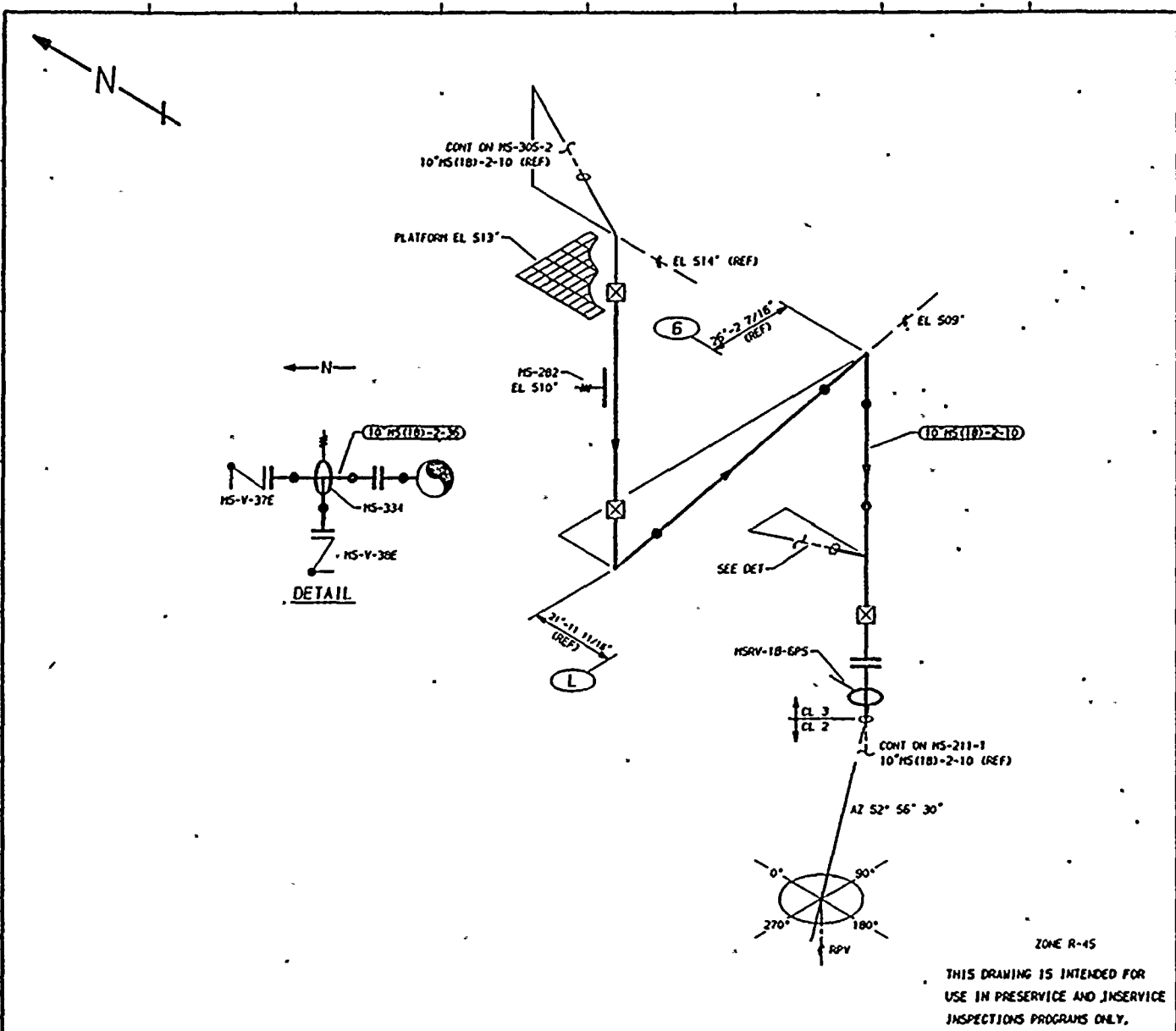
ZONES R-SS & R-MS

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

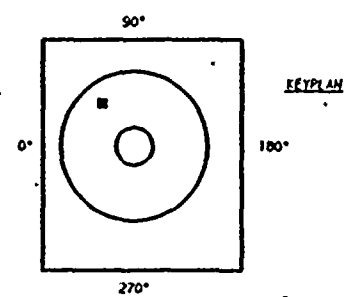
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-10	10	80	0.594	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	ADDED NOTE 1 & LOGO. MOD KEYPLAN & 151 DWG REF.	K-McA	DPR	DRW
0	4-24-85	ISSUED FOR USE	K-McA	DPR	TTH





REFERENCES:  
 151 - 229  
 BOYCE & CRAIL ISOMETRIC  
 MS-530-4 REV 12



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-McA DATE, 1-5-83

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10\"MS(18)-2-10	10	80	0.594	SA 106B GR B	CS	NA
10\"MS(18)-2-36	10	80	0.594	SA 106B GR B	CS	NA

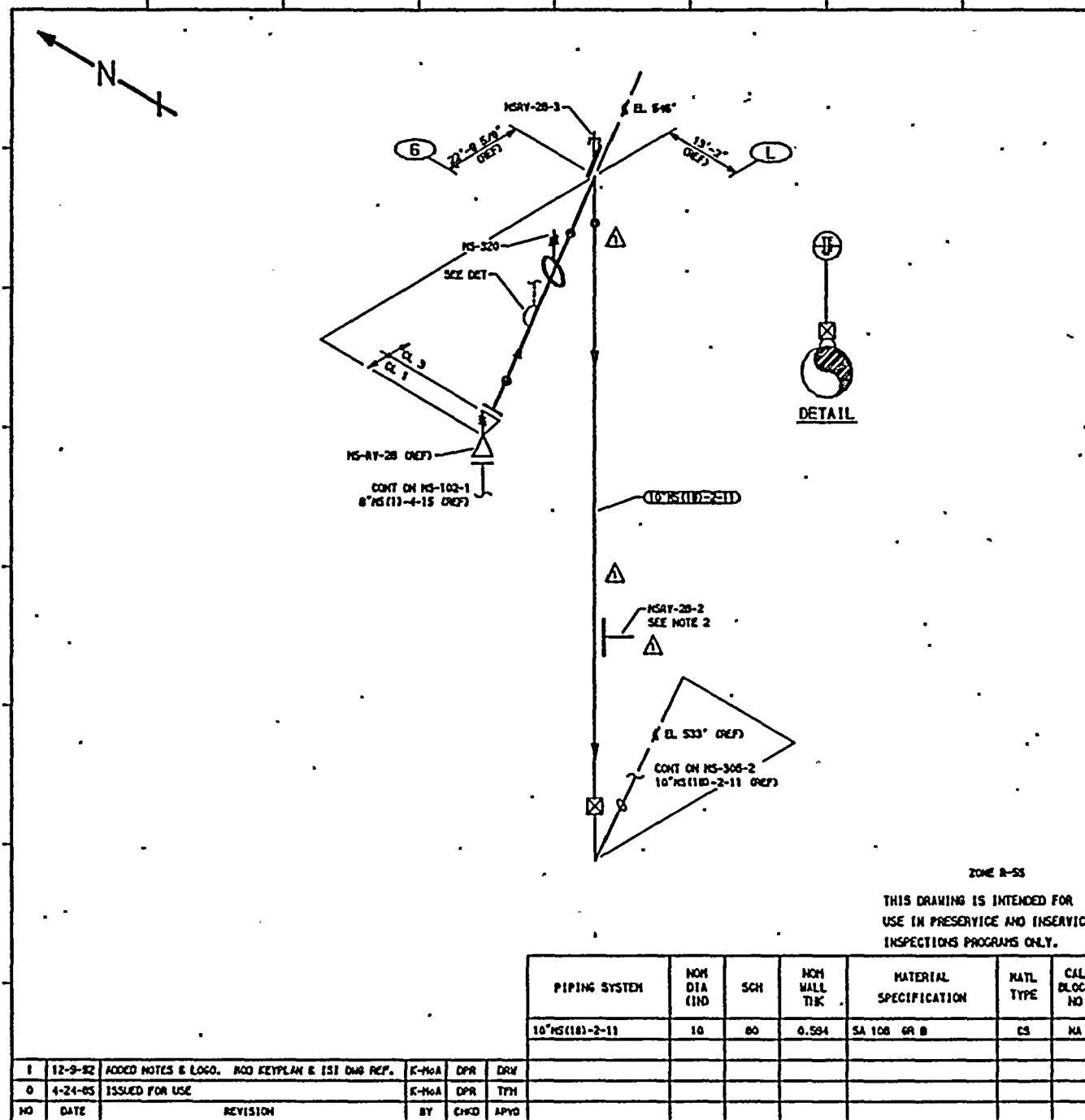
MNP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM  
 TITLE:  
 MS-RV-1B DISCHARGE

0	1/2/83	ISSUED FOR USE	K-McA	TFH
NO	DATE	REVISION	BY	CHKD
			APVD	

DWS NO, MS-305-3  
 REV 0

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.



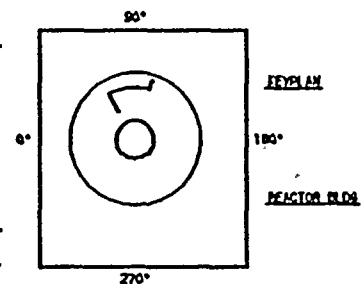


# NOTES

- MS-RV-28-1 & MS-RV-28-4 WERE DELETED PER DOC 06-0525-02-022.
- MS-RV-28-2 CHANGED FROM SHOULDER TO STRUT PER DOC 06-0525-02-022.

## REFERENCES

ISI - 229-1  
BOYCE & CRAIG ISOMETRIC  
MS-530-1 REV 8



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-M-ANDREW	DRAWN, K-HA DATE, 1-5-83

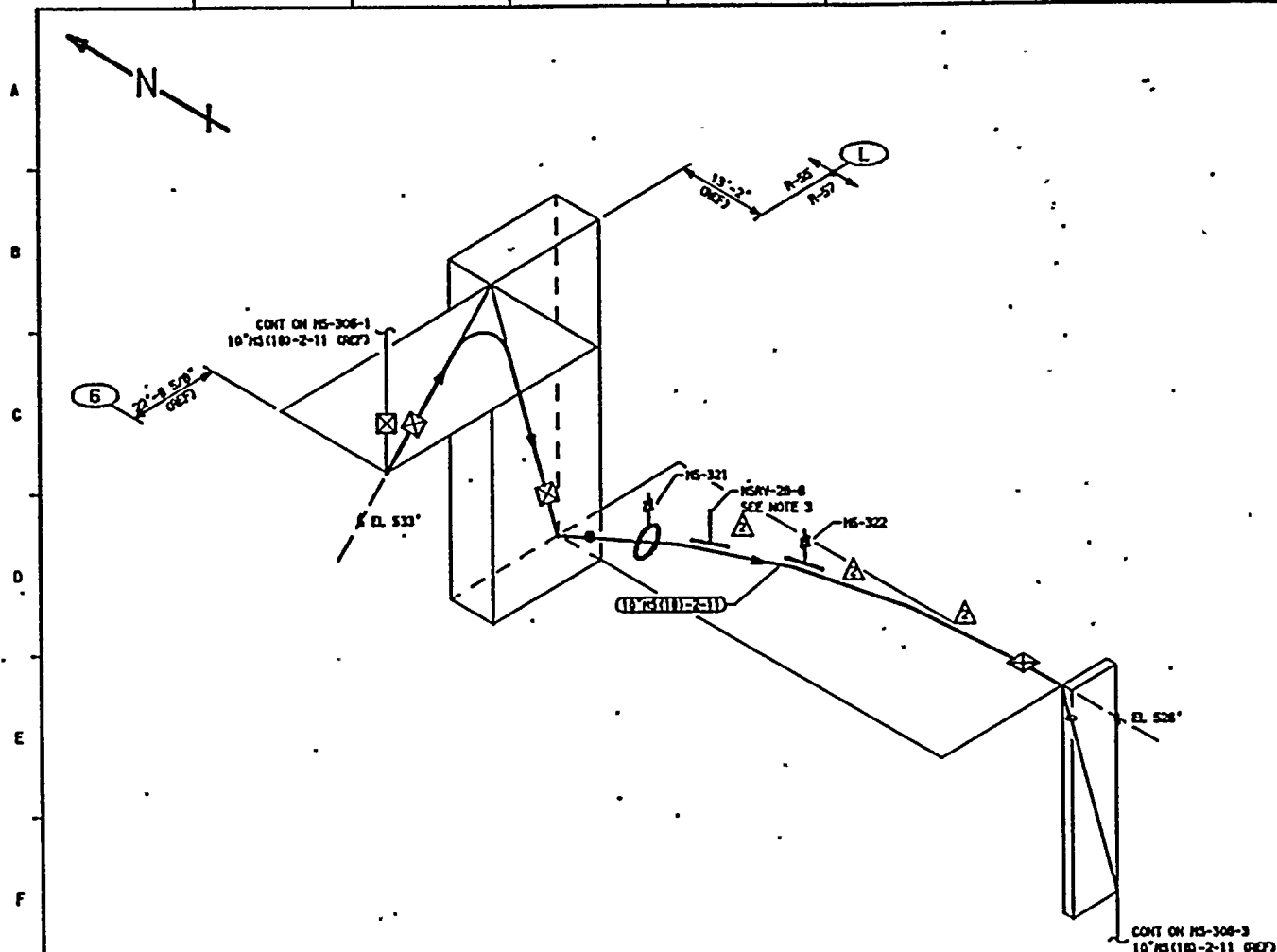


WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE, MS-RV-28 DISCHARGE	DWG NO. MS-306-1	REV 1
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ZONES A-55 & A-57

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

				PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
				10" NS (18)-2-11	10	80	0.594	SA 106 GR B	CS	NA
2	12-9-82	ADDED NOTES 2 & 3. MODIFIED ACCORDINGLY	K-McA DPR DRW							
1	12-4-83	ADDED ISI DWG REF, LOGO & NOTE 1. MOD KEYPLAN, REDRAWN	K-McA DPR TPN							
0	4-24-85	ISSUED FOR USE	K-McA DPR TPN							
NO	DATE	REVISION	BY	CHKD	APVD					

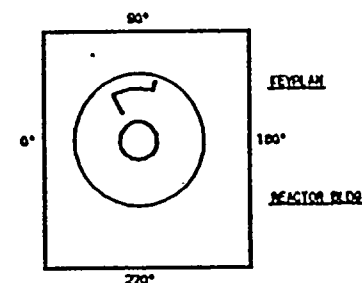
# NOTES

1. NSRY-28-5 CHANGED FROM SHUTTER TO STRUT PER DDC-87-6173-04.
2. NSRY-28-5, NSRY-28-7 & NSRY-28-8 WERE DELETED PER DDC 88-0525-0E-022.
3. NSRY-28-8 CHANGED FROM SHUTTER TO STRUT PER DDC 88-0525-0E-022.

## REFERENCE

ISI - 229-1

BOYCE & ORILL ISOMETRICS  
NS-530-2 REV 3  
NS-530-3 REV 8



QUALITY CLASS, 1 ASME CODE CLASS, 3  
ENGR. K-McANDREW DRAWN. K-McA DATE, 1-5-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 98352

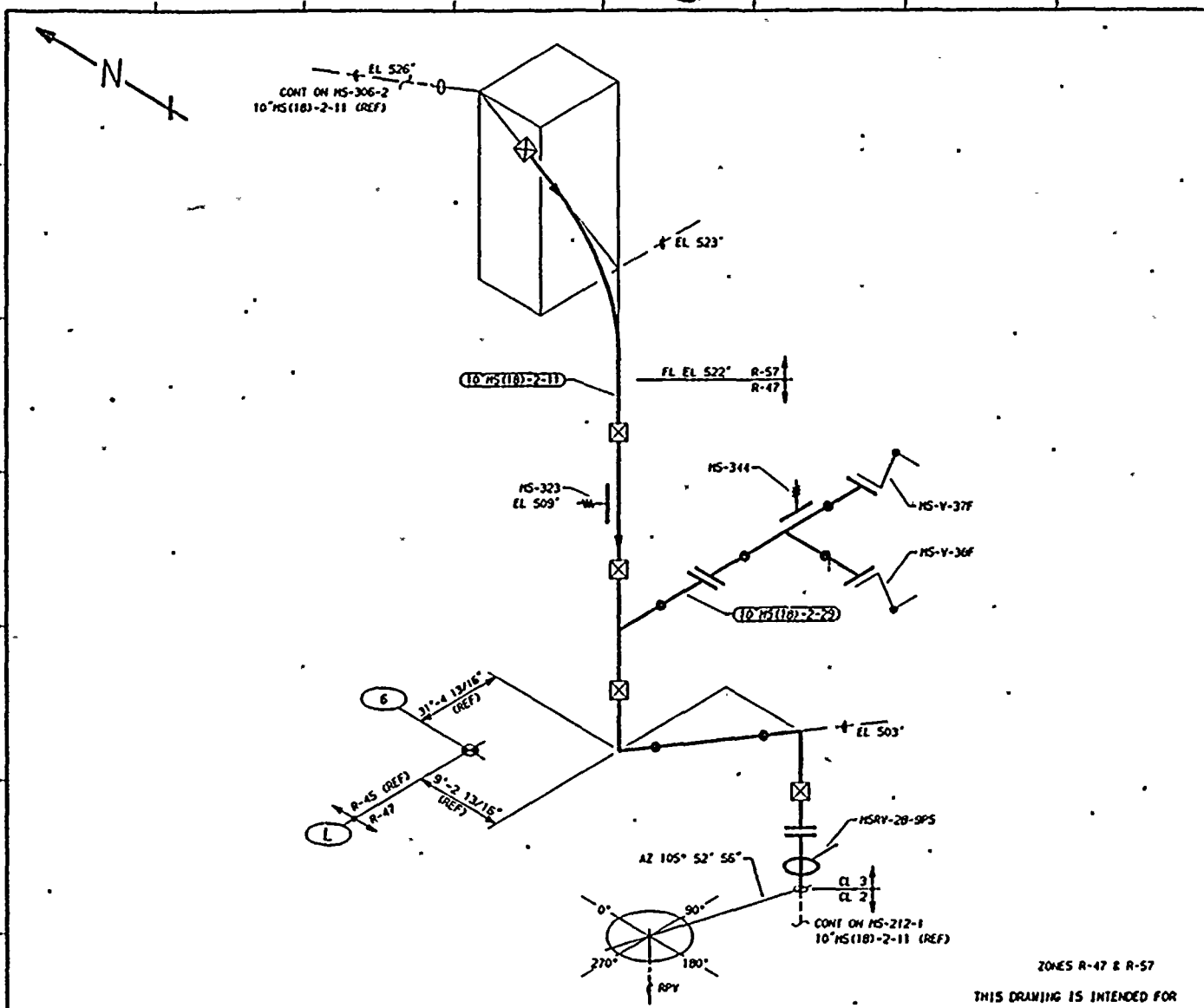
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
NS-RV-28 DISCHARGE

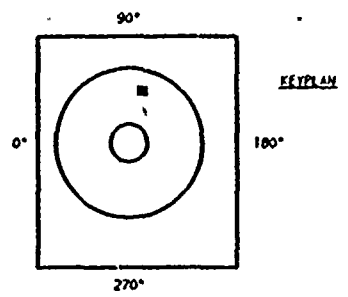
DWG NO. MS-306-2 REV 2







REFERENCES:  
 ISI - 229  
 BOYCE & CRAIL ISOMETRIC  
 MS-539-4.5 REV 13

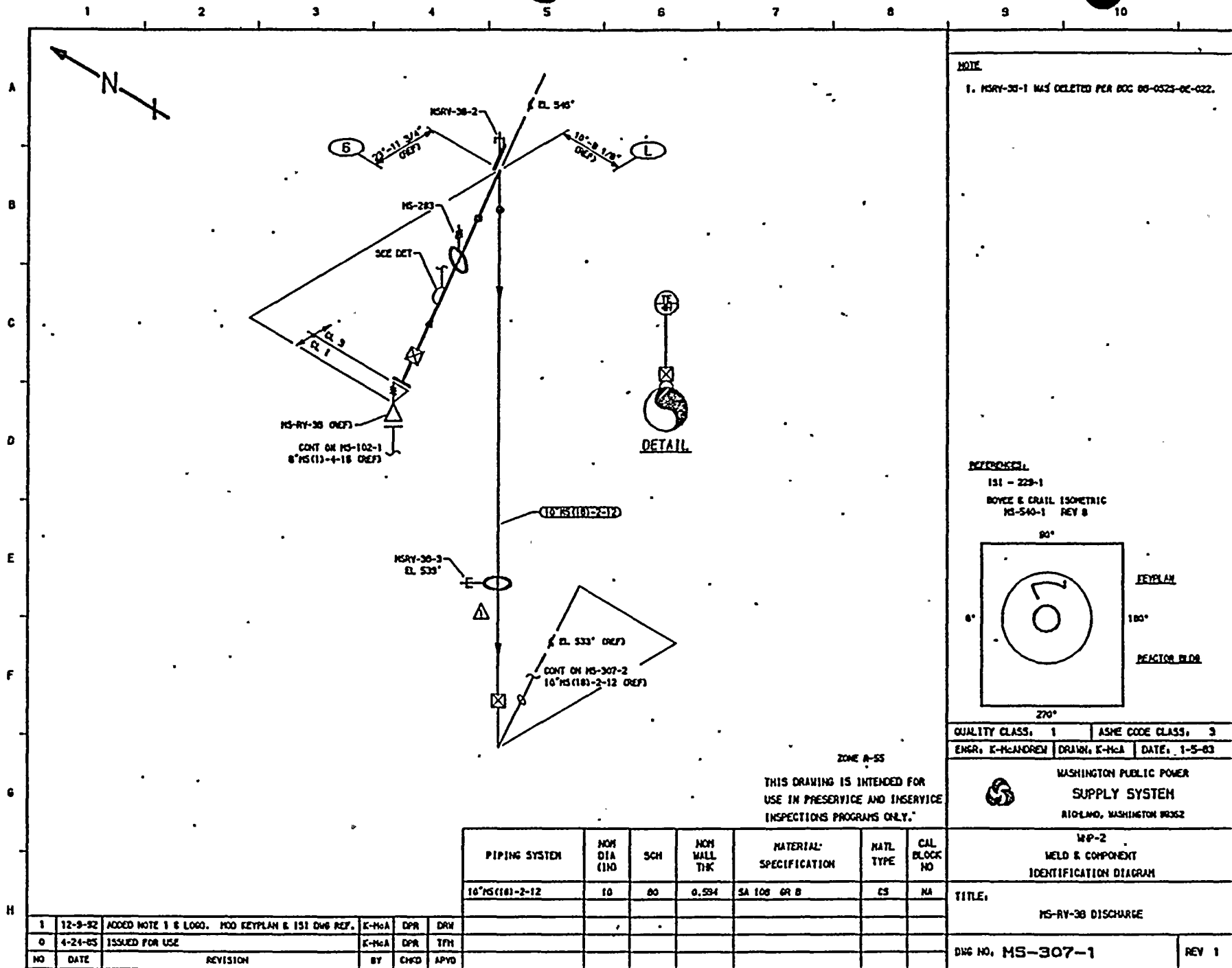


ZONES R-47 & R-57  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

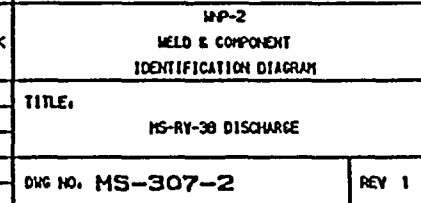
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-11	10	80	0.594	SA 106B GR B	CS	NA
10"MS(18)-2-36	10	80	0.594	SA 106B GR B	CS	NA

0	1-28-85	ISSUED FOR USE	BY	CHKD	APVD
NO	DATE	REVISION			

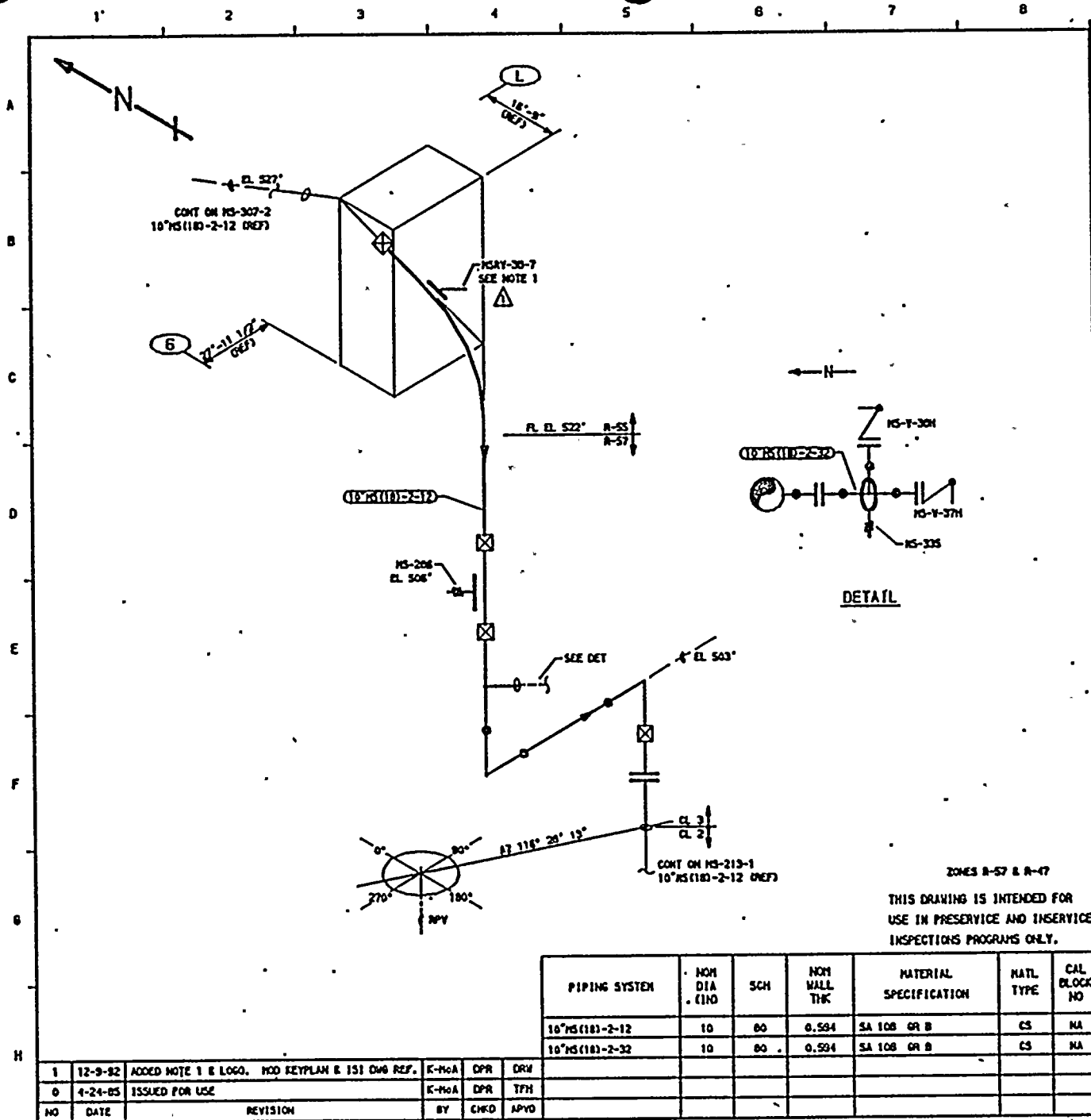
QUALITY CLASS: 1	ASME CODE CLASS: 3
ENGR: K-McANDREW	DRAWN: K-McA DATE: 1-5-83
WASHINGTON PUBLIC POWER SUPPLY SYSTEM RIDELAND, WASHINGTON 99352	
WPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: MS-RV-28 DISCHARGE	
DWG NO: MS-306-3	REV 0











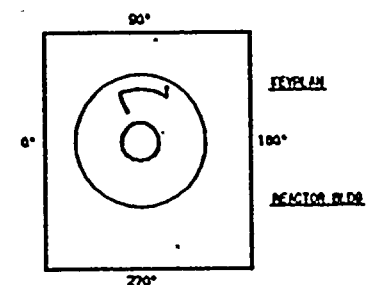
# NOTE

1. MS-RV-38-7 CHANGED FROM SLUDDER TO STRUT FOR DOC 06-0525-0E-022.

## REFERENCE

ISI - 228-1

BOYCE & CRILL ISOMETRIC  
MS-840-5.8 REV 15



QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR: K-McANDREW DRAWN: K-McA DATE: 1-5-83

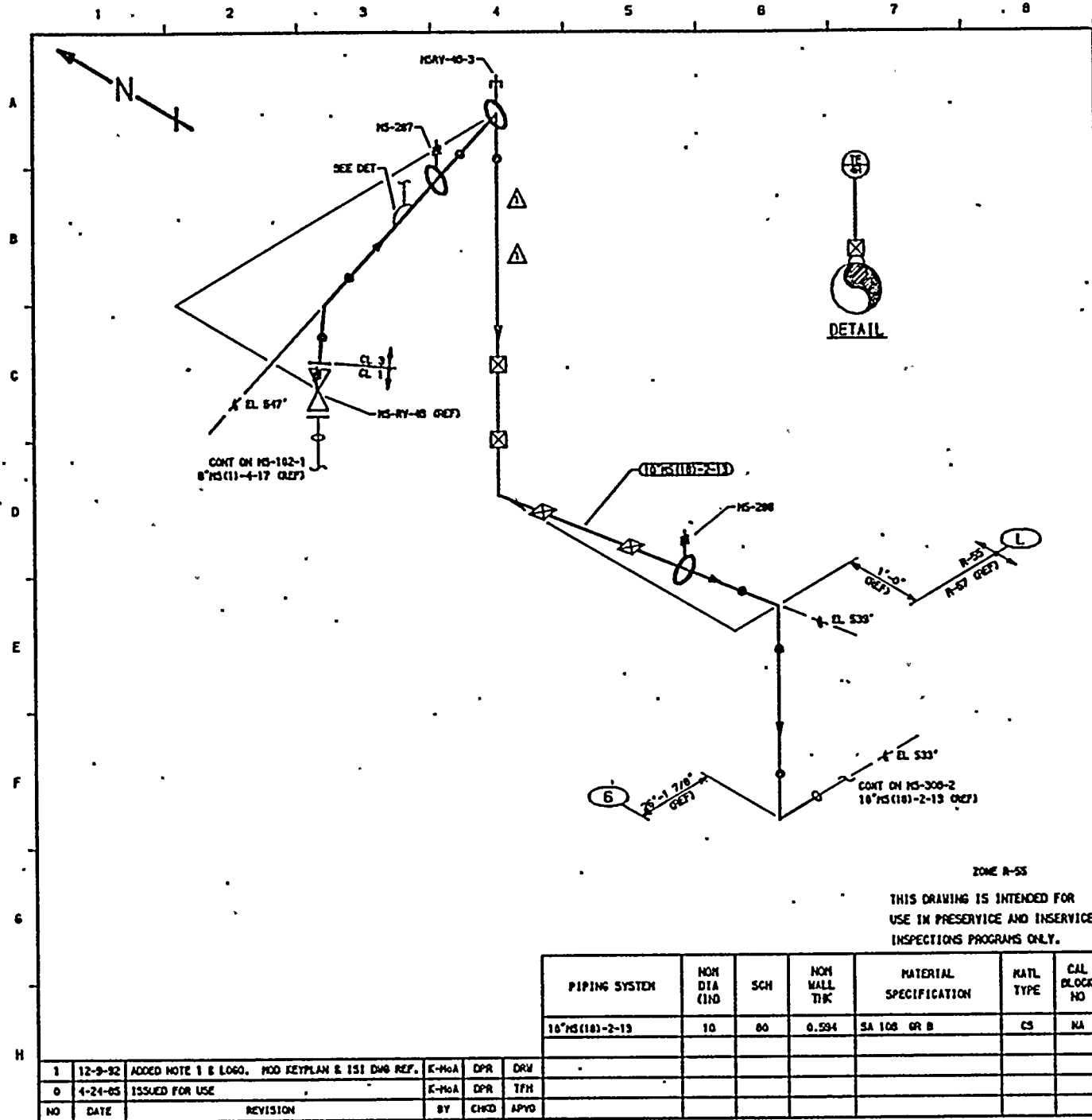
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WFP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RV-38 DISCHARGE

DWG NO. MS-307-3 REV 1



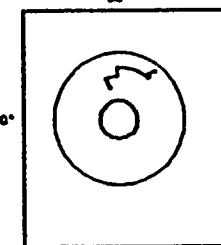


# NOTE

- MS-RY-48-2 & MS-RY-48-4 WERE DELETED PER BOC 06-0525-0E-622.

## REFERENCE

ISI - 229-1  
BOYCE & GRILL ISOMETRICS  
MS-541-1.2 REV 10



KEYPLAN

REACTION PLOTS

QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR. K-McANDREW	DATE, 1-13-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

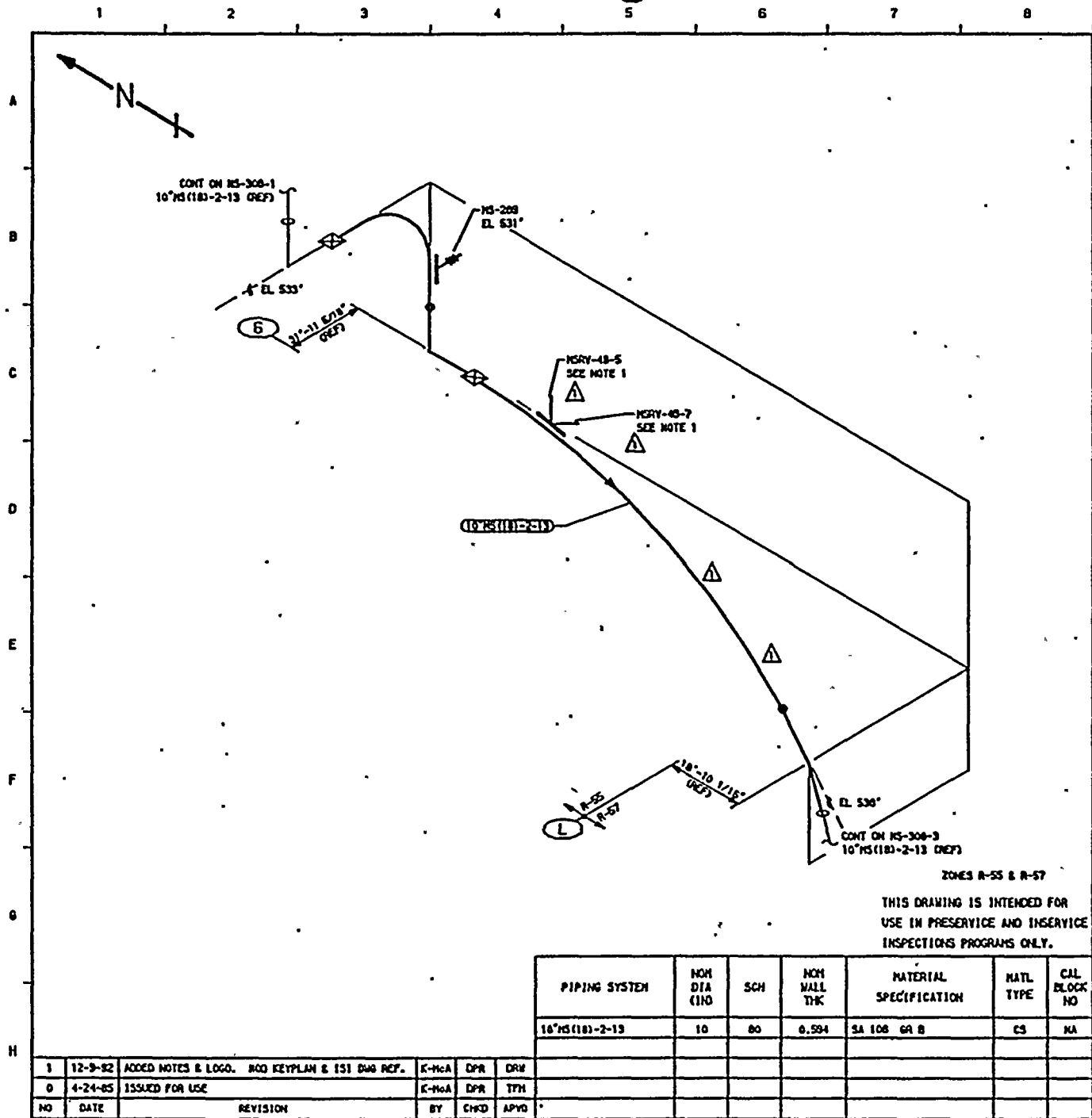
TITLE,  
MS-RY-48 DISCHARGE

DWG NO. MS-308-1

REV 1







**NOTES**

- MSRV-48-5 & MSRV-48-7 CHANGED FROM SHRODDERS TO STRUTS PER DOC 86-0525-GE-022.
- MSRV-48-6, MSRV-48-10 & MS-290 WERE DELETED PER DOC 86-0525-GE-022.

**REFERENCE**

151 - 229-1  
BOYCE & ORAIL ISOMETRIC  
MS-541-3.4 REV 10

**KEYPLAN**

**QUALITY CLASS, 1** **ASME CODE CLASS, 3**

**ENGR, K-McANDREW** **DRAWN, K-McA** **DATE, 1-14-83**

**WASHINGTON PUBLIC POWER**  
**SUPPLY SYSTEM**  
RICHMOND, WASHINGTON 98352

**WP-2**  
**WELD & COMPONENT**  
**IDENTIFICATION DIAGRAM**

**TITLE,**  
**MS-RV-48 DISCHARGE**

**DWG NO. MS-308-2** **REV 1**

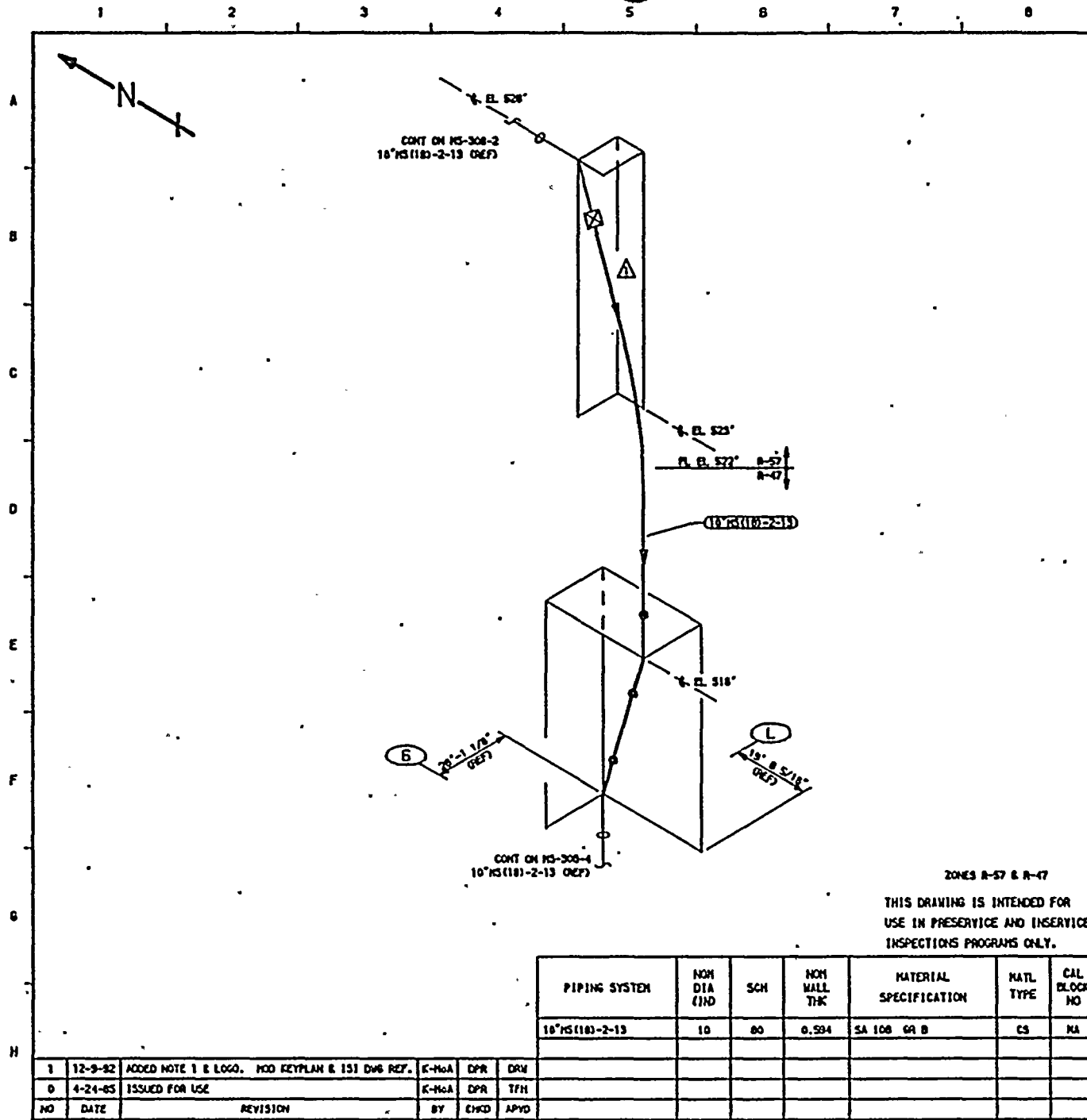
NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	ADDED NOTES & LOGO. RUC KEYPLAN & 151 DWG REF.	K-McA	DPR	DRW
0	4-24-85	ISSUED FOR USE	K-McA	DPR	TTH

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-13	10	80	0.594	SA 106 GR B	CS	NA

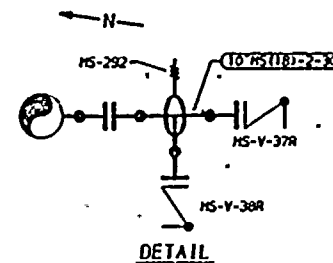
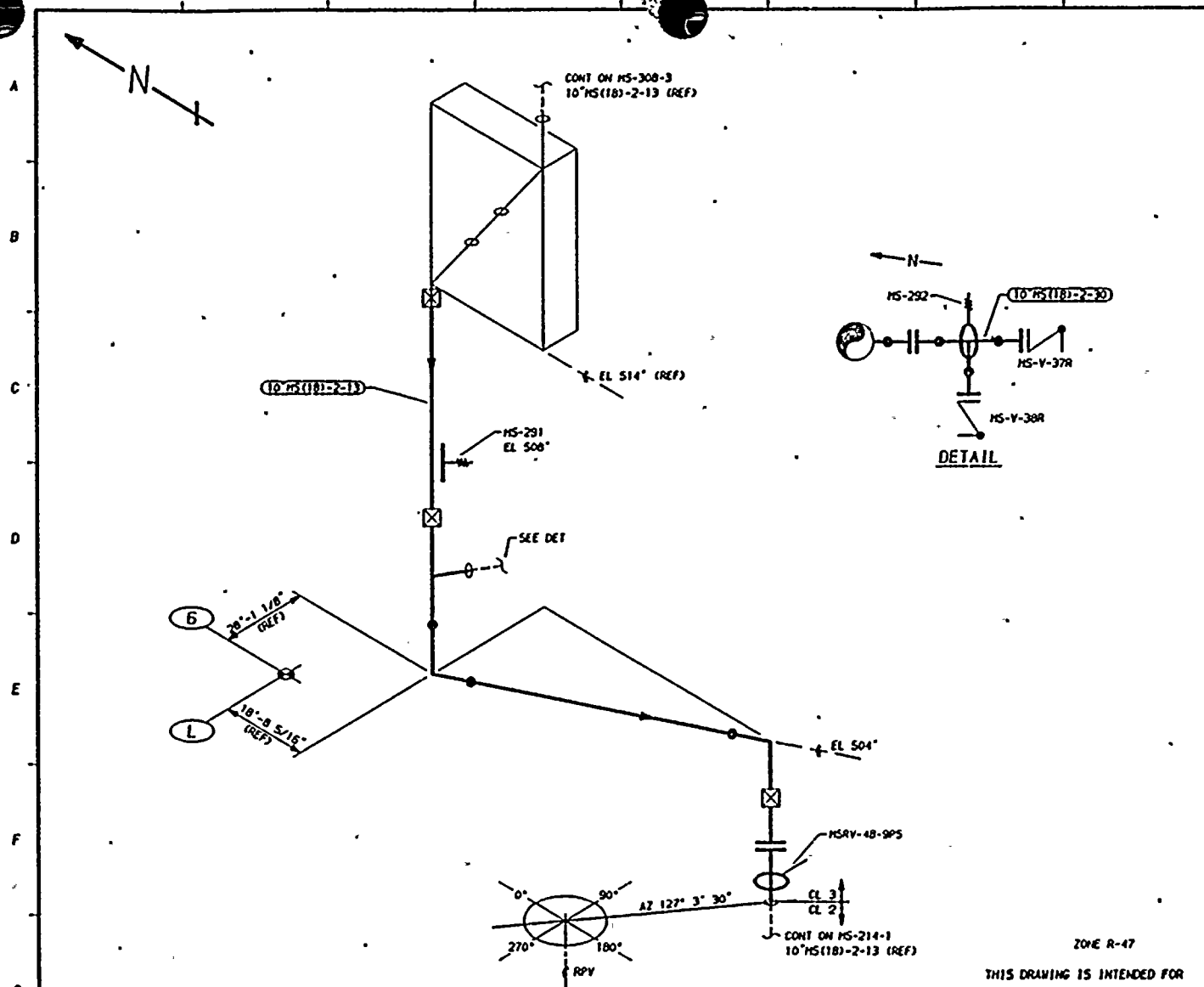
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

ZONES R-55 & R-57



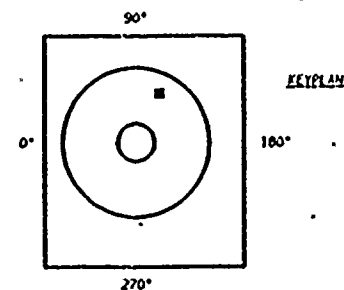






# REFERENCES:

151 - 229  
BOYCE & CRAIL ISOMETRIC  
MS-541-6 REV 12



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-McA DATE, 1-24-83

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

ZONE R-47

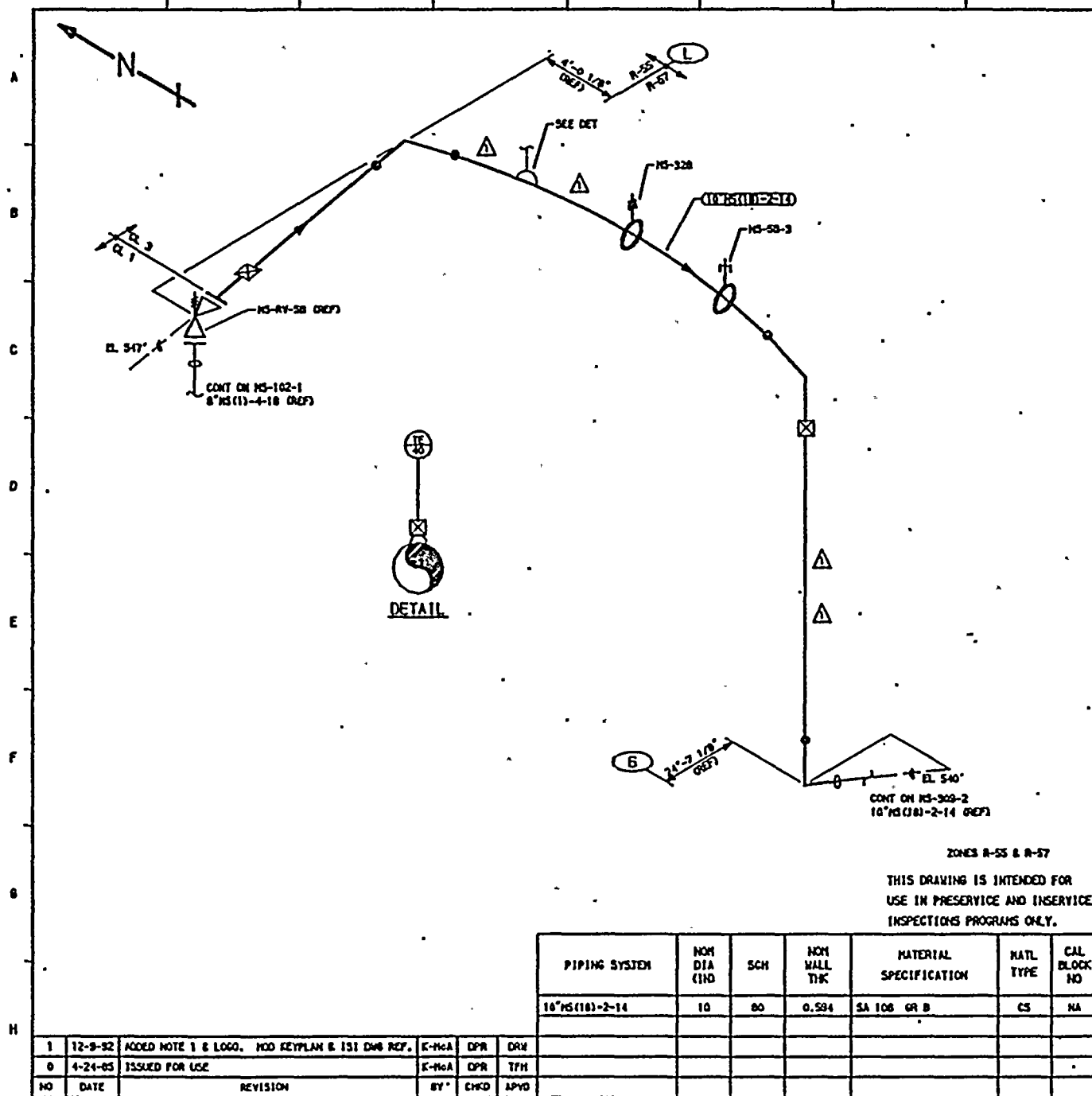
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-13	10	80	0.594	SA 106B GR B	CS	NA
10"MS(18)-2-30	10	80	0.594	SA 106B GR B	CS	NA

0	1/2/85	ISSUED FOR USE	4/1/84	EDR	KUH
NO	DATE	REVISION	BY	CHKD	APVD

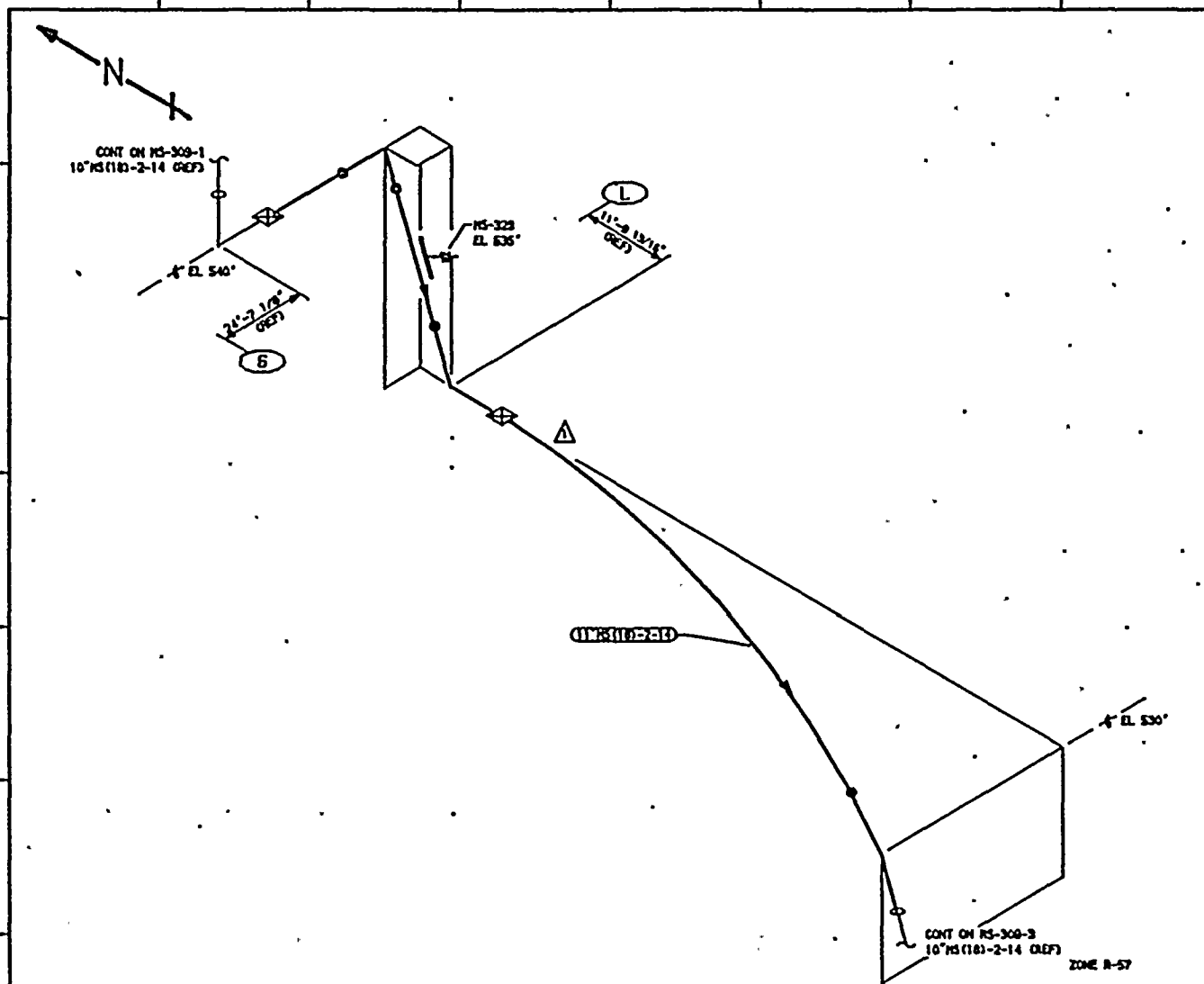
MAP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE: MS-RV-4B DISCHARGE
DWG NO, MS-308-4, REV 0











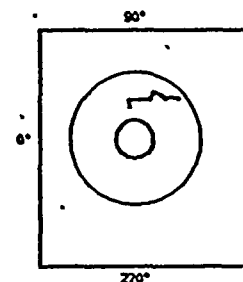
# NOTE

1. MSRY-48-B WAS DELETED PER DOC 86-0025-62-022.

## REFERENCE

151 - 229-1

BOYCE & CRILL ISOMETRIC  
MS-542-3.4 REV 8



KEYPLAN

180°

REACTOR BUILD

QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-McA DATE, 1-14-83



WASHINGTON PUBLIC POWER

SUPPLY SYSTEM

RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RY-58 DISCHARGE

DWG NO. MS-309-2

REV 1

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-14	10	80	0.504	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	ADDED NOTE 1 & LOGO. MOD KEYPLAN & 151 DWG REF.	K-McA	DPR	DRH
0	4-24-85	ISSUED FOR USE	K-McA	DPR	TFH

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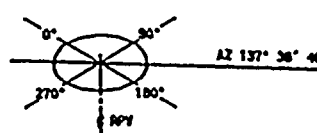
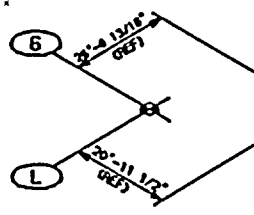
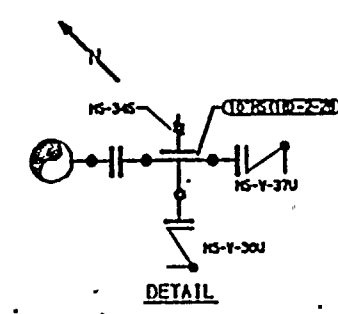
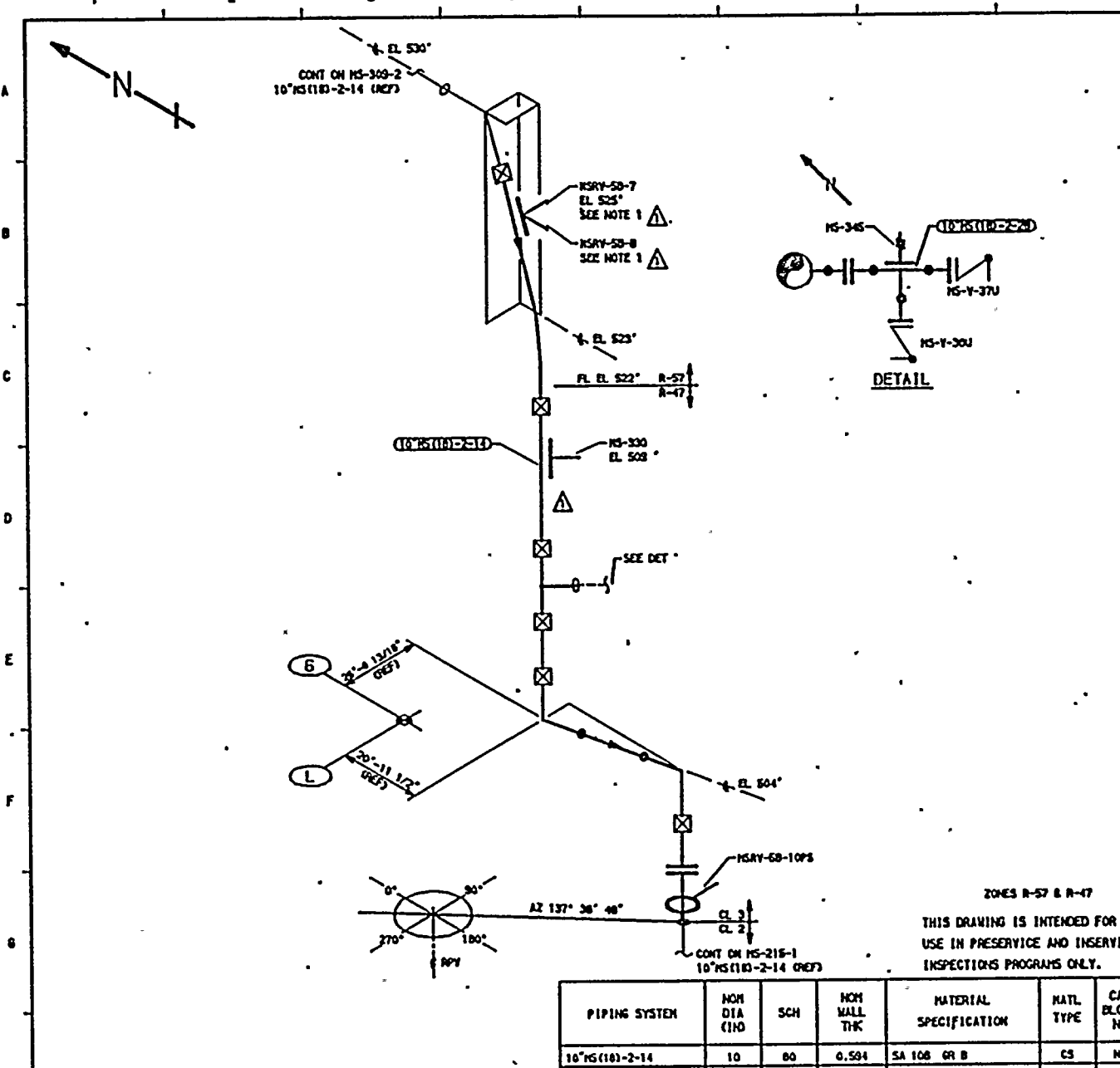
30

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ZONES R-57 & R-47  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-14	10	80	0.594	SA 106 GR B	CS	NA
10"MS(18)-2-28	10	80	0.594	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	ADDED NOTES & LOGO. MOD KEYPLAN & ISI DIA REF.	K-MCA	DPR	DRM
0	4-24-85	ISSUED FOR USE	K-MCA	DPR	TFM

**NOTES**

- MSRY-58-7 & MSRY-58-8 CHANGED FROM SMUDGERS TO STRUTS PER DOC 86-0525-0E-022.
- MSRY-58-8 WAS DELETED PER DOC 86-0525-0E-022.

**REFERENCE**

ISI - 229-1  
 BOYCE & ORAIL ISOMETRICS  
 MS-542-5 RY 7  
 MS-542-8 RY 13

QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DATE, 1-14-83

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

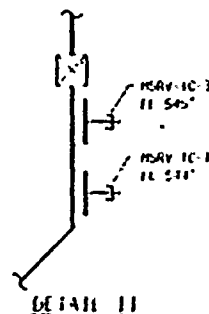
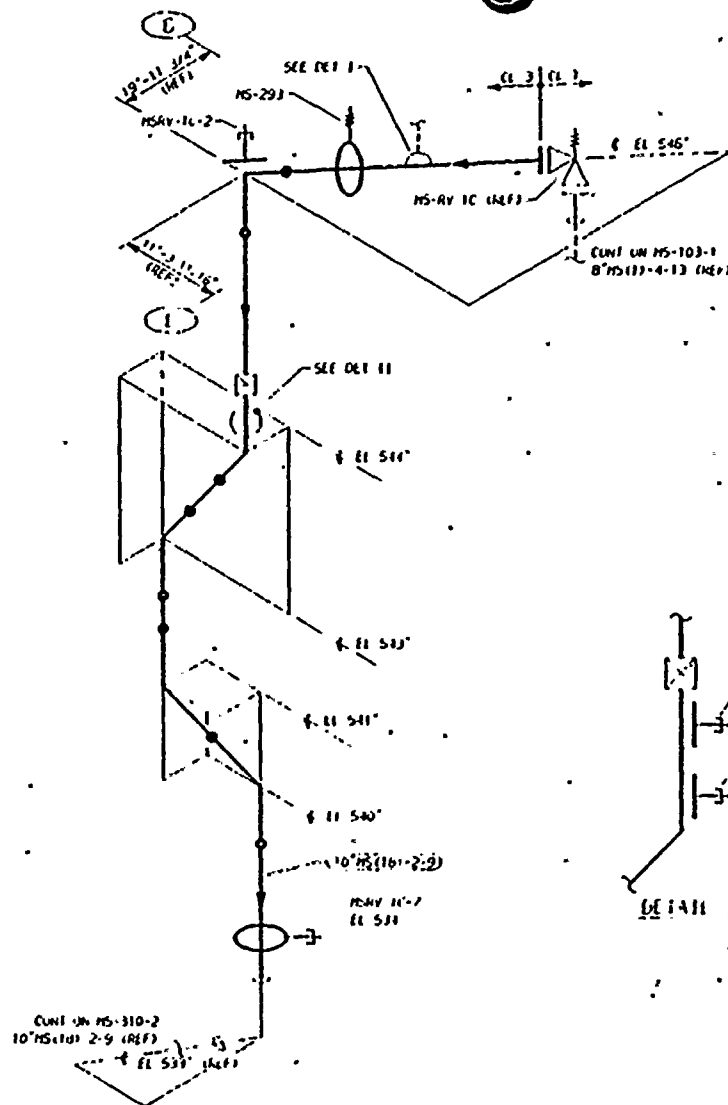
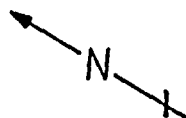
MAP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 MS-RY-58 DISCHARGE

DWG NO. MS-309-3

REV 1

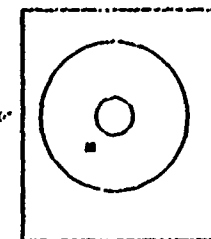




414 R 51

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

REVISIONS:  
1.1 1-18-83  
ENGR. K. HANDEW  
DRAWN. K. HANDEW  
DATE: 1-18-83



QUALITY CLASS: 1 | ASME CODE CLASS: 3  
ENGR. K. HANDEW | DRAWN. K. HANDEW | DATE: 1-18-83

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

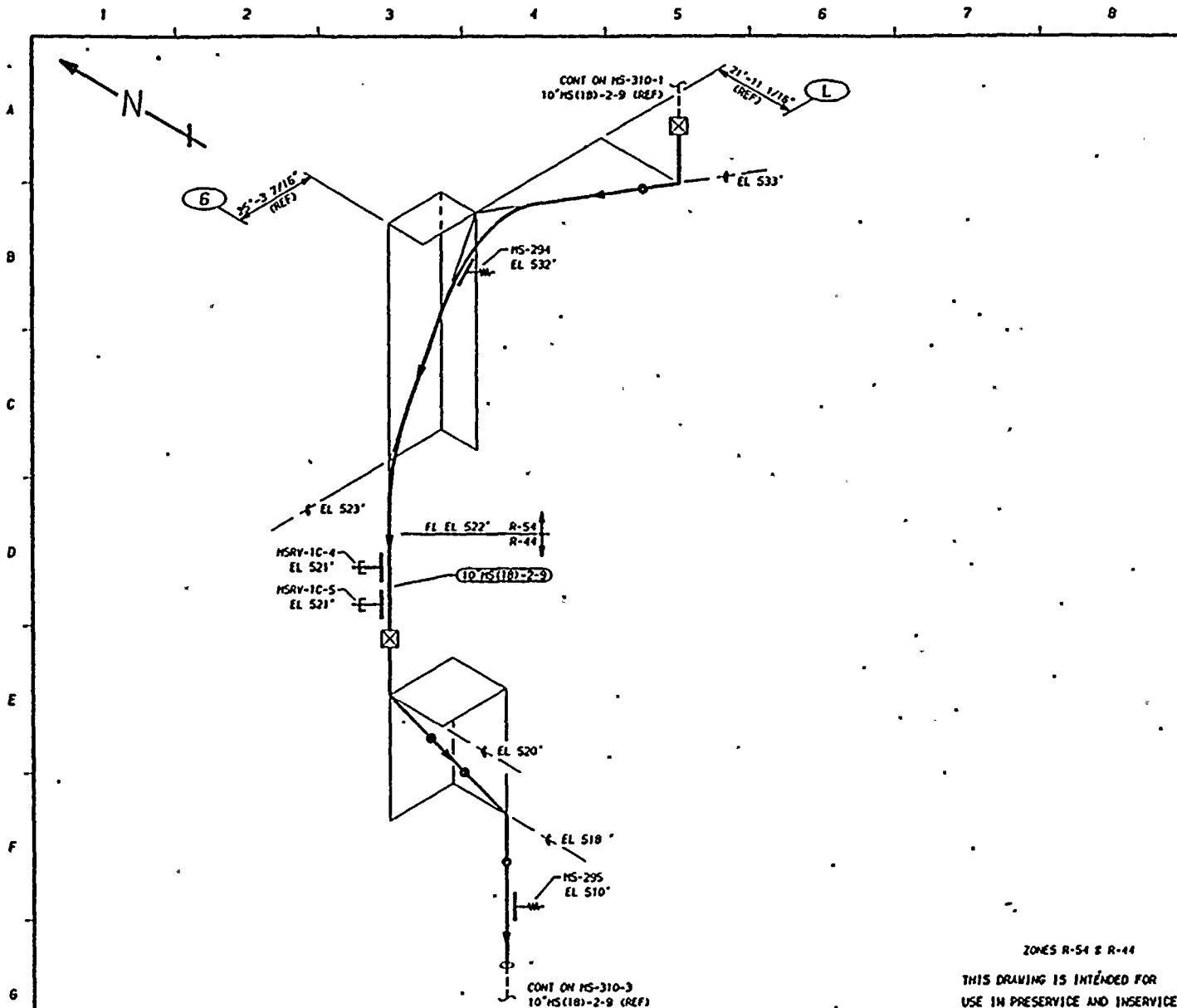
TITLE:  
MS-RV-1C DISCHARGE

DWG NO: MS-310-1

REV 0

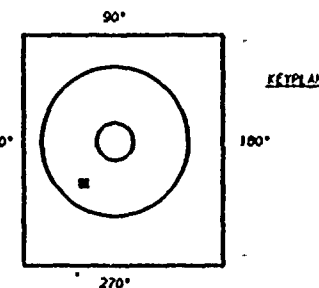
Q NO	DATE	ISSUED FOR USE	REVISION	BY	CHKD	APVD
0	1-18-83					

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10" MS (181)-2-9	10	80	0.434	SA 106H (A B)	LS	11



# REFERENCES:

151 - 229  
BOYCE & CRILL ISOMETRICS  
MS-555-3 REV 6  
MS-555-4 REV 12



QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR: K-McANDREW DRAWN: K-McA DATE: 1-18-8

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 99152

ZONES R-54 & R-44  
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

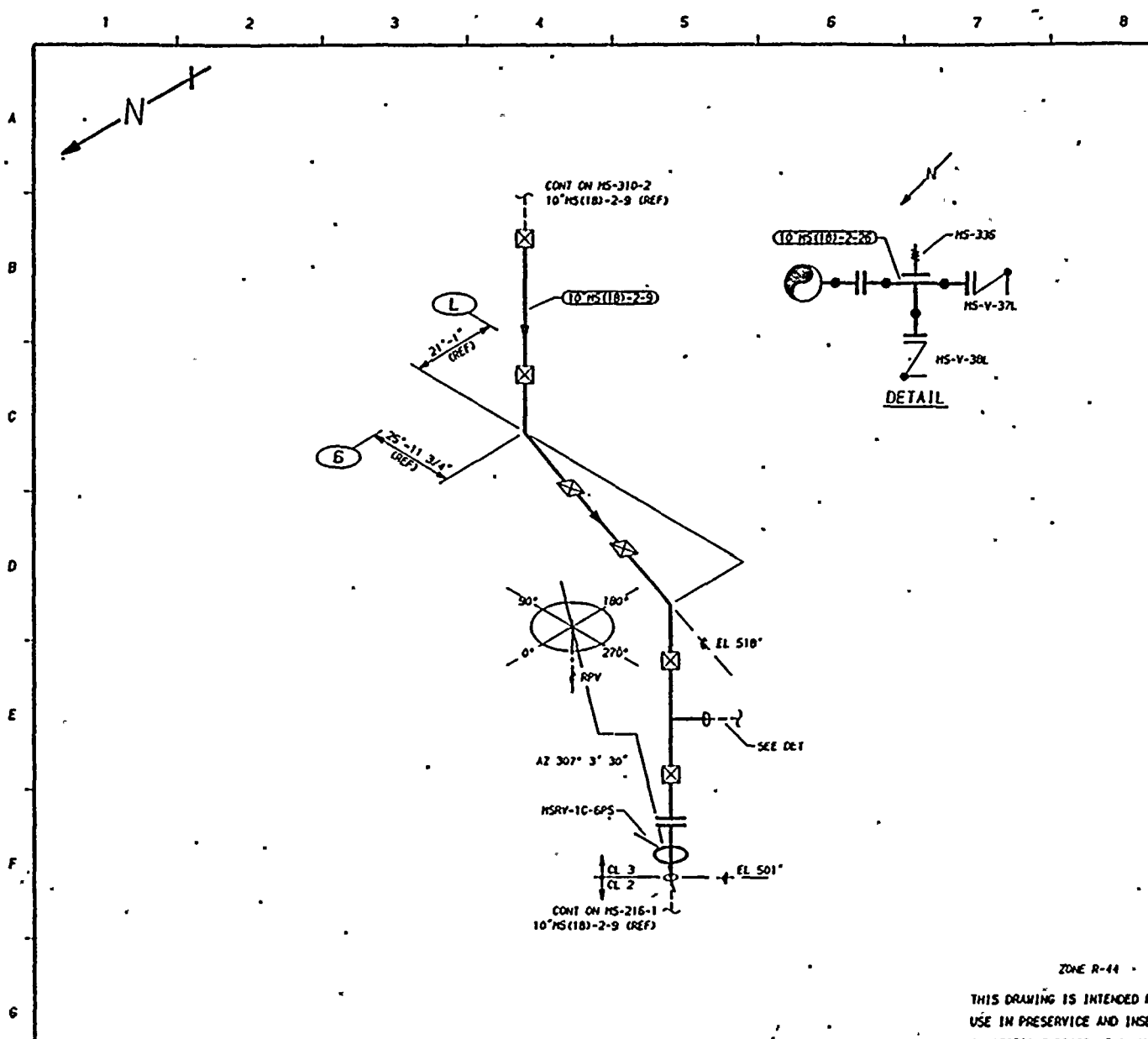
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-9	10	80	0.594	SA 106B GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
0	1/18/85	ISSUED FOR USE			

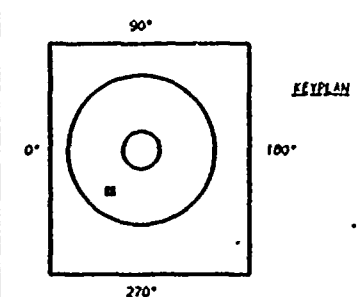
WSP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM  
TITLE:  
MS-RV-1C DISCHARGE  
DNG NO: MS-310-2 REV







REFERENCES:  
 151 - 229  
 BOYCE & CRAIL ISOMETRIC  
 MS-555-4 REV 12



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-McA DATE, 1-18-83

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 MS-RV-1C DISCHARGE

DWG NO, MS-310-3	REV 0
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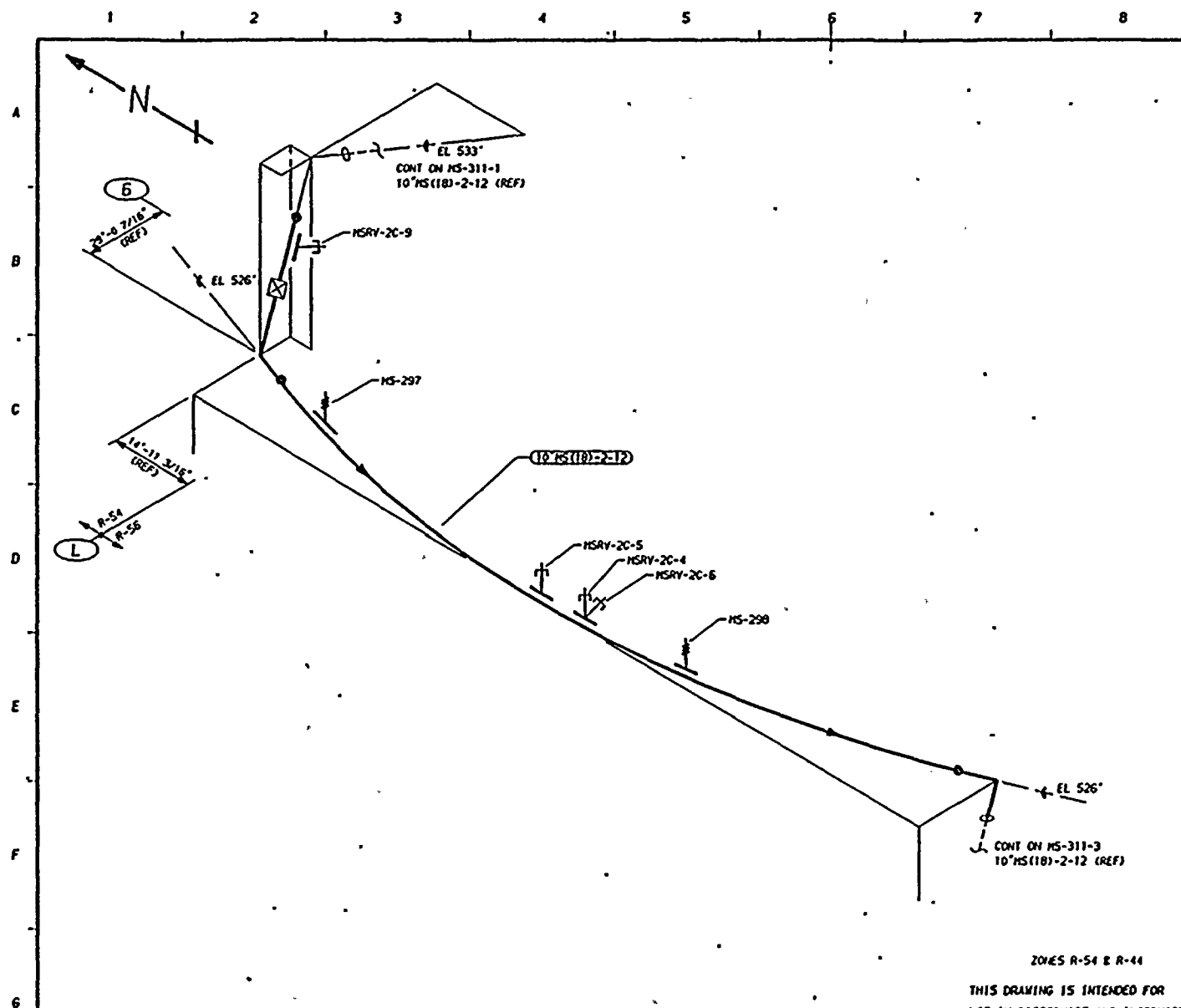
PIPING SYSTEM	NOM DIA (INO)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-9	10	80	0.594	SA 106B GR B	CS	NA
10"MS(18)-2-26	10	80	0.594	SA 106B GR B	CS	NA

0	1/2/85	ISSUED FOR USE	K/M	D/K	T/H
NO	DATE	REVISION	BY	CHKD	APVD



0	ISSUED FOR USE	1/1/77	1/1/77	1/1/77
NO	DATE	REVISION	BY	CHKD APVD





ZONES R-54 & R-44

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-12	10	80	0.594	SA 106B GR B	CS	NA

0	0-28-85	ISSUED FOR USE	KLR	BY	CHKD	APVD
NO	DATE	REVISION	BY	CHKD	APVD	

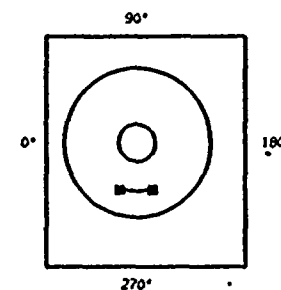
# REFERENCES:

ISI - 229

BOYCE & CRILL ISOMETRICS

MS-554-2 REV 8

MS-554-3 REV 9



KEYPLAN

QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-McA DATE, 1-20-83

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

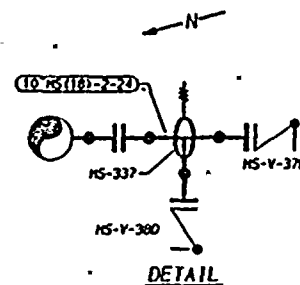
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RV-2C DISCHARGE

DWG NO, MS-311-2

REV 0



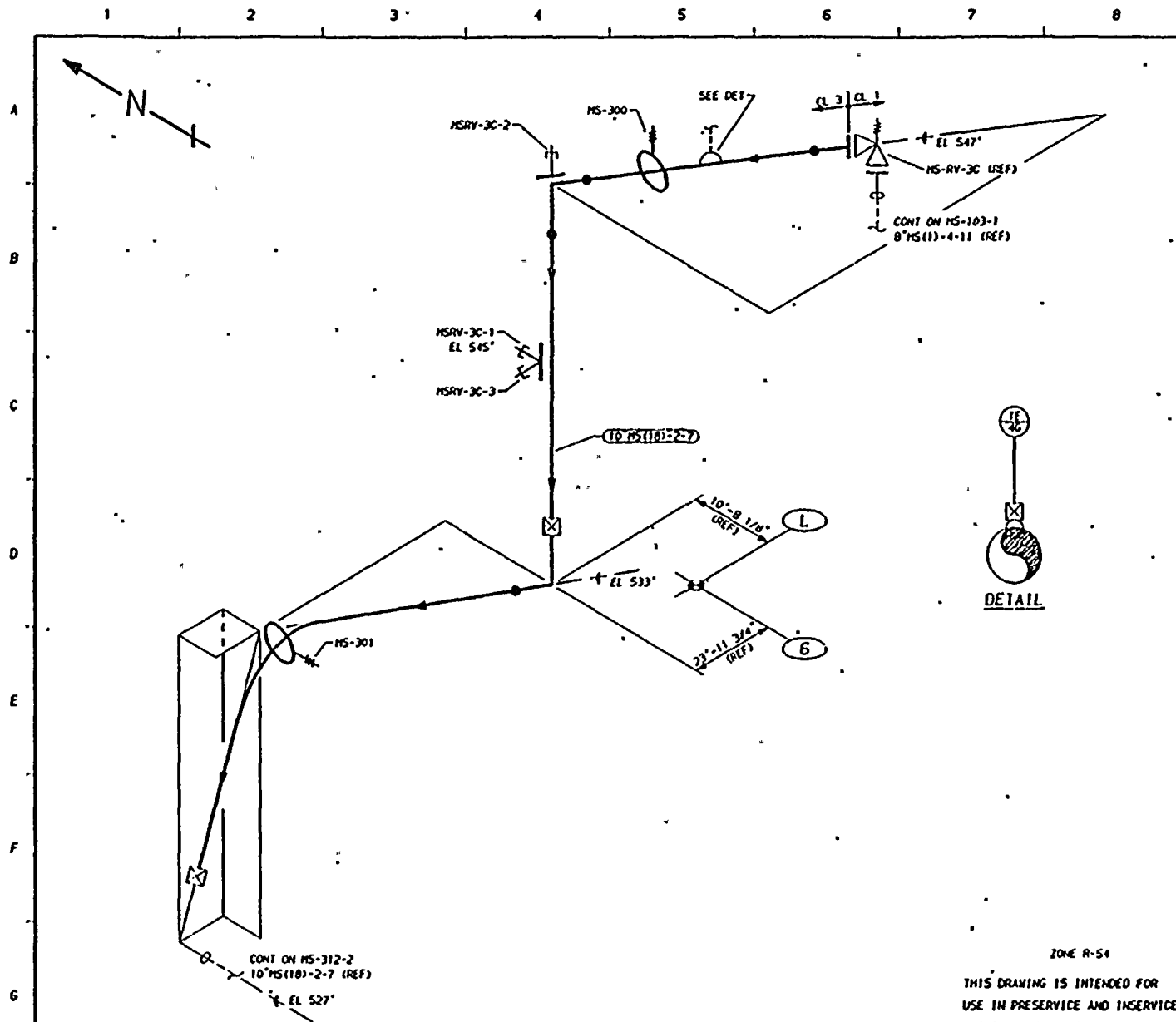


THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

0	8/18/85	ISSUED FOR USE	Kelley	DAK	TEH
NO	DATE	REVISION	BY	CHKD	APVD

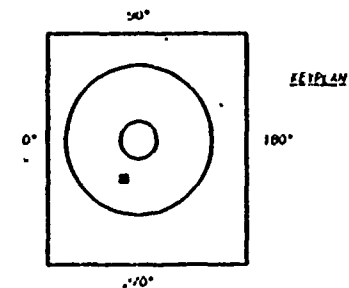
REV 0





# REFERENCES:

ISI - 229  
 DOWIE & CRALL ISOMETRICS  
 MS 5A3-1 REV 8  
 MS 5A3-2 REV 6



QUALITY CLASS: 1 ASME CODE CLASS: 3  
 ENGR: K-McANDREW DRAWN: K-McA DATE: 1-24-83

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RIDGEMO, WASHINGTON 99352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: MS-RV-3C DISCHARGE

DWG NO: MS-312-1 REV 0

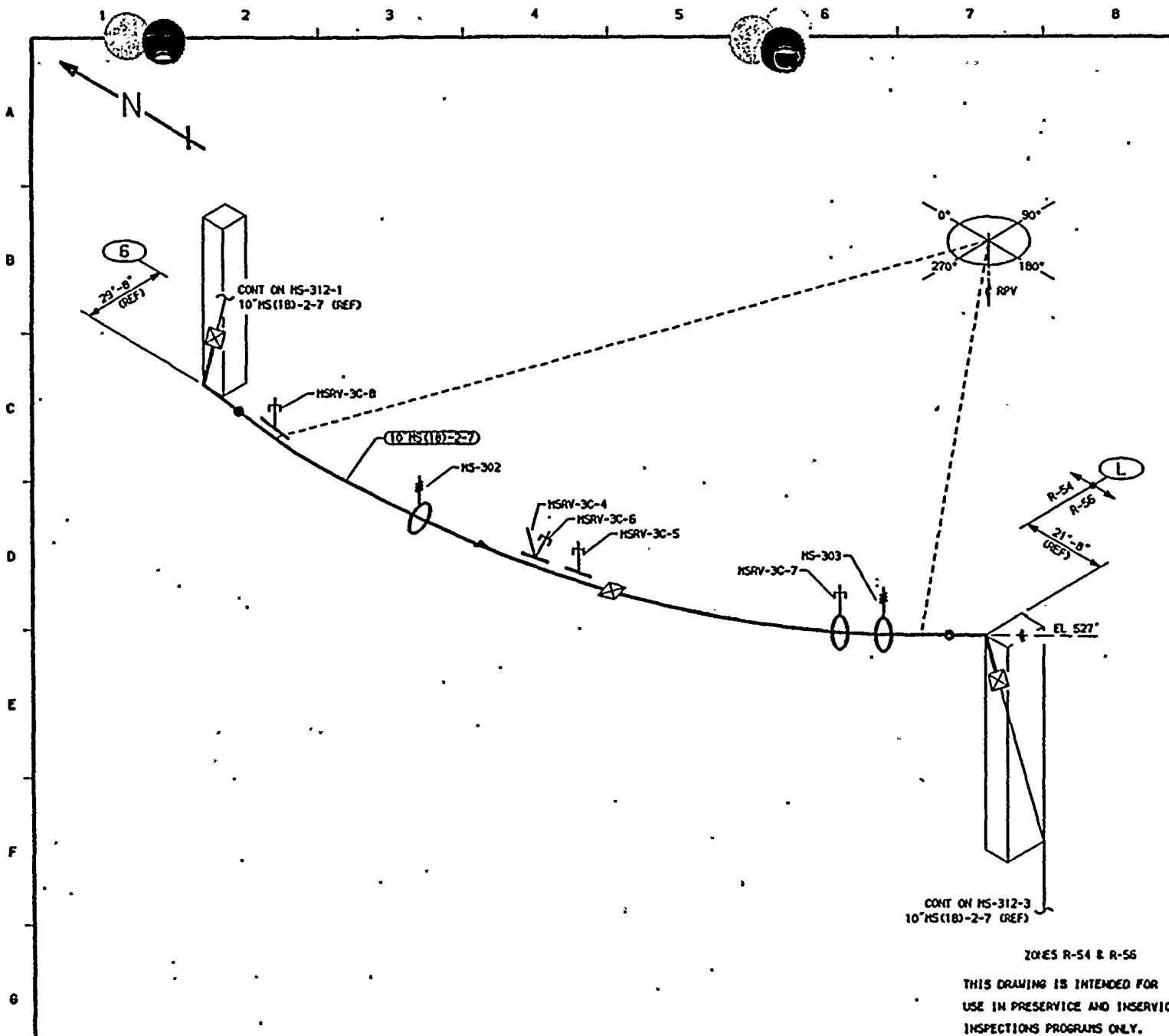
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-7	10	80	0.594	SA 106B GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
0	8/14/83	ISSUED FOR USE			

ZONE R-54  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.





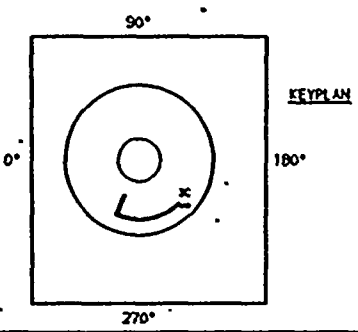


**NOTES**

1. MSRV-3C-4 CHANGED FROM SHUTTER TO STRUT PER BOC-87-0173-0A.

**REFERENCES:**

- 151 - 229-2
- BOVEE & CRAIL ISOMETRIC MS-553-3;4 REV 8



CONT ON HS-312-3  
10" HS(18)-2-7 (REF)

ZONES R-54 & R-56

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE,  
INSPECTIONS PROGRAMS ONLY.

1	12-1-89	ADDED 151 DWG REF, LOGO & NOTE 1. MOD KEYPLAN, REDRAWN	K-McA	DPR	TFH
0	4-24-85	ISSUED FOR USE	K-McA	DPR	TFH
NO	DATE	REVISION	BY	CHKD	APVD

PIPING SYSTEM	NOM DIA (INO)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10" HS(18)-2-7	10	80	0.594	SA 106 GR B	CS	NA

QUALITY CLASS: 1	ASME CODE CLASS: 3
ENGR: K-McANDREW	DATE: 1-24-83
DRWN: K-McA	
WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WASHINGTON 99352	
WNP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: MS-RV-3C DISCHARGE	
DWG NO: MS-312-2	REV 1



EL 527'  
CONT ON MS-312-2  
10"MS(18)-2-7 (REF)

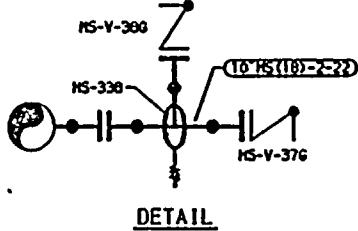
EL 523'

R-56 FL EL 522'  
R-46

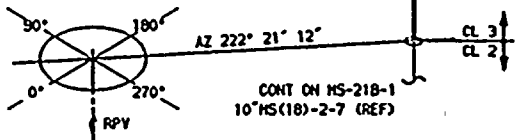
10"MS(18)-2-7

MSRV-3C-10  
(SEE NOTE 1)

EL 510'



22'-5" (REF)  
L



ZONES R-56 & R-46

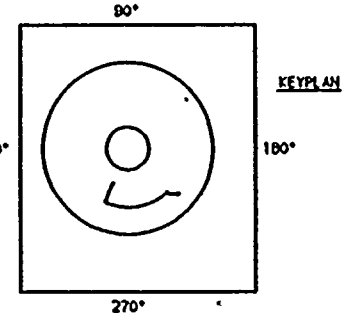
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

# NOTES

1. MSRV-3C-10 CHANGED FROM SNUBBER TO STRUT PER BOC-06-0525-0A.

## REFERENCES

- 151 - 229-2  
BOYCE & CRAIG ISOMETRIC  
MS-553-5.6 REV 13



QUALITY CLASS, 1 ASME CODE CLASS, 3  
ENGR, K-McANDREW DRAWN, K-McA DATE, 1-24-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RV-3C DISCHARGE

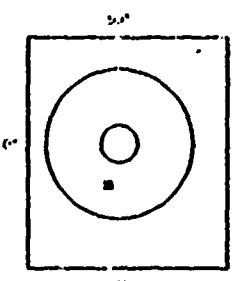
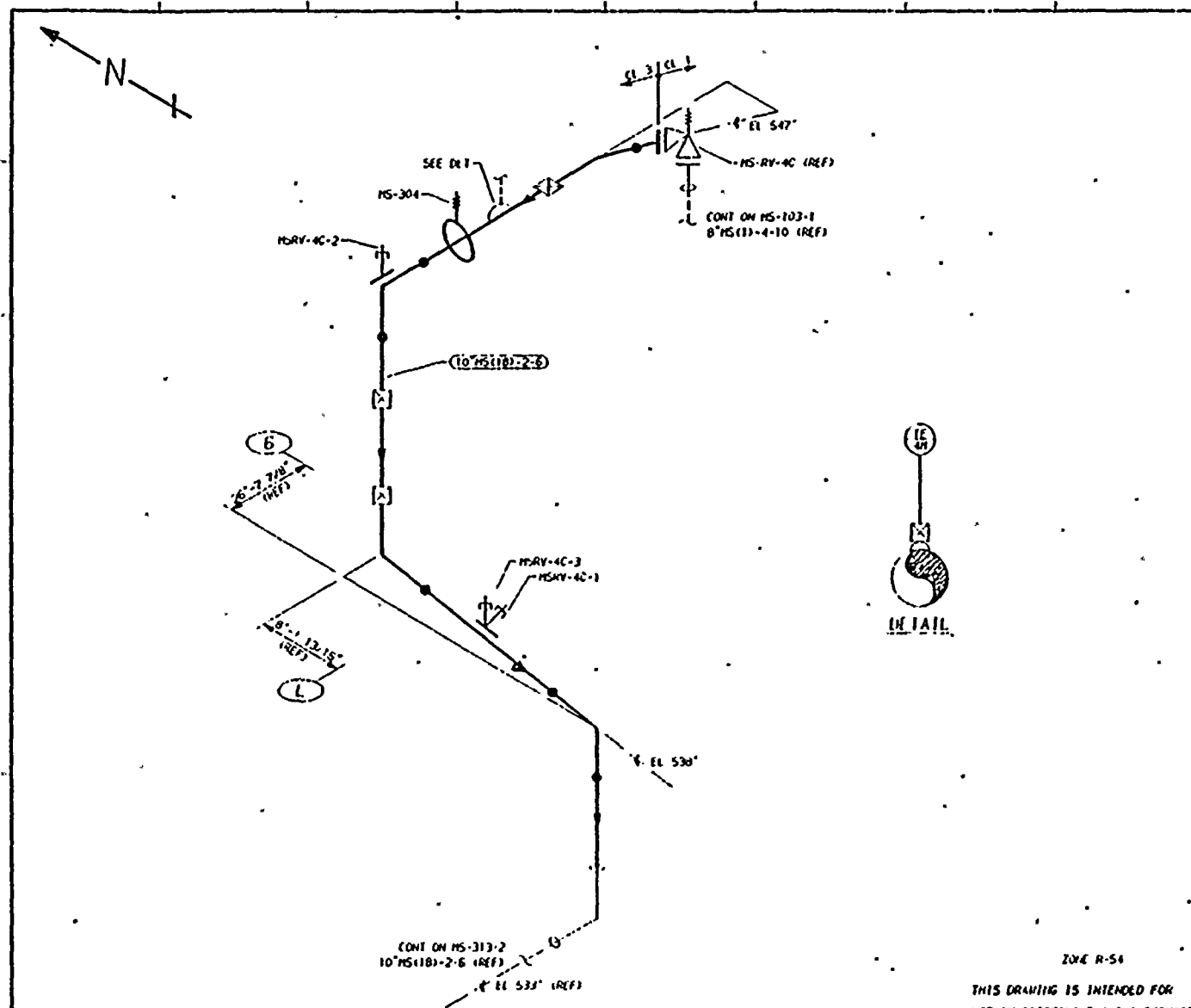
DWG NO, MS-312-3

REV 1

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-7	10	80	0.594	SA 106 GR B	CS	NA
10"MS(18)-2-22	10	80	0.594	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-4-89	ADDED 151 DWG REF, LOGO & NOTE 1. MOD KEYPLAN.	K-McA	DPR	TFW
0	4-24-85	ISSUED FOR USE	K-McA	DPR	TFH





REVISIONS:  
 151 2-9  
 DATE & DRAWN: MS-313-1, 12.1.10

QUALITY CLASS: 1 ASME CODE CLASS: 3  
 ENGR: K-McANDREW DRAWN: K-McA DATE: 1-25-81

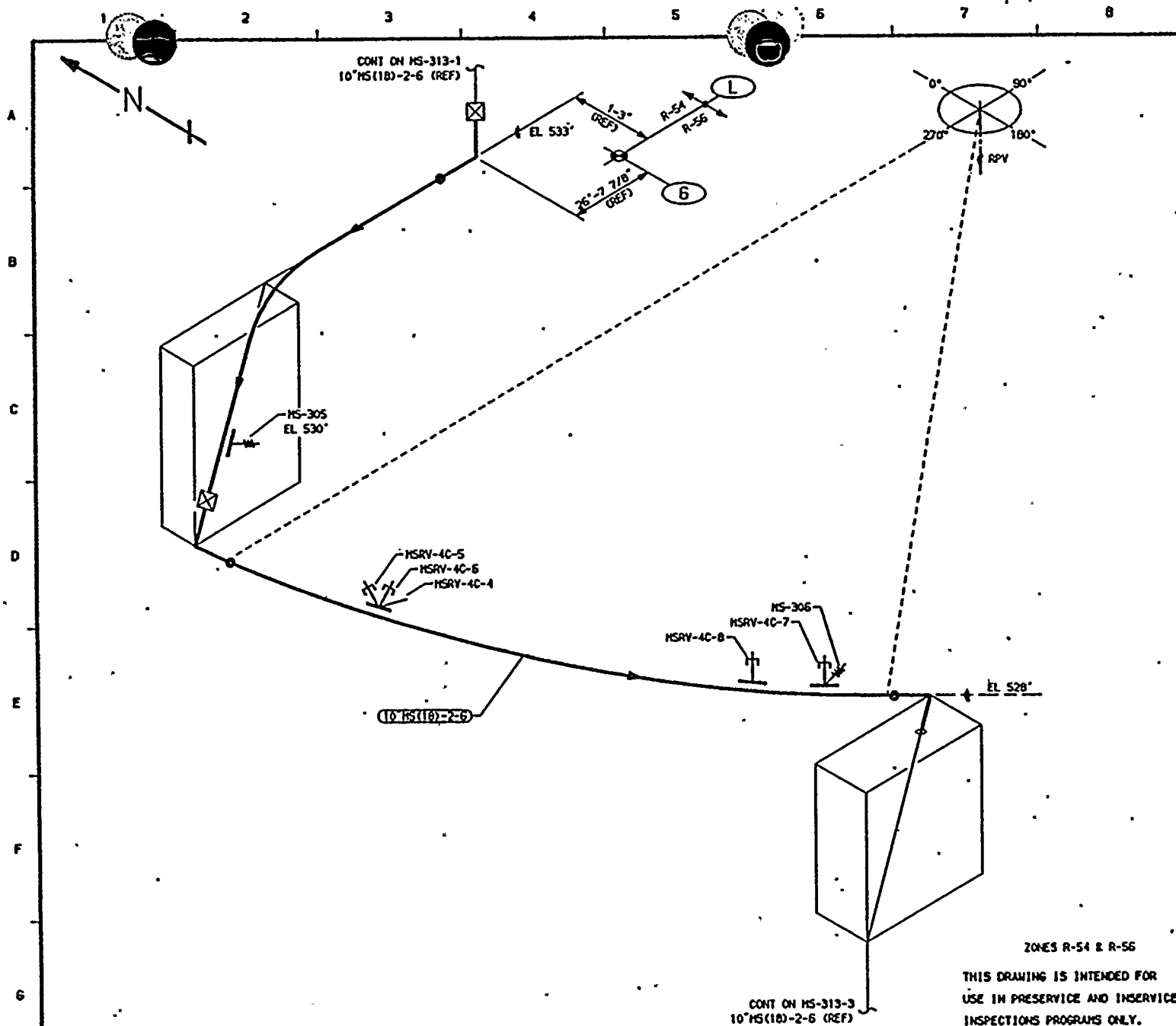
WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352  
 WWP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM  
 TITLE:  
 MS-RV-4C DISCHARGE

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10" MS (18)-2-6	10	80	0.594	SA 106B GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
0	8-24-85	ISSUED FOR USE	AJH	1/1/86	RTH



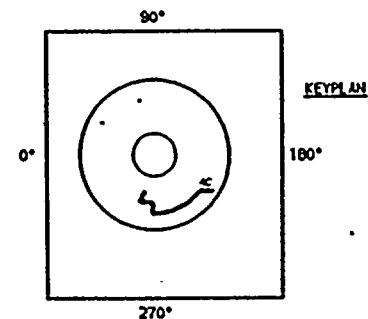


# NOTES

- MSRV-4C-4 CHANGED FROM SHABBER TO STRUT PER BOC-87-0173-0A.

# REFERENCES:

- ISI - 229-2  
 BOYCE & CRAIL ISOMETRIC  
 MS-552-3.4 REV B



QUALITY CLASS: 1 ASME CODE CLASS: 3  
 ENGR: K-McANDREW DRAWN: K-McA DATE: 1-25-83



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 MS-RV-4C DISCHARGE

DWG NO. MS-313-2

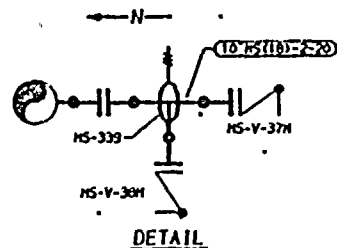
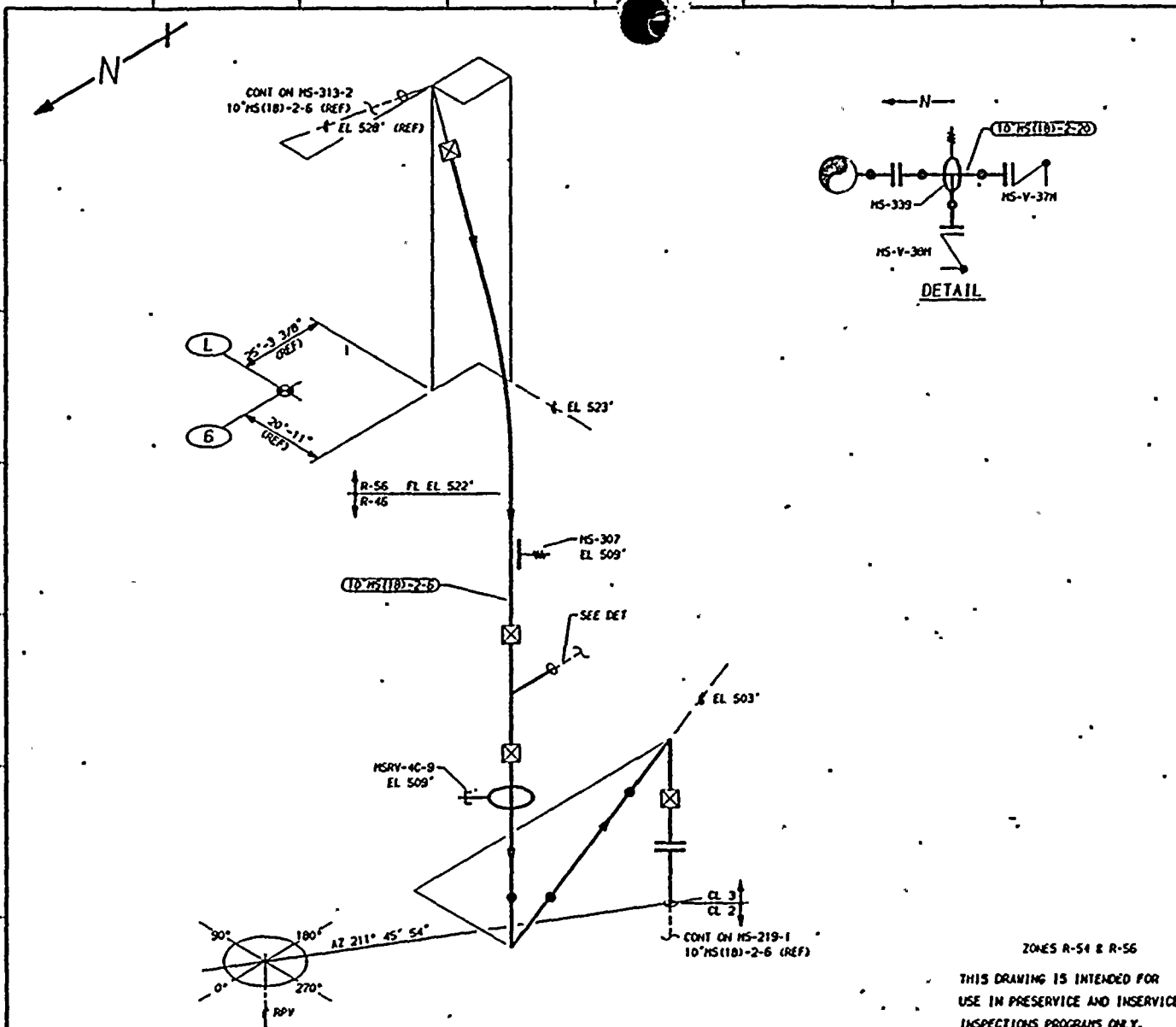
REV 1

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-6	10	80	0.594	SA 106 GR B	CS	NA

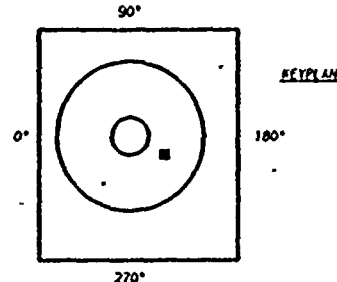
1	12-4-89	ADDED ISI DWG REF, LOGO & NOTE 1. MOD KEYPLAN. REDRAWN	K-McA	DPR	TFR
0	4-24-85	ISSUED FOR USE	K-McA	DPR	TFH
NO	DATE	REVISION	BY	CHKD	APVD







REFERENCES: 1  
151 - 229  
BOYCE & CRAIL ISOMETRIC  
MS-SS2-S.6 REV 11



QUALITY CLASS: 1	ASME CODE CLASS:
ENGR: K-McANDREW	DRAWN: K-McA DATE: 1-25

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

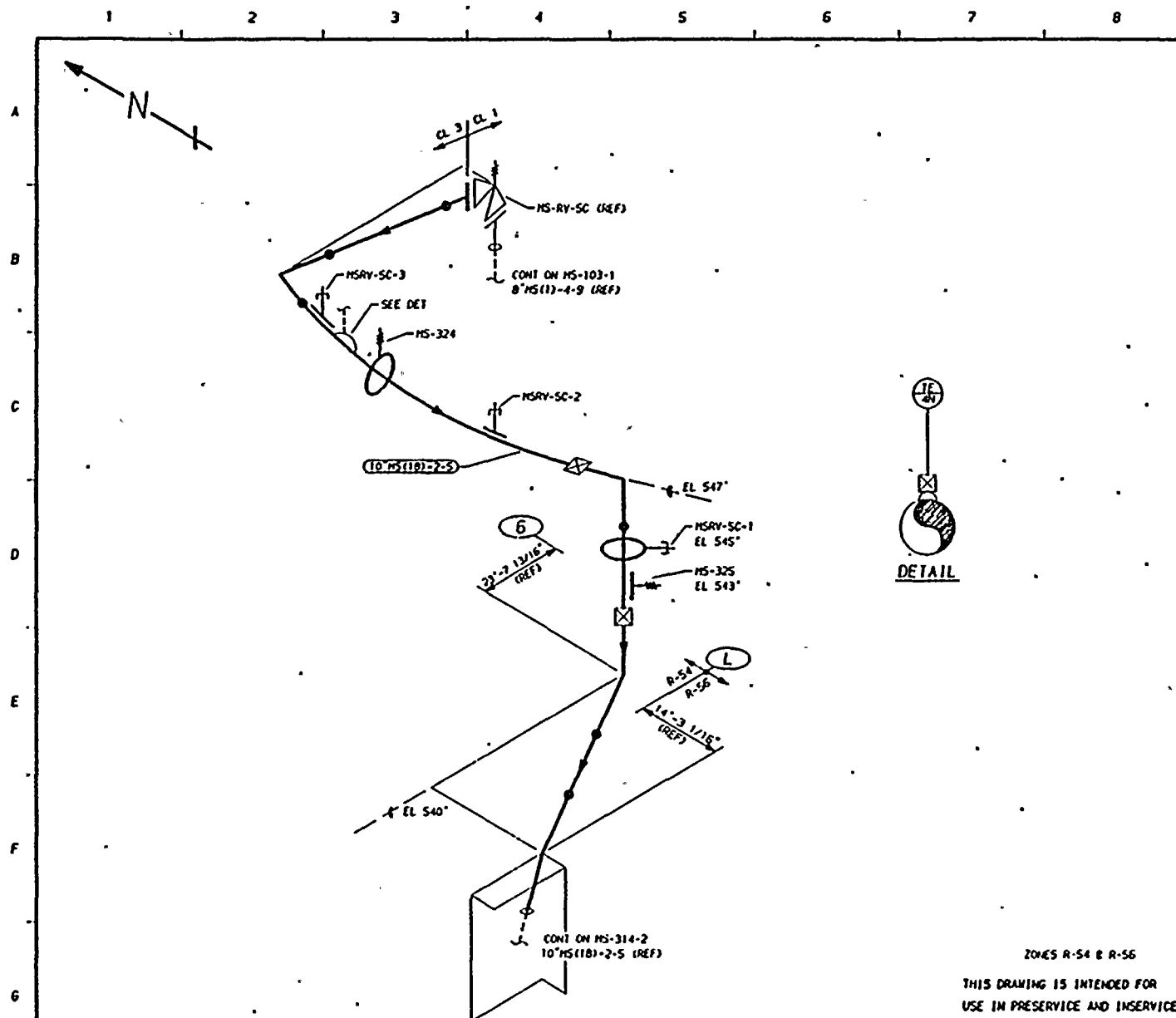
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-6	10	80	0.594	SA 106B GR B	CS	NA
10"MS(18)-2-20	10	80	0.594	SA 106B GR B	CS	NA

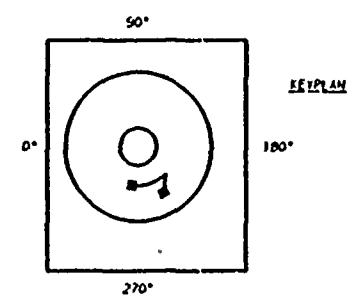
0	4-28-85	ISSUED FOR USE	K-McA	K-McA	P-11A
NO	DATE	REVISION	BY	CHKD	APVD

DWG NO: MS-313-3 REV





- REFERENCES:**
- ISI - 229
  - BOYCE & CRAIG ISOMETRICS
  - MS-SS1-1 REV 8
  - MS-SS1-2 REV 6



ZONES R-54 & R-56

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-McA DATE, 1-26-83

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-S	10	80	0.594	SA 106B GR B	CS	NA

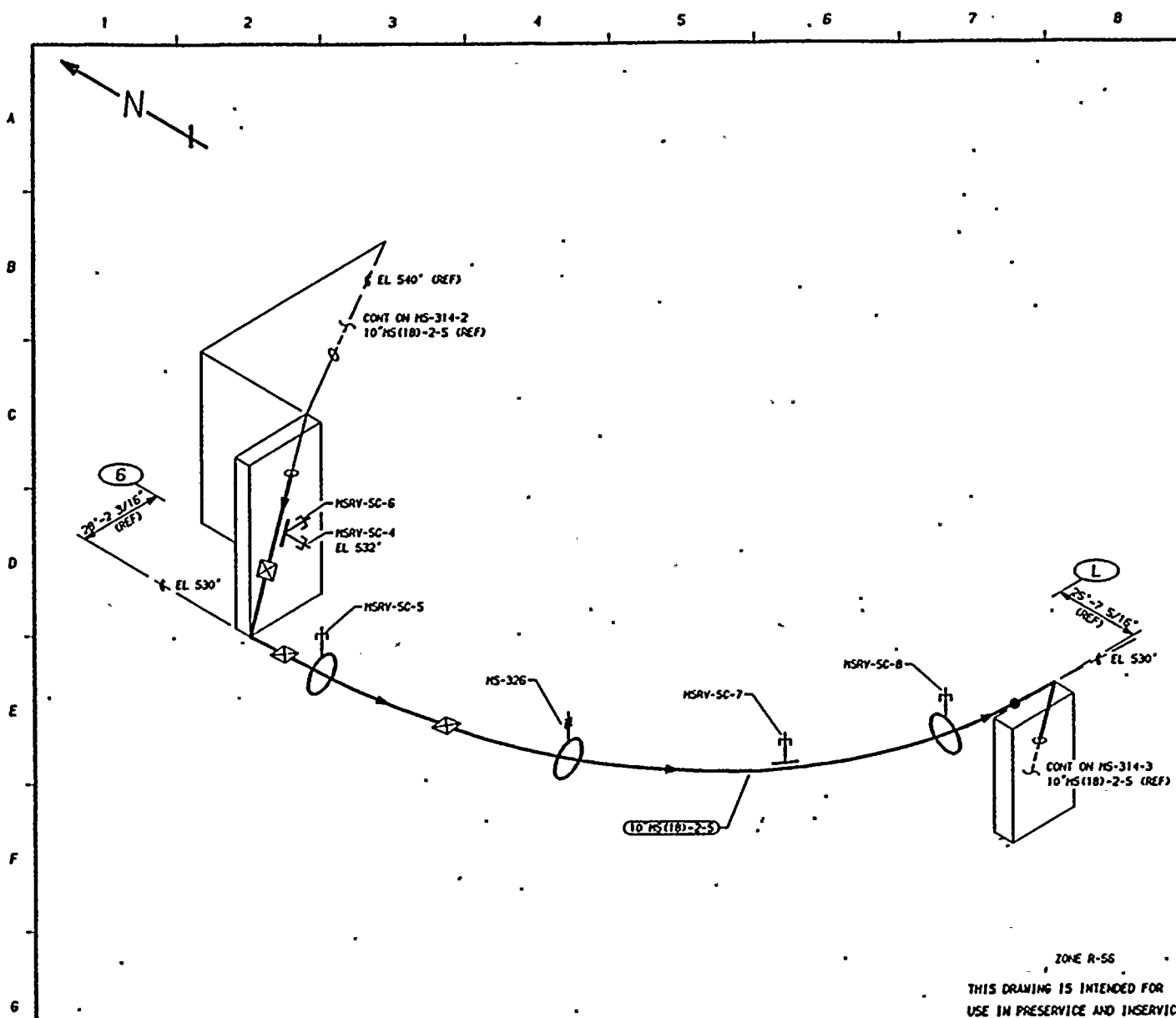
WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE, MS-RV-SC DISCHARGE

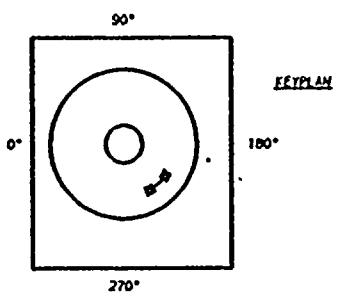
NO	DATE	REVISION	BY	CHKD	APVD
0	8/21/83	ISSUED FOR USE			

DWG NO, MS-314-1 REV 1





- REFERENCES:**
- ISI - 229
  - BOYEE & CRAIL ISOMETRICS
  - MS-SSI-2 REV 6
  - MS-SSI-3 REV 6



QUALITY CLASS: 1	ASME CODE CLASS:
ENGR: K-McANDREW	DRAWN: K-McA DATE: 1-26

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

**TITLE:** MS-RV-SC DISCHARGE

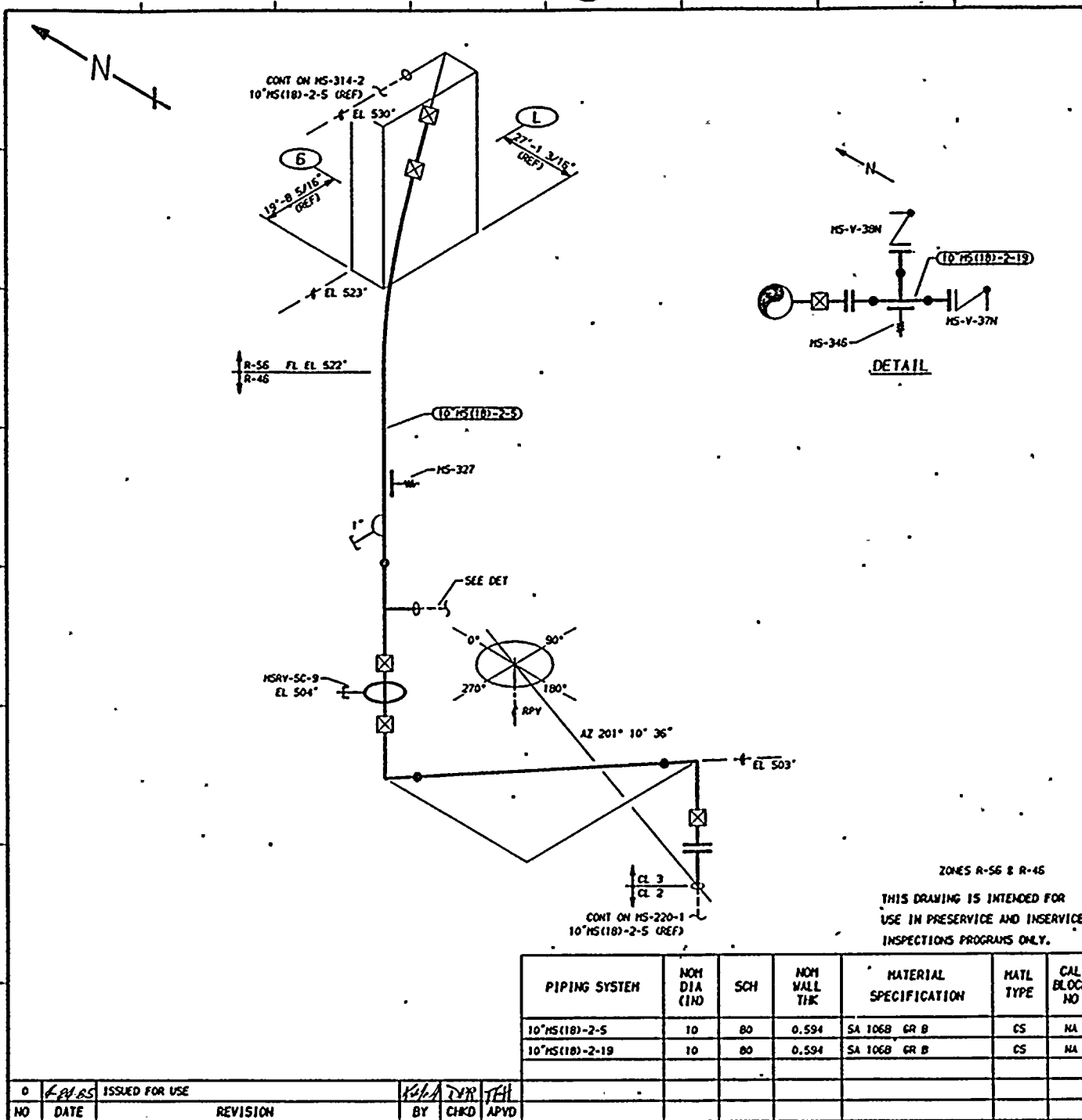
DWG NO: MS-314-2

ZONE R-55  
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-5	10	80	0.594	SA 106B GR B	CS	NA

NO	DATE	ISSUED FOR USE	BY	CHKD	APVD
0	1-21-85	ISSUED FOR USE	KMH	DPR	KMH
		REVISION			

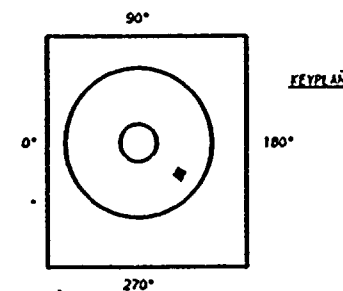




# REFERENCES:

151 - 229

BOYCE & CRAIL ISOMETRIC  
MS-551-4.5 REV 13



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-MCA DATE, 1-26-6

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDLAND, WASHINGTON 99352

W-P-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
MS-RV-SC DISCHARGE

DWG NO, MS-314-3

REV

0	1-26-65	ISSUED FOR USE	K-MCA	D-MCA	T-MCA
NO	DATE	REVISION	BY	CHKD	APVD







THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

1	12-9-82	ADDED ISI CWS REF, LOGO & NOTE 1. MOD KEYPLAN.	K-MoA	DPR	DRM
0	4-24-85	ISSUED FOR USE	K-MoA	DPR	TFH
NO	DATE	REVISION	BY	CHKD	APVD

REV 1



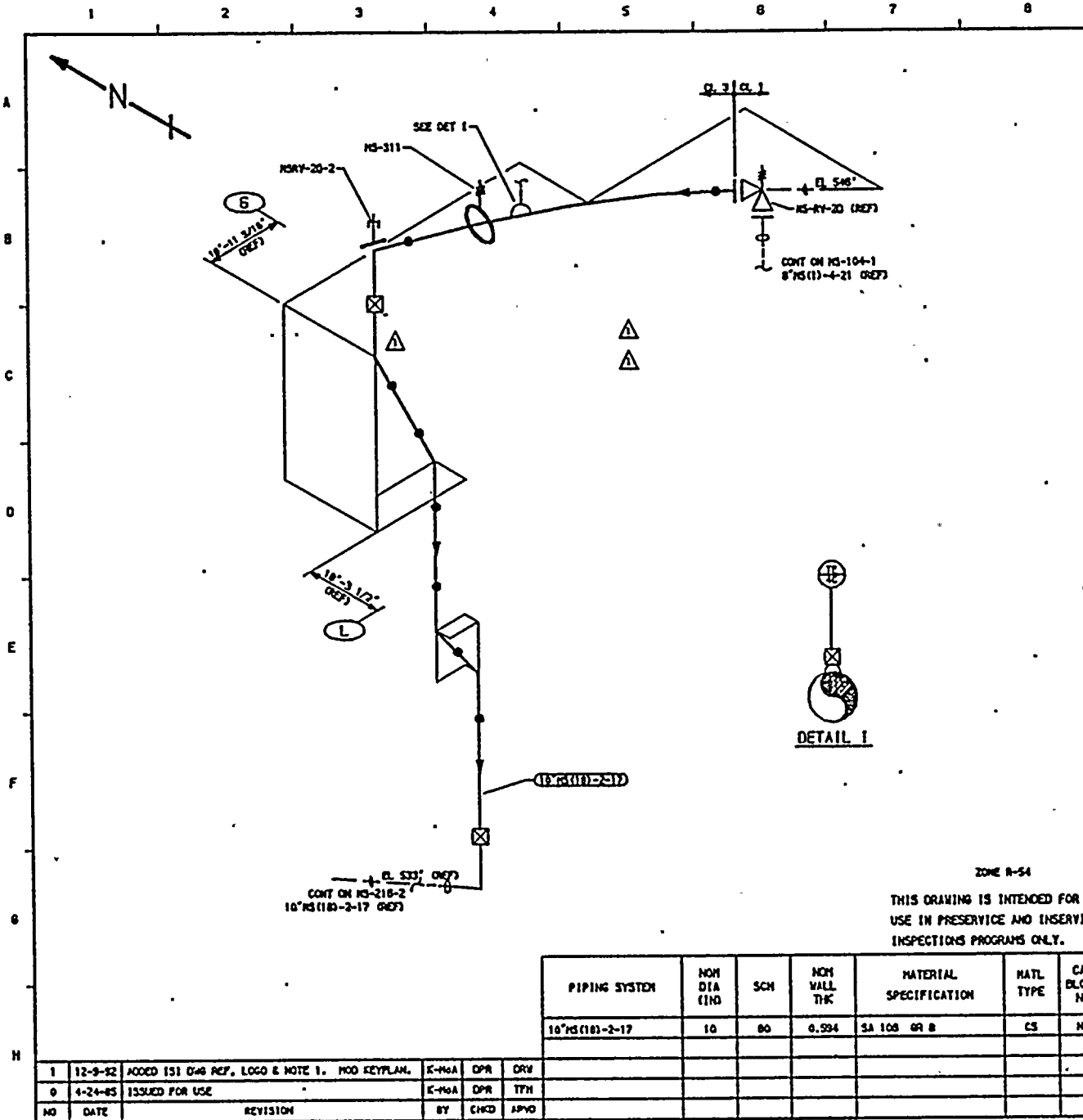


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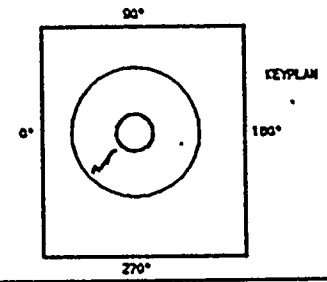


**NOTES**

1. MSRY-20-1 & MSRY-20-3 WERE DELETED FOR BOC-08-0525-SC-023.

**REFERENCES**

ISI - 229-2  
 BOYCE & CRAIG ISOMETRICS  
 MS-345-1 REY 8  
 MS-345-2 REY 6



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DATE, 1-27-63



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98132

WPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
---

TITLE: MS-RV-20 DISCHARGE

DWG NO. MS-316-1 REV 1

ZONE R-54

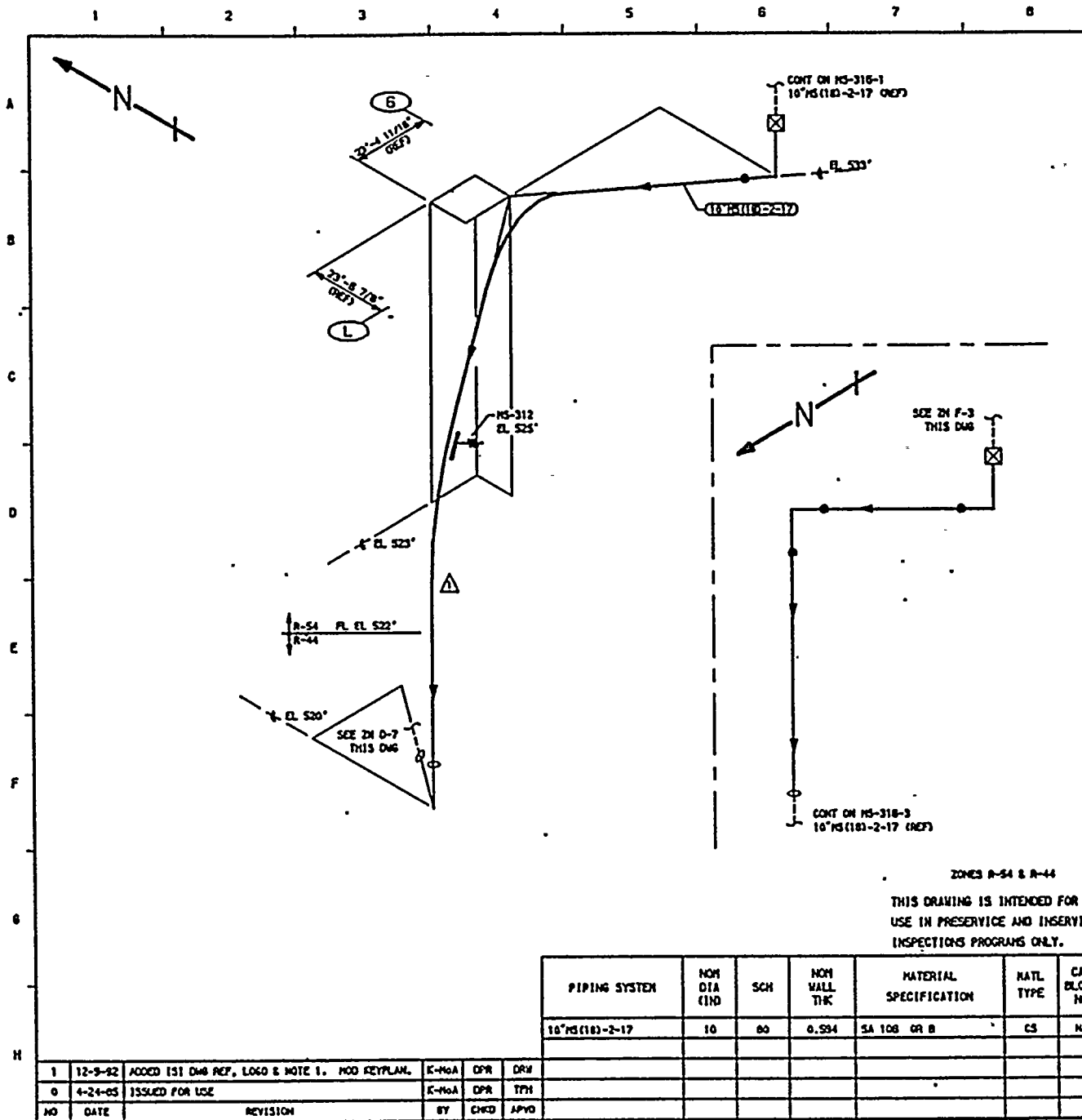
THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-17	10	80	0.594	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-62	ADDED ISI DWG REF, LOGO & NOTE 1, MOD KEYPLAN.	K-McA	DPR	DRV
0	4-24-65	ISSUED FOR USE	K-McA	DPR	TPH





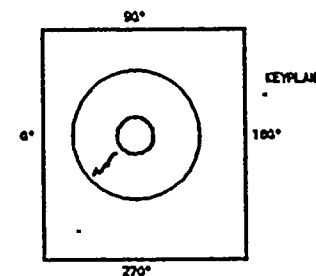


# NOTES

- MS-316-4 & MS-316-5 WERE DELETED FOR DOC-06-0525-SC-023.

## REFERENCES:

ISI - 229-2  
BOYCE & GRILL ISOMETRICS  
MS-545-3 REV B  
MS-545-4 REV B



QUALITY CLASS. 1	ASME CODE CLASS. 3
ENGR. K-McANDREW	DATE. 1-20-03



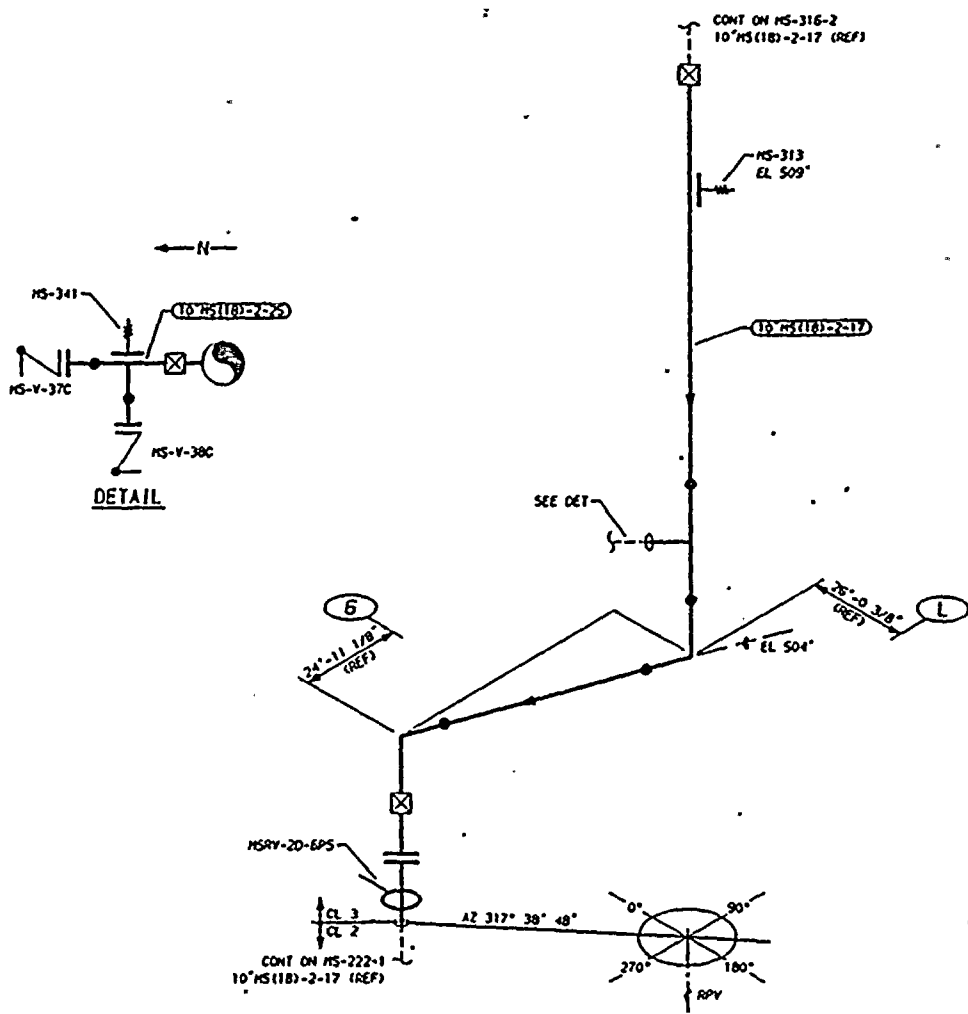
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98302

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

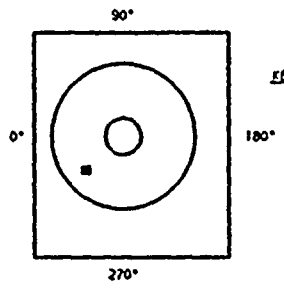
TITLE: MS-316-2 DISCHARGE

DWG NO. MS-316-2

REV 1



REFERENCES:  
 151 - 229  
 BOYCE & ORAIL ISOMETRIC  
 MS-545-5 REV 13



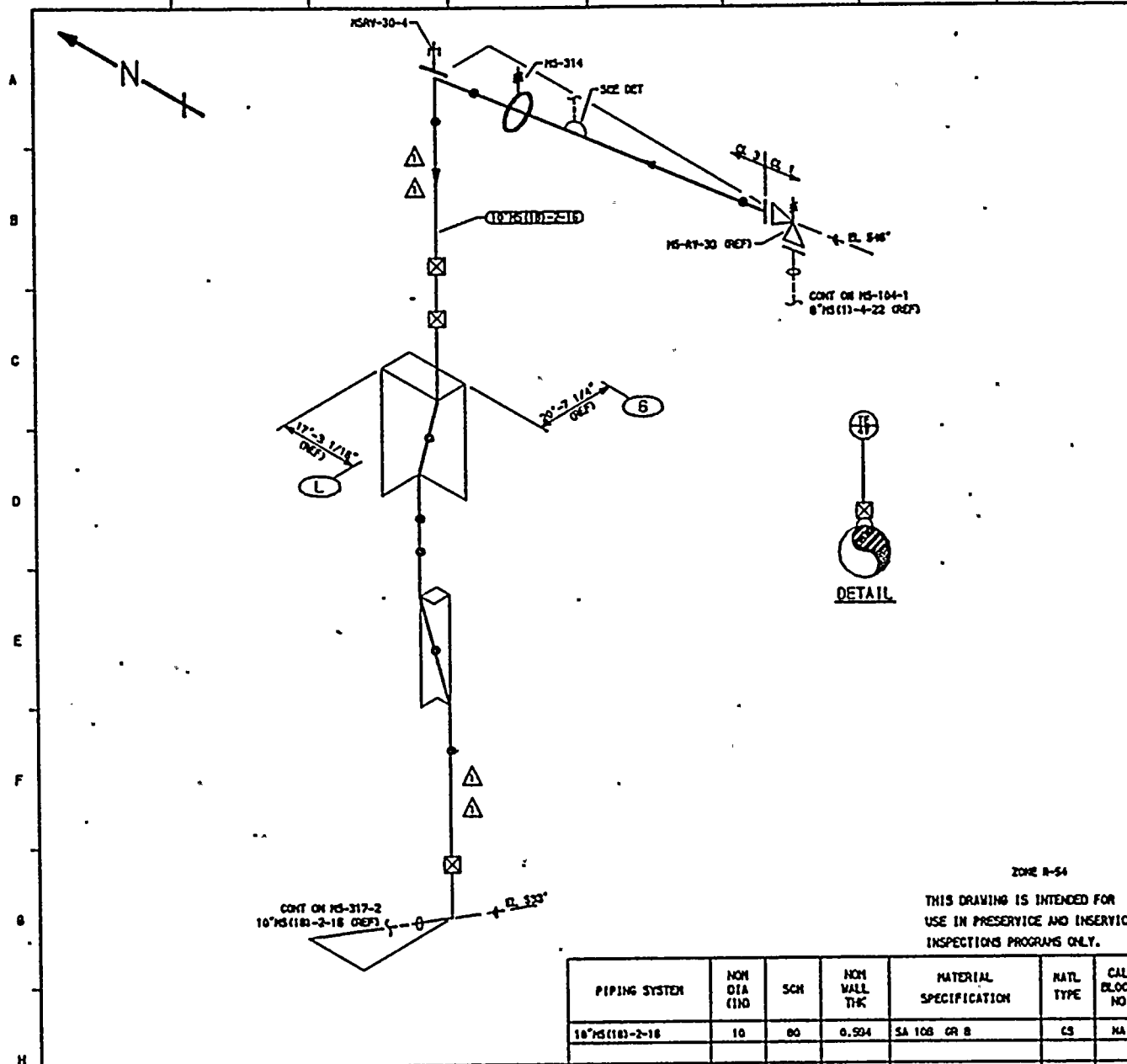
QUALITY CLASS, 1		ASME CODE CLASS, 3	
ENGR, K-McANOREV		DATE, 1-28-83	
WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WASHINGTON 99352			
WNP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM			
TITLE: MS-RV-20 DISCHARGE			
DWG NO, MS-316-3			REV 0

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-17	10	80	0.594	SA-106B GR B	CS	NA
10"MS(18)-2-25	10	80	0.594	SA 106B GR B	CS	NA

0	ISSUED FOR USE	BY	CHKD	APVD
NO	DATE	REVISION		



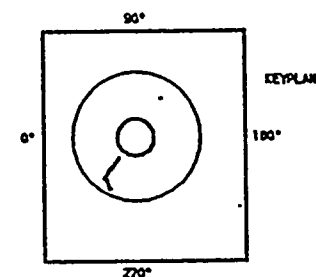


# NOTES

1. MSRY-30-1, MSRY-30-2, MSRY-30-3 & MSRY-30-5 WERE DELETED PER ROC-06-0525-SC-023.

## REFERENCES

ISI - 229-2  
BOYCE & CRAIG (SONETRICS)  
MS-544-1 REV 2  
MS-544-2 REV 3



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DATE, 2-8-03



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIGLAND, WASHINGTON 98582

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE, MS-RY-30 DISCHARGE

DWG NO. MS-317-1 REV 1

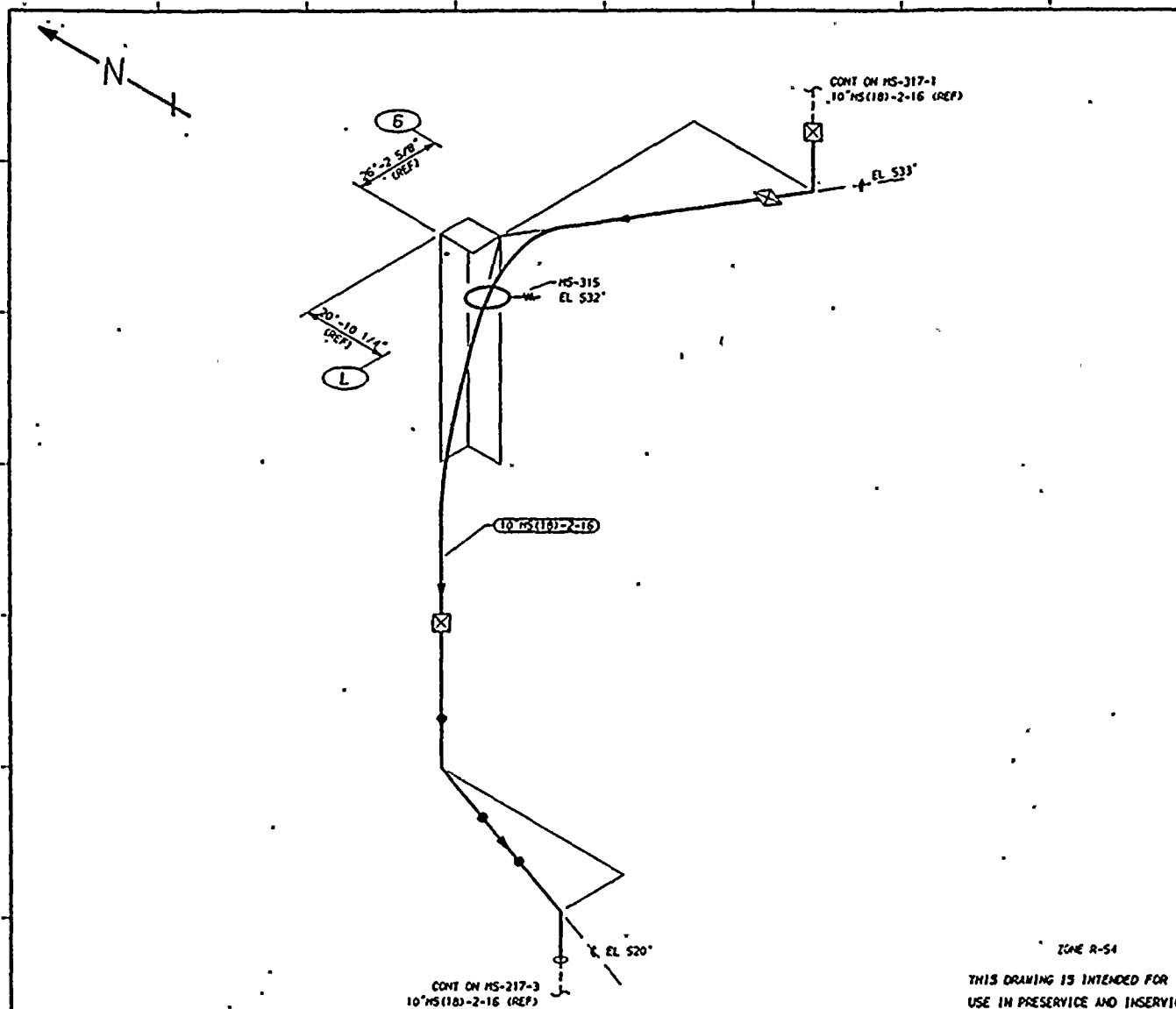
ZONE B-54

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL. BLOCK NO
10"MS(18)-2-18	10	80	0.504	SA 108 GR B	CS	NA

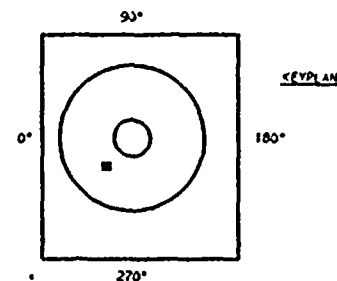
NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	ADDED ISI DWG REF, LOGO & NOTE 1. MOD KEYPLAN.	K-McA	DPR	DRV
0	4-24-03	ISSUED FOR USE	K-McA	DPR	ITM





# REFERENCES:

ISI - 229  
DOVE & CRILL ISOMETRICS  
MS-544-3 REV 6  
MS-544-4.5 REV +3



QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR: K-McANDREW DRAWN: K-McA DATE: 2-8-83

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WNP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: HS-RV-30 DISCHARGE

DWG NO: MS-317-2 REV 0

ZONE R-54

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-16	10	80	0.594	SA 106B GR B	CS	NA

0	6-20-85	ISSUED FOR USE	K/A	DK	IC
NO	DATE	REVISION	BY	CHKD	APVD



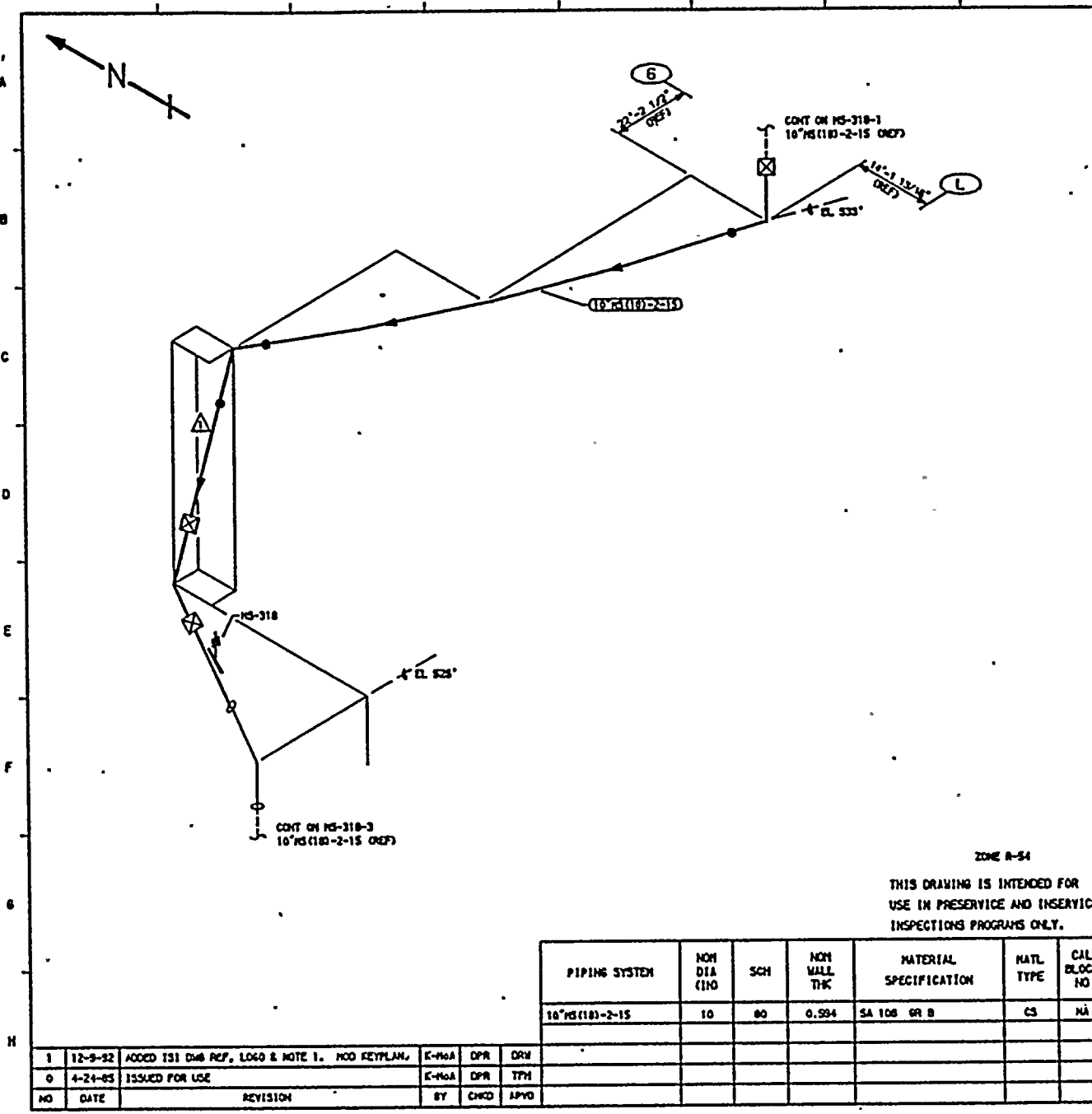










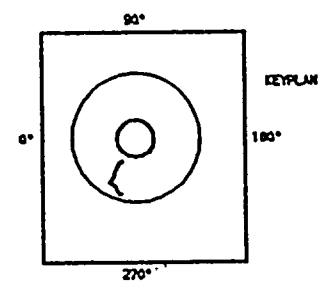


**NOTES**

- MS-318-1 WAS DELETED PER DOC-05-0525-SC-023.

**REFERENCE**

ISI - 225-2  
BOYCE & ORILL ISOMETRIC  
MS-543-2 REV B



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-McA DATE, 2-10-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

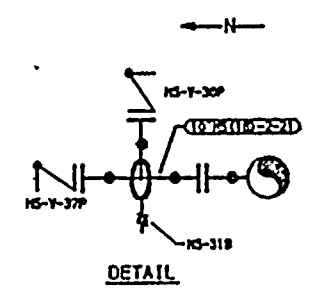
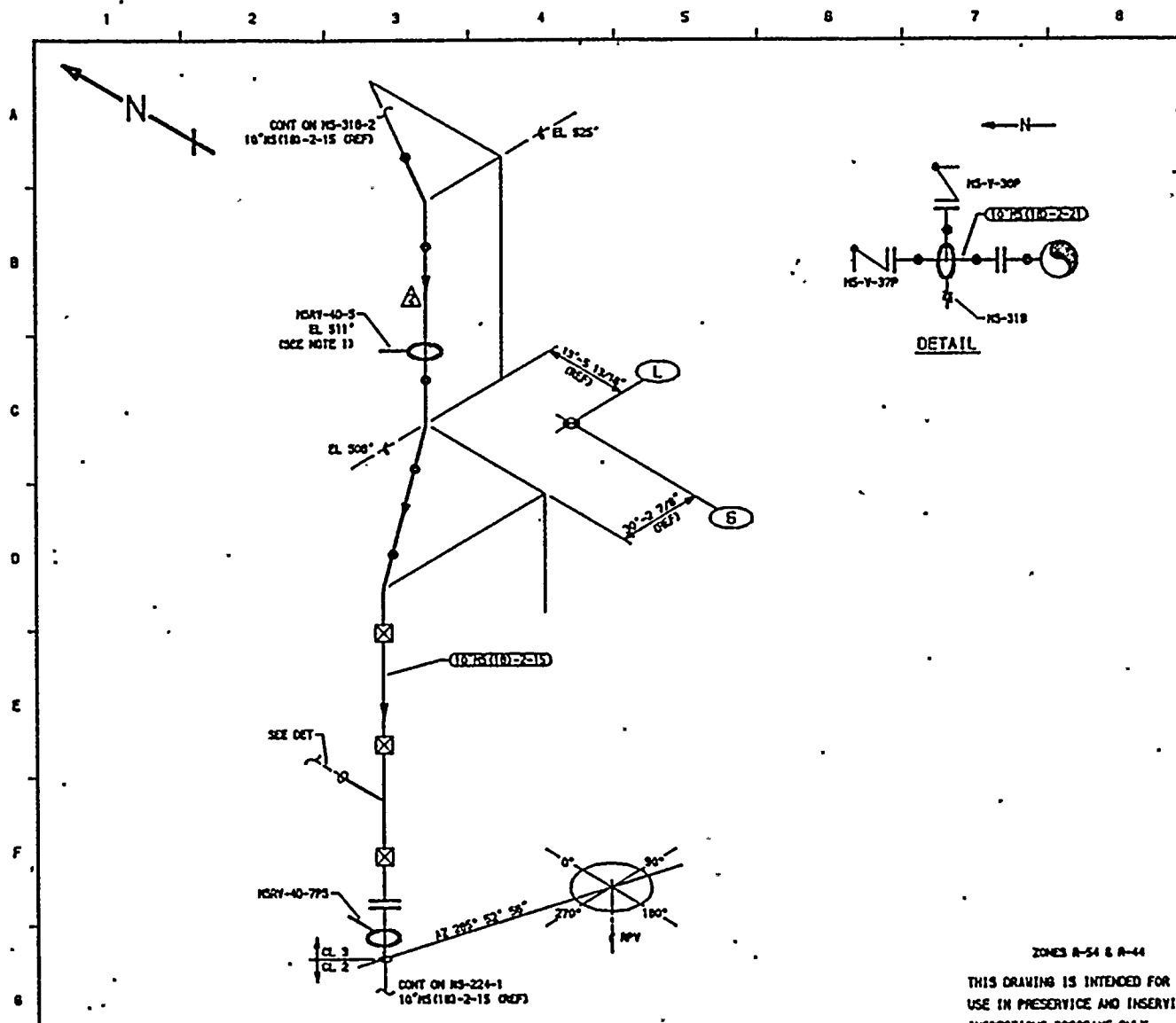
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
10"MS(18)-2-15	10	80	0.594	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	ADDED ISI DIA REF, LOGO & NOTE 1. NOO KEYPLAN.	K-McA	DPR	DRM
0	4-24-83	ISSUED FOR USE	K-McA	DPR	TPH

WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE, MS-RV-40 DISCHARGE	
DWG NO, MS-318-2	REV 1



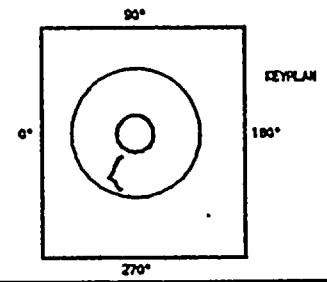


**NOTES**

1. MSRY-40-3 CHANGED FROM SHOULDER TO STRUT PER DOC-06-0525-01.
2. MSRY-40-4 WAS DELETED PER DOC-06-0525-5C-023.

**REFERENCE**

ISI - 228-2  
BOYCE & CRAIG ISOMETRIC  
MS-543-3  
REV 18



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR. K-MANOREN	DATE, 2-10-83

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

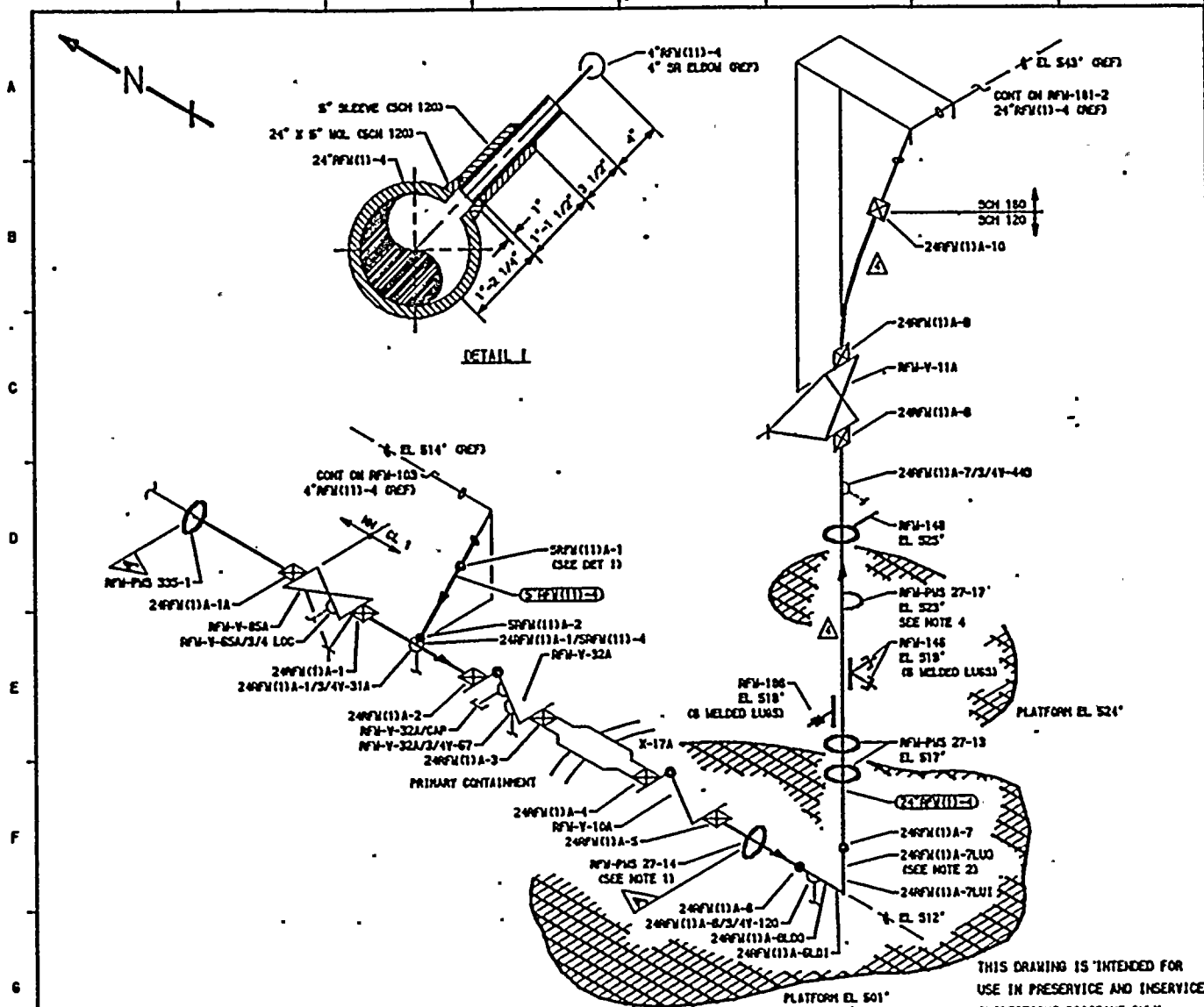
ZONES B-54 & B-44  
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

				PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	WATL TYPE	CAL BLOCK NO
				10"MS(18)-2-15	10	80	0.594	SA 106 GR B	CS	NA
				10"MS(18)-2-21	10	80	0.594	SA 106 GR B	CS	NA
2	12-9-82	ADDED NOTE 2.	K-MGA DPR DRW							
1	12-4-89	ADDED ISI DIA REF, LOGO & NOTE 1. MOD KEYPLAN.	K-MGA DPR TFM							
0	4-24-85	ISSUED FOR USE	K-MGA DPR TFM							
NO	DATE	REVISION	BY	CHKD	APVD					

WPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: MS-RV-40 DISCHARGE	
DWG NO. MS-318-3	REV 2





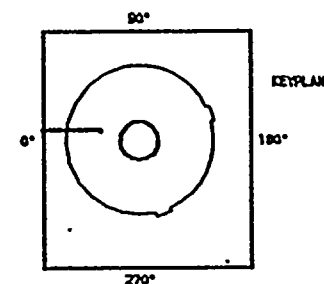


#### NOTES:

1. ACCESS TO WELDS 24RFW(11)A-5 & 24RFW(11)A-6 REQUIRES REMOVAL OF RFW-PMS 27-14.
2. ELBOW BETWEEN WELDS 24RFW(11)A-6 & 7 IS SCH 140, WELDED & SHORT RADIUS.
3. RFW-148 CHANGED FROM SHUTTER TO STRUT & RFW-147 WAS DELETED PER DOC-90-0061-6A.
4. RFW-PMS 27-17 WAS PARTIALLY REMOVED PER DOC-90-0061-1B.
5. RFW-PMS 27-18 WAS DELETED PER DOC-90-0018-1B.

#### REFERENCES:

- 151 - 229-1 & 229-1A  
 BOYCE & GRILL ISOMETRICS  
 RFW-118-3 REV 8  
 RFW-118-4 REV 11  
 RFW-118-5 REV 8



QUALITY CLASS.	1	ASME CODE CLASS.	1
ENGR. D TIMPINS	DRAWN. K-McA	DATE.	3-1-78



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 REACTOR FEED WATER LINE A

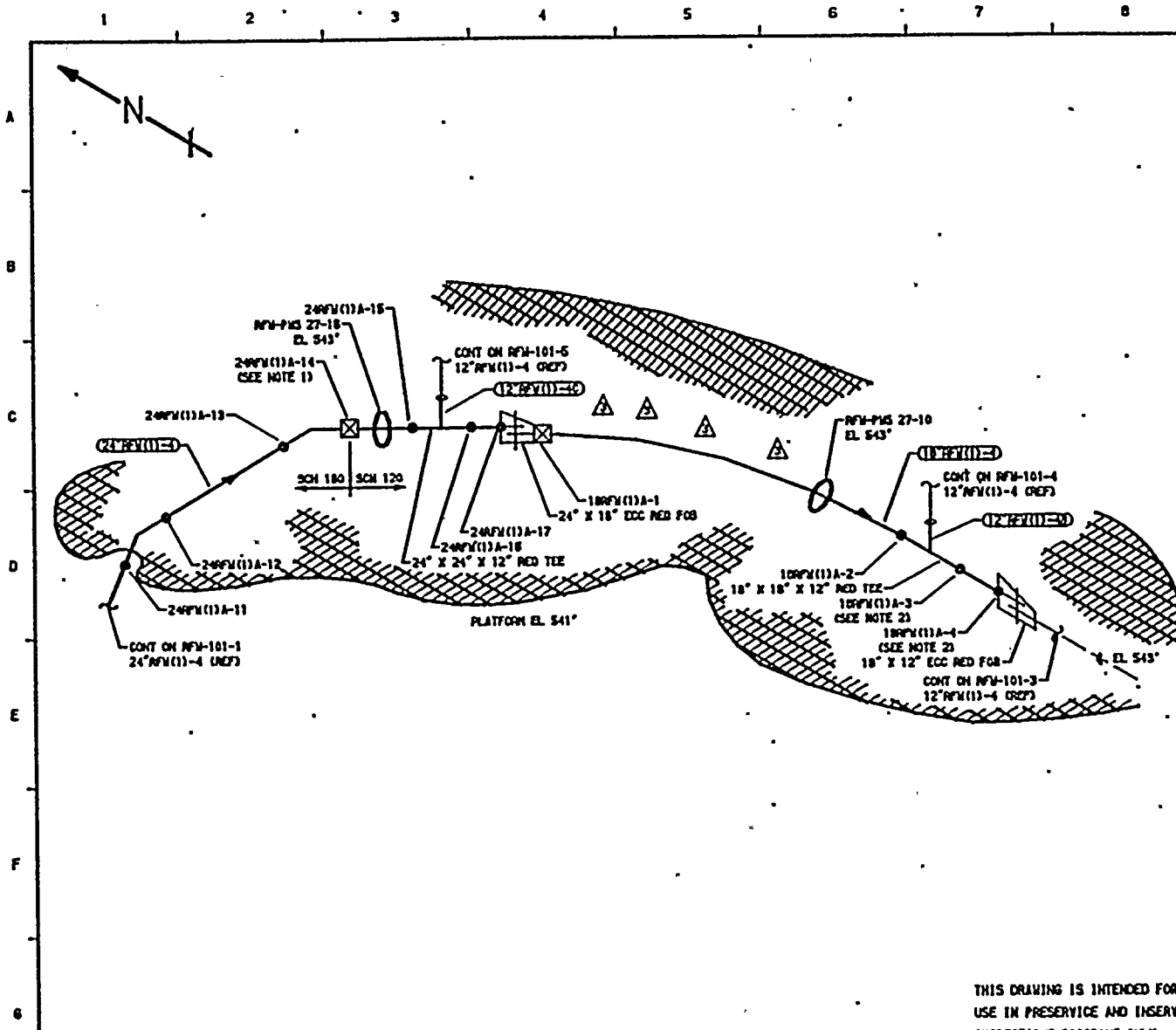
DWG NO. RFW-101-1

REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-14-80	ADDED 151 DUE RFP, DUE LINE CONT & NOTES 3, 4 & 5. MODIFIED LOGS, 12 RFV-148 & RFV-149. DELETED UT-48. APPROVED	K-McA	QJ	TFH							
3	10-13-83	REVISED AS NOTED. ADDED LOGS & KEYPLAN	K-McA	DPR	TFH							
2	12-2-81	AUGMENTED 151 ADDED	K-McA	DPR	TFH	24"RFV(11)-4	24	120	1.812	SA 106 GR B	CS	UT-5
1	11-5-80	ADDED NOTE 2, PIPE SCH BREAK & AS NOTED	K-McA	TFH	DMP	5"RFV(11)-4	5	120	0.500	SA 106 GR B	CS	UT-32
0	11-27-78	ISSUED FOR USE	K-McA	DMP	LFB	24"RFV(11)-4	24	140	2.062	SA 106 GR B	CS	UT-33
A	4-21-78	ISSUED FOR INFORMATION ONLY	K-McA	DCT	DMP							

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.



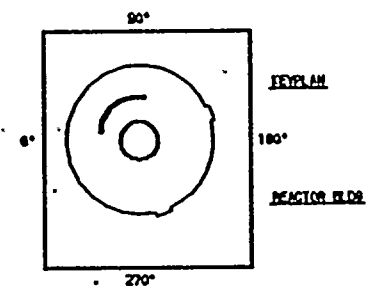


# NOTES:

1. ACCESS TO WELD 24RFW(11A)-14 REQUIRES REMOVAL OF RFW-PMS 27-18.
2. WELDS 24RFW(11A)-3 & 24RFW(11A)-4 ARE FITTING TO FITTING. SPACING IS 3 1/2".
3. RFW-150, RFW-154, RFW-155 & RFW-180 WERE DELETED PER DOC-90-0001-0A.

## REFERENCES:

ISI - 229-1  
 BOYCE & CRILL ISOMETRICS  
 RFW-118-5.8 REV 8  
 RFW-118-7.8 REV 7



QUALITY CLASS: 1 ASME CODE CLASS: 1  
 ENGR: D TIMMINS DRAWN: K-McA DATE: 3-2-78



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

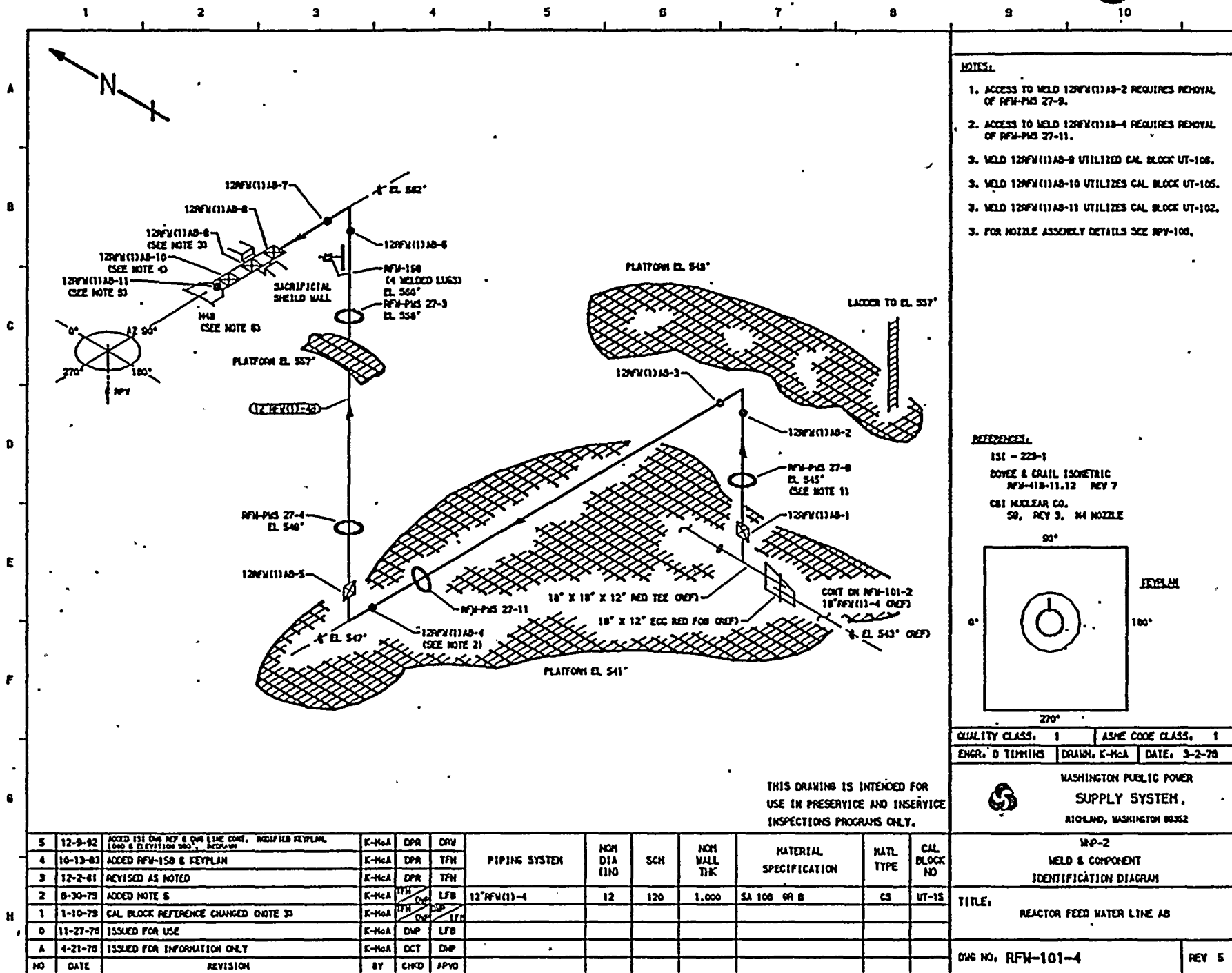
					PIPING SYSTEM	NOM. DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO	
3	12-14-90	ADDED 151 DUE REP. DUE LIME CONT & NOTE 3. MODIFIED LOGS & KEYPLAN. DELETED ALL SHOWN & UT-08, INFORMATION.	K-McA	CJ	TFH							
2	10-13-83	REVISED AS NOTED ADDED LUGS & KEYPLAN	K-McA	DPR	TFH	24"RFW(11)-4	24	120	1.812	SA 106 GR B	CS	UT-5
1	11-5-80	ADDED PIPE SCH BREAK & AS NOTED	K-McA	<div>TFH DMP</div>	DMP	18"RFW(11)-4	18	120	1.375	SA 106 GR B	CS	UT-11
0	11-27-78	ISSUED FOR USE	K-McA	DMP	LFB	24"RFW(11)-4	24	160	2.344	SA 106 GR B	CS	UT-33
A	4-21-78	ISSUED FOR INFORMATION ONLY	K-McA	DCT	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM  
 TITLE: REACTOR FEED WATER LINE A  
 DWG NO: RFW-101-2 REV 3



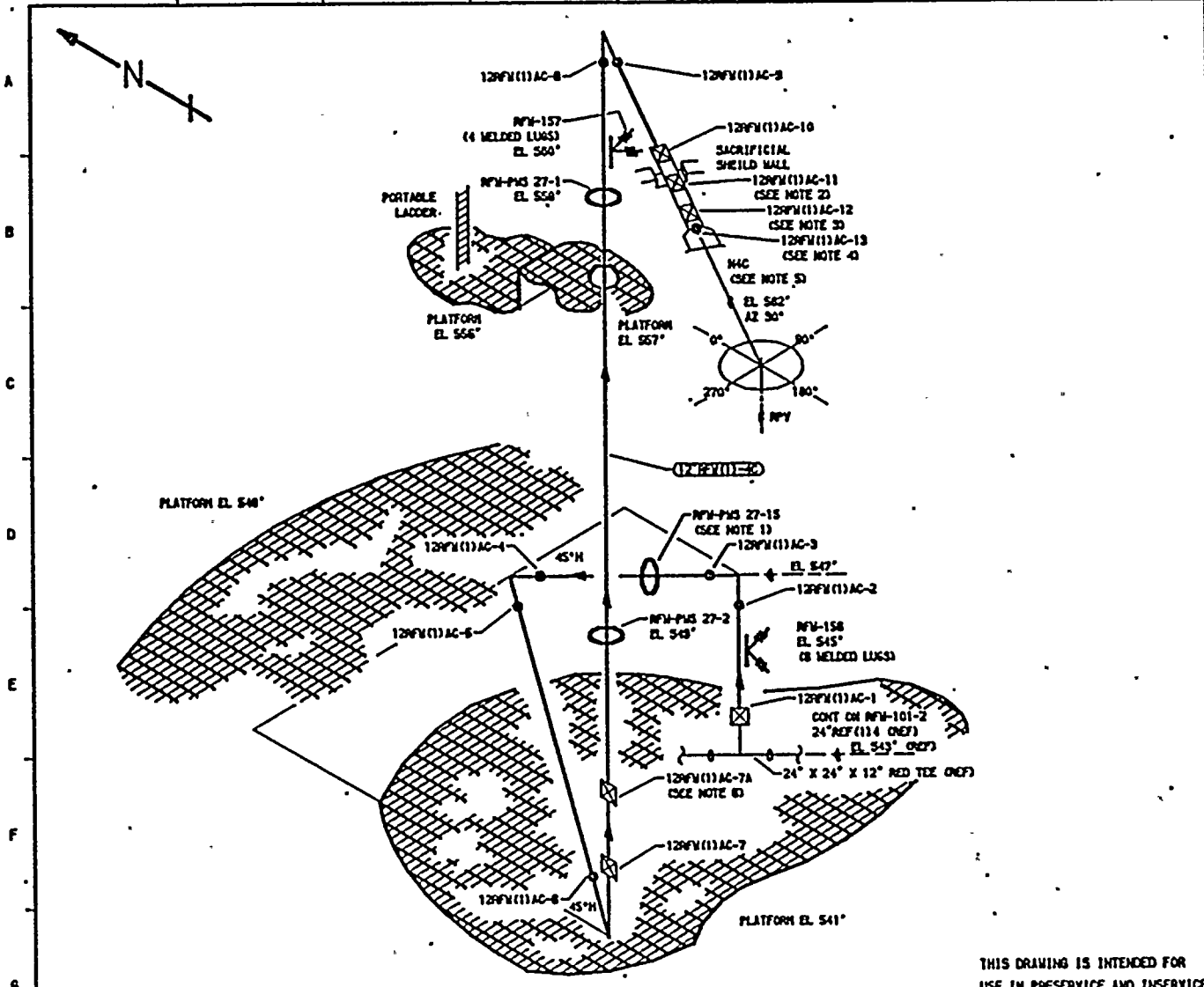










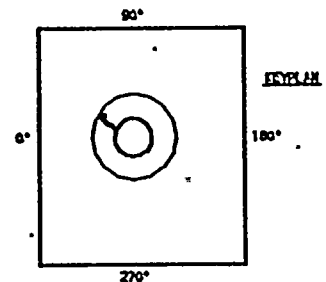


**NOTES:**

1. ACCESS TO WELDS 12RFV(1)AC-3 & 12RFV(1)AC-4 REQUIRES REMOVAL OF RFV-PMS 27-15.
2. WELD 12RFV(1)AC-11 UTILIZES CAL BLOCK UT-108.
3. WELD 12RFV(1)AC-12 UTILIZES CAL BLOCK UT-105.
4. WELD 12RFV(1)AC-13 UTILIZES CAL BLOCK UT-102.
5. FOR NOZZLE ASSEMBLY DETAILS SEE RFV-108.
6. ACCESS TO WELD 12RFV(1)AC-7A IS LIMITED BY RFV-PMS 27-2.

**REFERENCES:**

ISI - 229-1  
 BOYCE & GRILL ISOMETRIC  
 RFV-118-B.10 REV B  
 CBI NUCLEAR CO.  
 SR, REV B, NA NOZZLE

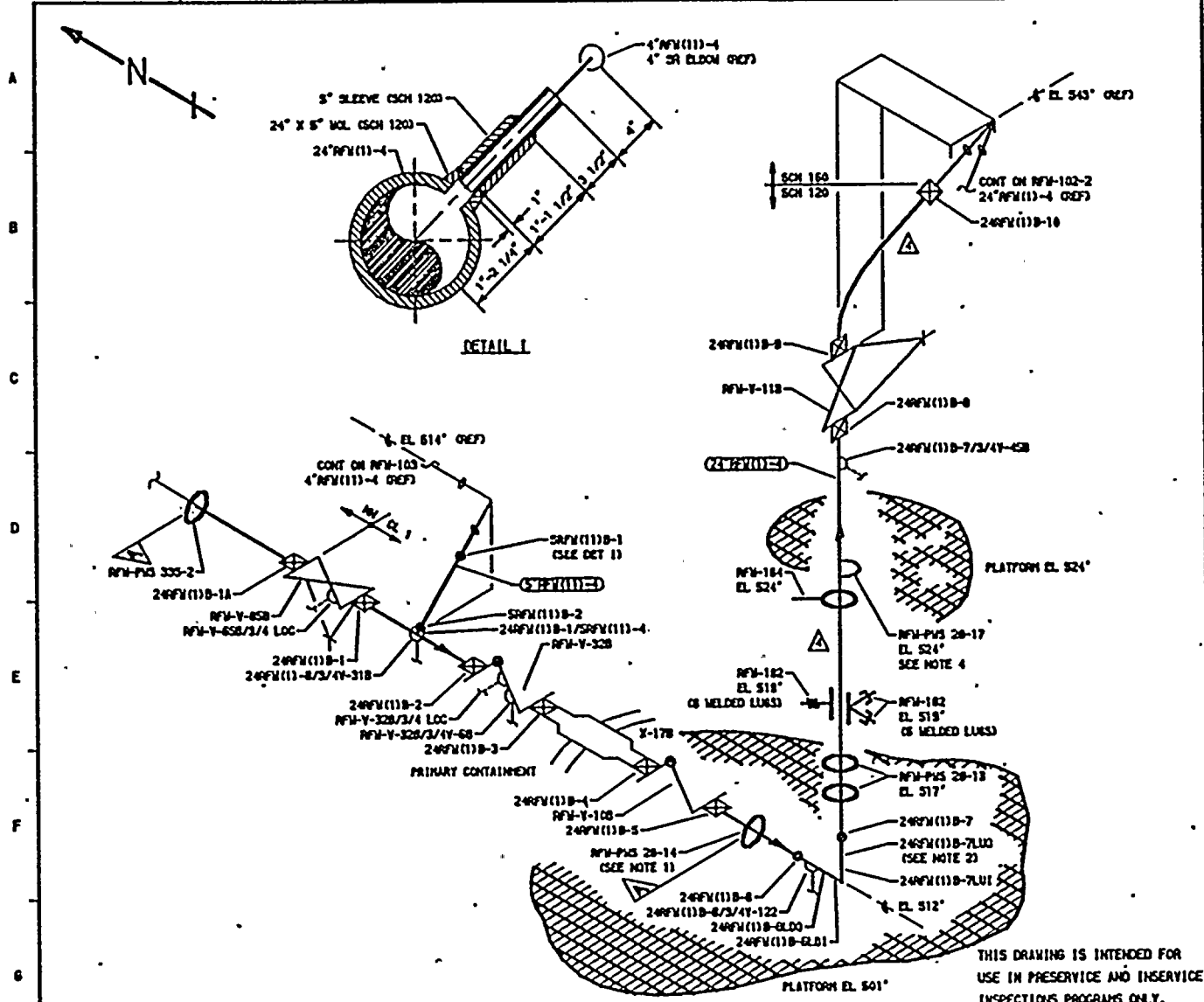


THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
5	12-9-82	ADDED ISI OUR REF & OUR LINE CONT. MODIFIED KEYPLAN, LOGO, ELEVATIONS 545, 560 & RFV-158, DELETED RFV-108, RFV-109	K-MCA	DPR	DRW							
4	10-13-83	ADDED RFV-158, RFV-157, LUGS & KEYPLAN.	K-MCA	DPR	TFH							
3	11-5-80	REVISED AS NOTED	K-MCA	TFH	DMP							
2	8-30-79	ADDED NOTE 5	K-MCA	TFH	DMP	12RFV(1)-4	12	120	1.000	SA 108 GR B	CS	UT-15
1	1-10-79	CAL BLOCK REFERENCE CHANGED NOTE 22	K-MCA	TFH	DMP							
0	11-27-78	ISSUED FOR USE	K-MCA	DMP	LFB							
A	4-21-78	ISSUED FOR INFORMATION ONLY	K-MCA	DCT	DMP							

QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR, D TIMPINS	DATE, 3-3-78
WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WASHINGTON 99352	
WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE, REACTOR FEED WATER LINE AC	
DWG NO, RFV-101-5	REV 5



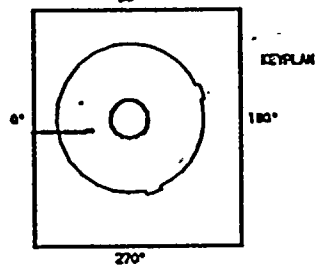


**NOTES:**

1. ACCESS TO WELDS 24RFV(11)B-5 & 24RFV(11)B-6 REQUIRES REMOVAL OF RFV-PHS 20-14.
2. ELBOW BETWEEN WELDS 24RFV(11)B-6 & 7 IS SCH 140, WELDED & SHORT RADIUS.
3. RFV-184 CHANGED FROM SLUGGER TO STRUT & RFV-183 WAS DELETED PER DOC-90-0081-0A.
4. RFV-PHS 20-17 WAS PARTIALLY REMOVED PER DOC-90-0061-1B.
5. RFV-PHS 20-18 WAS DELETED PER DOC-90-0018-1B.

**REFERENCES:**

- 181 - 229-2 & 229-2A  
 BOYCE & GRILL ISOMETRICS  
 RFV-118-3 REV 7  
 RFV-118-4 REV 8  
 RFV-118-5.7 REV 8



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. D TIMPINS	DATE, 3-8-78



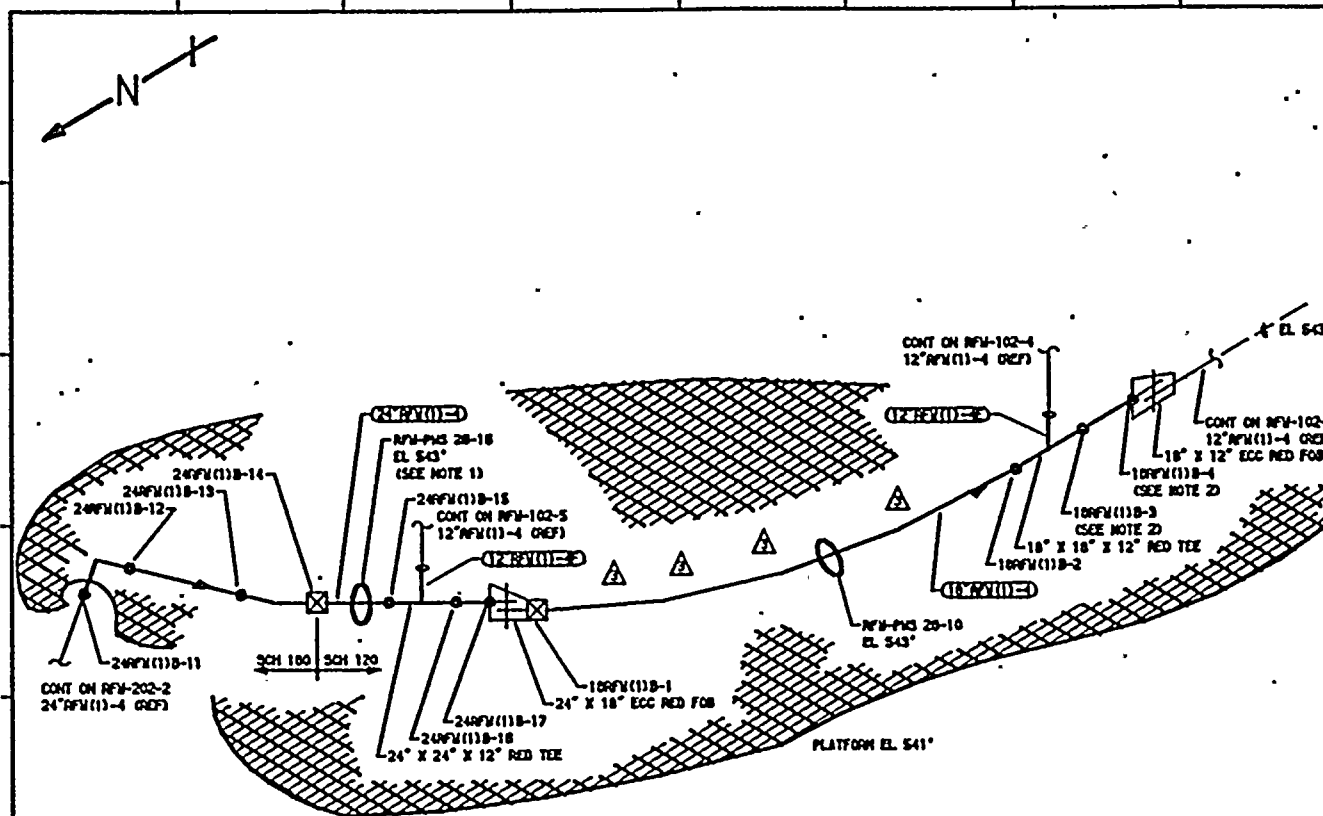
WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	TITLE: REACTOR FEED WATER LINE B
DWG NO. RFV-102-1	REV 5

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (INO)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
5	12-9-82	CORRECTED RFV-184 TO RFV-182 IN M-2, DUE LINE CONT IN M-2 & PHS ADDED TO RFV-PHS 20-13 IN M-2.	K-McA	DPR	DRV							
4	12-14-80	ADDED ISI DUE RFV-102 LINE CONT & NOTES 3, 4 & 5. (also, KEYPLAN & RFV-182, DELETED UT-48, Arcuate)	K-McA	OJ	TFH							
3	12-2-83	REVISED AS NOTED ADDED KEYPLAN & LUGS	K-McA	DPR	TFH							
2	12-2-81	AUGMENTED ISI ADDED	K-McA	DPR	TFH	24"RFV(11)-4	24	120	1.812	SA 106 GR B	CS	UT-5
1	11-5-80	ADDED NOTE 2 & PIPE SCH BREAK	K-McA	TFH	DMP	5"RFV(11)-4	5	120	0.500	SA 106 GR B	CS	UT-32
0	11-27-79	ISSUED FOR USE	K-McA	DMP	LFB	24"RFV(11)-4	24	140	2.082	SA 106 GR B	CS	UT-33
A	4-21-78	ISSUED FOR INFORMATION ONLY	K-McA	DCT	DMP							

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.



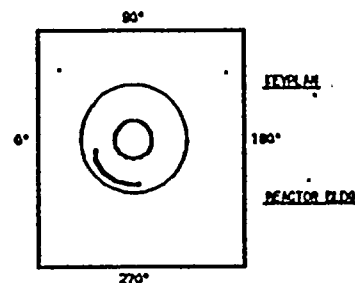


# NOTES:

1. ACCESS TO WELD 24RFW(11)B-14 REQUIRES REMOVAL OF RFW-PHS 29-18.
2. WELDS 18RFW(11)B-5 & 18RFW(11)B-4 ARE FITTING TO FITTING. SPACING IS 3 1/2\".
3. RFW-186, RFW-187, RFW-188 & RFW-170 WERE DELETED PER BCC-90-0081-0A.

# REFERENCES:

151 - 229-2  
BOYCE & GRAIL ISOMETRIC  
RFW-119-5.7 REV 8



QUALITY CLASS. 1 ASME CODE CLASS. 1  
ENGR. D TIMMINS DRAWN. K-McA DATE: 3-8-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

THIS DRAWING IS INTENDED FOR  
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INSPECTIONS PROGRAMS ONLY.

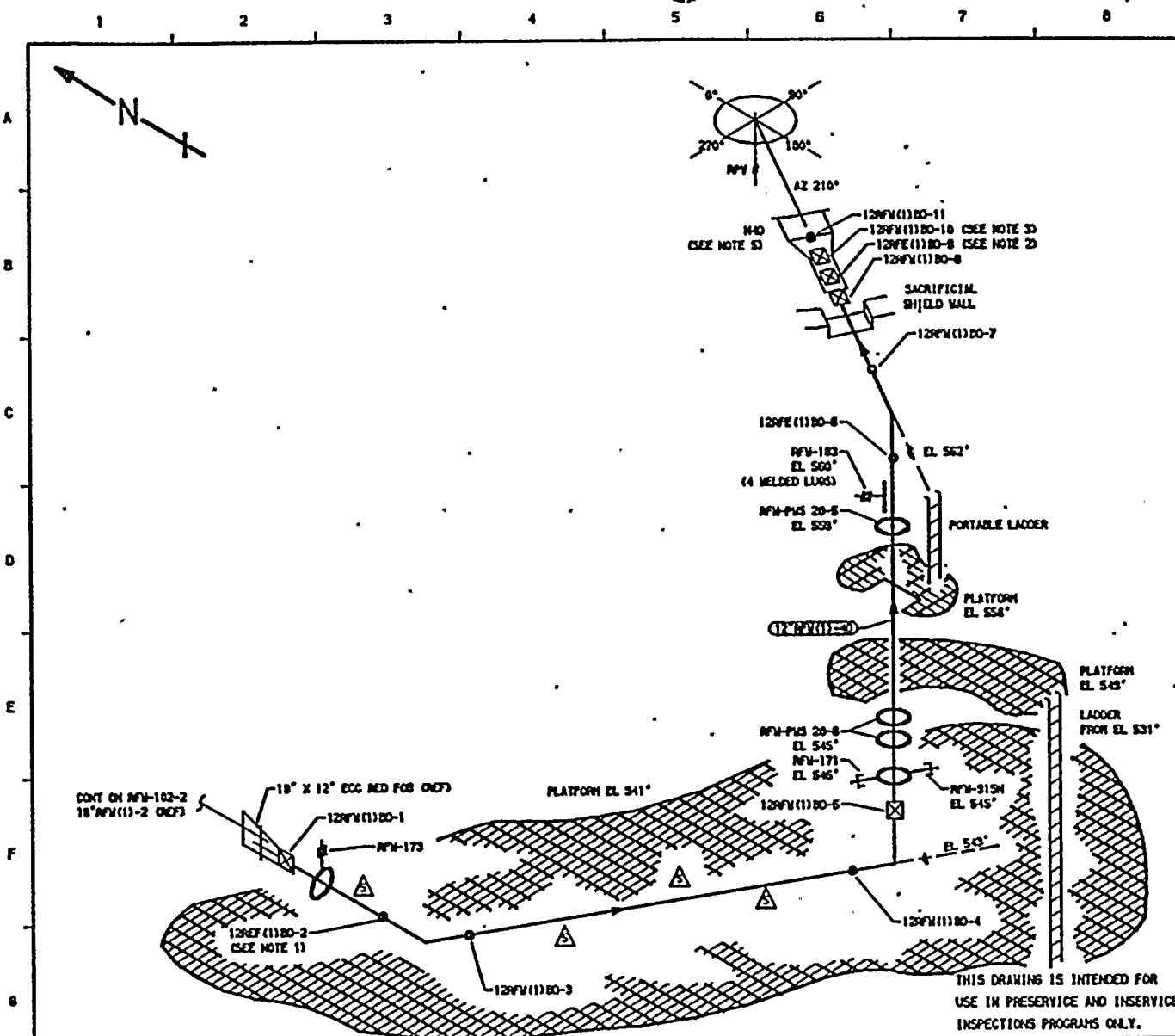
						PIPING SYSTEM	NOM DIA (110)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	C. BLOCK NO.
3	12-14-80	ADDED 134 ONE RFW, ONE (11)E CONT & NOTE 3. MODIFIED LOGS & CERTPLAN, DELETED ALL SHADINGS & UT-MR, REDRAWN.	K-McA	OJ	TFH							
2	10-13-80	REVISED AS NOTED ADDED LUGS & KEYPLAN	K-McA	DPR	TFH	24"RFW(11)-4	24	120	1.812	SA 106 GR B	CS	UT-5
1	11-5-80	ADDED PIPE SCH BREAK & AS NOTED	K-McA	DPR	TFH	18"RFW(11)-4	18	120	1.375	SA 106 GR B	CS	UT-11
0	11-27-78	ISSUED FOR USE	K-McA	DMP	LFB	24"RFW(11)-4	24	160	2.344	SA 106 GR B	CS	UT-33
A	4-21-78	ISSUED FOR INFORMATION ONLY	K-McA	DCT	DMP							
NO	DATE	REVISION	BY	CHKD	APVD							

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
REACTOR FEED WATER LINE B

DWG NO. RFW-102-2 REV 3

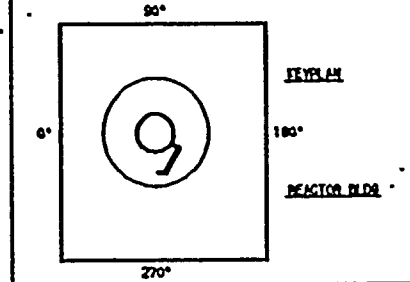




- NOTES**
1. DELETED
  2. WELD 12RFV(11)BO-8 UTILIZES CAL BLOCK UT-108.
  3. WELD 12RFV(11)BO-10 UTILIZES CAL BLOCK UT-105.
  4. WELD 12RFV(11)BO-11 UTILIZES CAL BLOCK UT-102.
  5. FOR NOZZLE ASSEMBLY DETAILS SEE RFW-108.
  6. RFW-172 WAS DELETED PER DOC-80-0061-0A.
  7. RFW-PMS 20-7, RFW-PMS 20-8 & RFW-PMS 20-12 WERE DELETED PER DOC-80-0061-1B.

**REFERENCES**

ISI - 229-2  
 DOYEE & CRILL ISOMETRICS  
 RFW-115-8.8 REV 8  
 CB1 NUCLEAR CO.  
 SO, REV 9, M NOZZLE



QUALITY CLASS. 1 ASME CODE CLASS. 1  
 ENGR. D TIMMINS DRAWN. K-MCA DATE. 3-7-78

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98352

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 REACTOR FEED WATER LINE BO

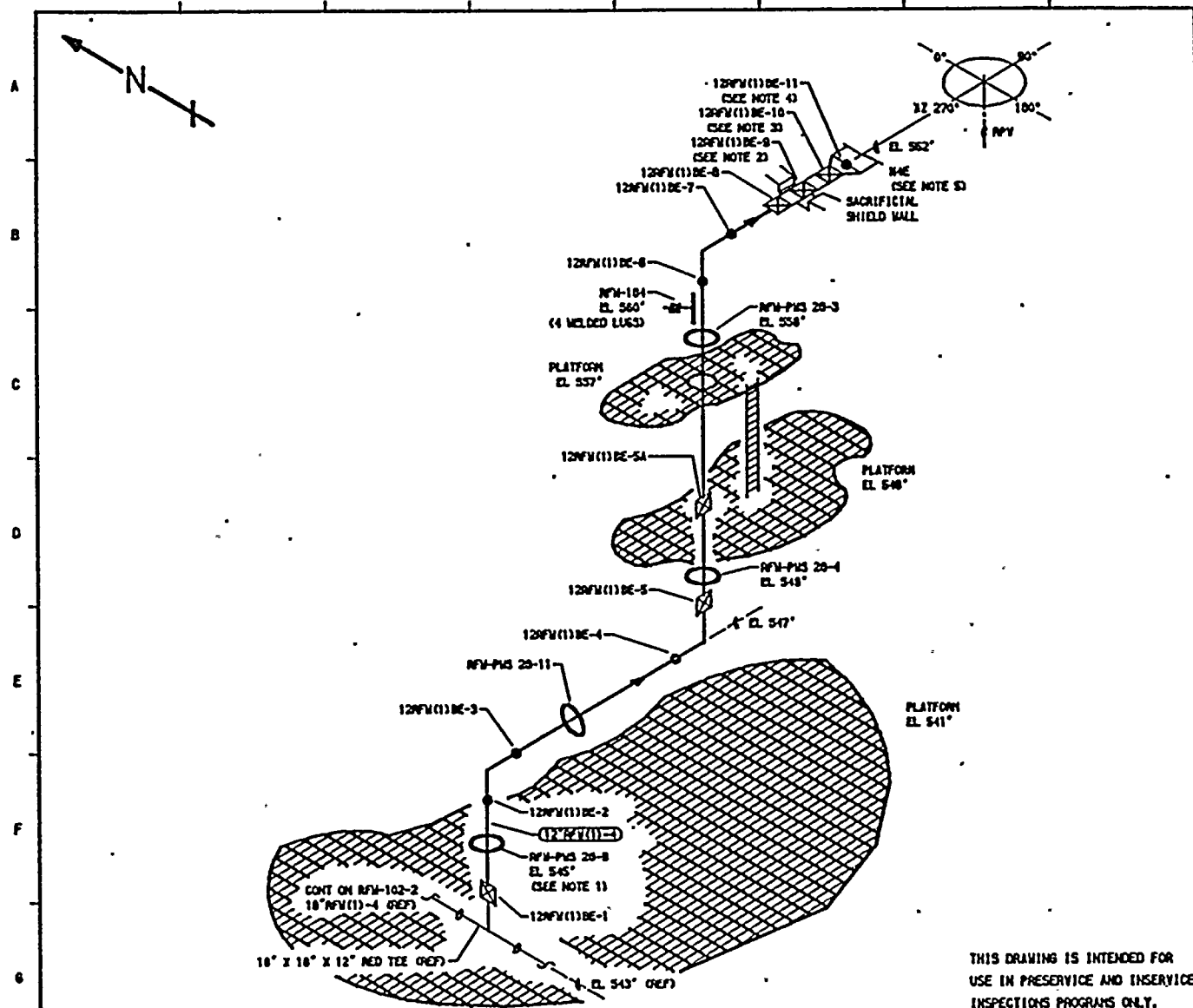
DWG NO. RFW-102-3 REV 5

				PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
5	12-14-80	ADDED E31 DUE REF, DUE LIME CONT, HANGER ELEVATIONS & NOTES & P.T. MODIFIED (DND & E31P.M., D31 E31D M3-40, IN DRAWING)	K-MCA	QJ	TFH					
4	10-13-83	REVISED AS NOTED ADDED KEYPLAN & LUGS	K-MCA	DPR	TFH					
3	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH					
2	8-30-79	ADDED NOTE 5.	K-MCA	TFH	TFH					
1	1-10-79	CAL BLOCK REFERENCE CHANGED NOTE 23	K-MCA	TFH	TFH					
NO	DATE	REVISION	BY	CHKD	APVD					

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 INSPECTIONS PROGRAMS ONLY.





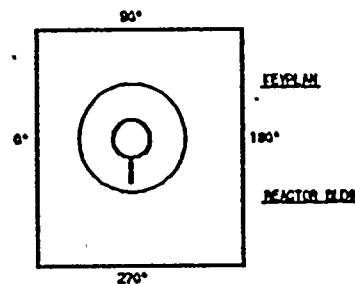


# NOTES

1. ACCESS TO WELDS 12RFW(1)DE-2 & 12RFW(1)DE-3 REQUIRES REMOVAL OF RFW-PUS 28-8.
2. WELD 12RFW(1)DE-8 UTILIZES CAL BLOCK UT-108.
3. WELD 12RFW(1)DE-10 UTILIZES CAL BLOCK UT-105.
4. WELD 12RFW(1)DE-11 UTILIZES CAL BLOCK UT-102.
5. FOR NOZZLE ASSEMBLY DETAILS SEE RFW-108.

# REFERENCES

ISI - 229-2  
BOYCE & CRAIG ISOMETRIC  
RFW-119-10.11 REV 6  
CSI NUCLEAR CO.  
SO, REV 8 IN NOZZLE



QUALITY CLASS. 1 ASME CODE CLASS. 1  
ENGR. D TIMMINS DRAWN. K-MCA DATE. 3-7-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
5	12-9-92	ADDED ISI DIA REF. DUE TO THE CONT. ELEVATIONS IN 9-5 & 9-6. MODIFIED EXPLAN & LEGEND. RFW-108	K-MCA	DPR	DRW							
4	10-13-83	REVISED AS NOTED. ADDED KEYPLAN	K-MCA	DPR	TFH							
3	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH							
2	7-17-79	ADDED 12RFW(1)DE-5A PER AS BUILT, IN E-6, ADDED NOTE 5	K-MCA	TFH	LFB	12RFW(1)-4	12	120	1.000	SA 106 GR B	CS	UT-15
1	1-10-79	CAL BLOCK REFERENCE CHANGED NOTE 23	K-MCA	TFH	LFB							
0	11-27-78	ISSUED FOR USE	K-MCA	DNP	LFB							
A	4-21-78	ISSUED FOR INFORMATION ONLY	K-MCA	DCT	DNP							

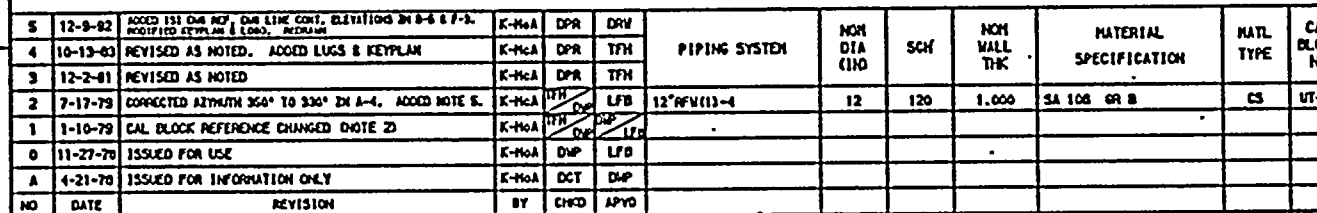
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: REACTOR FEED WATER LINE DE

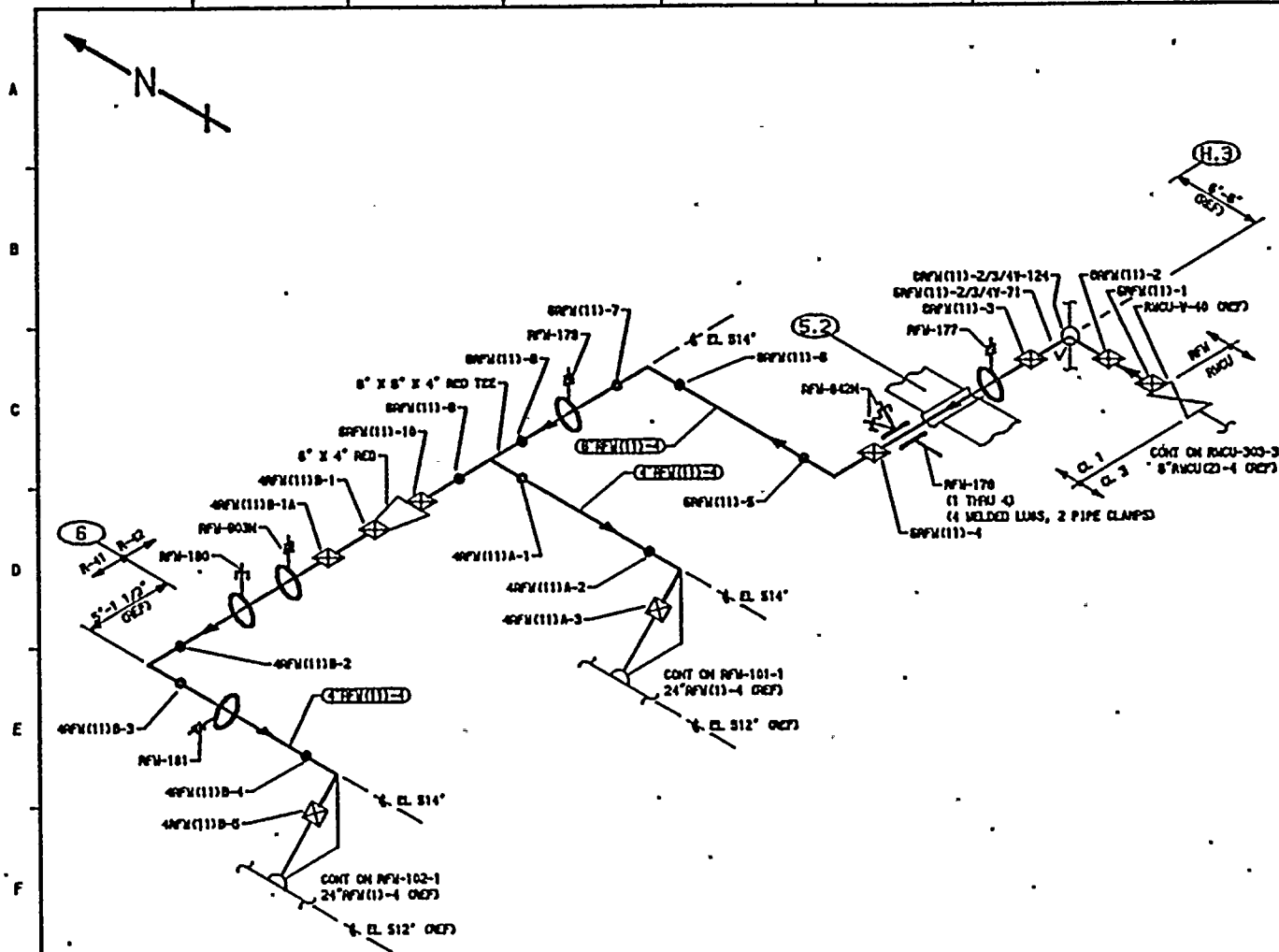
DWG NO. RFW-102-4

REV 5









ZONES B-42 & B-41

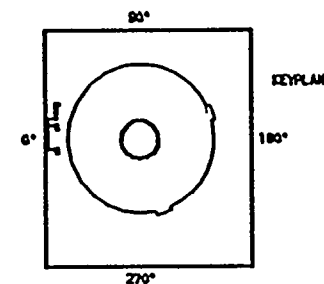
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

# NOTES:

1. ALL CIRCUMFERENTIAL BUTT WELDS GREATER THAN 1 INCH REQUIRE AUGMENTED ISI.
2. AUGMENTED ISI CONTINUES ON RUCU-303-3.

## REFERENCE:

ISI - 229-1A & 229-2A  
BOYCE & CRAIG ISOMETRICS  
RFW-438-1.2 REV 14  
RFW-438-3 REV 8



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR, D TIMMINS	DRAWN, K-MCA
DATE, 3-15-78	



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
REACTOR FEED WATER RVCU / CRD INTER-TIE

DWG NO. RFW-103

REV 4

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	12-9-82	ADDED ISI DWG REF & DWG LINE COND. MODIFIED KEYPLAN. (1000 & RFW-842H, RUCU-303-3)	K-MCA	DPR	DRW							
3	10-13-83	REVISED AS NOTED ADDED KEYPLAN	K-MCA	DPR	TFH							
2	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH	8"RFW(111)-4	8	80	0.432	SA 106 GR B	CS	UT-28
1	1-10-79	CAL BLOCK REFERENCE CHANGE. DELETED 3" PIPING	K-MCA	TFH	DPR	4"RFW(111)-4	4	80	0.337	SA 106 GR B	CS	UT-30
0	12-27-70	ISSUED FOR USE	K-MCA	TFH	DPR							
A	4-21-70	ISSUED FOR INFORMATION ONLY	K-MCA	DCT	DMP							



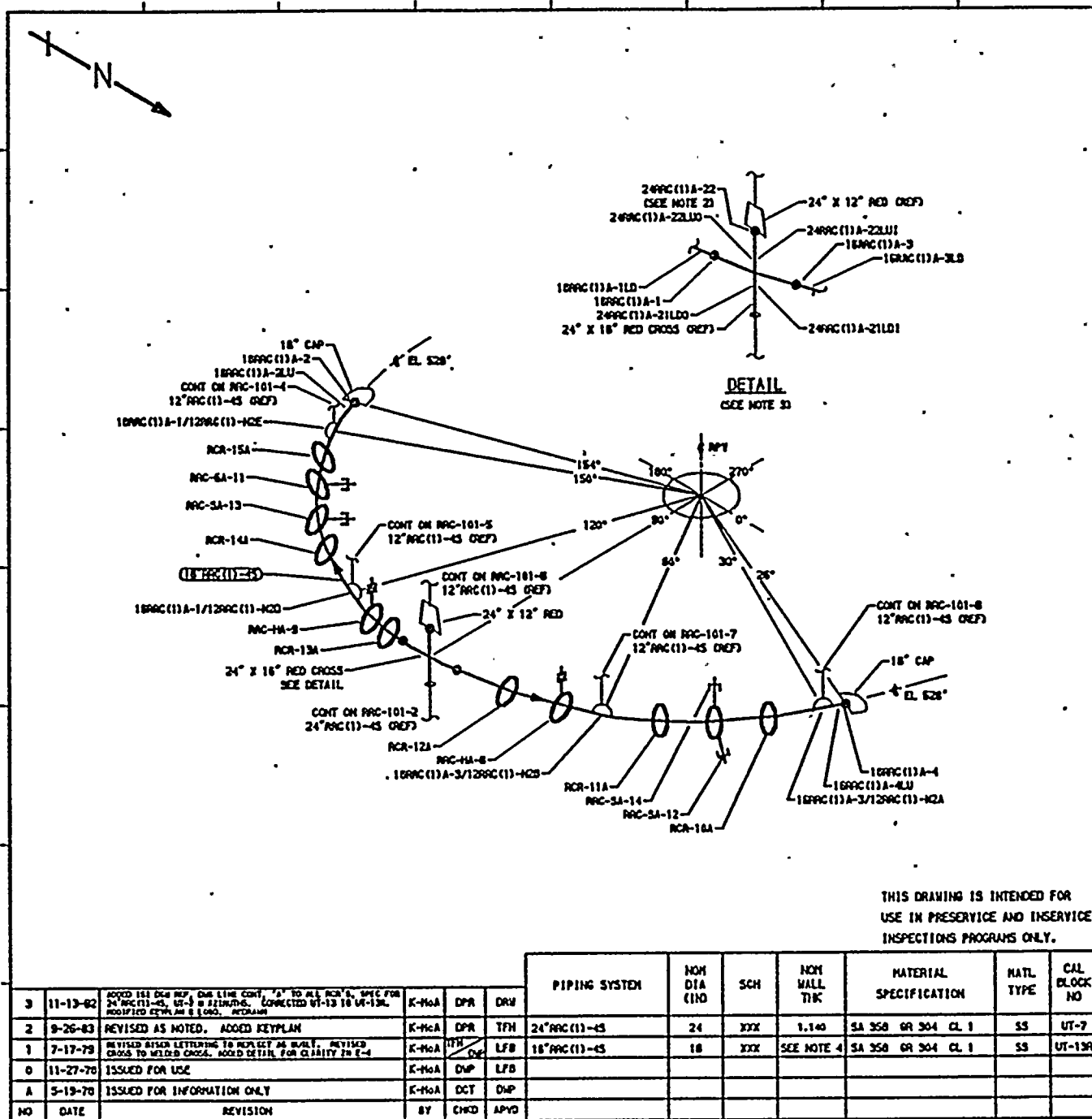












#### NOTES:

1. ACCESS TO WELDS 18ARC(11)A-1 THRU 18ARC(11)A-4 & 24ARC(11)A-22 REQUIRES TEMPORARY SCAFFOLDING.
2. WELD 24ARC(11)A-22 IS FITTING TO FITTING.
3. LONGITUDINAL WELDS ON CROSS LOCATED INBOARD & OUTBOARD IN RESPECT TO THE RPV, ARE LOCATED 90° FROM HEADER CONNECTIONS.
4. PIPING PURCHASED TO MIN WALL SPECIFICATIONS. MIN WALL 0.750\"/>

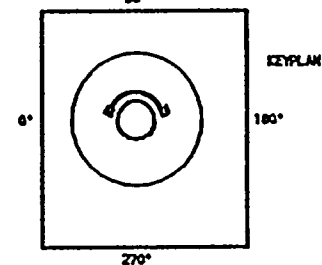
#### REFERENCES:

181 - 230-1

#### GENERAL ELECTRIC DRAWINGS

761 E 424 REV 2  
762 E 530 SH 1 REV 3  
762 E 538 SH 2 REV 3  
761 E 735 REV 6  
131 E 7500 REV 1

BOYCE CRILL / GERI  
BC/G-218 REV 8



QUALITY CLASS. 1	ASME CODE CLASS. 1
ENGR. D TIMMINS	DRAWN. K-MCA DATE: 4-8-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

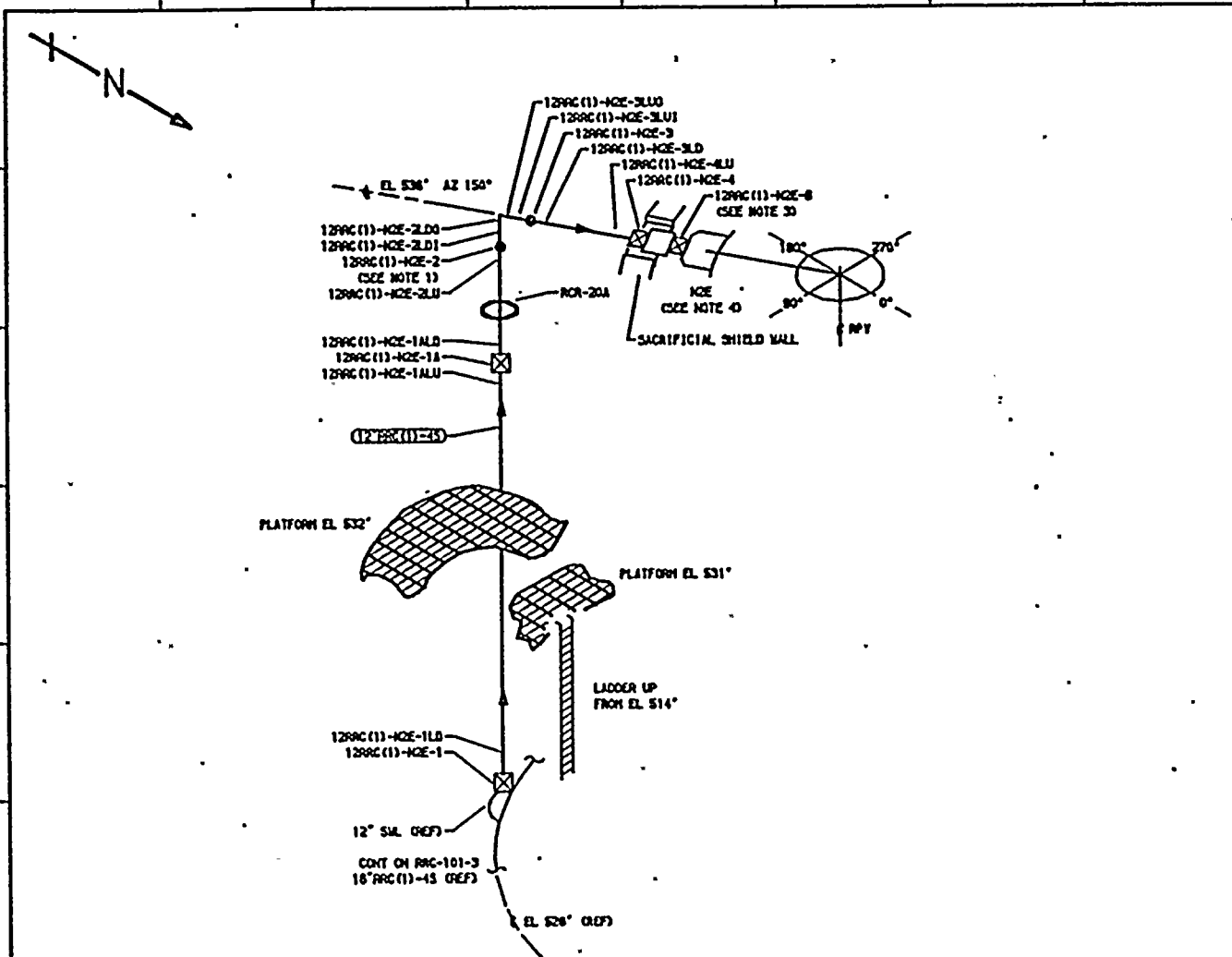
WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: REACTOR RECIRCULATION LOOP A

DWG NO. RRC-101-3

REV 3





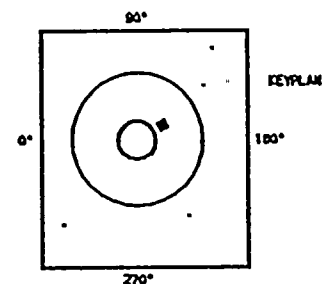
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

#### NOTES:

1. ACCESS TO WELD 12ARC(1)-KCE-2 REQUIRES REMOVAL OF RRC-20A.
2. DELETED
3. WELD 12ARC(1)-KCE-6 UTILIZES CAL BLOCK UT-111.
4. FOR NOZZLE ASSEMBLY SEE RPY-108.
5. PIPING PURCHASED TO MIN WALL SPECIFICATION. MIN WALL 0.604\".

#### REFERENCES:

- ISI - 230-1  
GENERAL ELECTRIC DRAWINGS  
761 E 424 REV 2  
762 E 530 SH 1 REV 3  
762 E 530 SH 2 REV 3  
761 E 735 REV 6  
CBI NUCLEAR CO.  
S2, REV 12, K2 NOZZLE ASSEMBLY  
BOYCE CRILL / GERE  
BC/G-215 REV 8



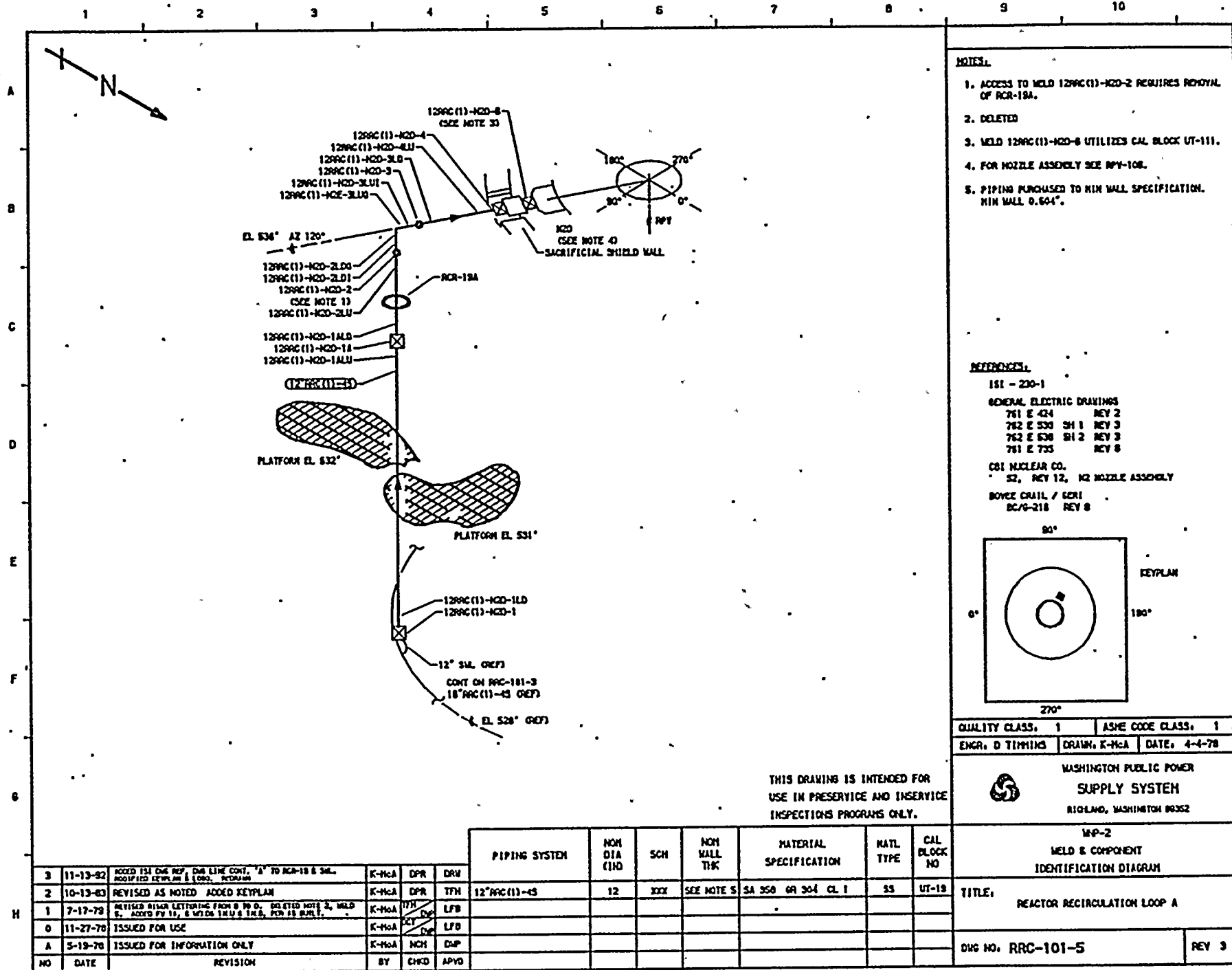
QUALITY CLASS. 1	ASME CODE CLASS. 1
ENGR. D TIMMINS	DRAWN. K-MCA DATE. 4-4-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RTOLEMO, WASHINGTON 98352

				PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO	MPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
3	11-13-92	ADDED FSI DUE RFP, DUE LTR CONT. "A" TO RRC-20 & S.W. MODIFIED KEYPLAN & LOGS. INTERIM	K-MCA DPR DRW								TITLE: REACTOR RECIRCULATION LOOP A	
2	10-13-83	REVISED AS NOTED ADDED KEYPLAN	K-MCA DPR TFM	12"ARC(1)-45	12	XXX	SEE NOTE 5	SA 350 GR 304 CL 1	SS	UT-19		
1	7-17-79	REVISED AFTER LETTERING FROM A TO E. DELETED NOTE 2, WELD E. ADDED WELDS TAW & TAW & PV 1A, PER AS BUILT.	K-MCA DTP LFB									
0	11-27-70	ISSUED FOR USE	K-MCA DTP LFB									
A	5-19-78	ISSUED FOR INFORMATION ONLY	K-MCA NCH DNP									
NO	DATE	REVISION	BY	CHKD	APVD						DWG NO. RRC-101-4	REV 3





# NOTES

1. ACCESS TO WELD 129RC(11)-H2D-2 REQUIRES REMOVAL OF RCR-18A.
2. DELETED
3. WELD 129RC(11)-H2D-6 UTILIZES CAL BLOCK UT-111.
4. FOR NOZZLE ASSEMBLY SEE RPY-108.
5. PIPING PURCHASED TO RIM WALL SPECIFICATION. RIM WALL 0.604\"/>

# REFERENCES

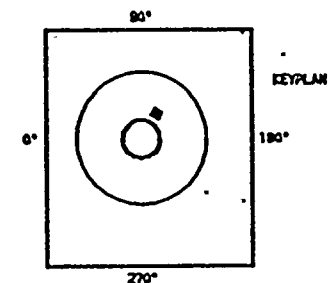
ISI - 230-1

## GENERAL ELECTRIC DRAWINGS

761 E 424 REV 2  
762 E 530 SH 1 REV 3  
762 E 530 SH 2 REV 3  
761 E 735 REV 8

## CBI NUCLEAR CO.

S2, REV 12, H2 NOZZLE ASSEMBLY  
BOYCE CRILL / SCRI  
BC/G-218 REV 8



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR, D TIMMIS	DRAWN, K-McA DATE, 4-4-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIGLAND, WASHINGTON 98362

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

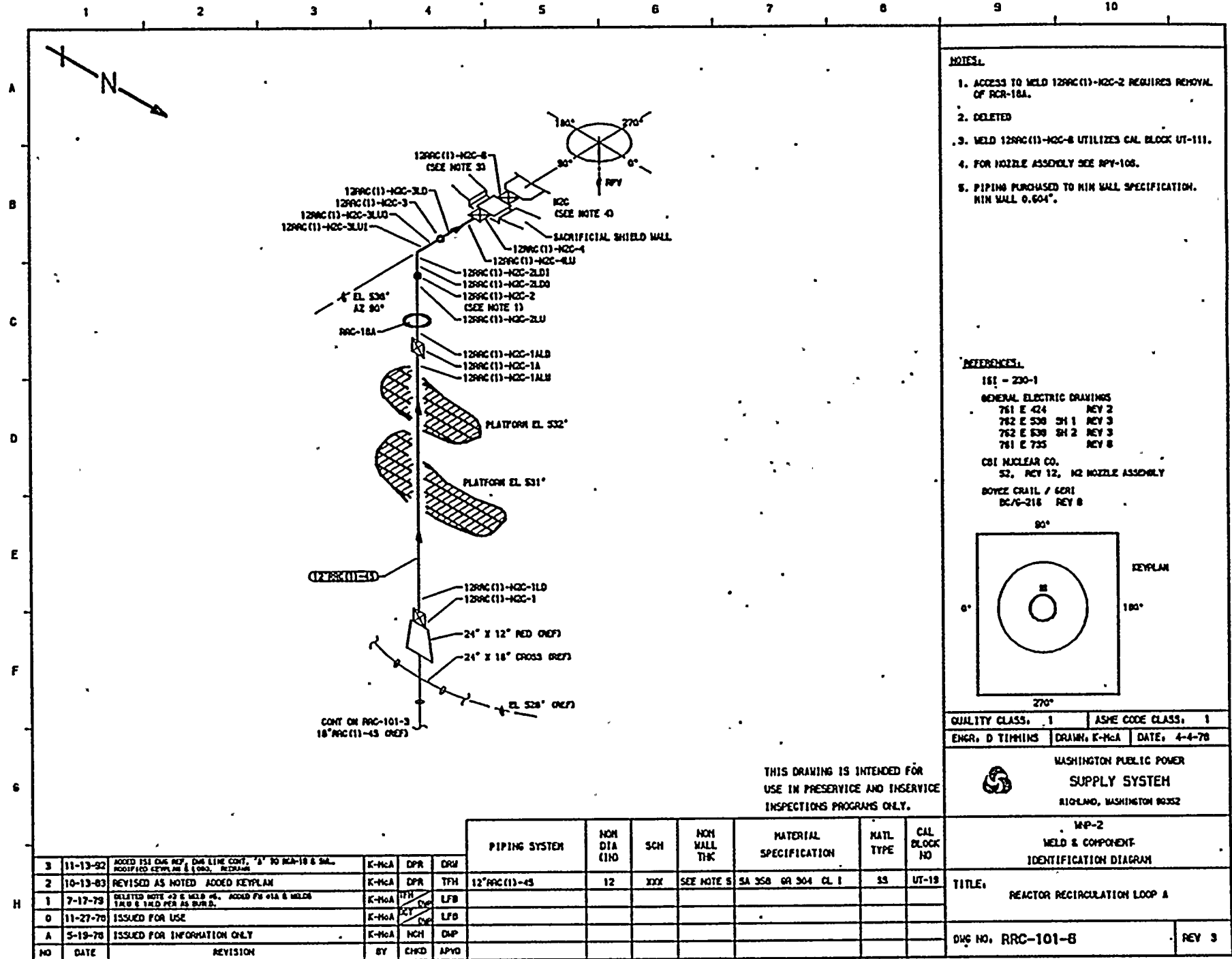
TITLE: REACTOR RECIRCULATION LOOP A

DWG NO: RRC-101-5

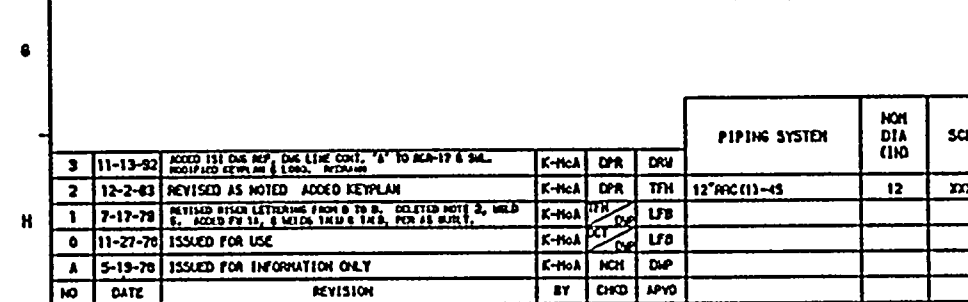
REV 3








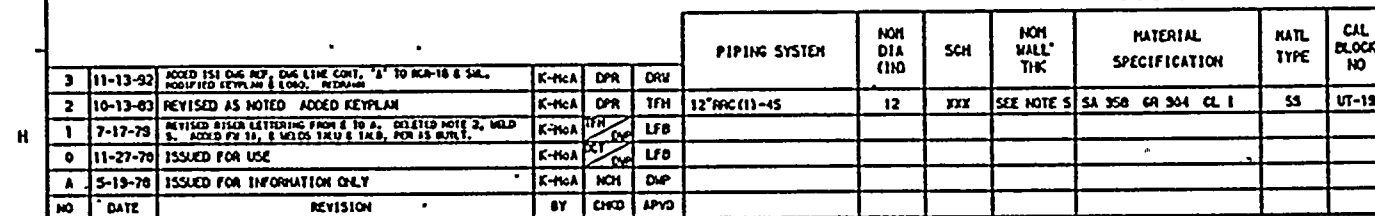




MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
350 GR 304 CL 1	33	UT-19

QUALITY CLASS. 1	ASME CODE CLASS. 1
ENGR: D TIMMIS	DATE: 4-4-78
 <p>WASHINGTON PUBLIC POWER SUPPLY SYSTEM RICHLAND, WASHINGTON 99352</p>	
<p>WPP-2 WELD &amp; COMPONENT IDENTIFICATION DIAGRAM</p>	
<p>TITLE: REACTOR RECIRCULATION LOOP A</p>	
DWG NO. RRC-101-7	REV 3



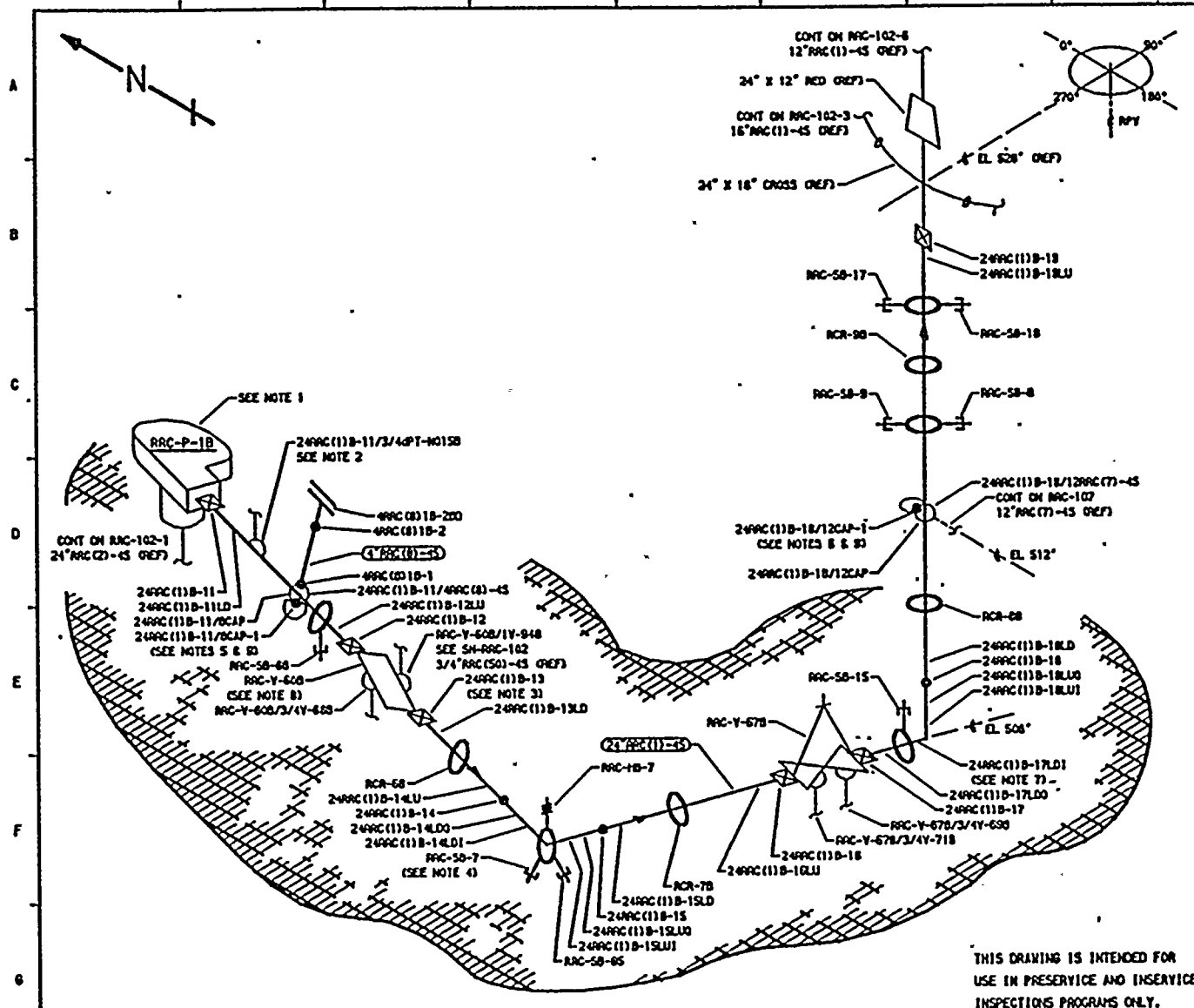












# NOTES

1. SEE RRC-P-1B DETAIL. OUR RRC-103, FOR PUMP SUPPORT DETAILS.
2. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT PENETRATION EX-410 THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
3. ACCESS TO WELD 24RRC(11)B-13 REQUIRES REMOVAL OF RCR-08.
4. SPECIAL CLAMP WITH H8-7 & 30-7 ATTACHMENTS.
5. WELD 24RRC(11)B-11/RCAP-1 IS FITTING TO FITTING.
6. WELD 24RRC(11)B-18/12CAP-1 IS FITTING TO FITTING.
7. WELD 24RRC(11)B-17 IS FITTING TO FITTING.
8. RRC-Y-608 HAS TWELVE (12) 2 3/4" X 15" BODY TO BONNET STUDS.
9. CAP TO NOZZLE WELDS ARE CLAD ON THE ID IN THE WELD AREA. SEE REFERENCE DWG 131 C 7500 & 131 C 7509.
10. PIPING FROM PUMP DISCHARGE TO RRC-Y-678 IS MIN WALL 1.218. PIPING FROM RRC-Y-678 TO WELD 24RRC(11)B-18 IS MIN WALL 1.140.

# REFERENCES

131 - 230-2

GENERAL ELECTRIC DRAWINGS

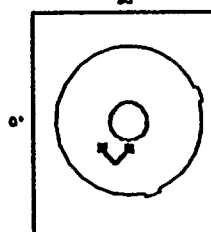
761 E 424 REV 2  
762 E 530 SH 1 REV 3  
762 E 530 SH 2 REV 3  
761 E 735 REV 6  
131 C 7500 REV 3  
131 C 7503 REV 5  
131 C 7502 REV 3

CB1 NUCLEAR CO.

48 REV 4 N1 NOZZLE ASSEMBLY

BOYCE CRAIL/COR1

BC/6-218 REV 8



KEYPLAN

REACTOR RING

QUALITY CLASS	1	ASME CODE CLASS	1
ENGR. D TIMMINS		DRAWN, K-HCA	DATE: 3-30-78

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIEGLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

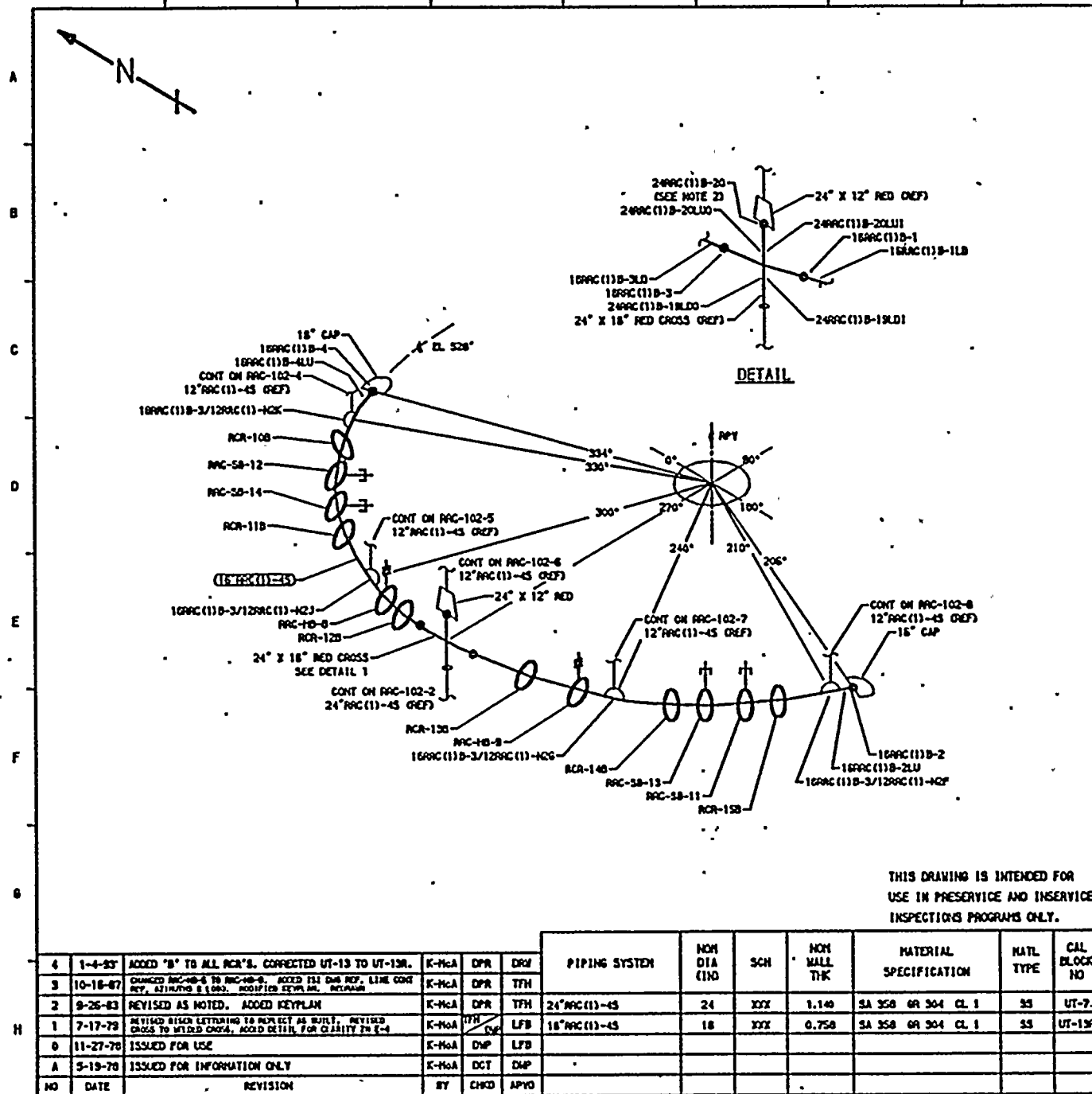
TITLE:  
REACTOR RECIRCULATION LOOP B

DWG NO. RRC-102-2 REV 5

S	12-9-82	ADDED "B" TO ALL RCR'S.	K-HCA	DPR	DR4	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
4	10-18-87	ADDED RRC-10-88, 1" CONN & CONT 11 RRC-Y-608. OUR RRC-HB-7 TO 3/4" RRC-10-88 & RRC-10-9 TO 3/4" RRC-10-88. RRC-10-88, RRC-10-9	K-HCA	DPR	TFH							
3	10-13-83	REVISED AS NOTED ADDED KEYPLAN	K-HCA	DPR	TFH							
2	11-5-80	REVISED AS NOTED	K-HCA	TFH	DMP	24" RRC(11)-45	24	3XX	SEE NOTE 10	SA 350 GR 304 CL 1	SS	UT-7
1	7-17-79	RELOCATED AZIMUTH ORIENTATION FOR CLAIRTY, IN A-7	K-HCA	TFH	DMP	4" RRC(8)-45	4	80	0.337	SA 312 TP 304	SS	UT-28
0	11-27-70	ISSUED FOR USE	K-HCA	TFH	DMP	CAP	12	80	0.098	SA 403 GR WP 304	SS	UT-19
A	5-19-70	ISSUED FOR INFORMATION ONLY	K-HCA	DCT	DMP	CAP	8	80	0.500	SA 403 GR WP 304	SS	UT-26
NO	DATE	REVISION	BY	CHKD	APVD							

THIS DRAWING IS INTENDED FOR  
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INSPECTIONS PROGRAMS ONLY.





# NOTES:

1. ACCESS TO WELDS 16RAC(11)-1 THRU 16RAC(11)-20 REQUIRES TEMPORARY SCAFFOLDING.
2. WELD 24RAC(11)-20 IS FITTING TO FITTING.
3. LONGITUDINAL WELDS ON CROSS LOCATED INBOARD & OUTBOARD IN RESPECT TO THE RPY, ARE LOCATED 90° FROM HEADER CONNECTIONS.

## REFERENCES:

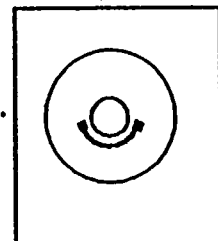
151 - 230-1

### GENERAL ELECTRIC DRAWINGS

761 E 424 REV 2  
762 E 530 SH 1 REV 3  
762 E 530 SH 2 REV 3  
761 E 735 REV 6  
131 E 7590 REV 1

BOYCE CRAIL / GERI  
BC/C-218 REV 8

90°



KEYPLAN

QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. D TIMMINS	DRAWN. K-HCA
DATE, 3-30-78	



WASHINGTON PUBLIC POWER

SUPPLY SYSTEM

RIOGLAND, WASHINGTON 99352

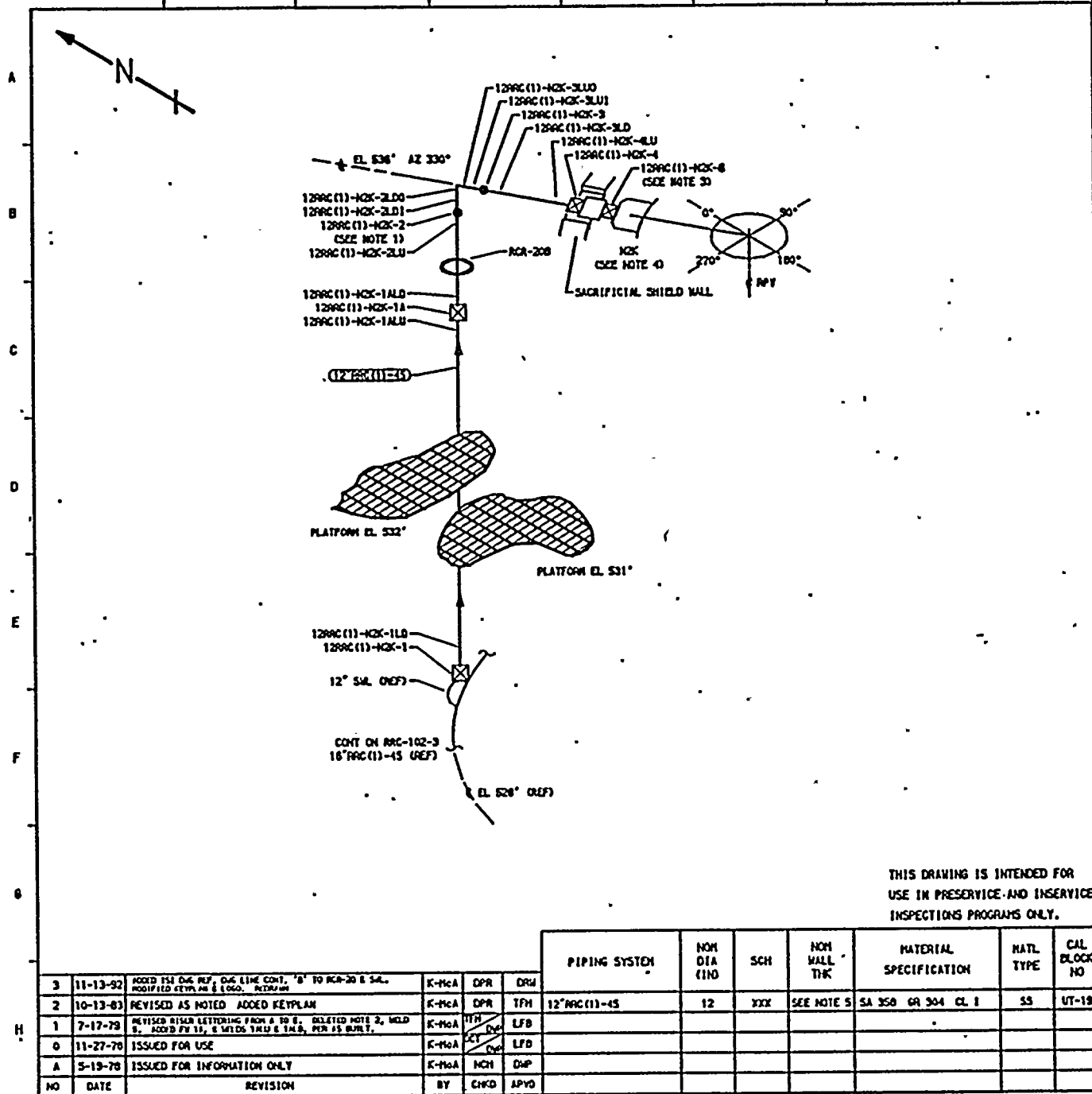
WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: REACTOR RECIRCULATION LOOP B

DWG NO. RRC-102-3

REV 4





#### NOTES

1. ACCESS TO WELD 12RRC(11)-H2H-2 REQUIRES REMOVAL OF RCR-208.
2. DELETED
3. WELD 12RRC(11)-H2H-8 UTILIZES CAL BLOCK UT-111.
4. FOR NOZZLE ASSEMBLY SEE RPY-108.
5. PIPING PURCHASED TO MIN WALL SPECIFICATION. MIN WALL 0.604\"/>

#### REFERENCES

ISI - 230-2

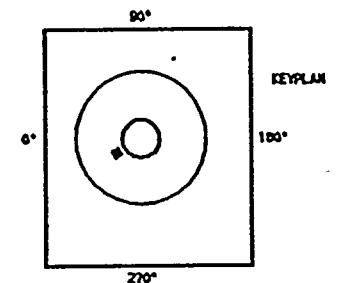
#### GENERAL ELECTRIC DRAWINGS

761 E 424 REV 2  
762 E 538 SH 1 REV 3  
762 E 538 SH 2 REV 3  
761 E 735 REV 8

#### COI NUCLEAR CO.

S2, REV 12, H2 NOZZLE ASSEMBLY

BOYCE CRAIL / COI  
BC/G-218 REV 7



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. D TIMMINS	DRAWN. K-MCA DATE. 3-31-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RITCHLAND, WASHINGTON 98362

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: REACTOR RECIRCULATION LOOP B

DWG NO. RRC-102-4

REV 3

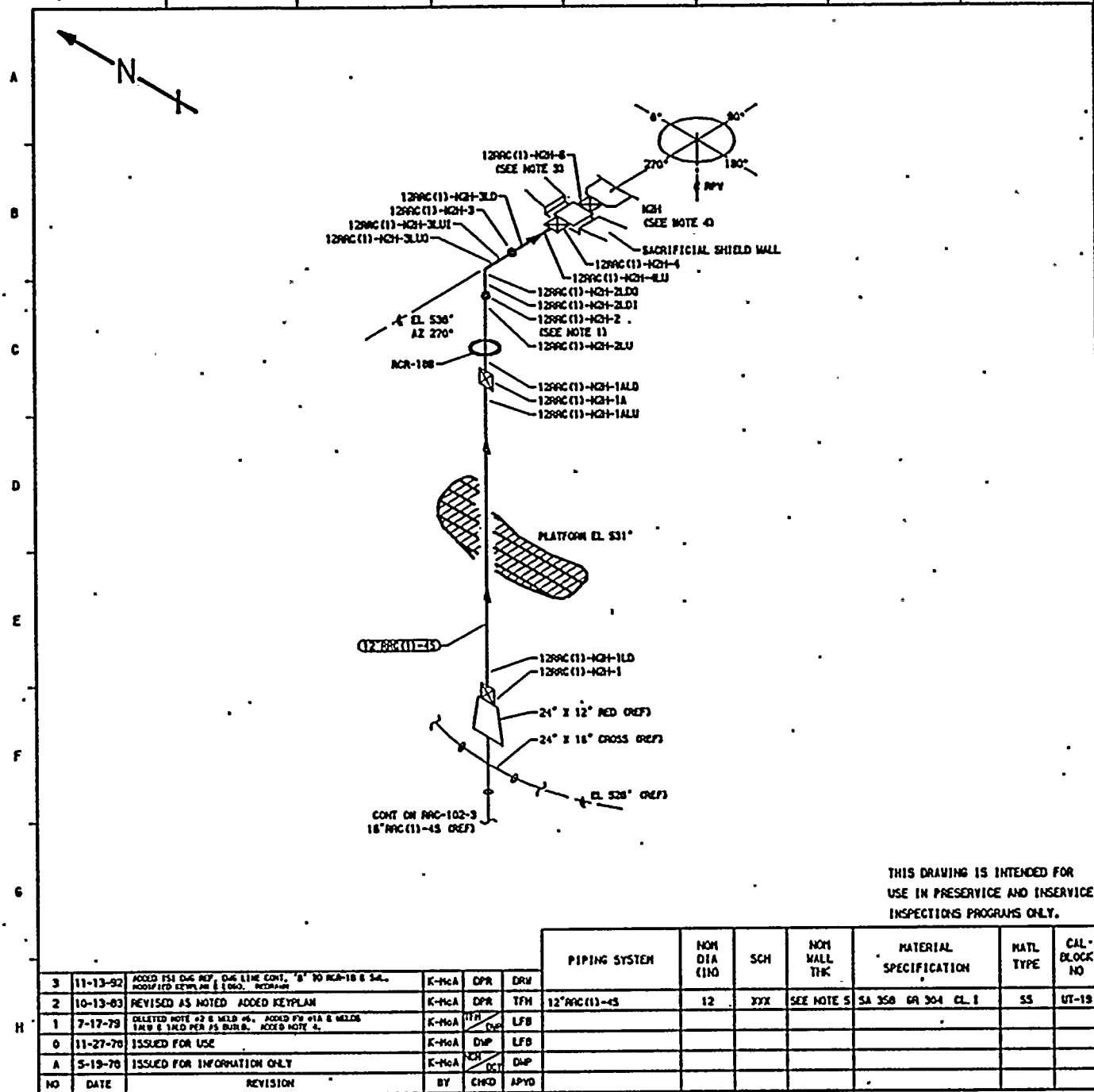
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.











# NOTES

1. ACCESS TO WELD 12\"/>

# REFERENCES

ISI - 230-2

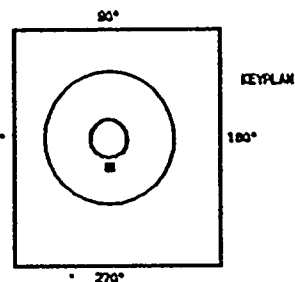
## GENERAL ELECTRIC DRAWINGS

761 E 424 REV 2  
 762 E 538 SH 1 REV 3  
 762 E 538 SH 2 REV 3  
 761 E 735 REV 6

## COT NUCLEAR CO.

S2, REV 12, K2 NOZZLE ASSEMBLY

BOYCE CRAIL / GORI  
 DC/6-218 REV 7



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. D TIMMINS	DATE, 3-31-78



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

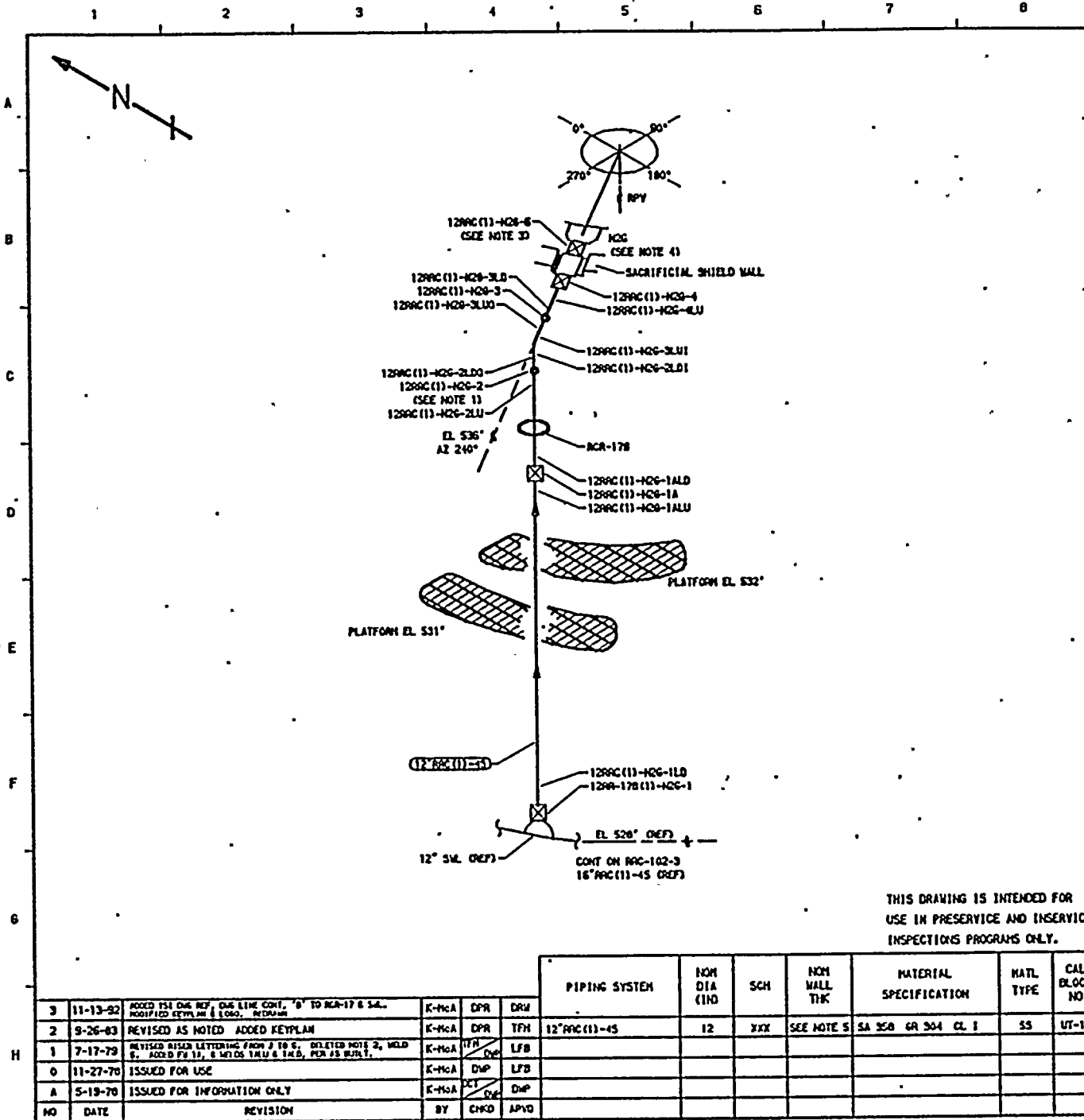
MP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: REACTOR RECIRCULATION LOOP B

DWG NO. RRC-102-B

REV 3





# NOTES:

1. ACCESS TO WELD 12RRC(11)-H28-2 REQUIRES REMOVAL OF RCR-178.
2. DELETED
3. WELD 12RRC(11)-H28-6 UTILIZES CAL BLOCK UT-111.
4. FOR NOZZLE ASSEMBLY SEE RPY-108.
5. PIPING PURCHASED TO MIN WALL SPECIFICATION, MIN WALL 0.604".

## REFERENCES:

151 - 220-2

GENERAL ELECTRIC DRAWINGS

761 E 424 REV 2

762 E 530 SH 1 REV 3

762 E 536 SH 2 REV 3

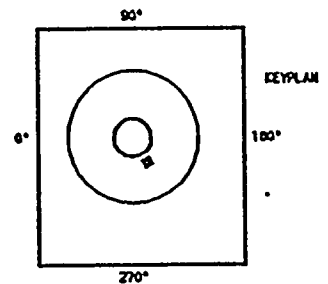
761 E 735 REV 6

CGI NUCLEAR CO.

S2, REV 12, H2 NOZZLE ASSEMBLY

BOYCE CRAIL / 6CRI

BC/G-218 REV 7



QUALITY CLASS. 1	ASME CODE CLASS. 1
ENGR. D TIMING	DRAWN. K-MCA DATE. 3-31-78



WASHINGTON PUBLIC POWER

SUPPLY SYSTEM

RIEHLAND, WASHINGTON 98352

H2P-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: REACTOR RECIRCULATION LOOP B

DWG NO. RRC-102-7

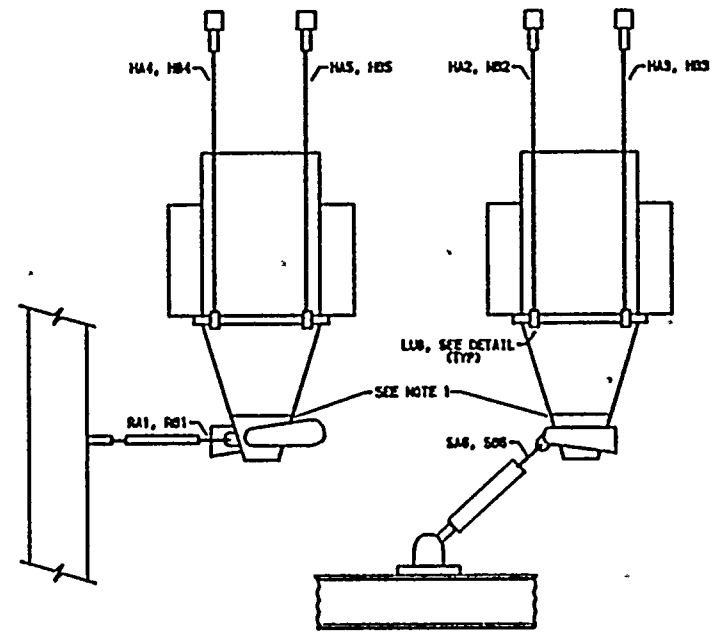
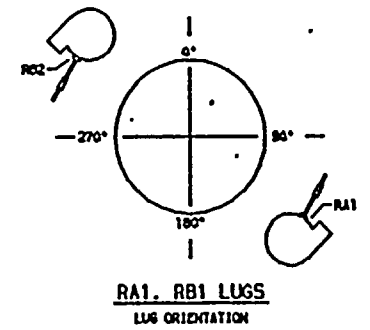
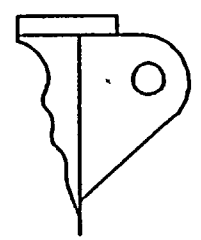
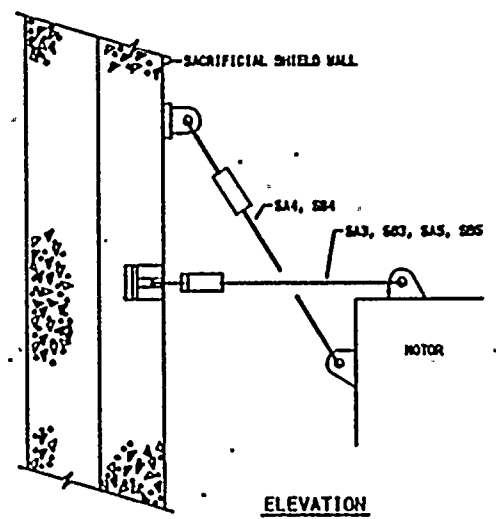
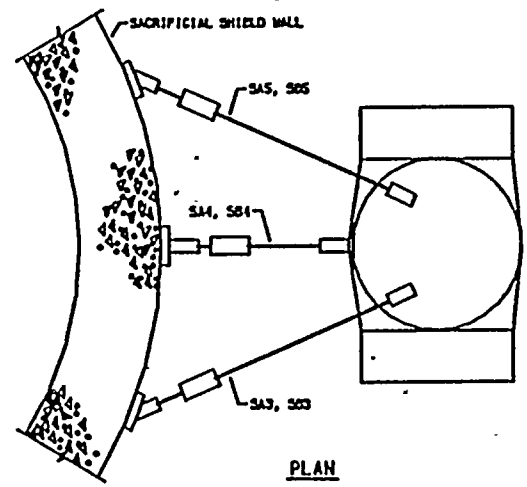
REV 3







A  
B  
C  
D  
E  
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G  
H



RRC-P-1A OR RRC-P-1B

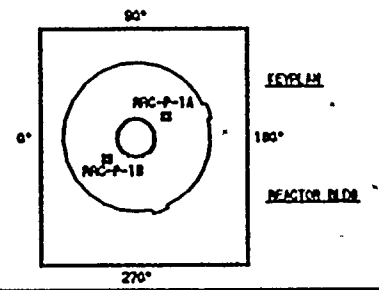
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NOTES

1. EACH PUMP HAS SIXTEEN (16) 3/4" X 23 5/8" BOLTS CONNECTING THE CASING TO SEAL AREAS.
2. OBSERVE RAC PUMP SEAL SUPPLY LINES DURING HYDRO.

REFERENCES

GENERAL ELECTRIC DRAWINGS  
731 E 724  
731 E 724P  
762 E 538



QUALITY CLASS.	1	ASME CODE CLASS.	1
ENGR. D TIMMINS	DRAWN. K-MCA	DATE.	7-13-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

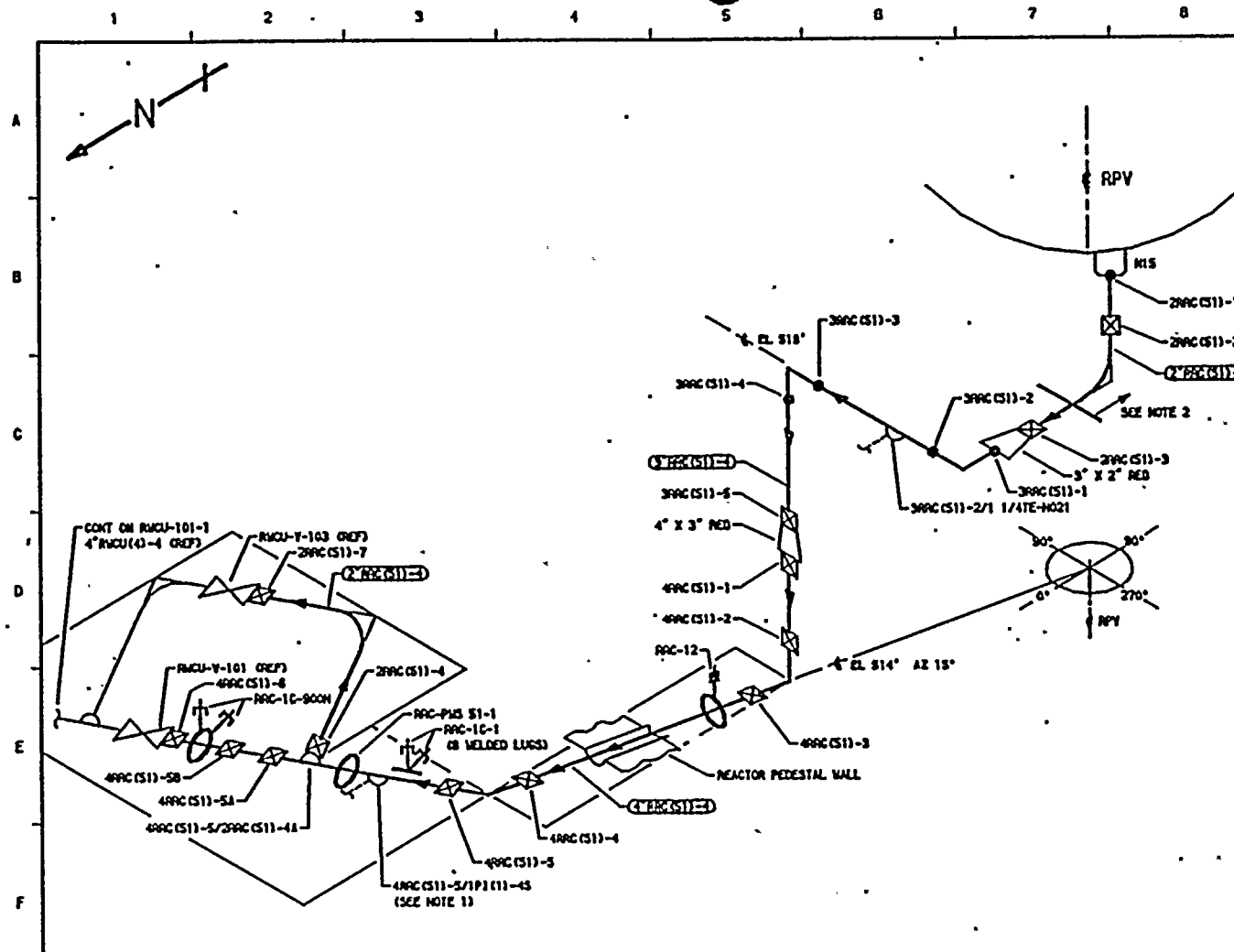
TITLE:  
RRC-P-1A & RRC-P-1B SUPPORTS

DWG NO. RRC-103 REV 2

						PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL CLOCK NO
2	11-13-92	ADDED KEYPLAN & LOGO	K-MCA	DPR	DRW	RRC PUMPS	3 1/4	-	-	SA 193 OR B-7	C5	UT-41
1	1-24-85	ADDED LUG ORIENTATION DETAIL	K-MCA	DPR	TTH							
0	11-27-78	ISSUED FOR USE	K-MCA	DWP	LFB							
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-MCA	DT	DWP							
NO	DATE	REVISION	BY	CHKD	APVD							

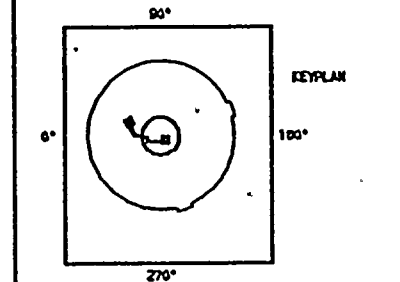






- NOTES:**
1. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT PENETRATION (X-700) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
  2. INACCESSIBLE DUE TO GRO HOUSINGS.
  3. RRC-1C-2, RRC-1C-3 & RRC-1C-4 WERE DELETED PER DOC-06-525-2A.
  4. WELDS 4RRC(S11)-5A & 4RRC(S11)-5B WERE ADDED DURING R-4 OUTAGE WHEN 2" RRC(S11)-4 WAS REMOVED FROM 4" RRC(S11)-4.

- REFERENCES:**
- ISI - 230-3
  - BOYCE & CRILL ISOMETRICS
  - RRC-904-1.3 REV 15
  - RRC-1818-2 REV 10
  - RRC-3003-1 REV 6
  - CS1 NUCLEAR CO
  - 87, REV 6 M15 DRAIN NOZZLE



QUALITY CLASS: 1 ASME CODE CLASS: 1  
 ENGR: D TIMMINS DRAWN: K-MCA DATE: 8-22-78

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98352

WFP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: RPV DRAIN TO RWCU & DRYWELL SUMP

DWG NO: RRC-104 REV 5

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

NO.	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
5	2-20-82	ADDED NOTE 4. MODIFIED DWG ACCORDINGLY.	K-MCA	OJ	DPR							
4	5-14-80	ADDED NOTE 3. MODIFIED RRC-1C-1 & RRC-1C-300H.	K-MCA	OJ	TFH							
3	10-16-87	ADDED SUBMER RRC-1C-300H IN E-2, 151 DWG REF. LINE CONT DWG 8 (048). MODIFIED KEYPLAN. ACDU-10	K-MCA	DPR	TFH							
2	12-2-83	GENERAL UP-DATE REDRAWN	K-MCA	DPR	TFH	2" RRC(S11)-4	2	160	0.343	SA 106 GR B	CS	NA
1	11-5-80	REVISED AS NOTED	K-MCA	TFH	DMP	3" RRC(S11)-4	3	160	0.436	SA 106 GR B	CS	NA
0	12-22-78	ISSUED FOR USE	K-MCA	TFH	LFB	4" RRC(S11)-4	4	80	0.537	SA 106 GR B	CS	UT-30
A	8-19-78	ISSUED FOR INFORMATION ONLY	K-MCA	DT	DMP							





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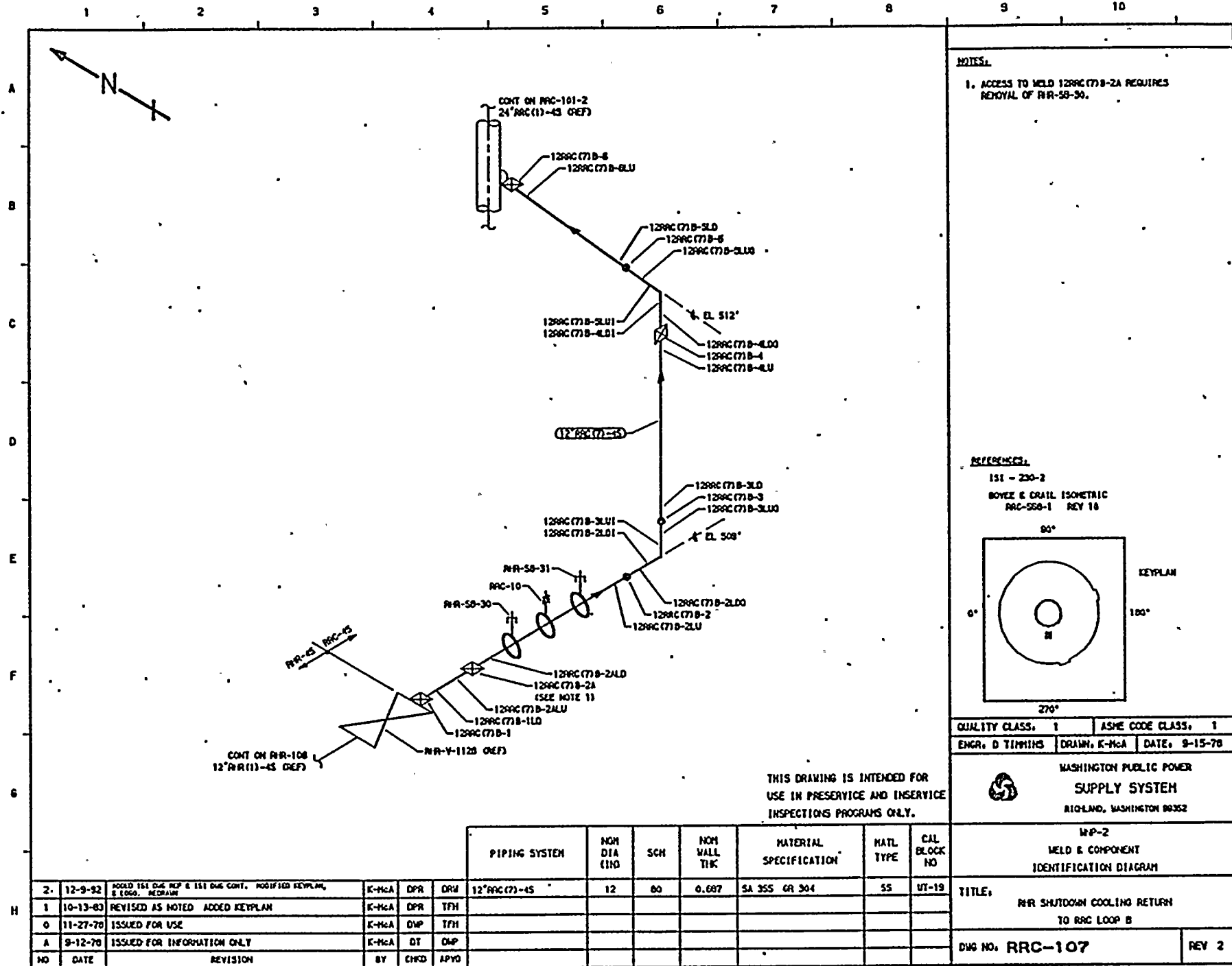
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SECRET





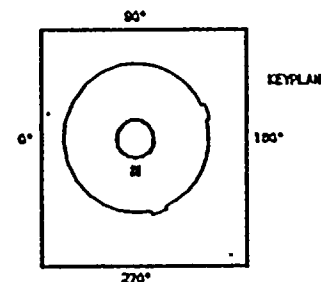


# NOTES:

1. ACCESS TO WELD 12RRC(7)B-2A REQUIRES REMOVAL OF RIR-58-30.

# REFERENCES:

ISI - 230-2  
BOYCE & CRILL ISOMETRIC  
RRC-558-1 REV 18



QUALITY CLASS. 1 ASME CODE CLASS. 1  
ENGR. D TIMPINS DRAWN. K-McA DATE. 9-15-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
BIO-LAND, WASHINGTON 98052

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RIR SHUTDOWN COOLING RETURN  
TO RRC LOOP B

DWG NO. RRC-107

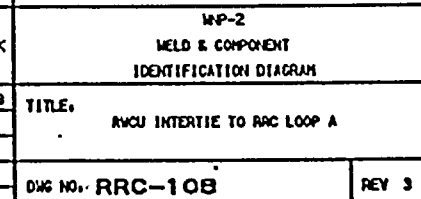
REV 2

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

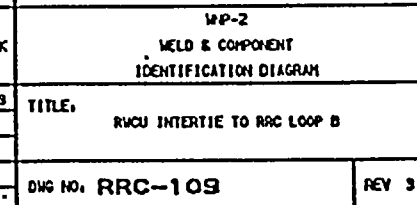
NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2.	12-9-82	ADDED ISI DUE REF & ISI DUE CONT. MODIFIED KEYPLAN, & ISSUED. RECDRAW	K-McA	DPR	DRW	12"RRC(7)-4S	12	60	0.687	SA 355 OR 304	SS	UT-19
1	10-13-83	REVISED AS NOTED ADDED KEYPLAN	K-McA	DPR	TFH							
0	11-27-78	ISSUED FOR USE	K-McA	DWP	TFH							
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-McA	DT	DWP							

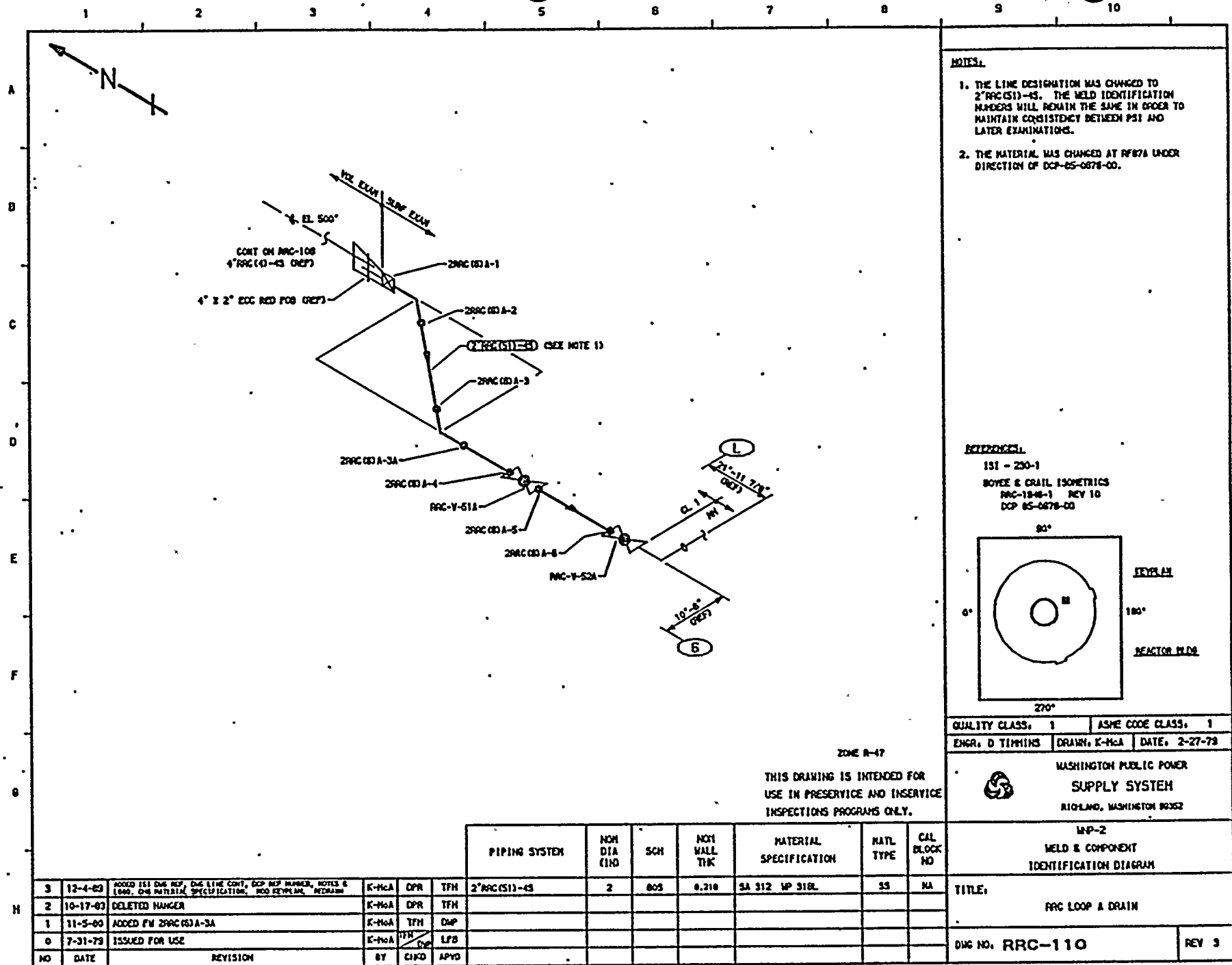




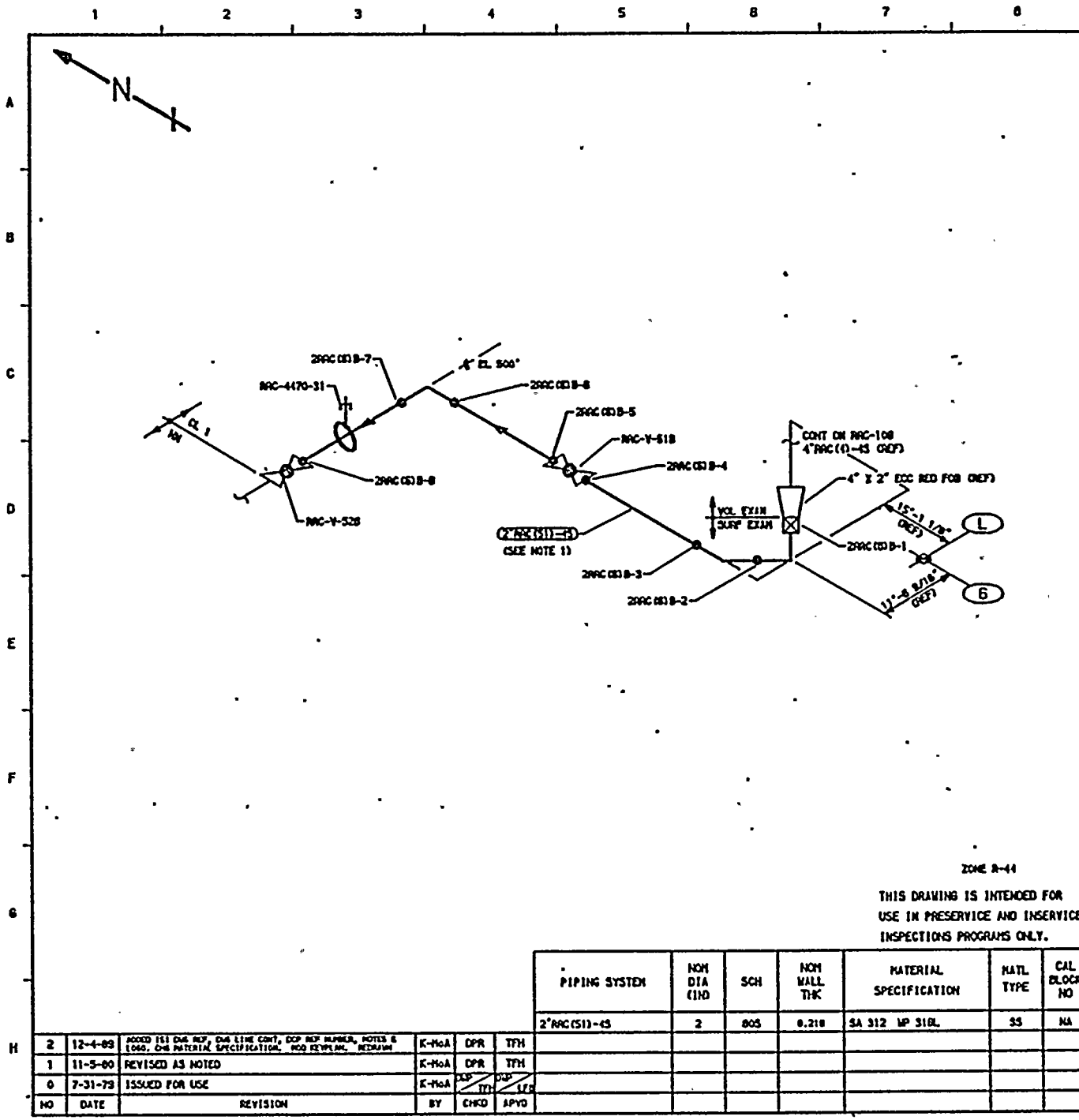










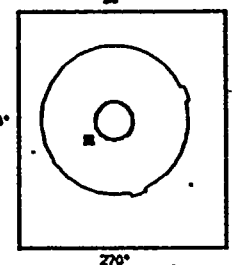


**NOTES:**

1. THE LINE DESIGNATION WAS CHANGED TO 2"RRC(S1)-45. THE WELD IDENTIFICATION NUMBERS WILL REMAIN THE SAME IN ORDER TO MAINTAIN CONSISTENCY BETWEEN PSI AND LATER EXAMINATIONS.
2. THE MATERIAL WAS CHANGED AT REF7A UNDER DIRECTION OF DCP-85-0878-00.


**REFERENCES:**

ISI - 230-2  
 BOYCE & CRAIG ISOMETRICS  
 RRC-4470-3 REV B  
 DCP 85-0878-00



ZONE B-44

THIS DRAWING IS INTENDED FOR  
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 INSPECTIONS PROGRAMS ONLY.

QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR. D TIMMINS	DATE, 2-27-79
 WASHINGTON PUBLIC POWER SUPPLY SYSTEM RIDELAND, WASHINGTON 98352	
WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: RRC LOOP B DRAIN	
DWG NO. RRC-111	REV 2

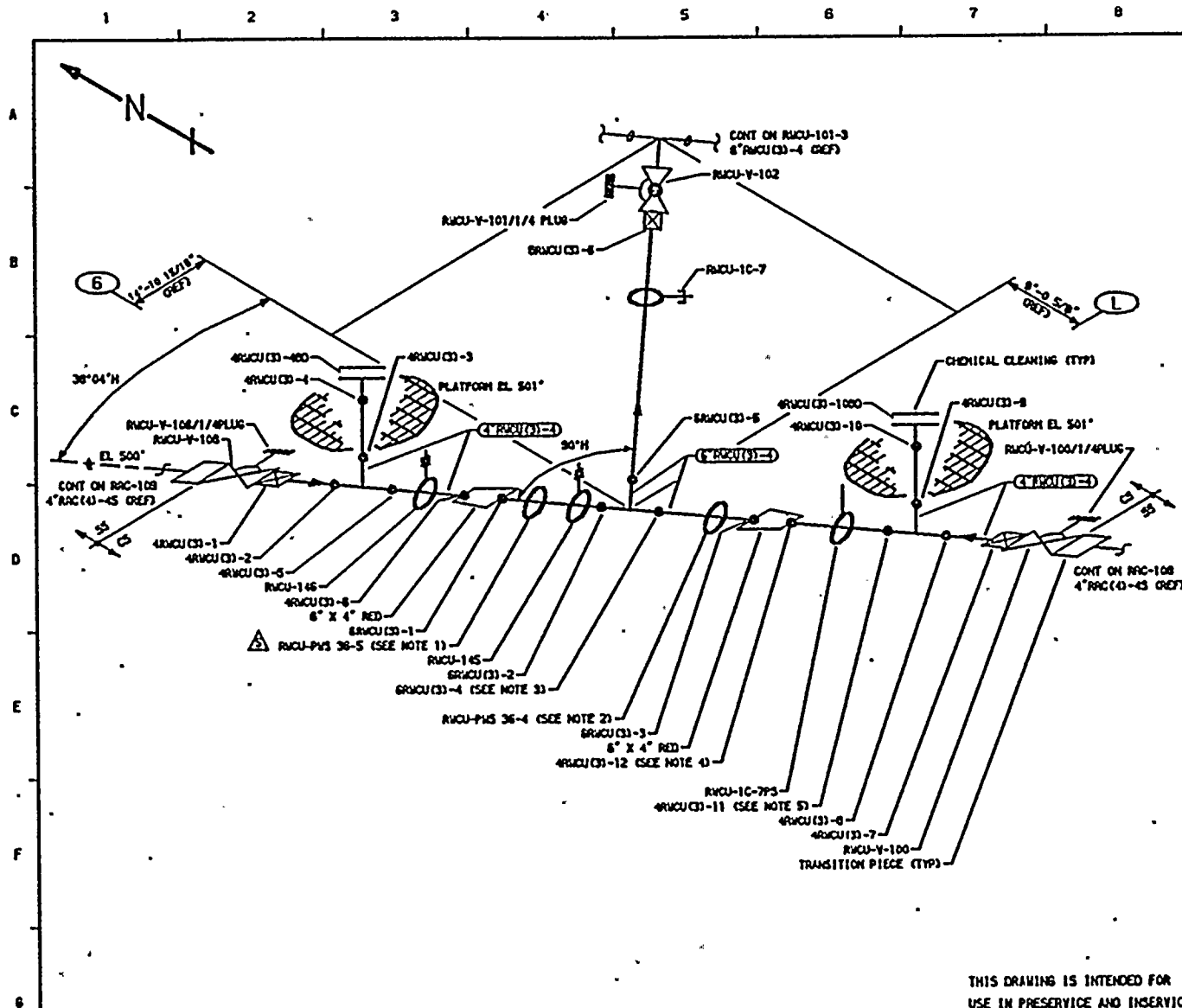
				PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO
				2"RRC(S1)-45	2	80S	0.218	SA 312 WP 316L	SS	NA
2	12-4-89	ADDED ISI ONE REF, ONE LINE CONT, DCP REF NUMBER, NOTES B (060, ONE MATERIAL SPECIFICATION, ADD KEYPLAN, INTRUDER)	K-MGA DPR TTH							
1	11-5-80	REVISED AS NOTED	K-MGA DPR TTH							
0	7-31-79	ISSUED FOR USE	K-MGA DPR TTH							
NO	DATE	REVISION	BY CHKD APVD							









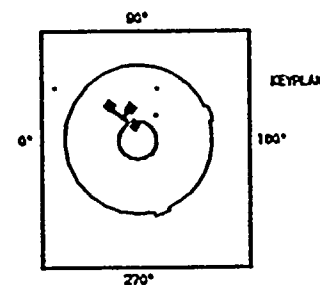


# NOTES

1. ACCESS TO WELD BRUCU(C3)-1 REQUIRES REMOVAL OF RUCU-PHS 36-5.
2. ACCESS TO WELD BRUCU(C3)-3 REQUIRES REMOVAL OF RUCU-PHS 36-4.
3. ACCESS TO WELD BRUCU(C3)-4 REQUIRES REMOVAL OF RUCU-1C-11.
4. ACCESS TO WELD BRUCU(C3)-12 REQUIRES REMOVAL OF RUCU-1C-12.
5. ACCESS TO WELD BRUCU(C3)-11 REQUIRES REMOVAL OF RUCU-1C-7PS.
6. RUCU-1C-11 & RUCU-1C-12 WERE DELETED PER DOC-00-252-2A.

## REFERENCES

ISI - 223-1  
BOYCE & CRILL ISOMETRIC  
RUCU-012-1 REV 8



QUALITY CLASS: 1 ASME CODE CLASS: 1  
ENGR: GA KUGLER DRAWN: K-MCA DATE: 8-23-78

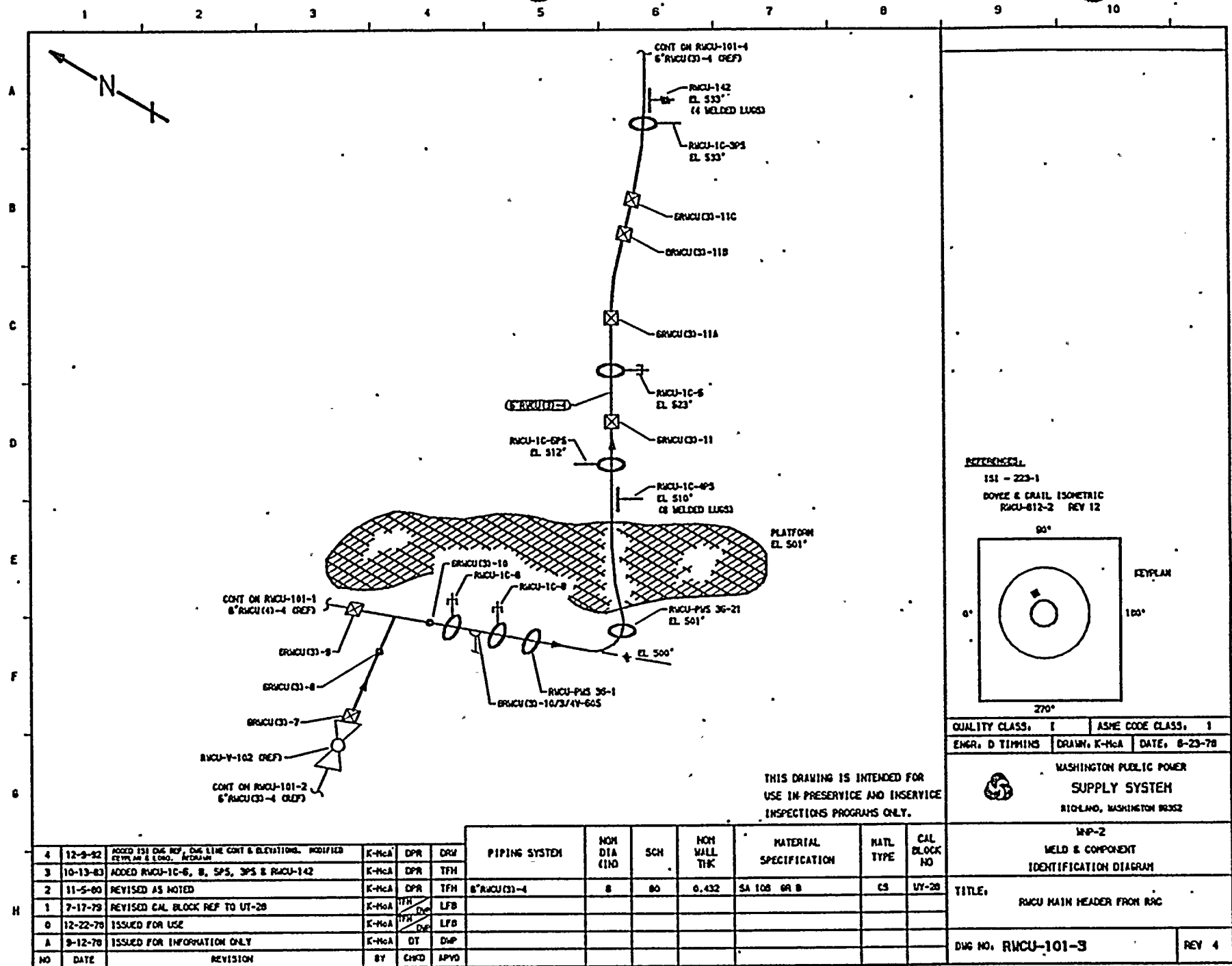


WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

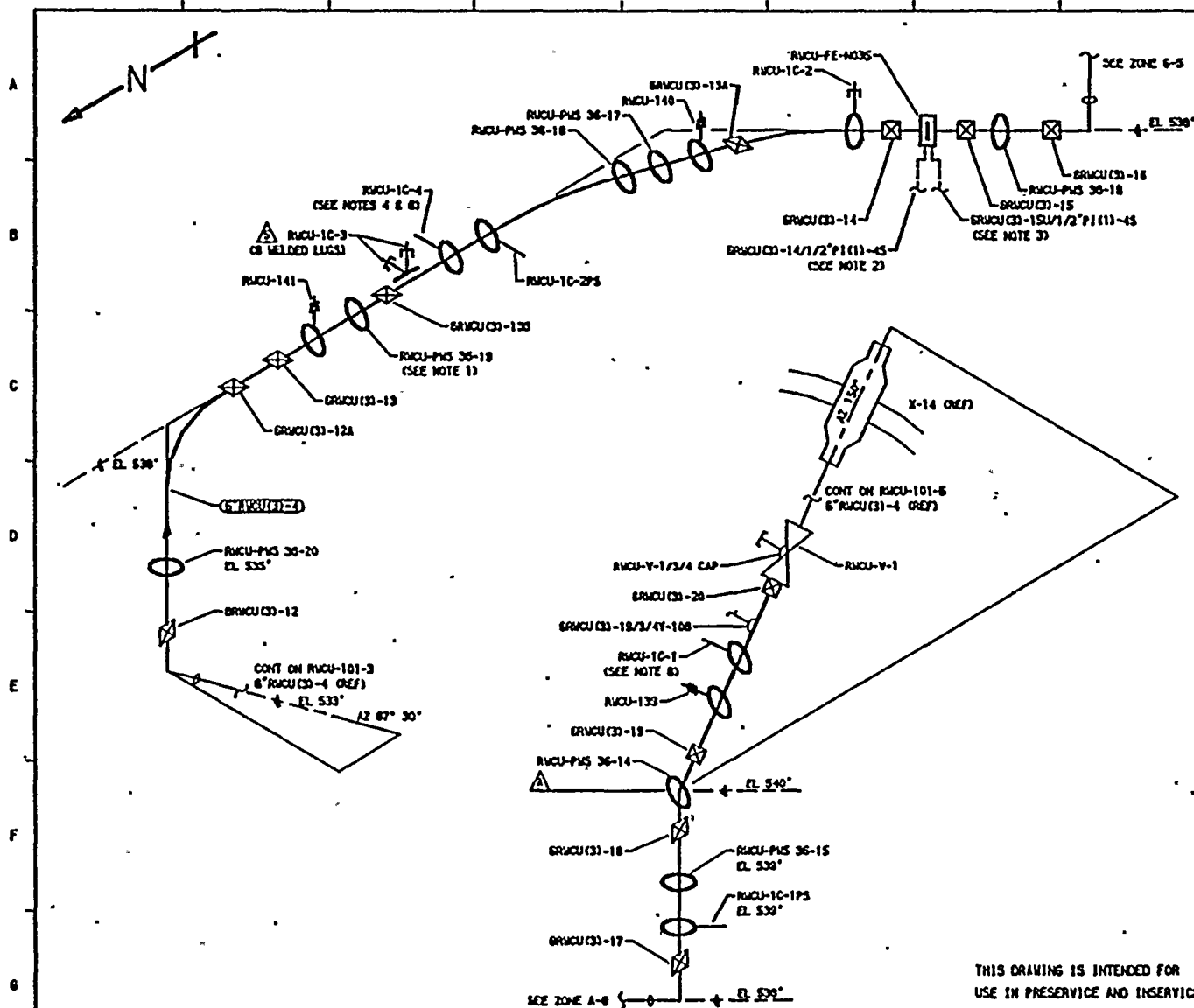
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
5	2-20-82	CORRECTED RUCU-PHS 36-5 TAG IN E-3	K-MCA	OJ	DPR							
4	12-4-83	ADDED ISI DIA REF, DIA LINE CONT, NOTE B & LOGO. REVISED KEYPLAN. INFRAM	K-MCA	OJ	TFH							
3	10-16-87	ADDED RUCU-1C-11, 12, 7PS, RUCU-145, 146, NOTES 3-6.	K-MCA	DPR	TFH							
2	12-2-81	REVISED AS NOTED	K-MCA	DPR	TFH	4"RUCU(C3)-4	4	80	0.337	SA 106 GR B	CS	UT-30
1	7-17-79	REVISED CAL BLOCK REF TO UT-28, 30	K-MCA	TFH	LFB	6"RUCU(C3)-4	6	80	0.432	SA 106 GR B	CS	UT-28
0	12-22-70	ISSUED FOR USE	K-MCA	TFH	LFB							
A	8-23-78	ISSUED FOR INFORMATION ONLY	K-MCA	DT	DAP							
NO	DATE	REVISION	BY	CHKD	APVD							

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM  
TITLE: RUC LOOP SUPPLIES TO RUCU  
Dwg NO. RUCU-101-2 REV 5





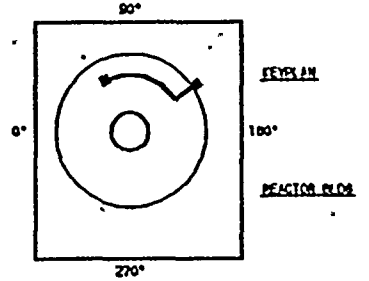


# NOTES:

1. ACCESS TO WELD BRWCU(3)-130 REQUIRES REMOVAL OF RUCU-PHS 36-18.
2. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT PENETRATION (X-794) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
3. EXTEND LEAKAGE EXAM THROUGH CONTAINMENT PENETRATION (X-796) THROUGH EXCESS FLOW CHECK VALVE TO INSTRUMENT TUBING CONNECTION.
4. FOUR LUGS WERE LEFT NEAR RUCU-10-4. TWO MORE GROUND 1/8" FROM PIPE AND TWO MORE LEFT AS IS. NO EXAMINATION IS REQUIRED.
5. ACCESS TO WELD BRWCU(3)-18 REQUIRES REMOVAL OF RUCU-PHS 36-15.
6. RUCU-10-1 & RUCU-10-4 WERE CHANGED FROM SHOULDER TO STRUT PER DOC-88-525-2A.

## REFERENCES:

151 - 223-1  
BOYCE & CRAIG ISOMETRIC  
RUCU-812-3.7 REV B



QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR, D TIMMINS	DATE, 8-28-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
BIOLAND, WASHINGTON 98032

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO
5	5-14-80	ADDED DUE TO CONT. NOTE 8, 8 (1000). MODIFIED NOTES 1 & 2. SEE NOTE 8 (11) FOR REZ. END REMOVED PER NOTE 8. REPAIRING	K-HCA	DJ	TFH							
4	9-28-83	ADDED SUPPORTS, CHANGED FE-HO-35 TO NON-WELDED, DELETED BRWCU(3)-140, ADDED NOTES 4 AND 5. REPAIRING	K-HCA	DPR	TFH							
3	12-2-81	AUGMENTED (5) ADDED	K-HCA	DPR	TFH							
2	11-5-80	ADDED FIELD WELD 138 AND AS NOTED	K-HCA	TFH	DPR	8" RUCU(3)-4	8	80	0.432	SA 106 GR B	CS	UT-28
1	7-17-79	CHANGED CAL. BLOCK FROM UT-27 TO UT-28, WELDS 16, 17, 18 & 19 TO FIELD WELDS. ADDED FIELD WELDS 124 & 134.	K-HCA	TFH	DPR							
0	12-22-78	ISSUED FOR USE	K-HCA	TFH	DPR							
A	9-12-78	ISSUED FOR INFORMATION ONLY	K-HCA	DT	DPR							

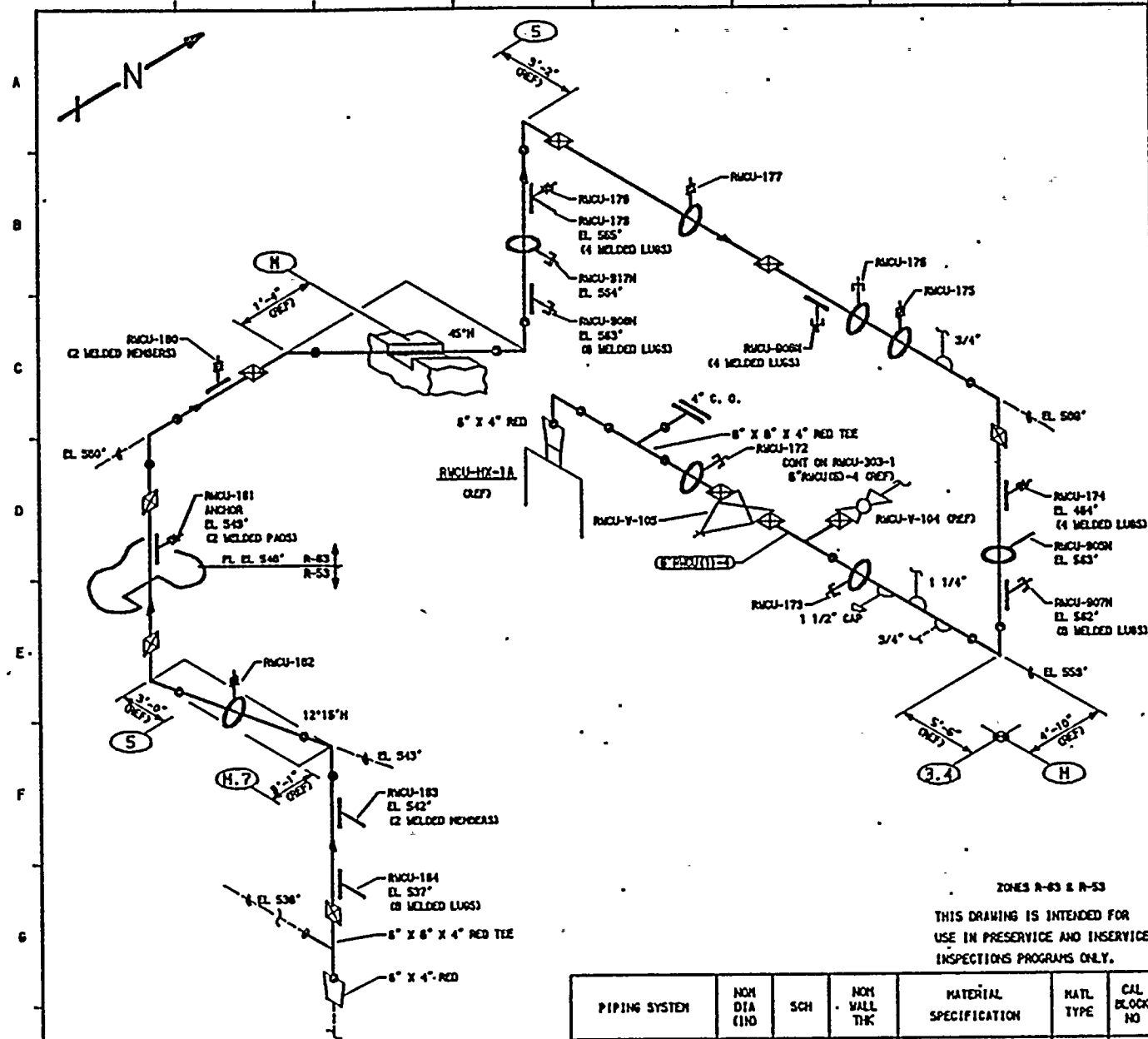
WPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE: RUCU MAIN HEADER FROM RUC
DWG NO. RUCU-101-4
REV 5









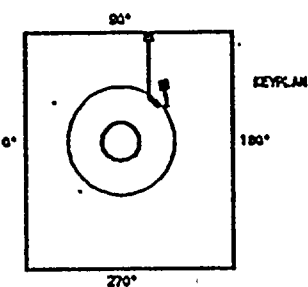


# NOTES

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPEN-ABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 11A-5000 AND 11A-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS CONNECTION SHOWN IN DASHED LINES EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

# REFERENCES

- ISI - 223-1  
 BOWE & CHAIL ISOMETRIC  
 RWCU-034-14.21 REV 8  
 SUPPLY SYSTEM ISOMETRIC  
 RWCU-084-8.13 REV 4



QUALITY CLASS, 11	ASME CODE CLASS, 3
ENGR. K-MCANDREW	DATE: 5-7-79



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RIGLAND, WASHINGTON 98352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 RWCU-P-1A & 1B DISCHARGE TO RHR-1X-1A

DWG NO. RWCU-302

REV 2

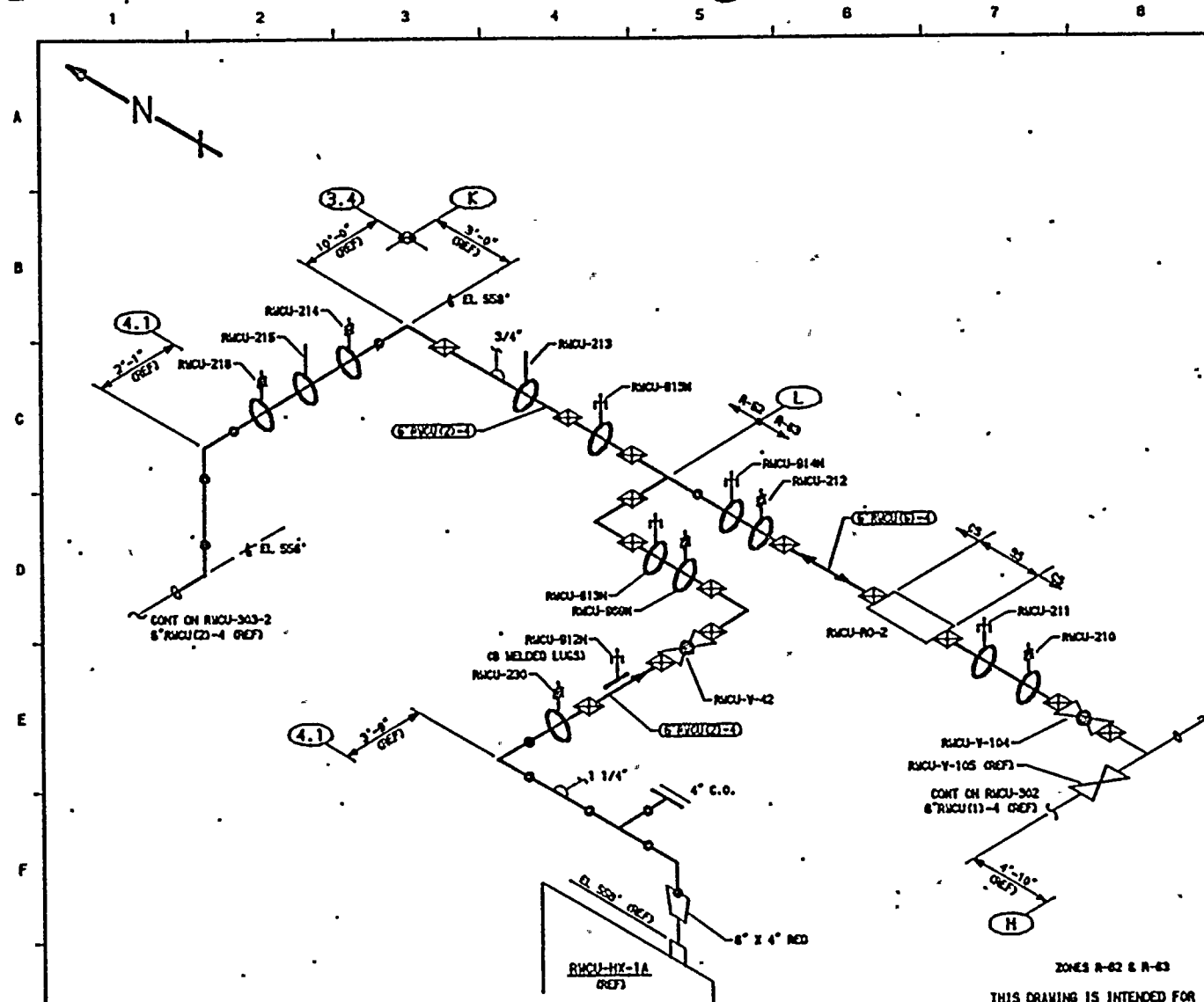
ZONES R-63 & R-53

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 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (110)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
6" RWCU(11)-4	8	80	0.432	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
2	12-8-82	ADDED 131 ONE RWP & ELEVATIONS. CONNECTED COLUMN LINE & REF DIA. MODIFIED KEYPLAN & LOGO. REDRAWN	K-MCA	DPR	DRJ
1	12-14-83	REVISED AS NOTED ADDED KEYPLAN	K-MCA	DPR	TPH
0	12-2-81	ISSUED FOR USE.	K-MCA	DPR	TPH



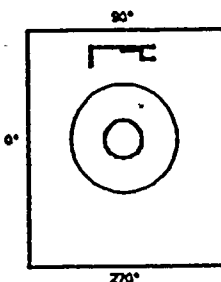


# NOTES:

- THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 1WA-5000 AND 1WD-2000.
- FOR BRANCH PIPING 4" NOM. OR LESS CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

131 - 223-1  
BOYCE & CRAIG ISOMETRIC  
RMCU-805-1.7 REV B



KEYPLAN

QUALITY CLASS, 11 ASME CODE CLASS, 3  
ENGR. K-McANDREW DRAWN, K-McA DATE, 8-25-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RMCU-HX-1A RETURN TO RFM

DWG NO. RMCU-303-1

REV 2

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8" RMCU(13)-4	8	80	0.432	SA 106 GR B	CS	NA
8" RMCU(21)-4	8	80	0.432	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
2	12-9-82	ADDED ISI DWG REF, DWG LINE CONT & LOGO, MOD KEYPLAN	K-McA	DPR	DRW
1	1-24-84	GENERAL UPDATE REDRAWN	K-McA	DPR	TTH
0	12-2-81	ISSUED FOR USE	K-McA	DPR	TTH







PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CALC BLOC NO
8" KCU (2) - 4	8	80	0.432	SA 106 GR B	C3	UT-2

2	12-8-82	ADDED 151 OAS MAP & DOW LINE CORRECTION, MODIFIED KEYPLAN & LEGAL, CORRECTED STATION AND CHAIN BEARS, COLUMN LINE REFERENCE & DIMENSIONS, IN DRAIN	K-McA	DPR	DRW
1	12-2-83	REVISED RAGU-220 ADDED RAGU-228 & KEYPLAN	K-McA	DPR	TPH
0	12-2-81	ISSUED FOR USE	K-McA	DPR	TPH
NO	DATE	REVISION	BY	CHKD	APVD



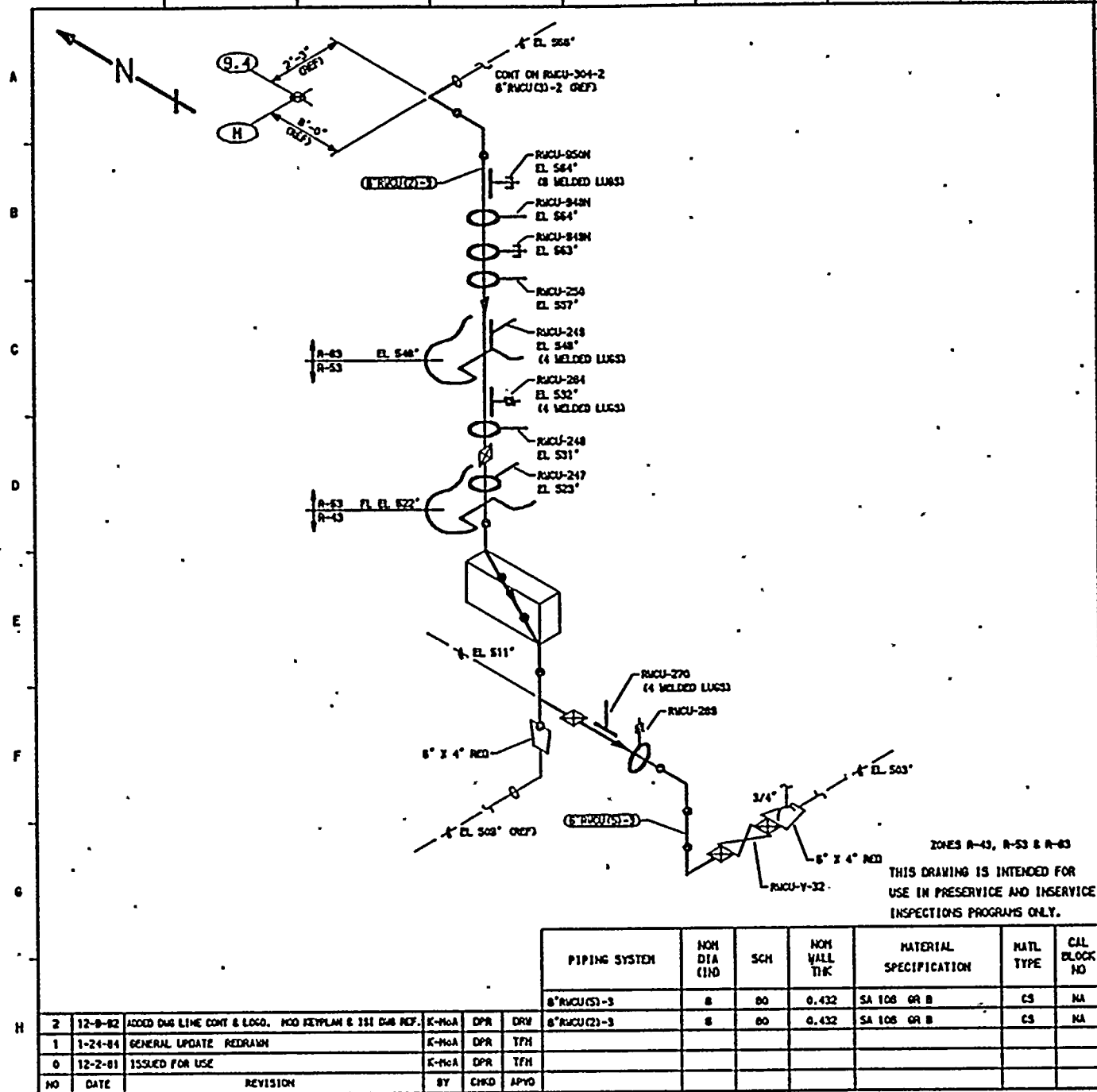
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RUCU-IX-1A RETURN TO RFM

DWG NO. RYCU-303-3

REV 2

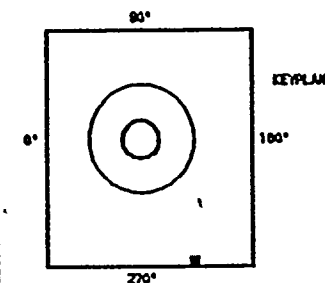


# NOTES

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IMA-5000 AND IMA-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES

ISI - 223-2  
BOYLE & CHIL ISOMETRICS  
RUCU-030- 1.4 REV 8  
RUCU-270-22.24 REV 8



QUALITY CLASS, 11	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRWN, K-McA DATE, 6-28-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

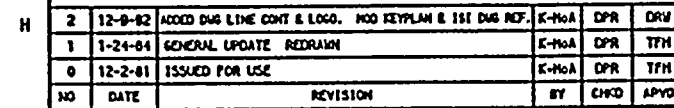
TITLE:  
RUCU DISCHARGE FROM RUCU-DH-1A & 1B

DWG NO. RUCU-304-1

REV 2





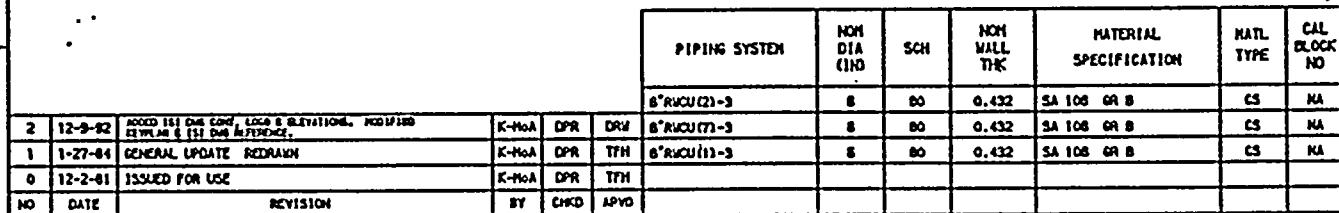


THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CALC BLOC NO
6" RMCU (2)-3	6	60	0.432	SA 106 GR B	CS	NA

REV 2

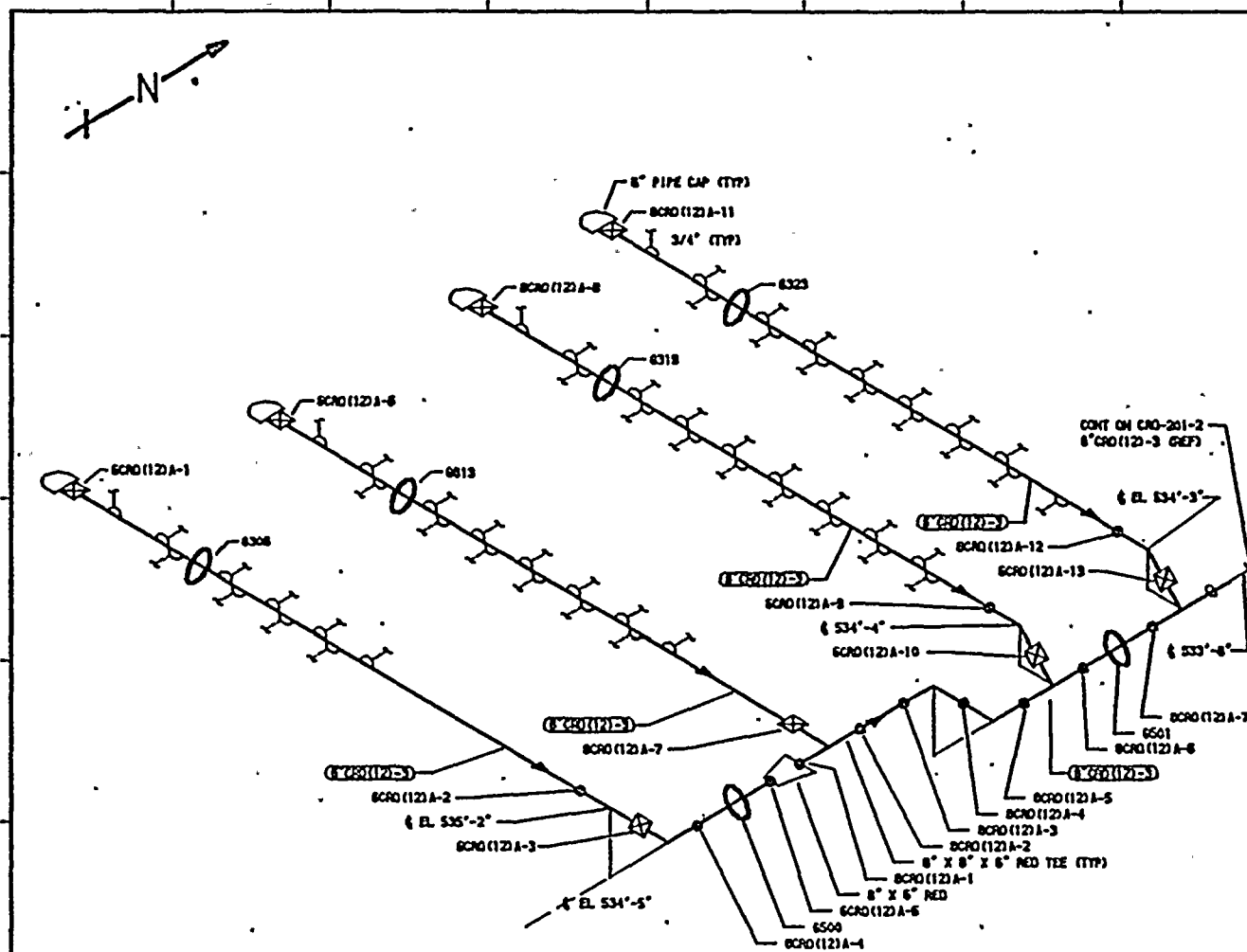












# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 11A-5000.
2. FOR BRANCH PIPING 4\"/>

# REFERENCES:

ISI - 228

# GENERAL ELECTRIC DWGS

SK-201-75C-02 SH 22 REV 0  
SK-201-75C-02 SH 29 REV 0  
SK-201-75C-02 SH 30 REV 0  
SK-201-75C-02 SH 31 REV 0  
SK-201-75C-02 SH 32 REV 0

QUALITY CLASS. 1 ASME CODE CLASS. 2  
ENGR. K-McANDREW DRAWN. K-McA DATE. 12-23-82



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8"CRG(12)-3	8	80	0.500	SA 108 GR B	CS	NA
8"CRG(12)-3	8	80	0.432	SA 108 GR B	CS	NA

1	11-13-82	ADDED LOGO	K-McA	DPR	DRW
0	1-17-83	ISSUED FOR USE	K-McA	DPR	TFH
NO	DATE	REVISION	BY	CHKD	APVD

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

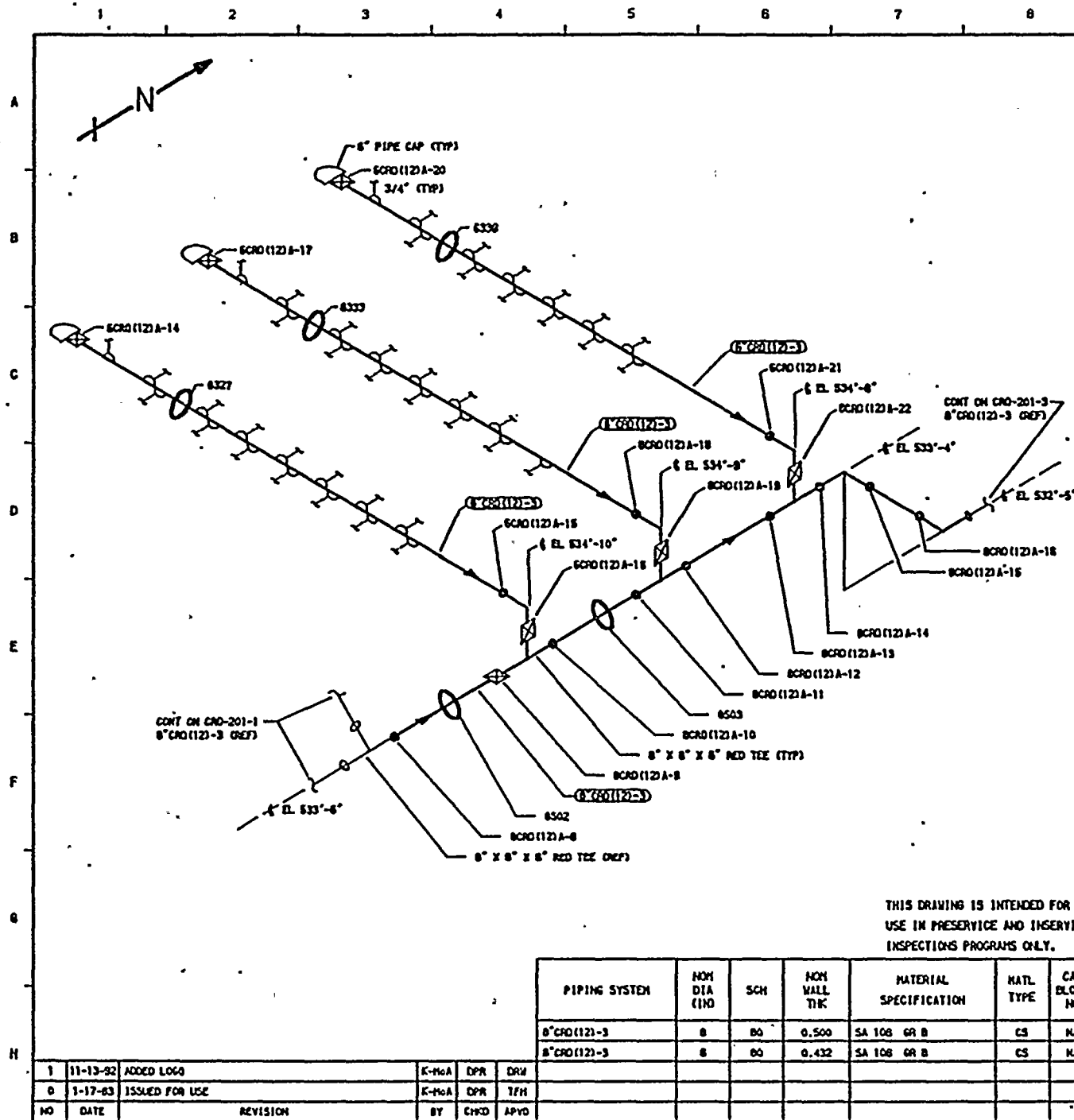
TITLE:  
CONTROL ROD DRIVE SYSTEM,  
SCRAM DISCHARGE HEADER A

DWG NO. CRD-201-1

REV 1







# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 11A-5008.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

151 - 228

### GENERAL ELECTRIC DATA

SK-X01-75C-02 SH 22 REV 0  
SK-X01-75C-02 SH 23 REV 0  
SK-X01-75C-02 SH 33 REV 0  
SK-X01-75C-02 SH 34 REV 0  
SK-X01-75C-02 SH 36 REV 0

QUALITY CLASS. 1 ASME CODE CLASS. 2

ENGR. K-MANDREX DRAWN. K-McA DATE. 12-23-82



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
CONTROL ROD DRIVE SYSTEM  
SCRAM DISCHARGE HEADER A

DWG NO. CRD-201-2

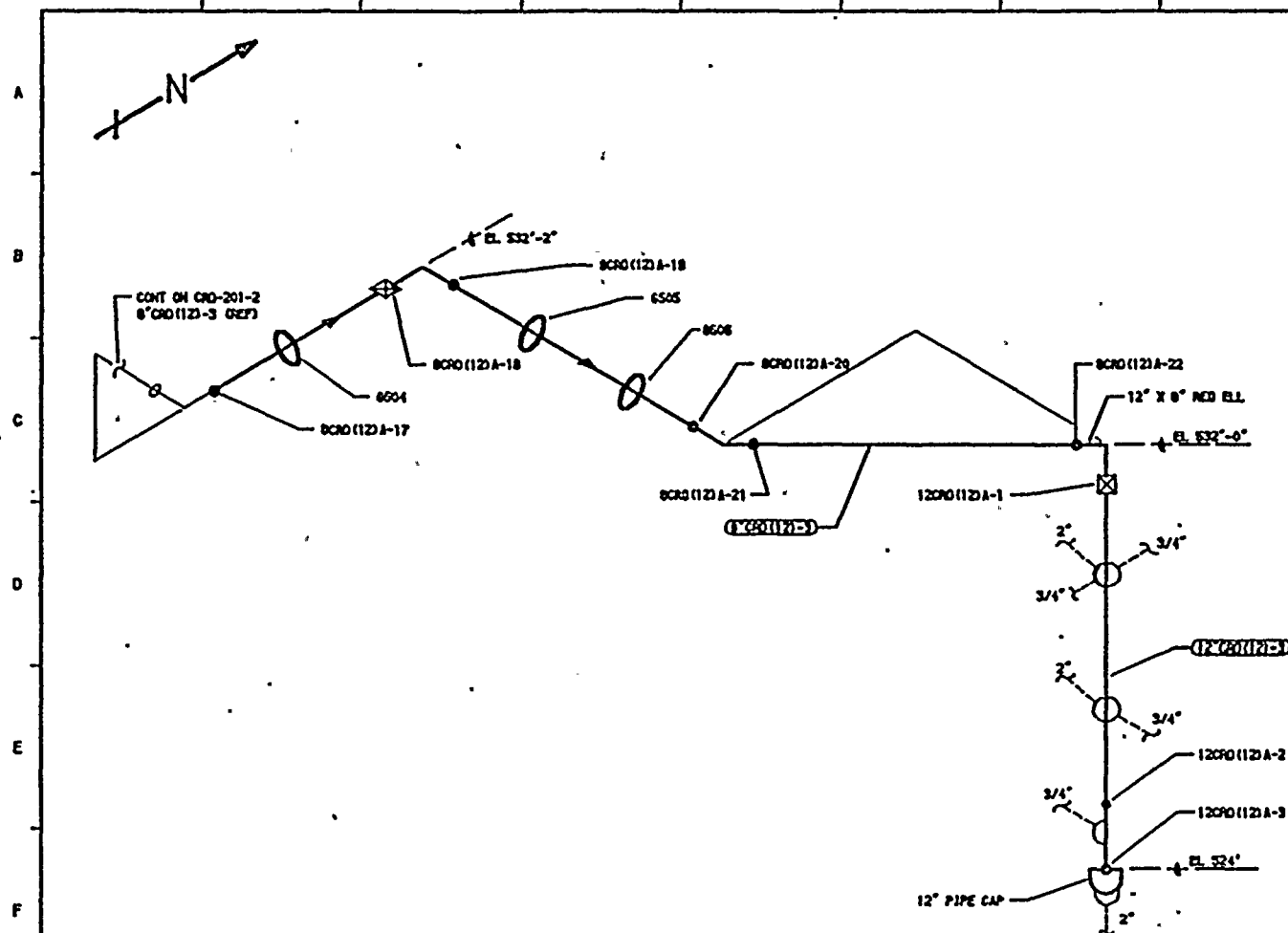
REV 1

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL BLOCK NO
6" CRD(12)-3	6	80	0.500	SA 106 GR B	CS	NA
6" CRD(12)-3	6	80	0.432	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	11-13-82	ADDED LOGS	K-McA	DPR	DRW
0	1-17-83	ISSUED FOR USE	K-McA	DPR	T/FH





#### NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 11A-5000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

#### REFERENCES:

- 181 - 228  
 GENERAL ELECTRIC DIAGS  
 SK-X01-75C-02 SH 23 REV 0  
 SK-X01-75C-02 SH 24 REV 0  
 BURNS AND ROE DIAGS  
 CRO-1000-1 REV 4  
 CRO-1002-1 REV 3

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

QUALITY CLASS. 1 ASME CODE CLASS. 2  
 ENGR. K-McANDREW DRAWN. K-McA DATE: 12-28-82



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: CONTROL ROD DRIVE SYSTEM  
 SCRAM DISCHARGE HEADER A

DWG NO. CRD-201-3

REV 1

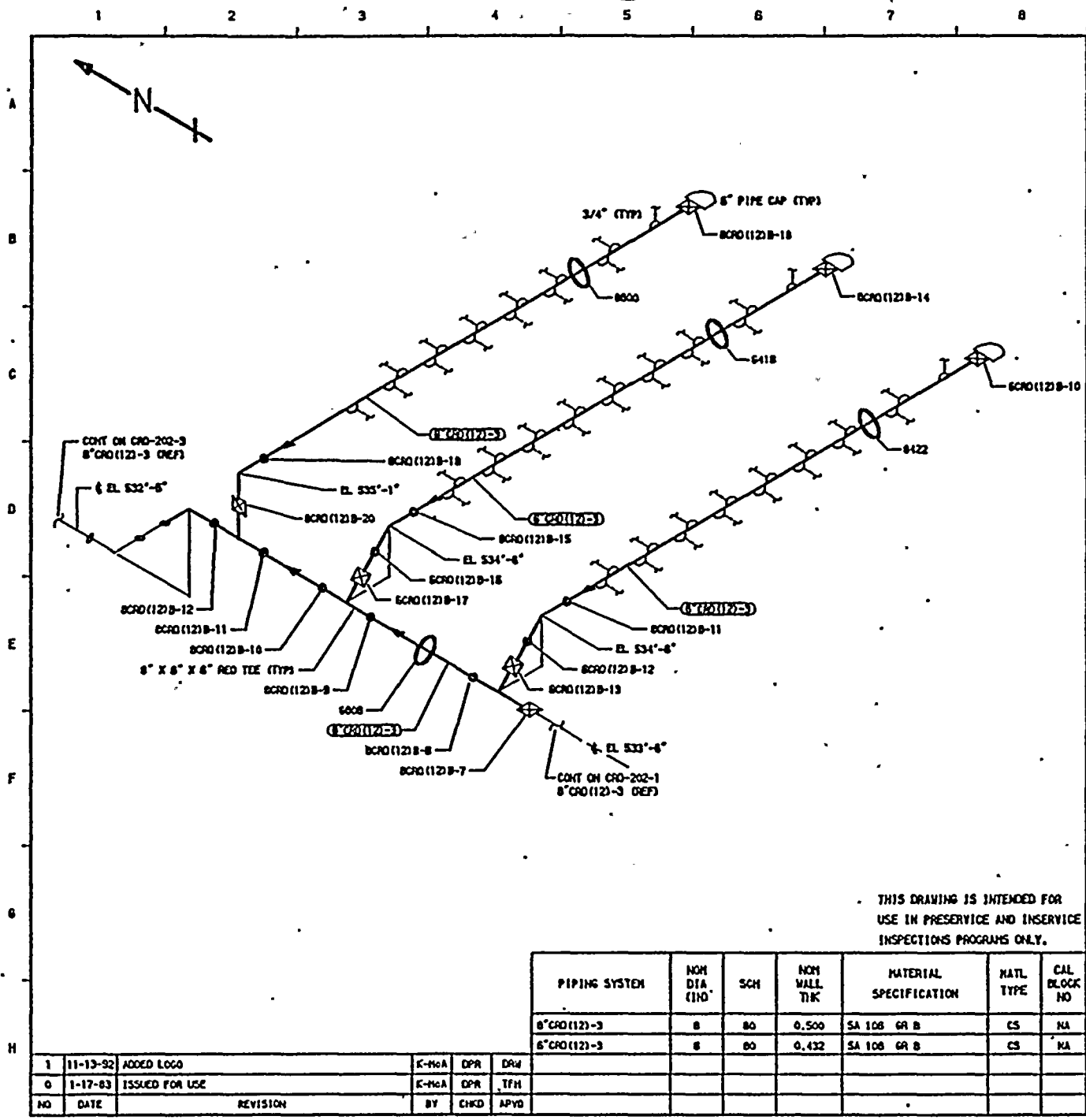
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8"CRD(12)-3	8	80	0.500	SA 106 GR B	CS	NA
12"CRD(12)-3	12	80	0.600	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	11-13-82	ADDED LOGO	K-McA	DPR	DRV
0	1-17-83	ISSUED FOR USE	K-McA	DPR	TTH









**NOTES:**

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 1XA-5000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

**REFERENCES:**

ISI - 228  
 GENERAL ELECTRIC DWGS  
 SK-X01-75C-02 SH 27 REV 0  
 SK-X01-75C-02 SH 30 REV 0  
 SK-X01-75C-02 SH 36 REV 0  
 SK-X01-75C-02 SH 37 REV 0

QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR, K-McANDREW	DATE, 12-28-82



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

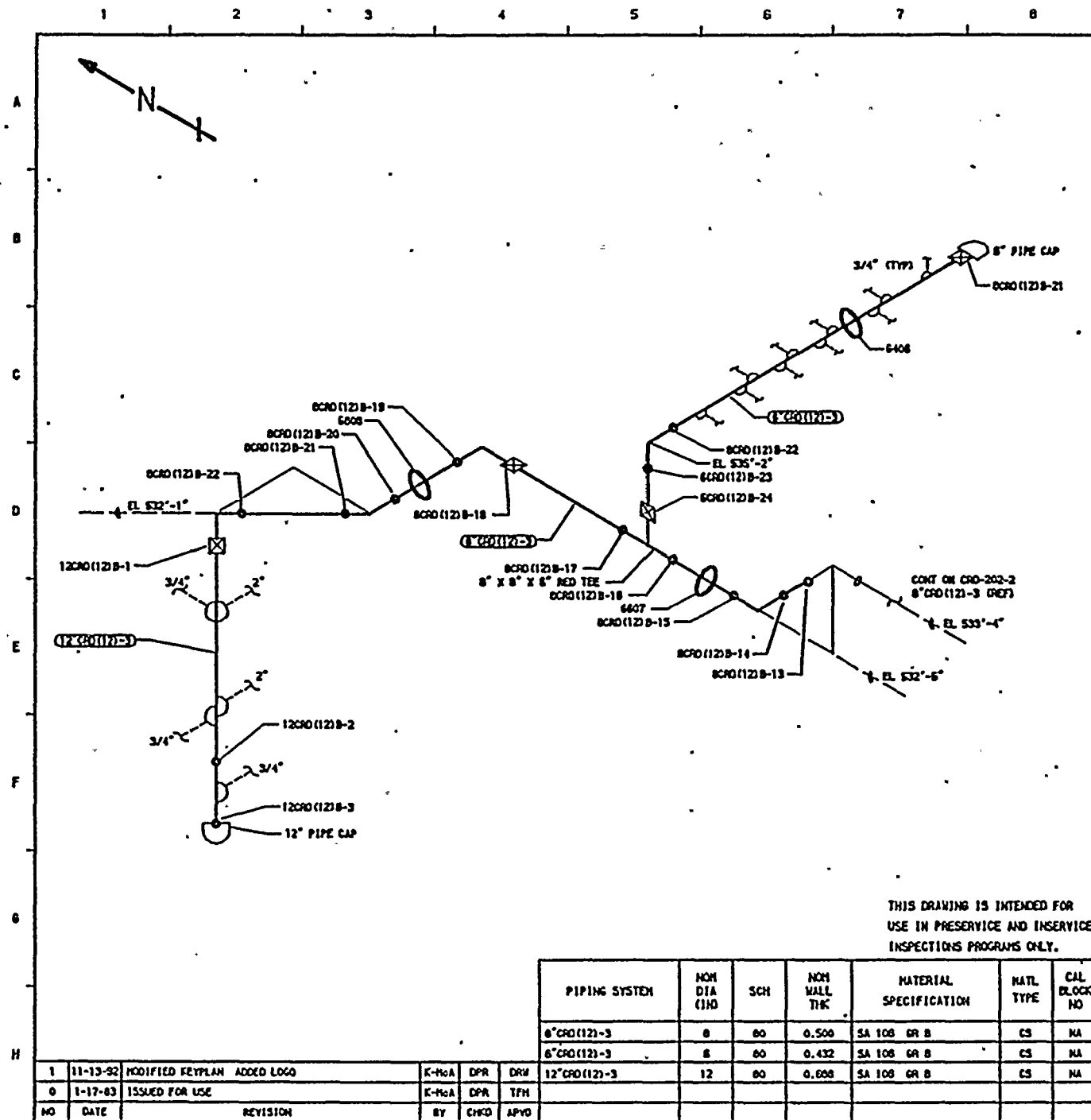
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8"CRD(12)-3	8	80	0.500	SA 106 GR B	CS	NA
8"CRD(12)-3	8	80	0.432	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	11-13-82	ADDED LOGO	K-McA	DPR	DRW
0	1-17-83	ISSUED FOR USE	K-McA	DPR	TFH

WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE: CONTROL ROD DRIVE SYSTEM SCRAM DISCHARGE HEADER B
DWG NO, CRD-202-2
REV 1







#### NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED FOR THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH IVA-5000.
2. FOR BRANCH PIPING 4\" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

#### REFERENCES:

131 - 220

#### GENERAL ELECTRIC DATA

SK-X01-75C-02 SH 27 REV 0  
SK-X01-75C-02 SH 36 REV 0  
SK-X01-75C-02 SH 28 REV 0  
SK-X01-75C-02 SH 25 REV 0

#### BURNS AND ROE DATA

CRO-1001-1 REV 4  
CRO-1002-1 REV 3

QUALITY CLASS, 1	ASME CODE CLASS, 2
ENGR: K-McANDREW	DATE: 12-28-82



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RITLAND, WASHINGTON 98352

WP-2

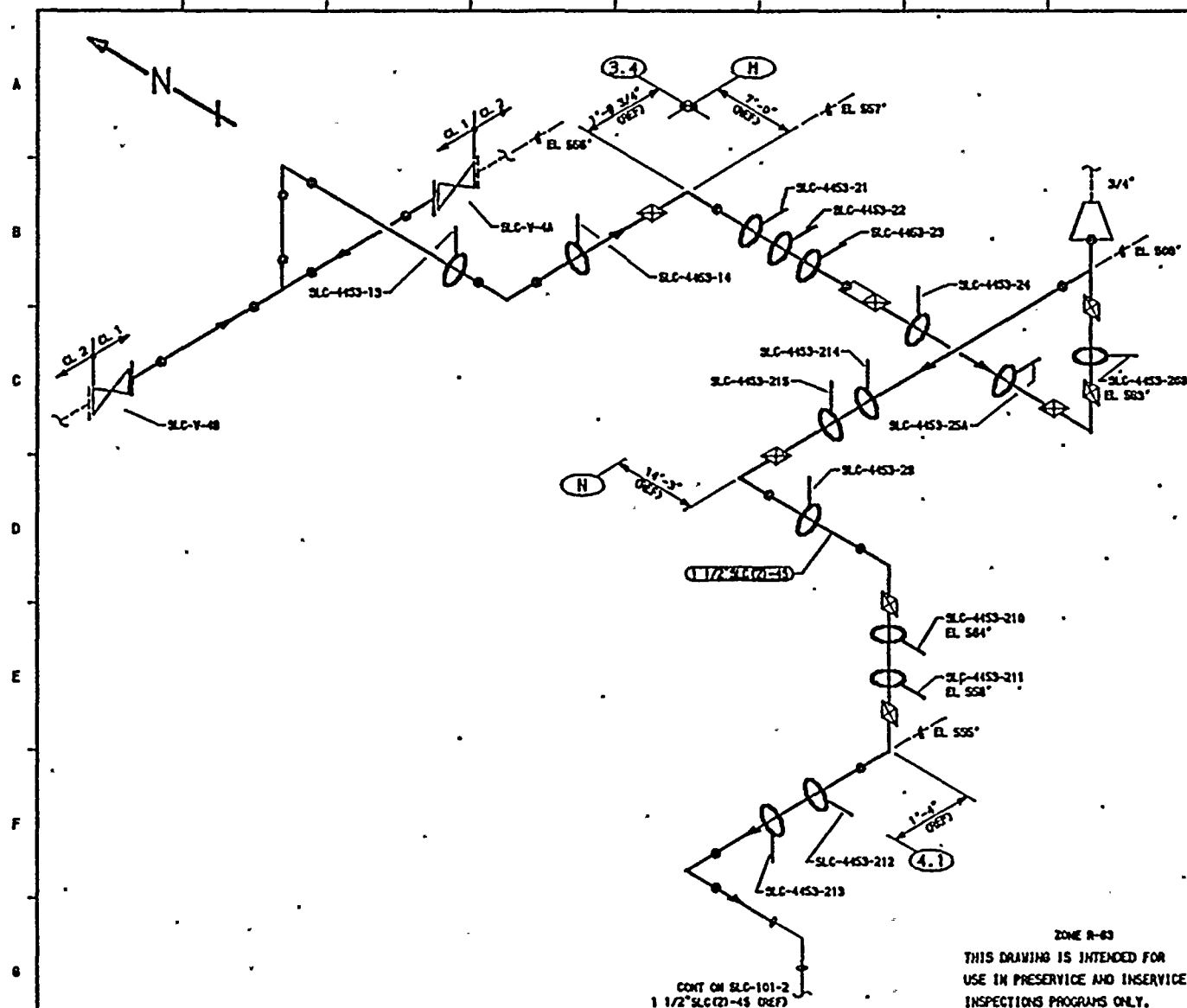
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: CONTROL ROD DRIVE SYSTEM  
SCRAM DISCHARGE HEADER B

DWG NO. CRD-202-3

REV 1





CONT ON SLC-101-2  
1 1/2" SLC(2)-45 (REF)

ZONE R-63

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2" SLC(2)-45	1 1/2	805	0.200	SA 312 TP 304	SS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	MODIFIED KEYPLAN ADDED LOGO & HANGER ELEVATIONS	K-McA	DPR	DRW
0	12-2-83	ISSUED FOR USE	K-McA	DPR	TTH

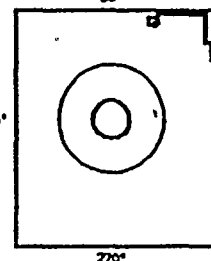
NOTES:

151 - 222

WPM/BOCCON/GERI DWS

SLC-4453-1 REV 7

SLC-4453-2 REV 8



KEYPLAN

REACTOR FLOOR

QUALITY CLASS, 1	ASME CODE CLASS, 1
ENGR, K-McANDREW	DRAWN, K-McA DATE, 8-11-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

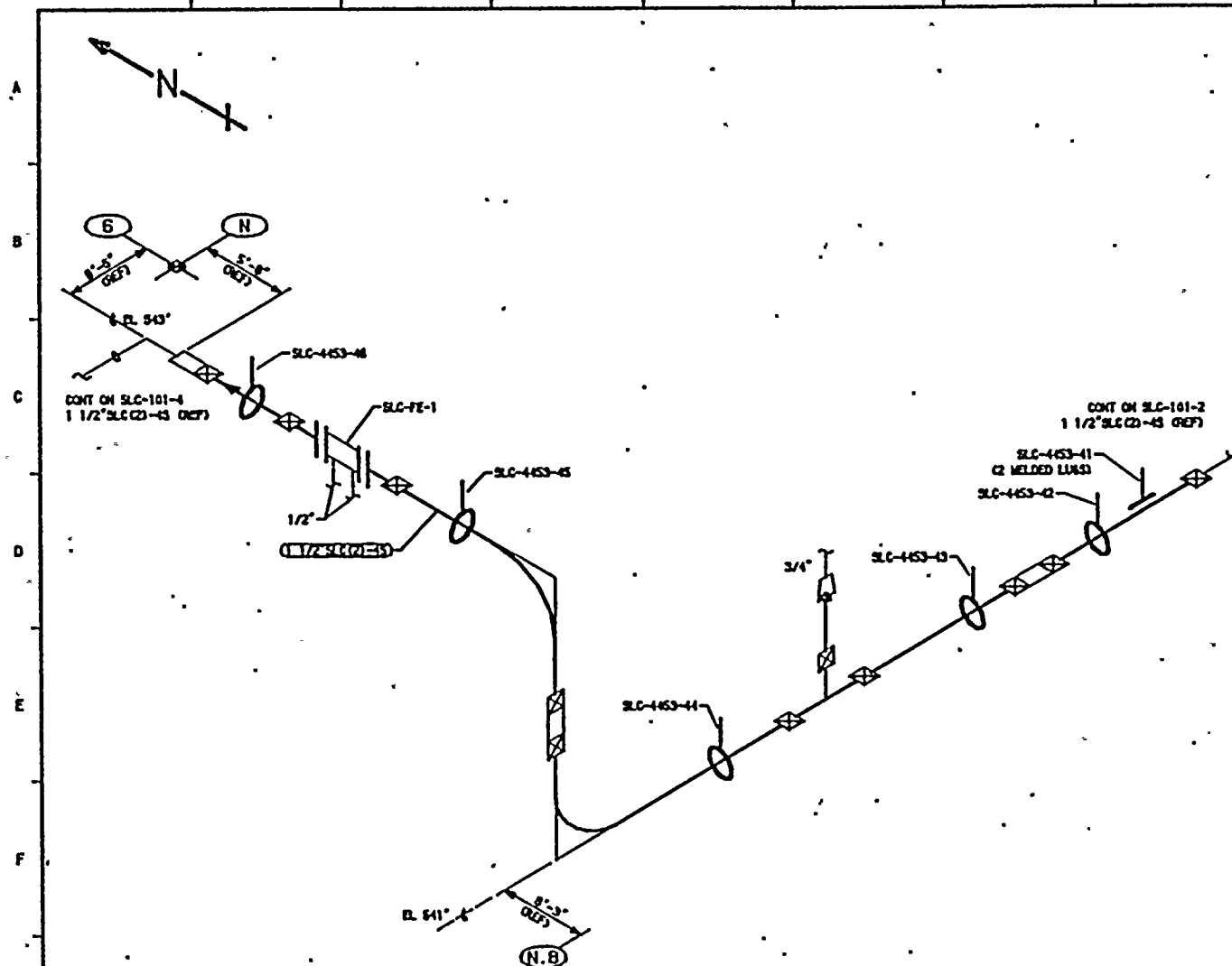
TITLE: SLC-PUMP-1A & 1B DISCHARGE  
THROUGH PENETRATION 13 TO RPV H11

DWG NO, SLC-101-1

REV 1

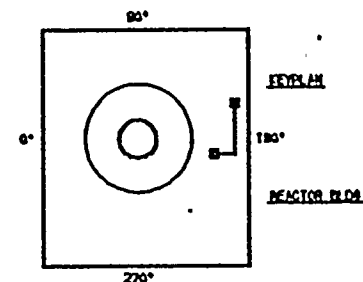






# REFERENCE

131 - 222  
 WCH/BOON/GERI DWS  
 SLC-4453-4 REV B



THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2" SLC(2)-45	1 1/2	80S	0.200	SA 312 TP 304	SS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	12-9-82	MODIFIED KEYPLAN ADDED LOGO	K-HoA	DPR	DRW
0	12-2-83	ISSUED FOR USE	K-HoA	DPR	TYH

QUALITY CLASS. 1	ASME CODE CLASS. 1
ENGR. K-HANDREW	DATE: 6-15-83



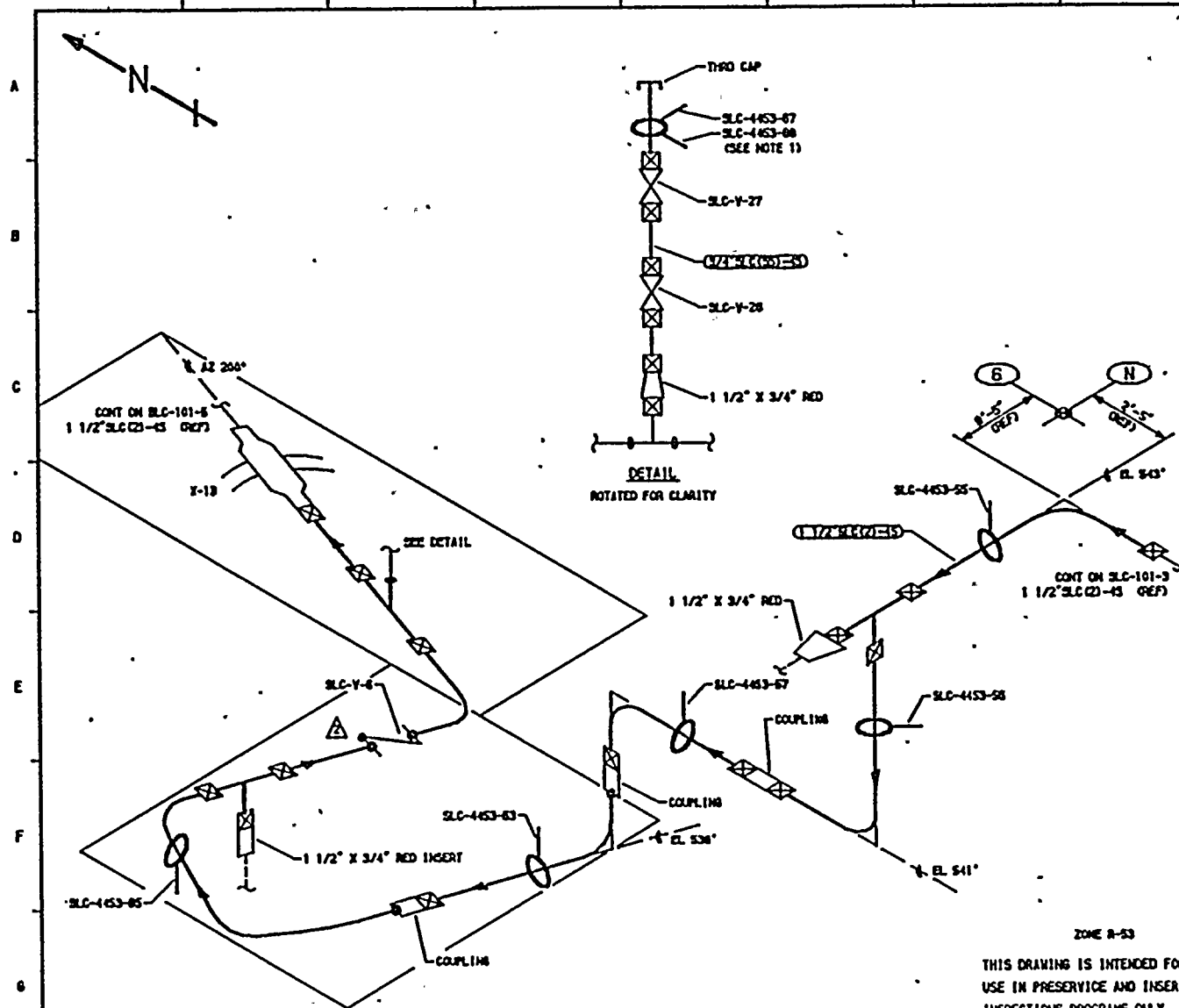
WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: SLC-PUMP-1A & 1B DISCHARGE  
 THROUGH PENETRATION 13 TO RPV M11

DWG NO. SLC-101-3 REV 1



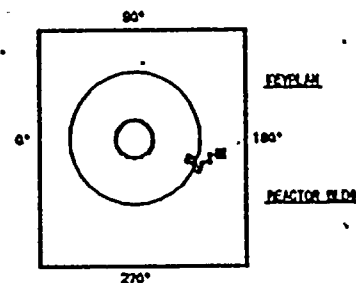


# NOTES

1. SLC-4453-68 CHANGED FROM SHOULDER TO STRUT AND SLC-4453-69 WAS DELETED PER DOC-00-525-2A.

## REFERENCES

ISI - 222  
 NSM/DOE/CON/GERI DAS  
 SLC-4453-5 REV 7  
 SLC-4453-6 REV 8



QUALITY CLASS, 1 ASME CODE CLASS, 1  
 ENGR, K-McANDREW DRAWN, K-McA DATE, 8-15-83



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

WP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: SLC-PUMP-1A & 1B DISCHARGE  
 THROUGH PENETRATION 13 TO RPV

DWG NO, SLC-101-4

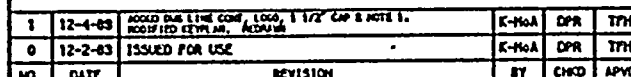
REV 2

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2" SLC(2)-45	1 1/2	805	0.200	SA 312 TYPE 304	SS	NA
3/4" SLC(55)-45	3/4	805	0.154	SA 312 TYPE 304	SS	NA

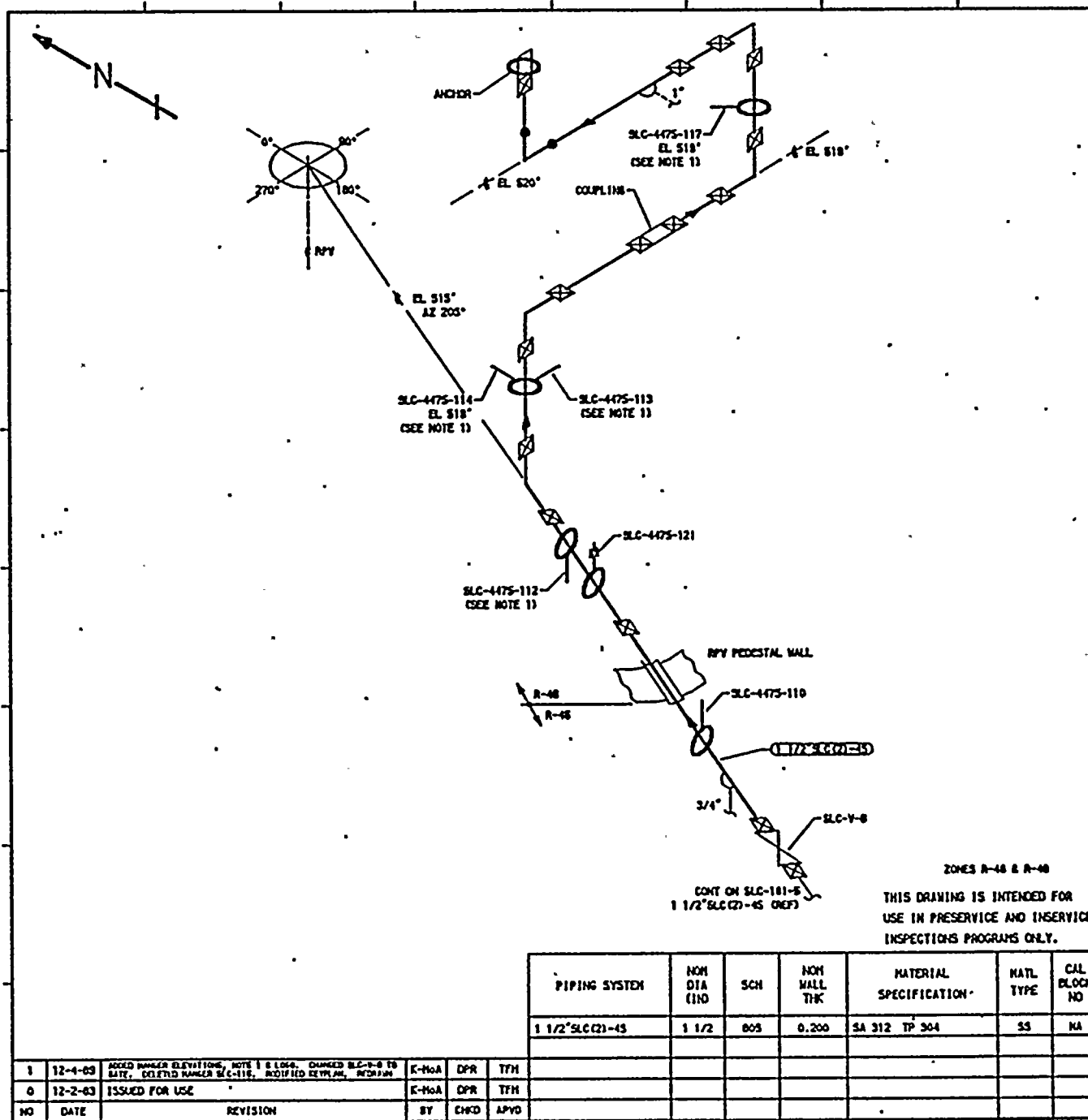
NO	DATE	REVISION	BY	CHKD	APVD
2	5-14-90	REVISED NUMBERS FOR NOTE 1, MATERIAL SPEC & TYPE.	K-McA	OJ	TFH
1	10-18-87	ADDED SHOULDER SLC-4453-68, 3/4" SLC(55)-45 & LOGO, MODIFIED CENTRAL, RICHLAND	K-McA	DPR	TFH
0	12-2-83	ISSUED FOR USE	K-McA	DPR	TFH











# NOTES:

1. SLC-4475-112, SLC-4475-113, SLC-4475-114 & SLC-4475-117 CHANGED FROM SHUDDER TO STRUT PER DOC-88-6525-04.

# INTERFACIAL

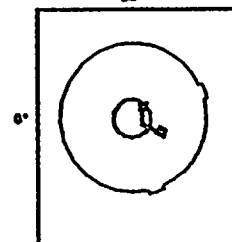
151 - 222

WSH/BOGON/GERI DWS

SLC-4475-1 REV 14

DCP 83-6338-00

90°



KEYPLAN

180°

REACTOR FLOOR

270°

QUALITY CLASS: 1	ASME CODE CLASS: 1
ENGR: K-McANDREW	DRAWN: K-McA DATE: 8-18-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: SLC-PUMP-1A & 1B DISCHARGE  
THROUGH PENETRATION 13 TO RPV N11

DWG NO. SLC-101-6

REV 1

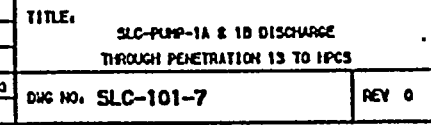
ZONES R-46 & R-48

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2" SLC(2)-45	1 1/2	805	0.200	SA 312 TP 304	SS	NA

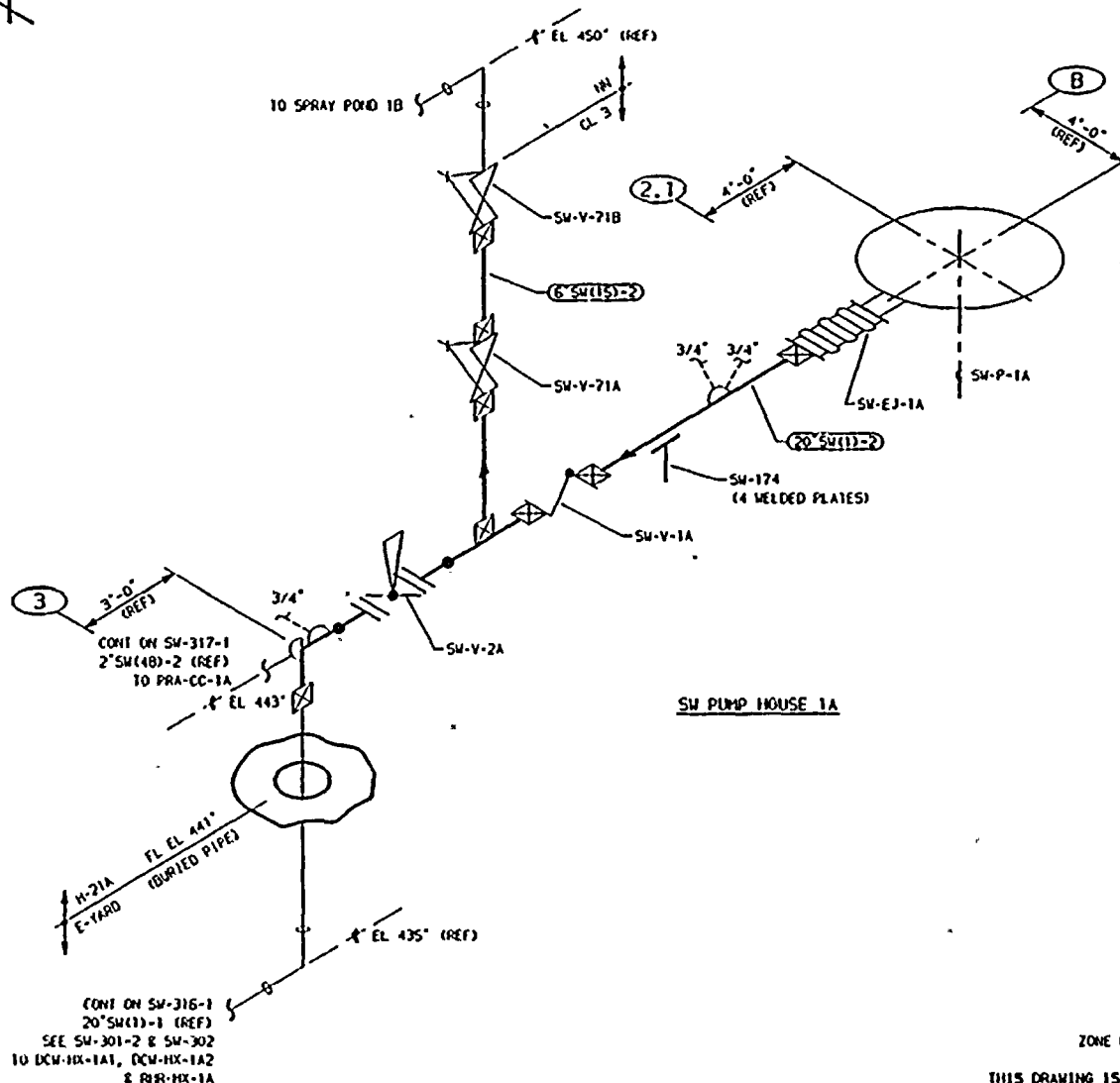
NO	DATE	REVISION	BY	CHKD	APVD
1	12-1-83	ADDED NUMBER ELEVATIONS, NOTE 1 & LOGS. CHANGED SLC-5-8 TO SLC-5-9, DELETED NUMBER SLC-118, MODIFIED KEYPLAN, PIPING	K-McA	DPR	TFH
0	12-2-83	ISSUED FOR USE	K-McA	DPR	TFH





PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
1 1/2"SLC(2)-43	1 1/2	805	0.200	SA 312 TP 316L	SS	NA
1"SLC(55)-43	1	805	0.179	SA 312 TP 316L	SS	NA
1 1/2"SLC(2)-4	1 1/2	80	0.200	SA 106 GR B	CS	NA
4"SLC(2)-4	4	80	0.337	SA 106 GR B	CS	UT-30





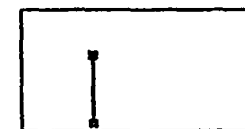
# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\"/>

# REFERENCES:

ISI - 224-5  
BOYCE & CRAIG ISOMETRICS  
SW-250-1.3 REV 15  
SW-291-1.6 REV 11

SERVICE WATER  
PUMP HOUSE 1A



N

KEY PLAN

QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR: GA KUGLER DRAWN: K-MCA DATE: 10-20-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: SW LOOP A SUPPLY  
SW-P-1A DISCHARGE TO RIR-HX-1A

DWG NO. SW-301-1

REV 1

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

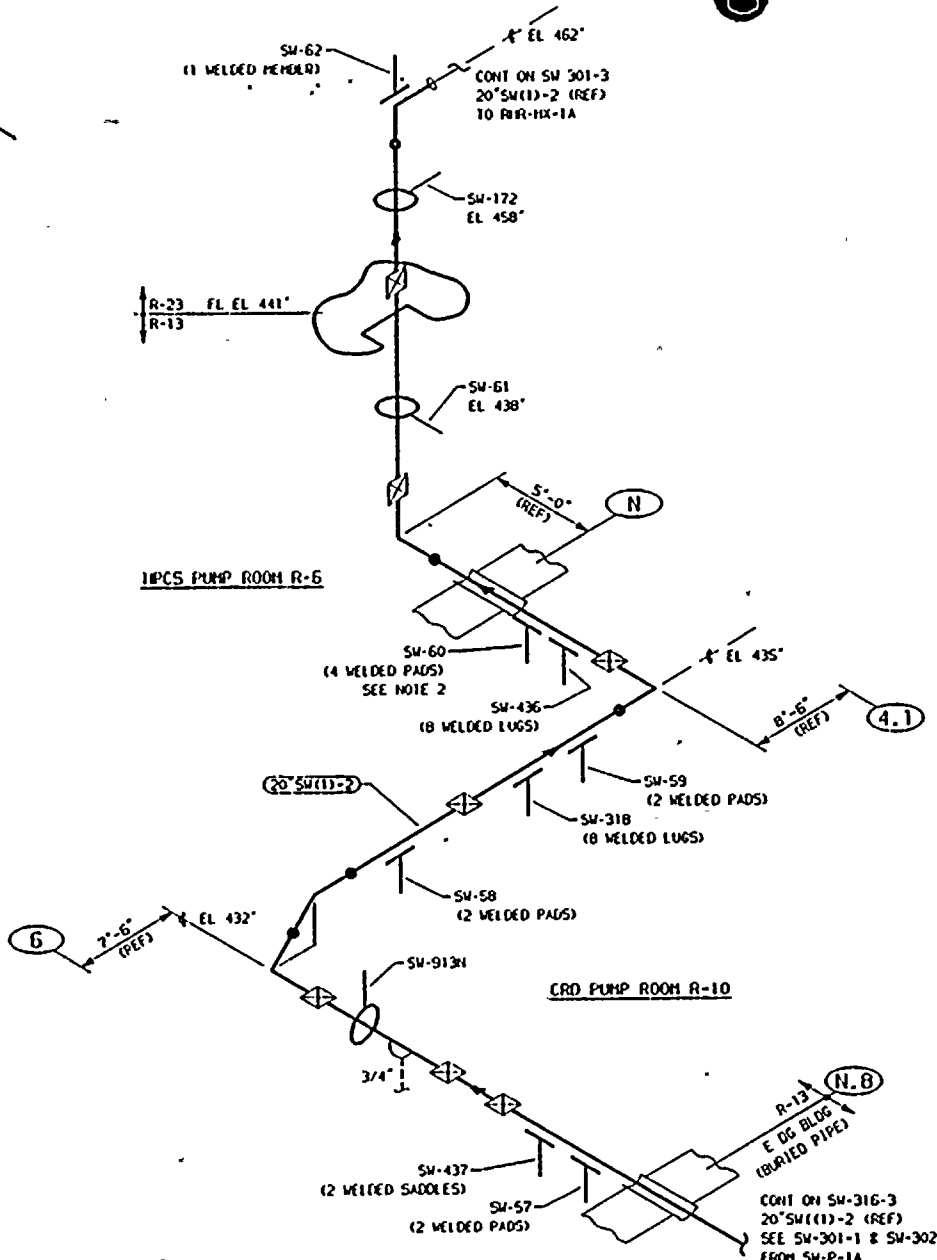
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
20"SW(11)-2	20	S1D	0.375	SA 106 GR B	CS	NA
6"SW(15)-2	6	S1D	0.280	SA 106 GR B	CS	NA
6"SW(15)-2	6	160	0.719	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
1	11-5-80	ISSUED FOR USE	F-MCA	GAK	TH





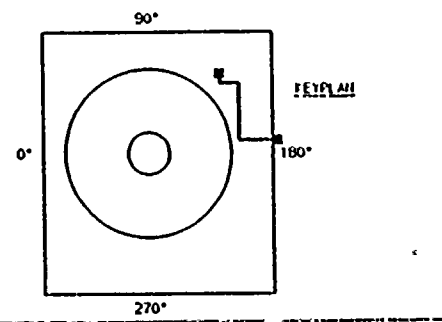
A  
B  
C  
D  
E  
F  
G



THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

- NOTES:**
1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" I.D. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWD-2000.
  2. DELETED
  3. FOR BRANCH PIPING 4" I.D. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

- REFERENCES:**
- ISI - 224-3
  - BOYCE & CRILL ISOMETRICS
  - SW-250-25.30 REV 9
  - SW-250-21.24 REV 10



QUALITY CLASS: 1	ASME CODE CLASS: 3
ENGR: GA KUGLER	DATE: 10-24-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 99352

WIP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

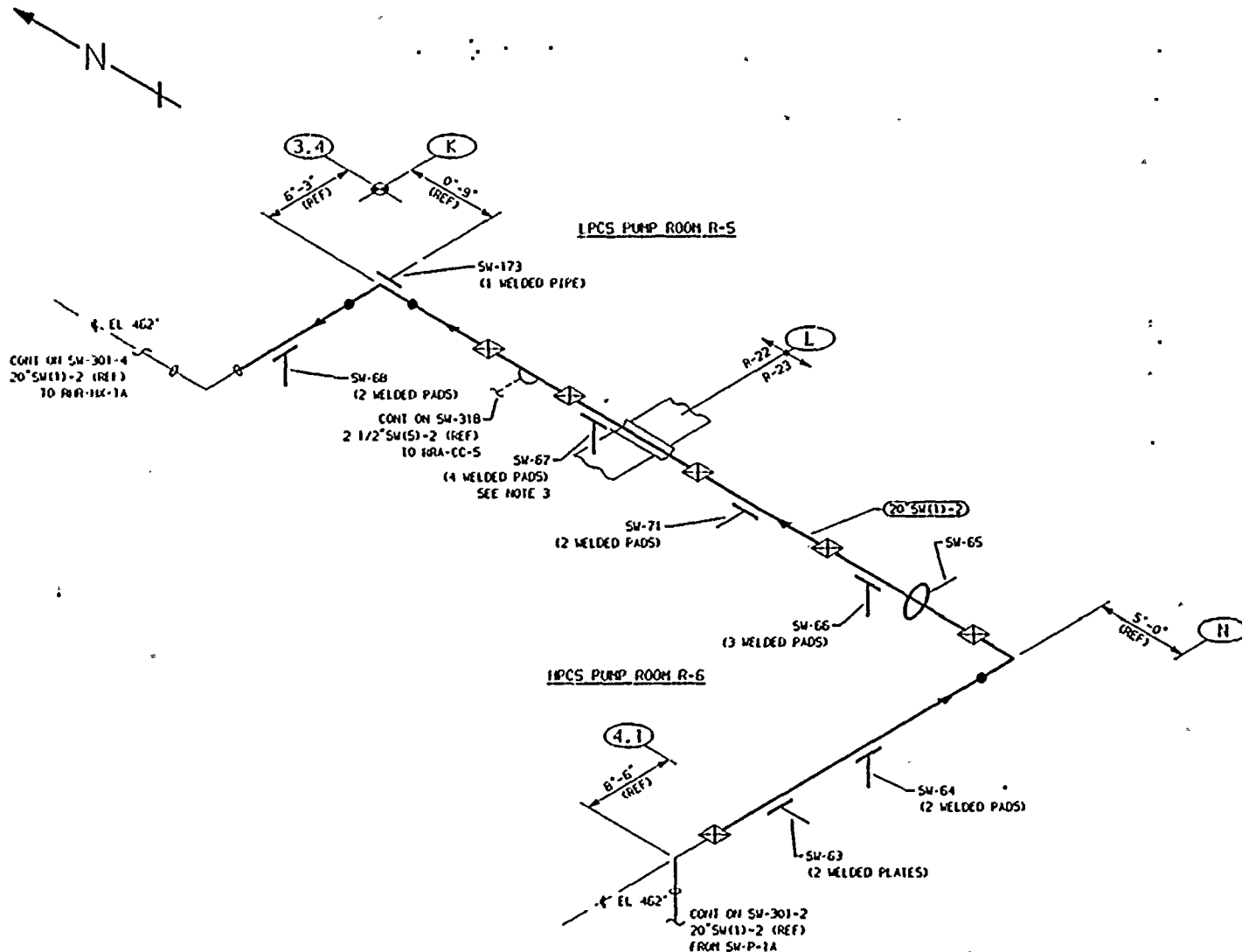
TITLE:  
SW LOOP A SUPPLY  
TO RHR-IX-1A

DWG NO. SW-301-2 REV 2

NO	DATE	REVISION	BY	CHKD	APVD
2	11-4-82	RECD ISI DWG REF, DWG LINE CONTINUATIONS, LOGO & NOTE 3.	K-MCA	DPR	TEK
1	1-27-84	REVISED AS NOTED, ADDED KEYPLAN.	K-MCA	GAK	TEK
0	11-5-80	ISSUED FOR USE	K-MCA	GAK	TEK

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
20" SW(11)-2	20	STD	0.375	SA 106 GR B	CS	NA



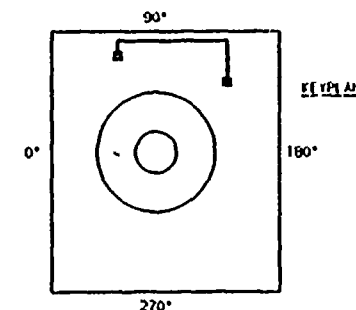


# NOTES:

- THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IMA-5000 AND IMA-2000.
- FOR BRANCH PIPING 4" NOM. OR LESS (CORRECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
- COMPONENT SUPPORT IS INACCESSIBLE DUE TO FOAM FILLED WATER TIGHT BOOT.

## REFERENCES:

ISI - 224-3  
BOYCE & CRILL ISOMETRIC  
SW-250-31.40 REV 11



QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR: GA KUGLER DRAWN: K-MCA DATE: 10-27-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIR-IX-1A, WASHINGTON 99352

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SW LOOP A SUPPLY  
TO RIR-IX-1A

DWG NO: SW-301-3

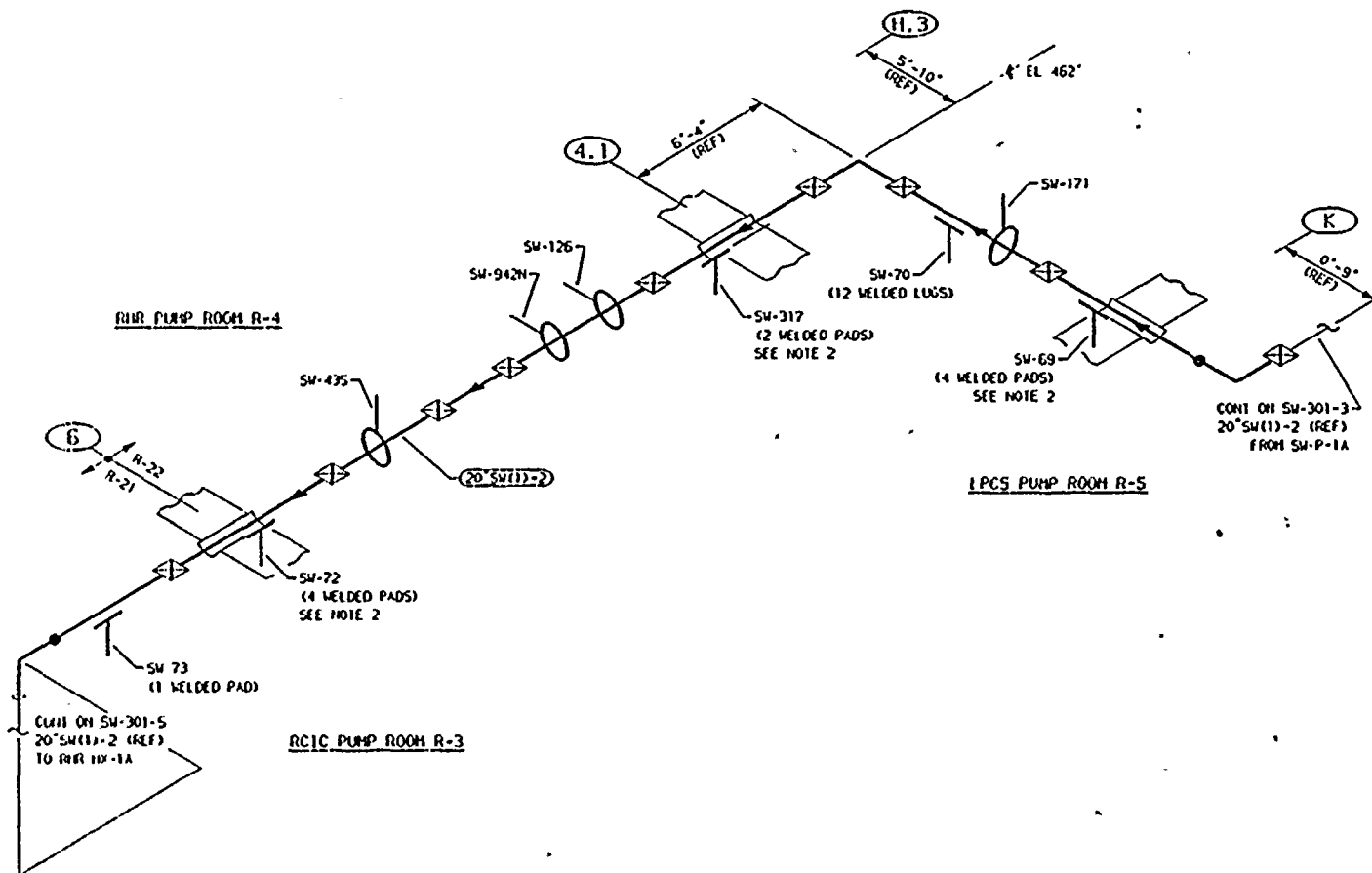
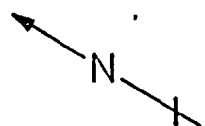
REV 2

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
20"SW(11)-2	20	STD	0.375	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
2	10-27-78	ADDED 1ST DWG REF, DWG LINE CONT & LOGO. MOD KEYPLAN REMARK	K-MCA	DFR	TFH
1	1-27-78	REVISED AS NOTED, ADDED KEYPLAN.	K-MCA	DFR	TFH
0	11-5-76	ISSUED FOR USE	K-MCA	GAJ	DFR



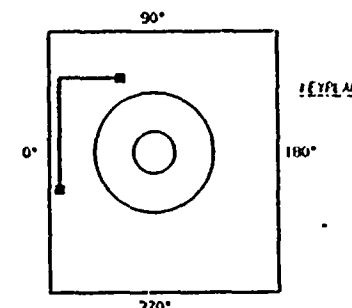


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\"/>

# REFERENCES:

ISI - 224-3  
BOYCE & CRAIL ISOMETRICS  
SW-250-31.40 REV 11  
SW-250-41.50 REV 10



QUALITY CLASS, 1 ASME CODE CLASS, 3  
ENGR. GA KUGLER DRAWN, K-MCA DATE, 10-30-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SW LOOP A SUPPLY  
TO RWR-RIC-1A

DWG NO. SW-301-4

REV 2

ZONES R-21 & R-22

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

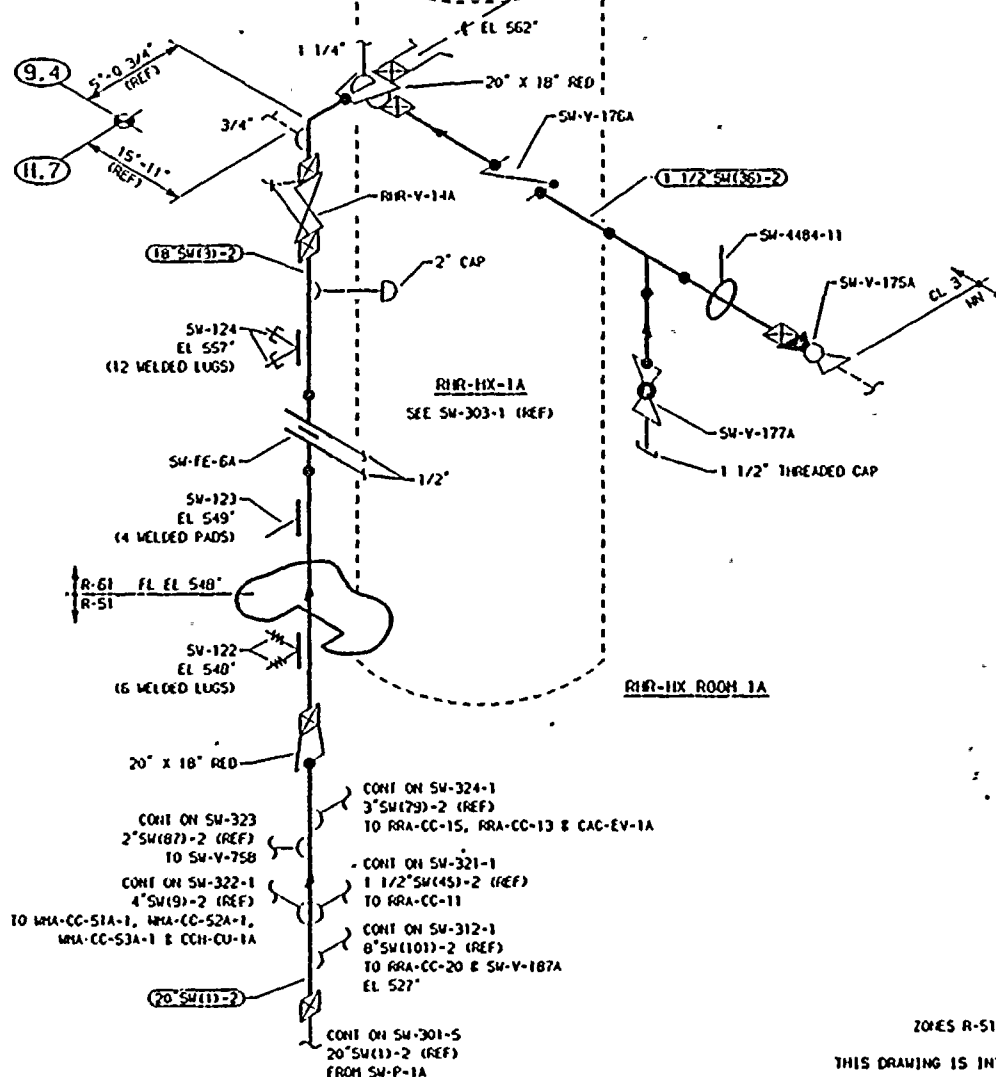
						PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOC NO
2	12-6-77	ADDED ISI DWG REF, DWG LINE CONT & LOGO, PWD KEYPLAN REDRAWN	K-MCA	DPR	TFH	20" SCH 40S	20	STD	0.375	SA 106 GR B	CS	NA
1	1-24-84	GENERAL UPDATE REDRAWN	K-MCA	GAF	TFH							
0	11-5-80	ISSUED FOR USE	K-MCA	GAF	TFH							
NO	DATE	REVISION	BY	CHKD	APVD							









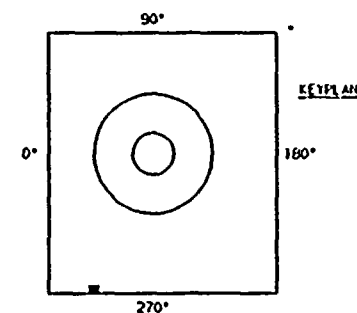


# NOTES:

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2. FOR BRANCH PIPING 4" NOM. OR LESS (CORRECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 224-1  
 BOYCE & ORAIL ISOMETRICS  
 SW-250-S1 REV 10  
 SW-250-S2, S4 REV 11



QUALITY CLASS: 1	ASME CODE CLASS: 3
ENGR: GA KUGLER	DRAWN: K-MCA DATE: 11-3-78

WASHINGTON PUBLIC POWER  
**SUPPLY SYSTEM**  
 RIDEAND, WASHINGTON 99352

WIP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 SW LOOP A SUPPLY  
 TO RIR-HX-1A

DWG NO. SW-301-6

REV 2

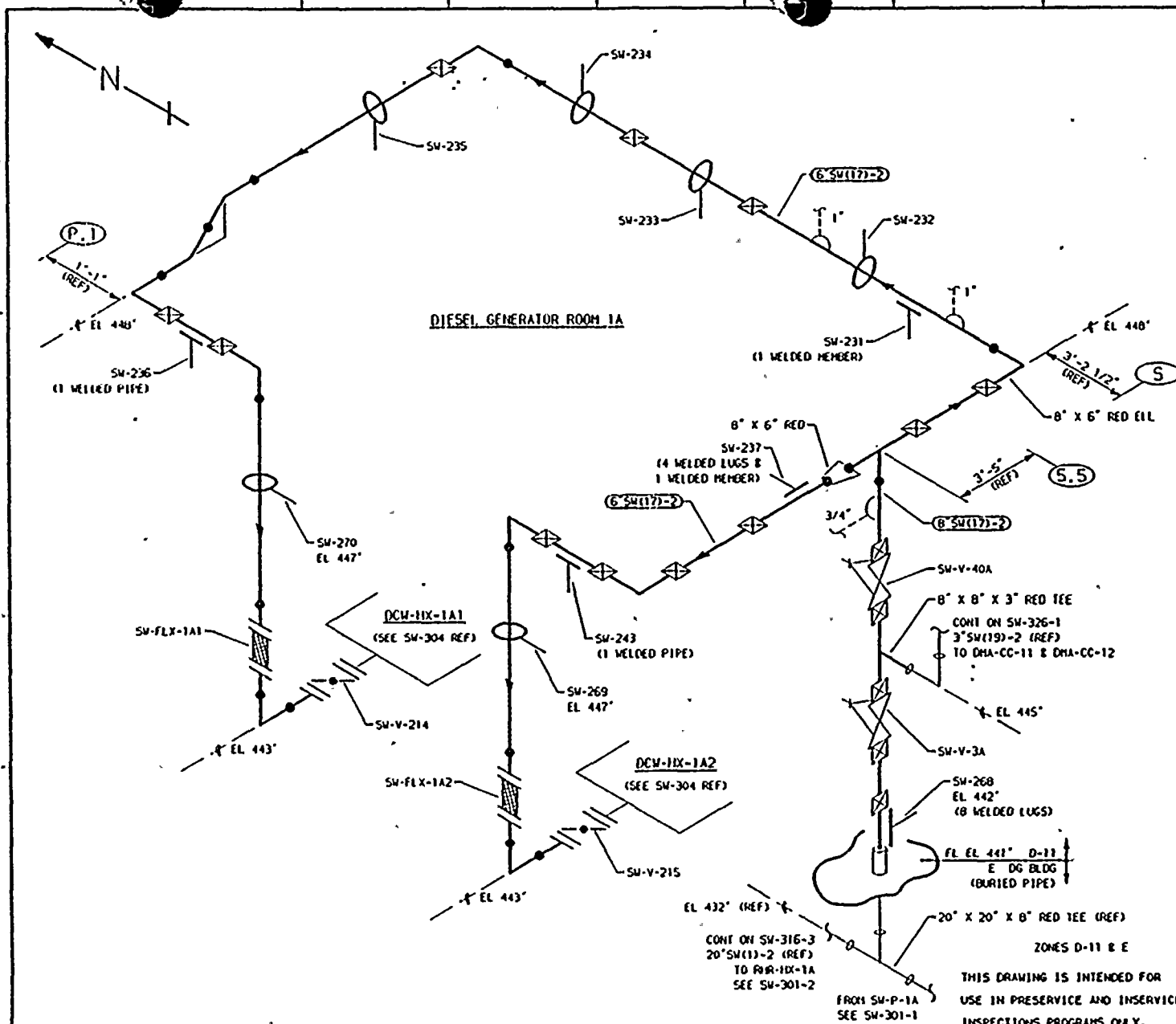
ZONES R-51 & R-61  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION
2	12-4-72	ADDED ISI DWG REF, DWG LINE CONTINUATIONS & LOGO. MODIFIED KEYPLAN. DELETED TWO SOLDER ATTACHMENTS SW-124. REGRAM
1	1-27-80	REVISED AS NOTED, ADDED KEYPLAN.
0	11-5-80	ISSUED FOR USE

BY	CHKD	APVD
K-MCA	DPR	TFH
K-MCA	GAK	IFH

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
20"SW(11)-2	20	STD	0.375	SA 106 GR B	CS	NA
18"SW(13)-2	18	STD	0.375	SA 106 GR B	CS	NA
1 1/2"SW(36)-2	1 1/2	80	0.276	SA 106 GR B	CS	NA



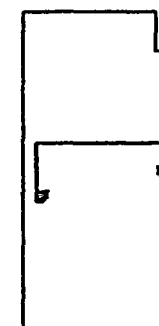


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- FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 224-4  
 BOYCE & CRILL ISOMETRICS  
 SW-250-21.24 REV 10  
 SW-300-1.3 REV 6  
 SW-300-4.9 REV 12



N →

KEYPLAN

DIESEL  
 GENERATOR  
 BUILDING

QUALITY CLASS: 1	ASME CODE CLASS: 3
ENGR. GA KUGLER	DRAWN: K-MCA DATE: 11-9-78



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 99352

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 SW LOOP A SUPPLY  
 TO DCW-11X-1A1 & 1A2

DWG NO. SW-302

REV 2

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8" SW(17)-2	8	STD	0.322	SA 106 GR B	CS	NA
6" SW(17)-2	6	STD	0.280	SA 106 GR B	CS	NA

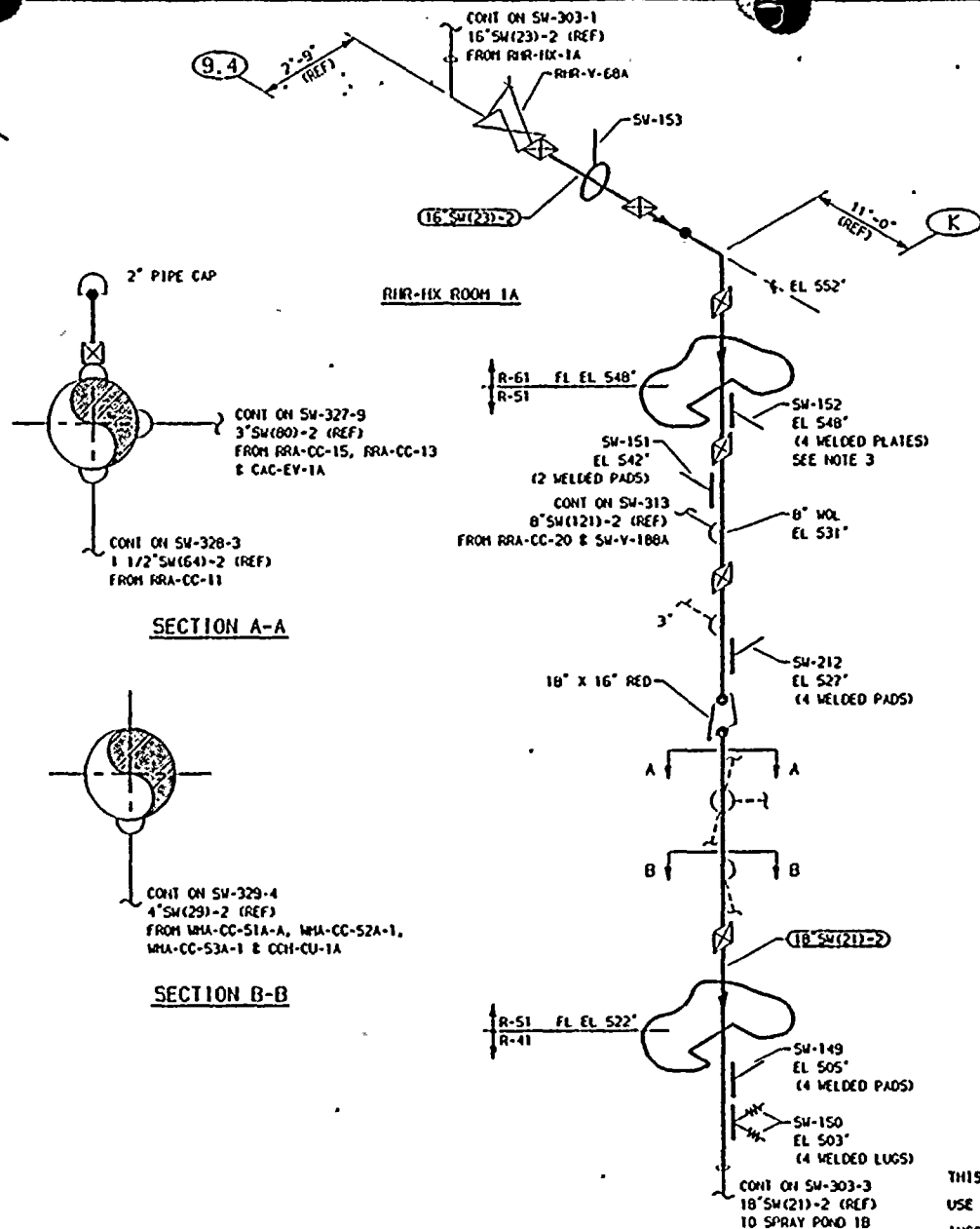
2	10-1-78	ALADD DWG LINE CONT. MOD ISI DWG REF & KEYPLAN.	K-MCA	DPR	TFH
1	1-27-81	GENERAL UPDATE, REDRAWN	K-MCA	GAX	DR
0	11-5-80	ISSUED FOR USE	K-MCA	GAX	DR
NO	DATE	REVISION	BY	CHKD	APVD



1952  
1953  
1954





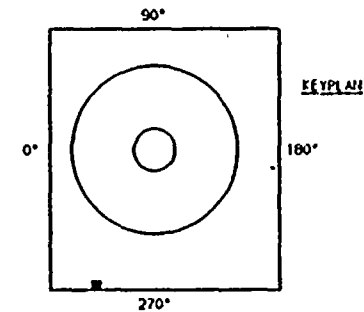


#### NOTES

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2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
3. COMPONENT SUPPORT IS INACCESSIBLE DUE TO FOAM FILLED WATER TIGHT BOOT.

#### REFERENCES

151 - 224-1, & 224-2  
BOYCE & ORAIL ISOMETRICS  
SW-296-1.5 REV 14  
SW-296-6 REV 15  
SW-296-7.16 REV 10



QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR. GA KUGLER DRAWN: K-MCA DATE: 11-10-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDLAND, WASHINGTON 99352

WRP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

#### TITLE

SW LOOP A RETURN  
TO SPRAY POND 1B

DWG NO. SW-303-2

REV 2

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
16" SW(23)-2	16	STD	0.375	SA 106 GR B	CS	NA
18" SW(21)-2	18	STD	0.375	SA 106 GR B	CS	NA

2	12-1-79	ADDED 1ST DWG REF. DWG LINE CONTINUATIONS, LOGO & NOTE 3. MODIFIED KEYPLAN. REDRAWN	K-MCA	DPR	TFH
1	1-24-84	REVISED AS NOTED, ADDED KEYPLAN.	K-MCA	GAK	IFH
0	11-5-80	ISSUED FOR USE	K-MCA	GAK	IFH
NO	DATE	REVISION	BY	CHKD	APVD

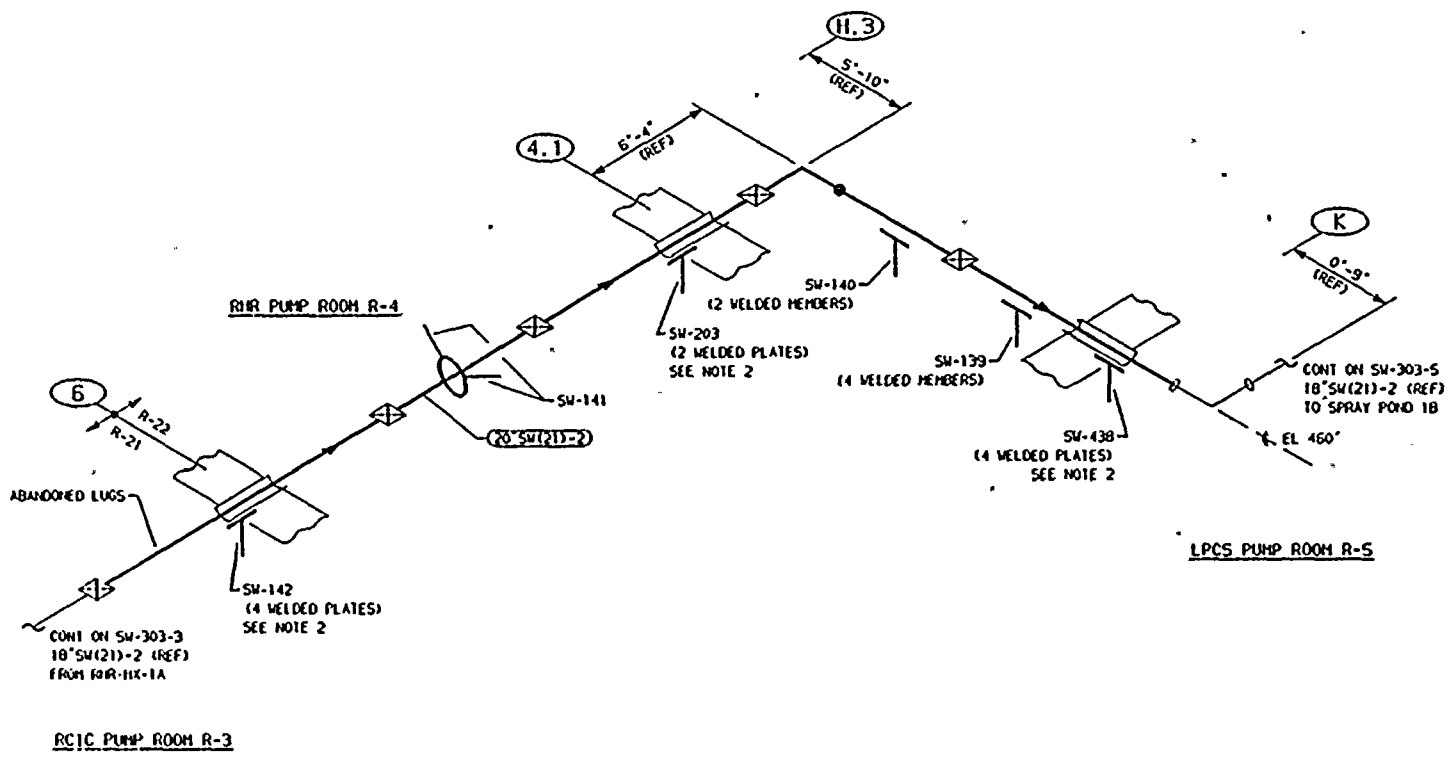
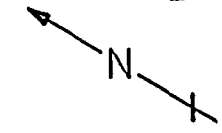
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

ZONES R-61, R-51, & R-41







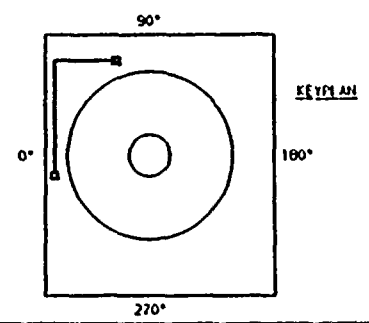


NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWD-2000.
2. COMPONENT SUPPORT IS INACCESSIBLE DUE TO FOAM FILLED WATER TIGHT DOOR.

REFERENCES:

ISI - 224-3  
BOYCE & CRAIG ISOMETRIC  
SW-206-17,26 REV 9



ZONES R-21 & R-22

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD
2	1-27-84	REVISED AS NOTED, ADDED KEYPLAN	K-MCA	DFR	TFH
1	11-5-80	ISSUED FOR USE	K-MCA	GAK	TFH
0					

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	HATL TYPE	CAL BLOCK NO
18" SW(21)-2	18	STD	0.375	SA 106 GR B	CS	NA

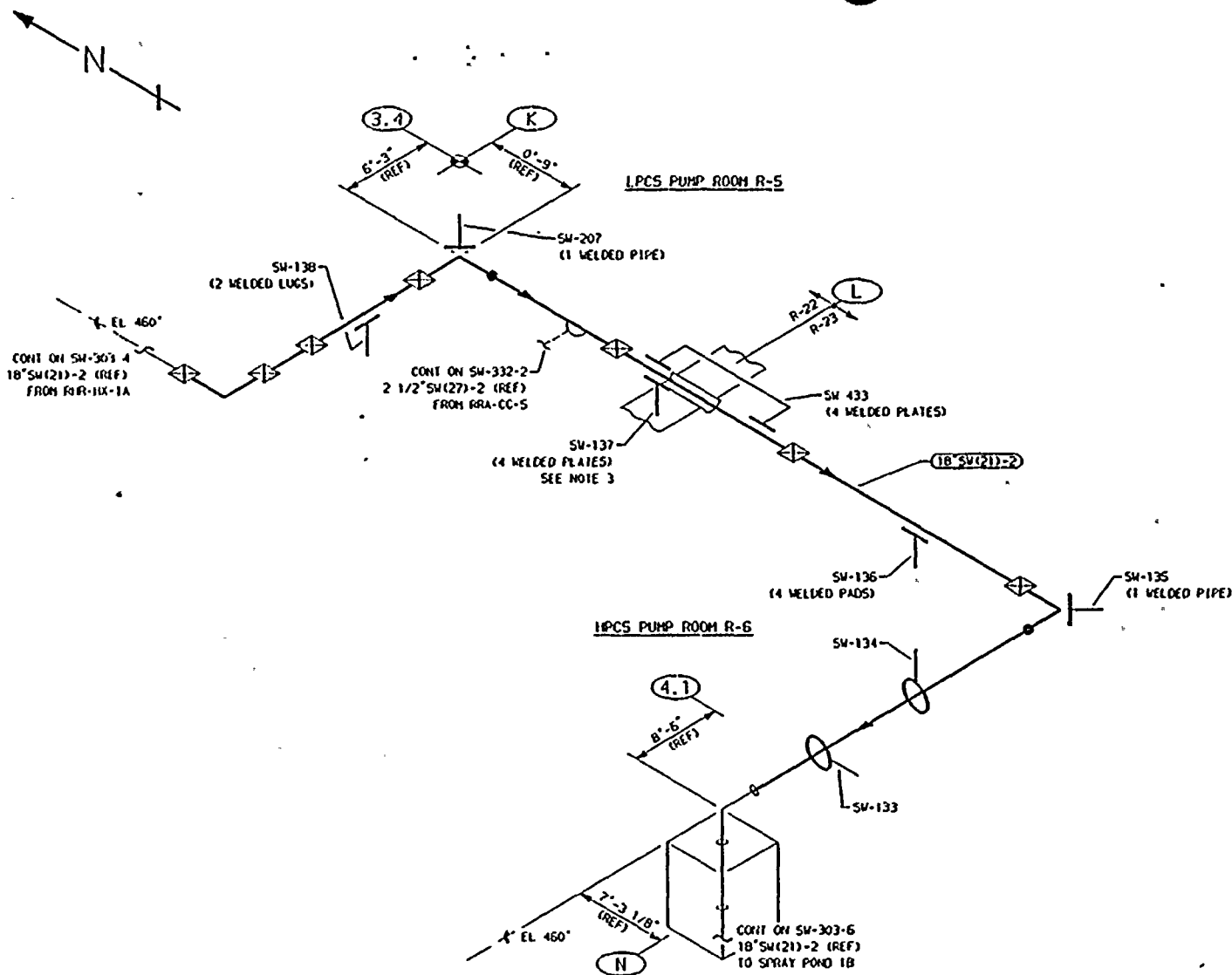
QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, GA KUGLER	DRAWN, K-MCA
DATE, 11-20-86	

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: SW LOOP A RETURN  
TO SPRAY POND 1B  
DNG NO, SW-303-4  
REV 2





ZONES R-22 & R-23

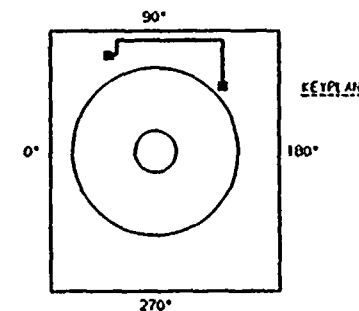
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

#### NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWA-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CORRECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
3. COMPONENT SUPPORT IS INACCESSIBLE DUE TO FOAM FILLED WATER TIGHT BOOT.

#### REFERENCES:

ISI - 224-3  
BOYCE & CRAIL ISOMETRIC  
SW-296-17.26 REV 9



QUALITY CLASS: 1	ASME CODE CLASS: 3
ENGR: GA KUGLER	DRAWN: K-MCA DATE: 11-20-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMONT, WASHINGTON 99752

SWP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SW LOOP A RETURN  
TO SPRAY POND 1B

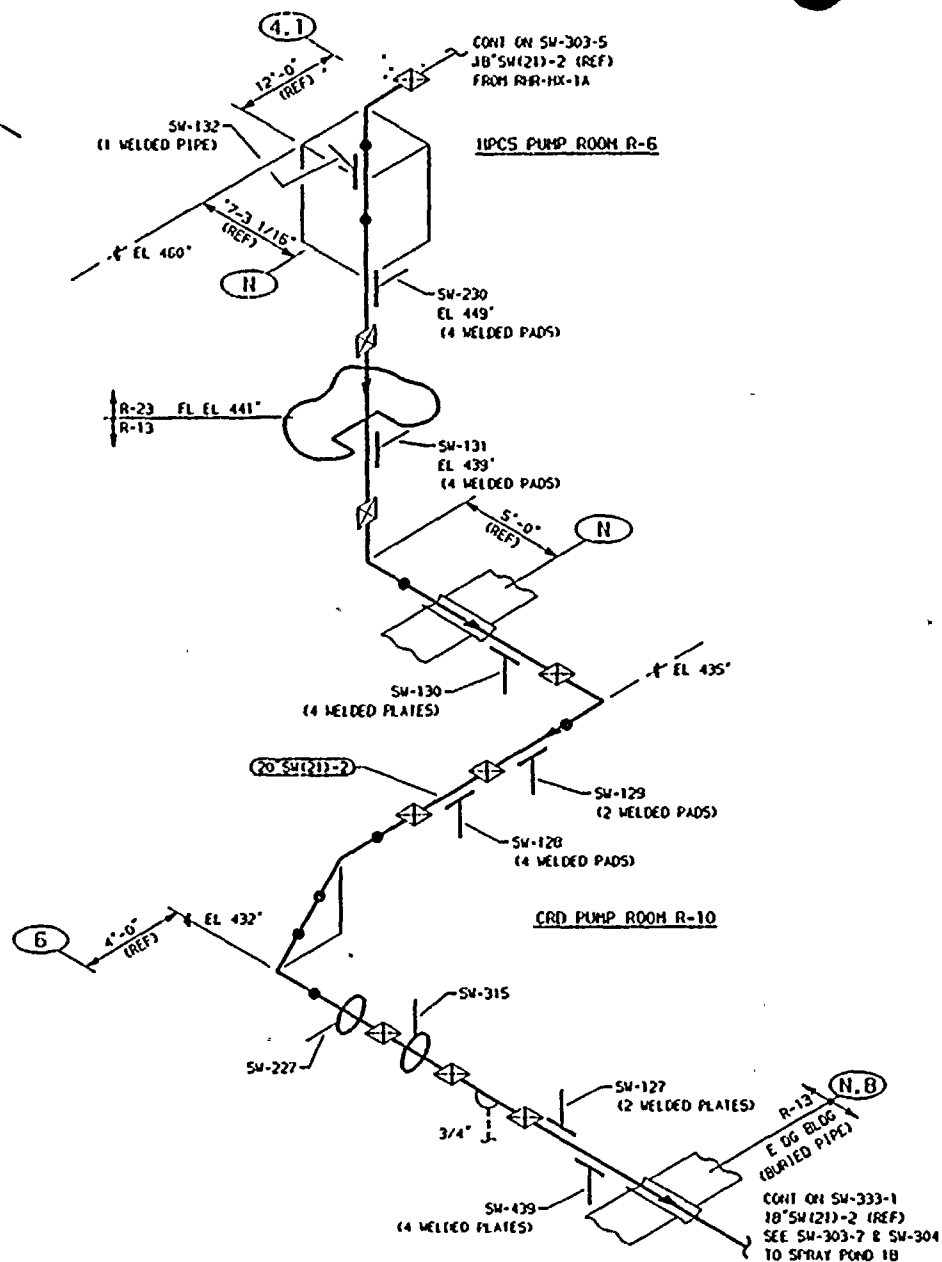
DWG NO: SW-303-5

REV 2

NO	DATE	REVISION	BY	CHKD	APVD
2	11-27-84	ISSUED FOR USE	K-MCA	DPR	TFH
1	11-27-84	REVISED AS NOTED, ADDED KEYPLAN.	K-MCA	DPR	TFH
0	11-5-80	ISSUED FOR USE	K-MCA	GAK	TFH

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
18" SW(21)-2	18	STD	0.375	SA 106 GR B	CS	NA





ZONES R-23, R-13 & E

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS  
SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE  
OF LEAKAGE DURING SYSTEM PRESSURE OR OPER-  
ABILITY TESTS; (2) PRESSURE DECAY TESTS OF  
BURIED PIPING; AND (3) LOSS OF SUPPORT CAP-  
ABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS  
AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS  
SHALL BE CONDUCTED PER ASME SECTION XI,  
ARTICLES IWA-5000 AND IWD-2000.

2. DELETED

3. FOR BRANCH PIPING 4" NOM. OR LESS (CORRECTION  
SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE  
EXAM THROUGH THE OUTERMOST NORMALLY CLOSED  
NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO  
INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

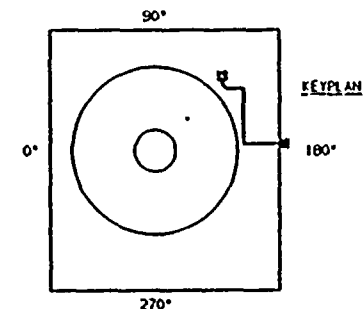
## REFERENCES:

ISI - 224-4

BOYCE & CRILL ISOMETRICS

SW-296-27.32 REV 11

SW-296-33.36 REV 6



QUALITY CLASS, 1 ASME CODE CLASS, 3  
ENGR, GA KUGLER DRAWN, K-MCA DATE, 11-27-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDLAND, WASHINGTON 99352

SWP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SW LOOP A RETURN  
TO SPRAY POND 1B

DWG NO, SW-303-6

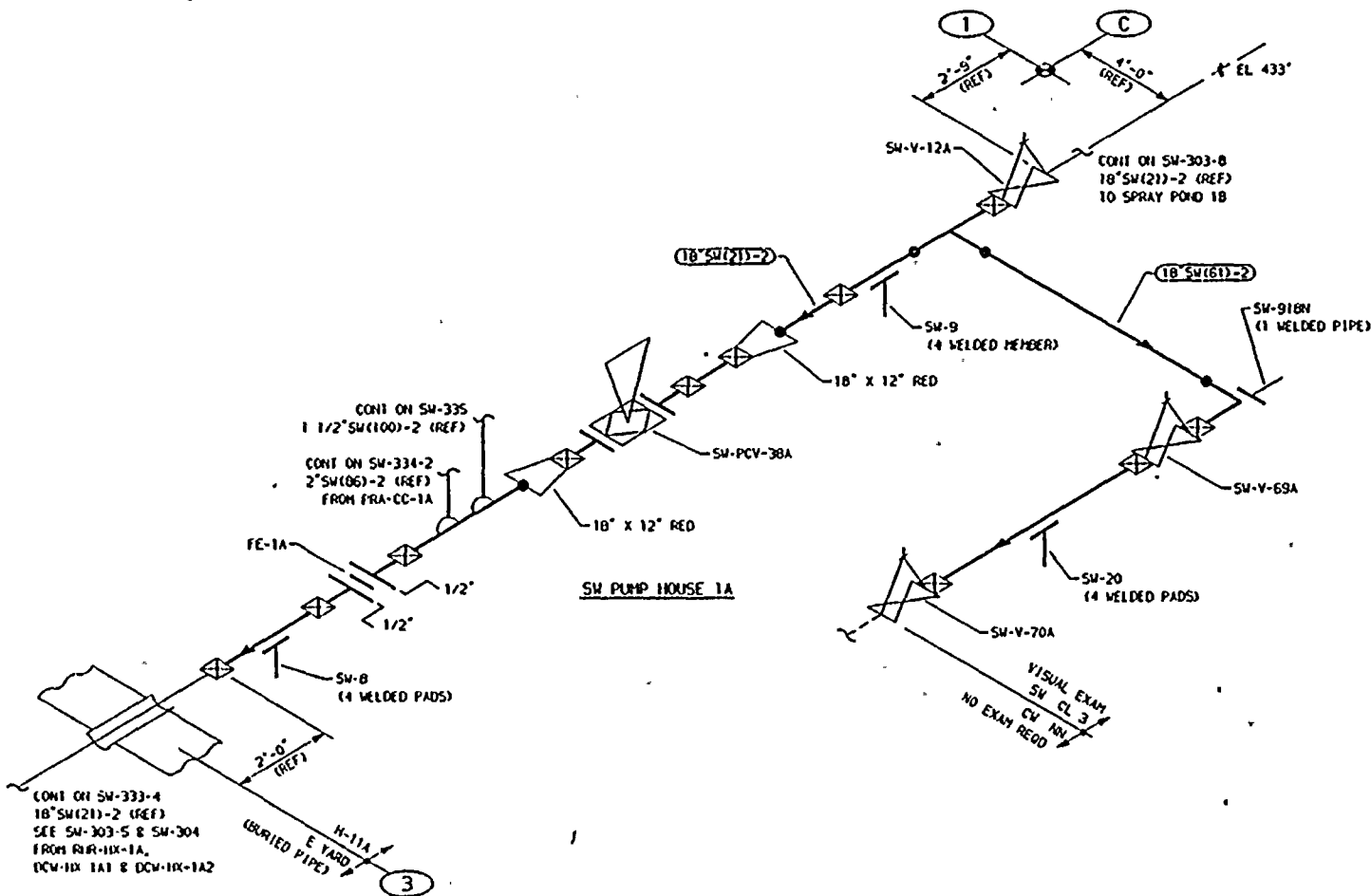
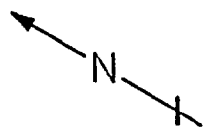
REV 2

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
18" SW(21)-2	18	STD	0.375	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
2	12-1-77	ADDED ISI DWG REF, DNG 111E CONTINUATIONS, LOGO & NOTE 3. DELETED NOTE 2, MODIFIED KEYPLAN, REGRAN	K-MCA	DPR	IFH
1	1-24-84	REVISED AS NOTED, ADDED KEYPLAN,	K-MCA	GAK	IFH
0	11-5-80	ISSUED FOR USE	K-MCA	GAK	IFH







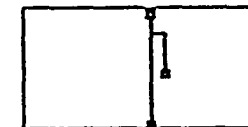
#### NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 1WA-5000 AND 1WD-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

#### REFERENCES:

ISI - 224-4, & 224-5  
BOVEE & CRAIG ISOMETRICS  
SW-296-47.53 REV 7  
SW-296-54.57 REV 14

SERVICE WATER  
PUMP HOUSE 1A



QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR: GA KUGLER DRAWN: K-MCA DATE: 11-29-78

WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 99352



SWP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SW LOOP A RETURN  
TO SPRAY POND 1B

DWG NO. SW-303-7

REV 2

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

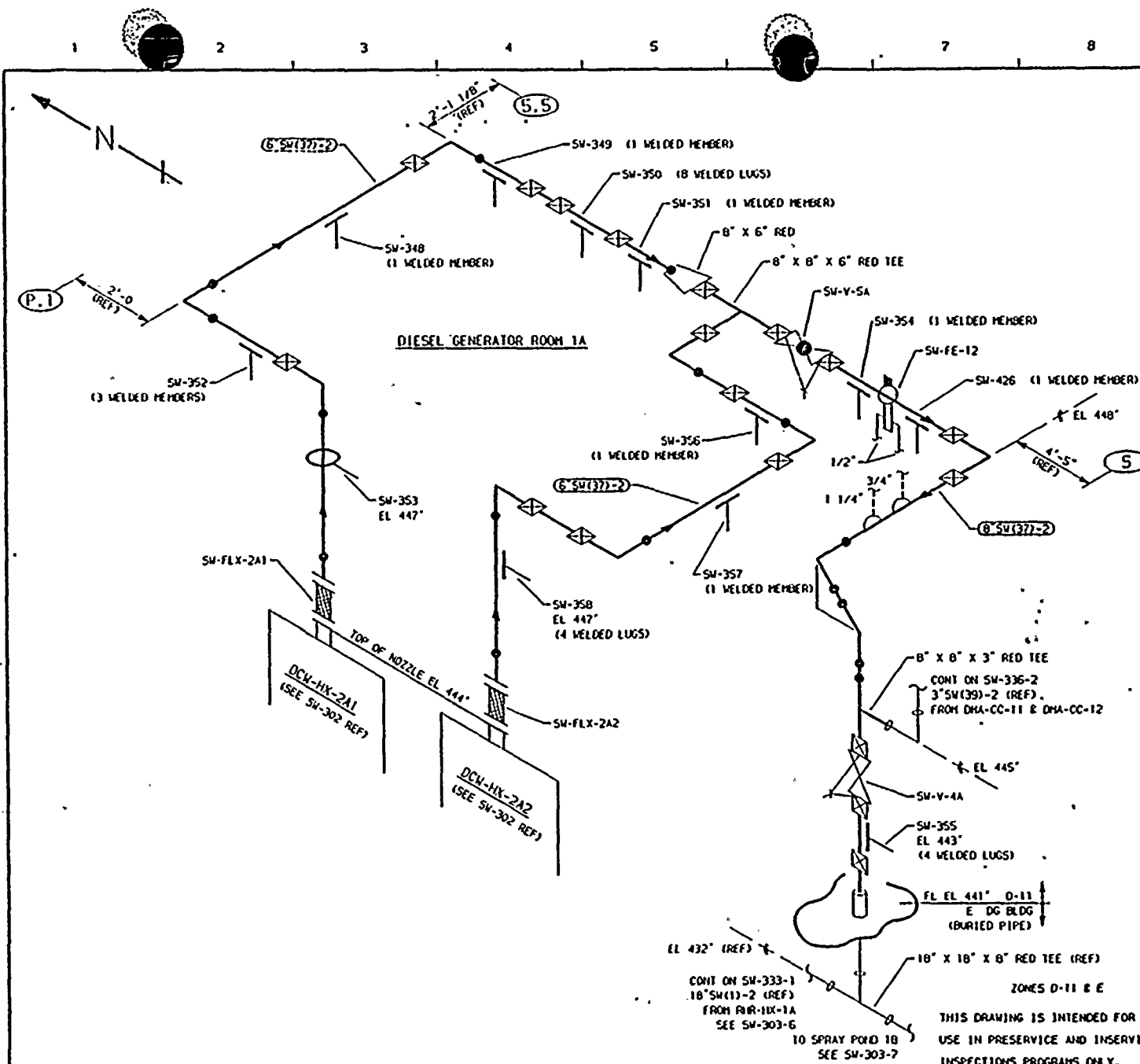
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
18"SW(21)-2	18	S1D	0.375	SA 106 GR B	CS	NA
18"SW(61)-2	18	S1D	0.375	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
2	11-27-84	REVISED AS NOTED, ADDED KEYPLAN.	K-MCA	DPR	TFH
1	11-5-80	ISSUED FOR USE	K-MCA	GAK	TFH





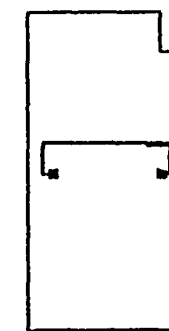




- NOTES:**
1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWA-2000.
  2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

**REFERENCES:**

- 151 - 224-4  
 BOVEE & CRILL ISOMETRICS  
 SW-296-33.36 REV 6  
 SW-304-1.5 REV 10  
 SW-304-6 REV 6



**KEYPLAN**  
  
**DIESEL GENERATOR BUILDING**

QUALITY CLASS, 1 ASME CODE CLASS, 3  
 ENGR, GA KUGLER DRAWN, K-MCA DATE, 11-30-78



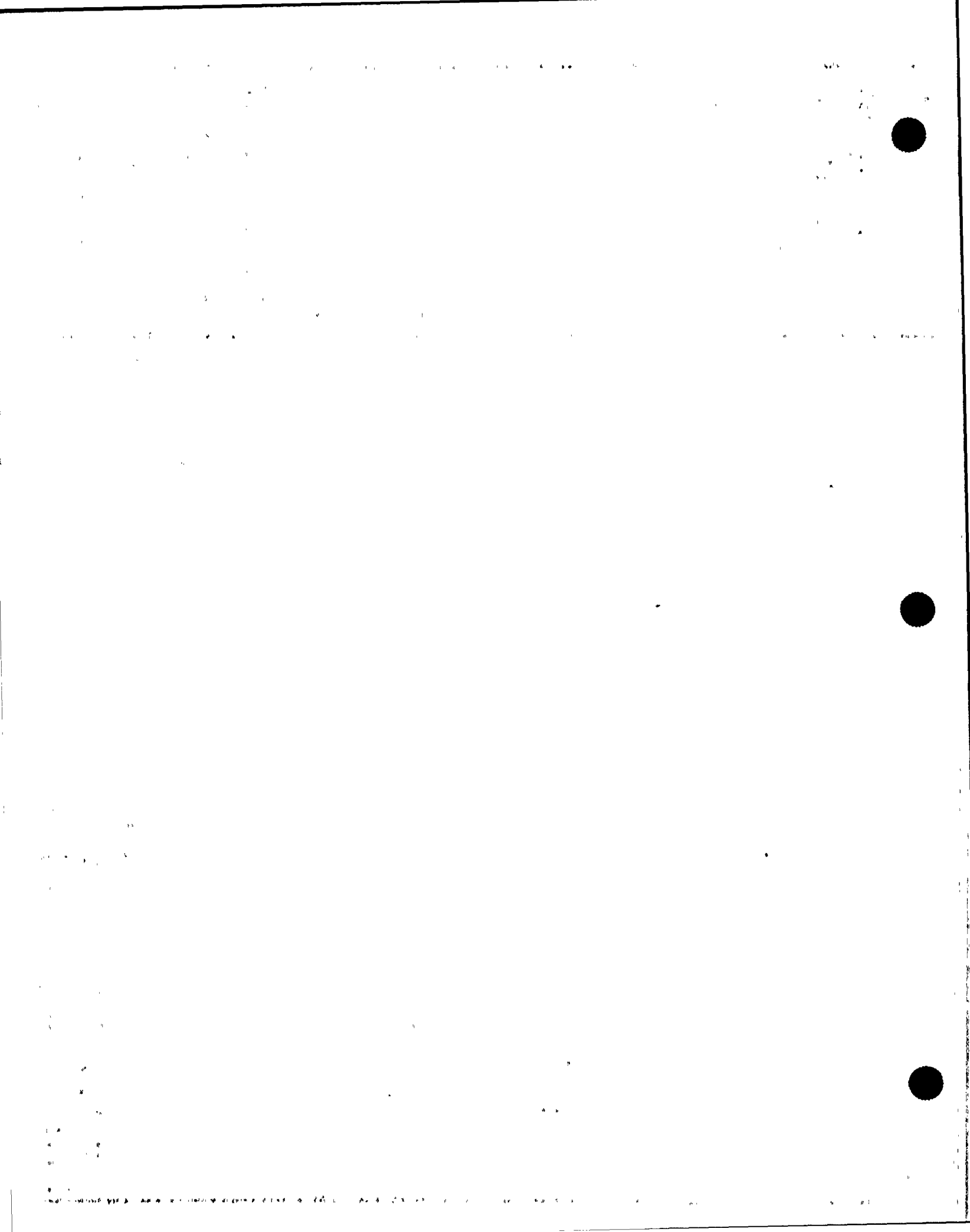
WASHINGTON PUBLIC POWER  
**SUPPLY SYSTEM**  
 RICHLAND, WASHINGTON 99352

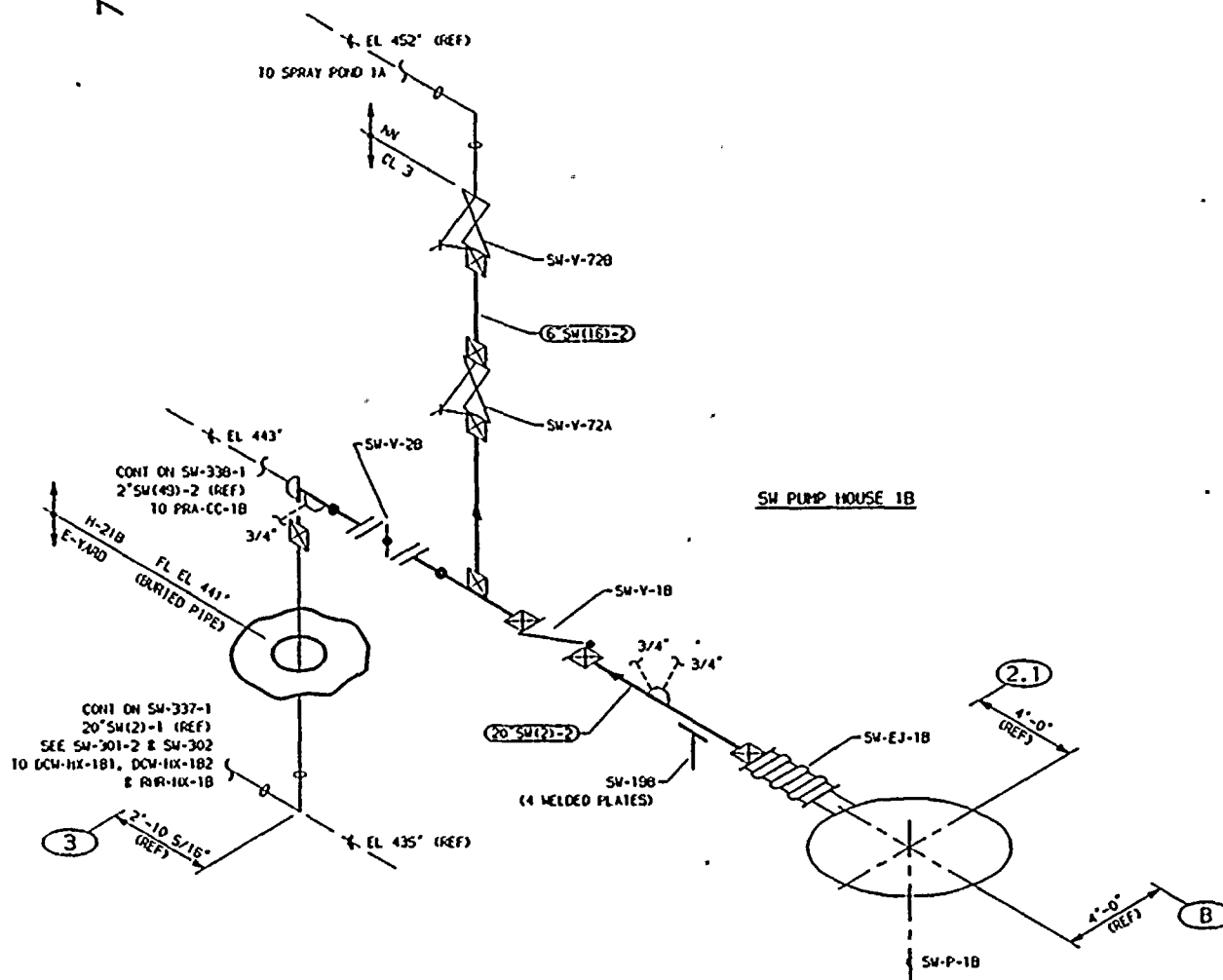
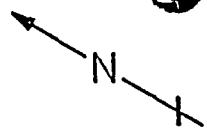
WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM  
  
**TITLE:** SW LOOP A RETURN  
 FROM DCN-HX-2A1 & 2A2  
  
 DWG NO: SW-304 REV 2

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8" SW(37)-2	8	S10	0.322	SA 106 GR B	CS	NA
6" SW(37)-2	6	S10	0.280	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
2	11-1-78	ACORD 151 DWG REF, DWG LINE CONT & LOGO, MOD KEYPLAN REDRAWN	K-MCA	DKR	IFH
1	1-27-74	GENERAL UPDATE, REDRAWN	K-MCA	GAK	DKR
0	11-5-70	ISSUED FOR USE	K-MCA	GAK	DKR

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.





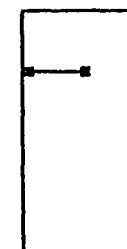
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

#### NOTES:

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2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

#### REFERENCES:

ISI - 224-5 & 224-4A  
BOYCE & CRILL ISOMETRICS  
SW-251-1.3 REV 12  
SW-292-1.5 REV 9



SERVICE  
WATER  
PUMP HOUSE  
1B

QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR. GA KUGLER DRAWN: K-MCA DATE: 2-5-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

SWP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SW LOOP B SUPPLY  
SW-P-18 DISCHARGE

DWG NO. SW-305-1

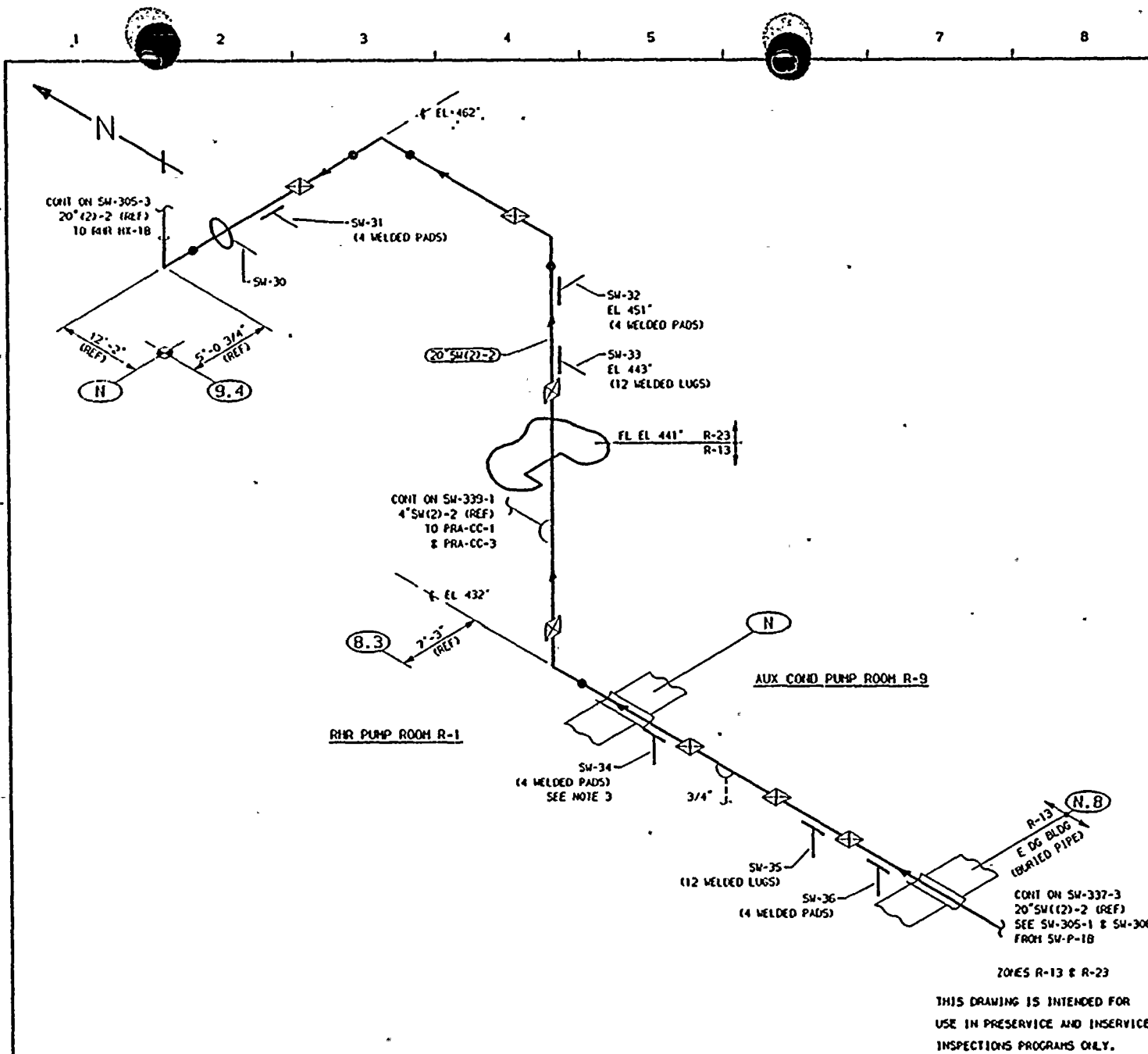
REV 2

NO	DATE	REVISION	BY	CHKD	APVD
2	2-6-87	ADDED ISI ENG REF, ENG LINE CONT, KEYPLAN & LOGO. REDRAWN	K-MCA	DPR	TH
1	1-27-84	RELOCATED SW-198 ADDED KEYPLAN	K-MCA	GAK	TH
0	11-5-80	ISSUED FOR USE	K-MCA	GAK	TH

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
20" SW(2)-1	20	STD	0.375	SA 106 GR B	CS	NA
6" SW(16)-2	6	STD	0.280	SA 106 GR B	CS	NA
6" SW(16)-2	6	160	0.719	SA 106 GR B	CS	NA



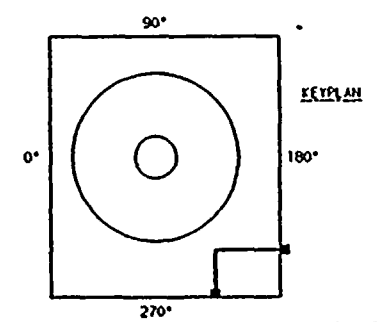




- NOTES:**
1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWD-2000.
  2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
  3. COMPONENT SUPPORT IS INACCESSIBLE DUE TO FOAM FILLED WATER TIGHT BOOT.

**REFERENCES:**

- ISI - 224-3A  
 BOYCE & CRAIG ISOMETRICS  
 SW-251-19-22 REV 8  
 SW-251-23-29 REV 10  
 SW-251-30-33 REV 8



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, GA KUGLER	DRAWN, K-MCA DATE, 1-11-79

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 99152

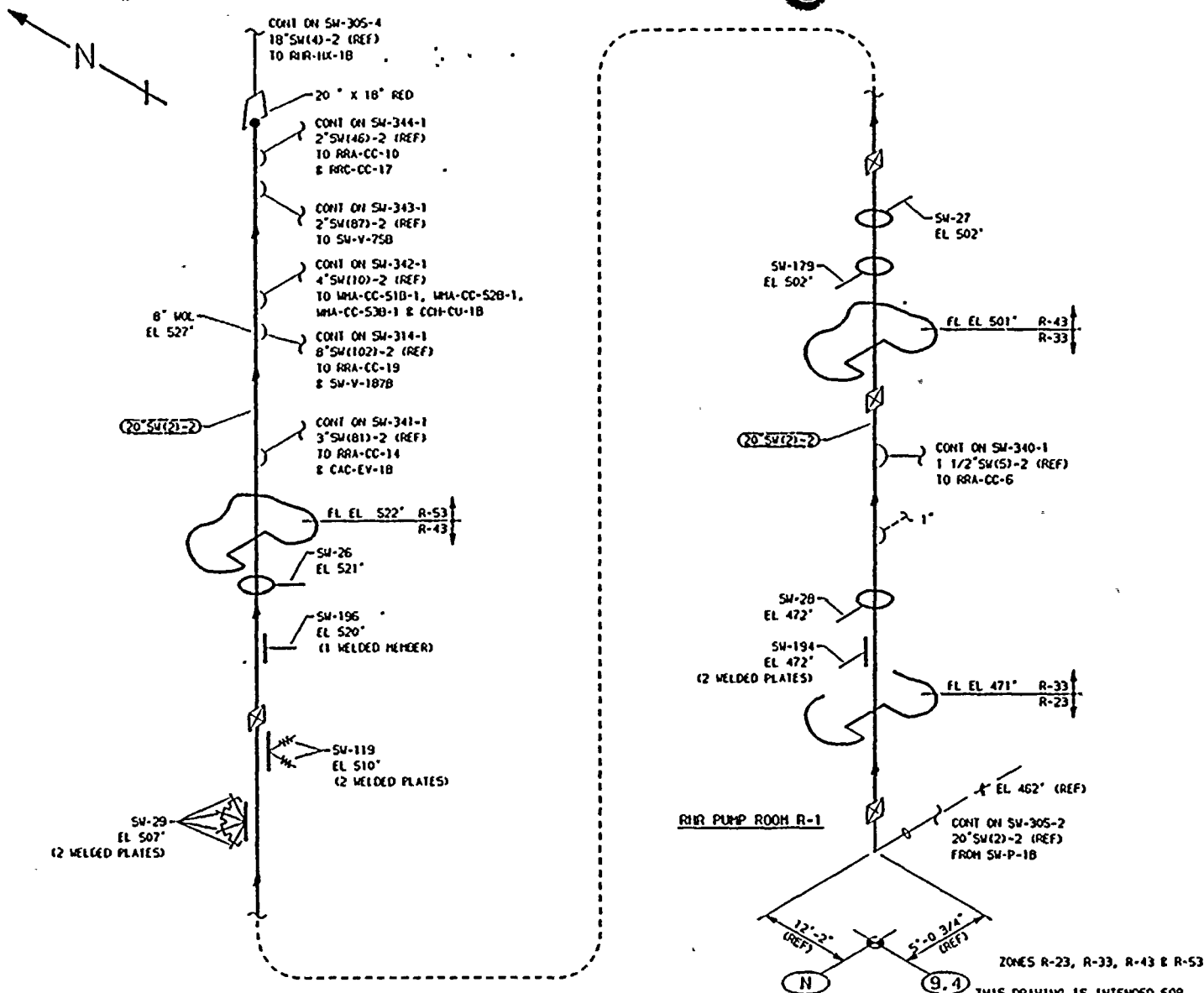
WP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE: SV LOOP B SUPPLY TO RHR-HX-1B
DWG NO, SW-305-2
REV 2

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2	12-4-79	ALSO 151 Dwg REF, Dwg LINE CONT & LOGO, MO KEYPLAN, REVISION	K-MCA	DPR	TFH	20" SW (2)-2	20	STD	0.375	SA 106 GR B	CS	NA
1	1-27-74	REVISED AS NOTED, ADDED KEYPLAN.	K-MCA	DPR	TFH							
0	11-5-69	ISSUED FOR USE	K-MCA	GAK	DMP							



A  
B  
C  
D  
E  
F  
G

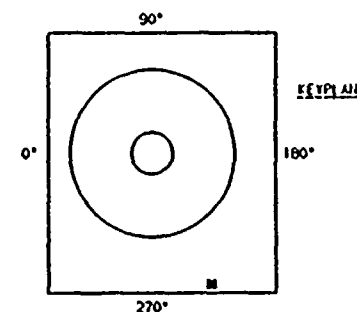


# NOTES:

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2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 224-3A, 224-2A & 224-1A  
BOYCE & CRAIG ISOMETRICS  
SW-251-30.33 REV 8  
SW-251-34.35 REV 14



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, GA KUGLER	DATE, 2-8-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMONT, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SW LOOP B SUPPLY  
TO RHR-IX-1B

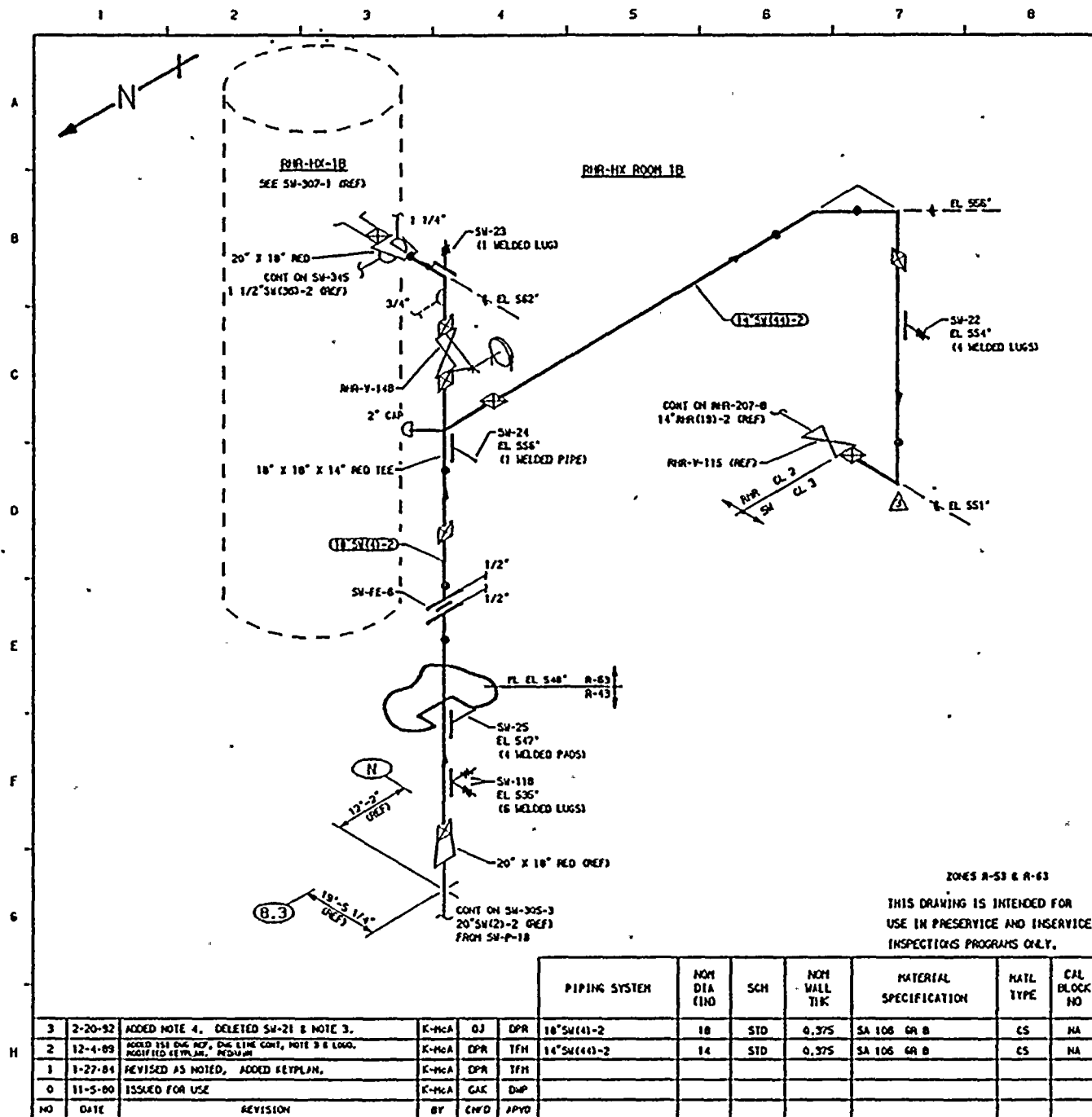
DWG NO. SW-305-3

REV 2

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
20\"SW(2)-2	20	S10	0.375	SA 106 GR B	CS	NA

2	12-1-82	ALD 151 DWG REF, DWG LINE CONT & LOGO, MCD KEYPLAN, REDRAWN	K-MCA	DPR	TFH
1	1-24-84	GENERAL UP-DATE REDRAWN	K-MCA	DPR	TFH
0	11-5-00	ISSUED FOR USE	K-MCA	GAK	TFH
NO	DATE	REVISION	BY	CHKD	APVD







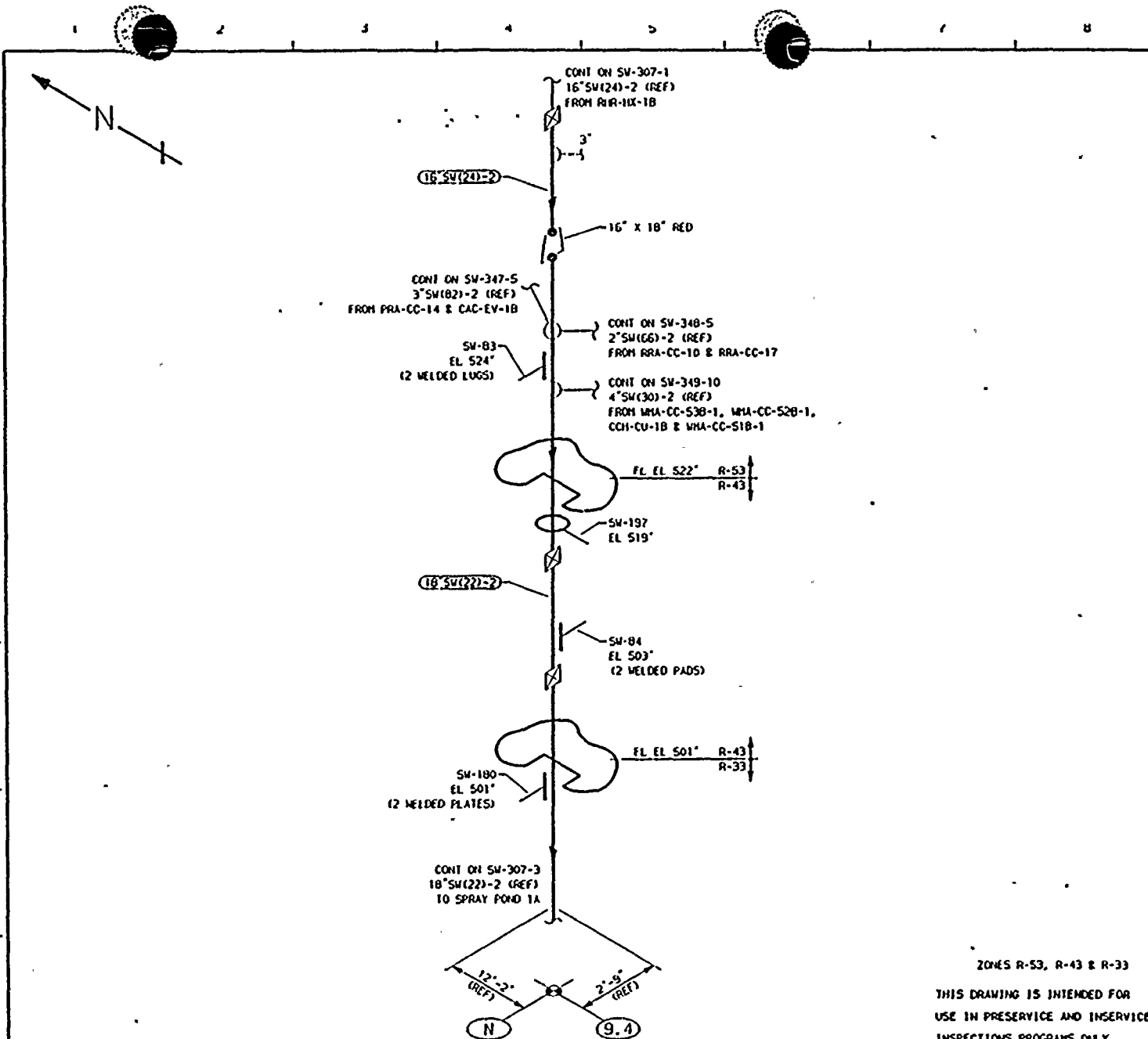










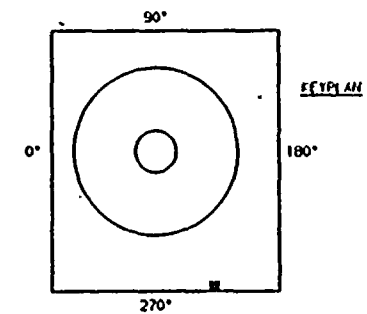


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2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

# REFERENCES:

- ISI - 224-1A & 224-2A
- BOYCE & CRAIL ISOMETRICS
- SW-295-4.6 REV 14
- SW-295-7.11 REV 10



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, GA KUGLER	DRAWN, K-HCA DATE, 3-8-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDLAND, WASHINGTON 99352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SW LOOP B RETURN  
TO SPRAY POND 1A

DWG NO, SW-307-2 REV 2

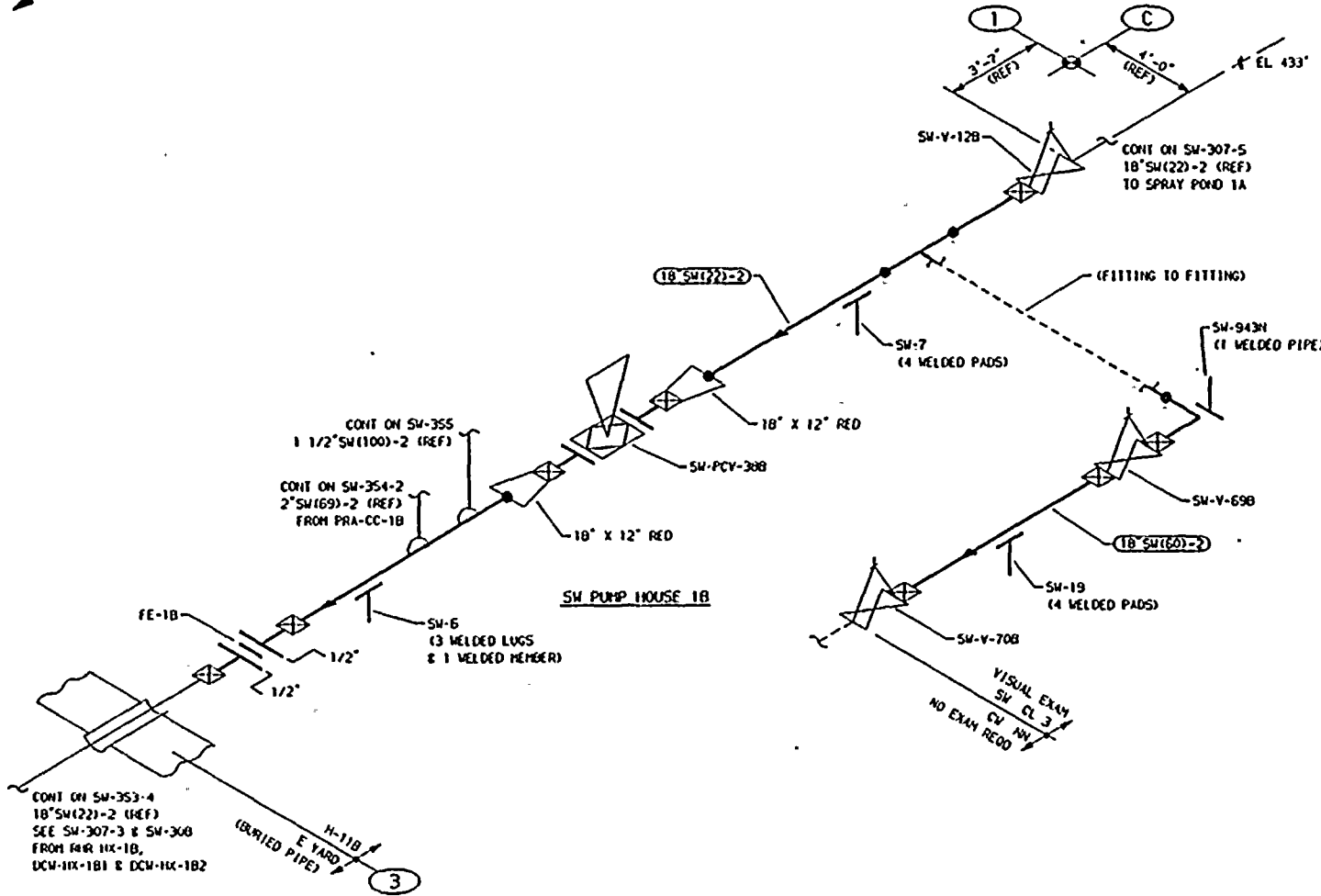
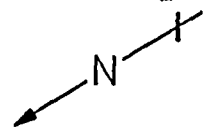
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2	12/1/82	ADDED 151 DWS REF, DNG LINE CONT B LOGO, MCO KEYPLAN, REDRAW	K-HCA	DFR	TFH	16"SW(24)-2	16	S10	0.375	SA 106 GR B	CS	NA
1	1-27-84	REVISED AS NOTED, ADDED KEYPLAN.	K-HCA	DFR	TFH	18"SW(22)-2	18	S10	0.375	SA 106 GR B	CS	NA
0	11-5-80	ISSUED FOR USE	K-HCA	GAK	DFR							







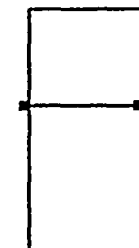


#### NOTES:

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2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

#### REFERENCES:

ISI - 224-4A & 224-5  
BOVEE & CRAIG ISOMETRICS  
SW-295-33.38 REV 12  
SW-295-39.42 REV 14



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, GA KUGLER	DATE, 3-9-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 99352

WPP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM
TITLE: SW LOOP B RETURN TO SPRAY POND 1A
DWG NO, SW-307-4

REV 2

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
18"SW(22)-2	18	S10	0.375	SA 106 GR B	CS	NA
18"SW(60)-2	18	S10	0.375	SA 106 GR B	CS	NA

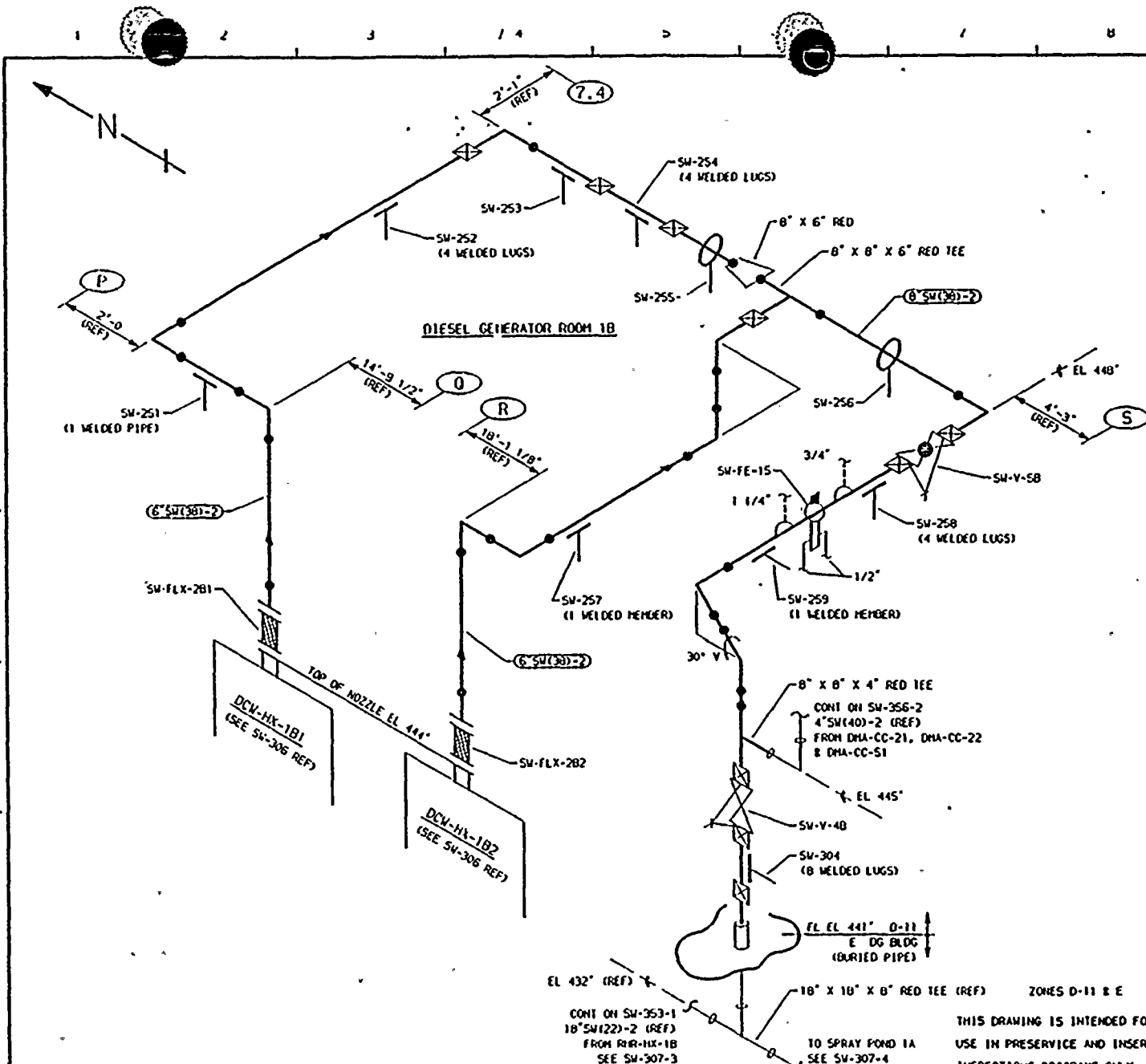
NO	DATE	REVISION	BY	CHKD	APVD
2	1-27-84	ADDED ISI DWG REF, DWG LINE CONT & LOGO, MCD KEYPLAN, REDRAW	K-MCA	DFR	TFH
1	11-5-80	REVISED AS NOTED, ADDED KEYPLAN, ISSUED FOR USE	K-MCA	GAK	DWP





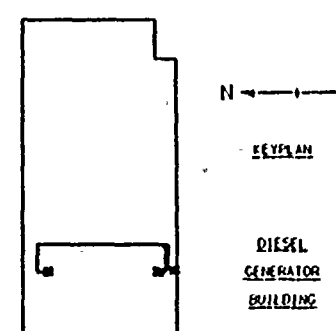






- NOTES:**
1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWD-2000.
  2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

- REFERENCES:**
- ISI - 224-4A
  - BOYCE & CRAIL ISOMETRICS
  - SW-295-19.22 REV 9
  - SW-283-1.5 REV 6
  - SW-283-6 REV 7



QUALITY CLASS: 1	ASME CODE CLASS: 3
ENGR: GA KUGLER	DRAWN: K-MCA
DATE: 3-9-79	

WASHINGTON PUBLIC POWER  
**SUPPLY SYSTEM**  
 RICHLAND, WASHINGTON 99352

WRP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE: SW LOOP B RETURN  
 FROM DCV-HX-1B1 & 1B2

DWG NO: SW-30B REV 2

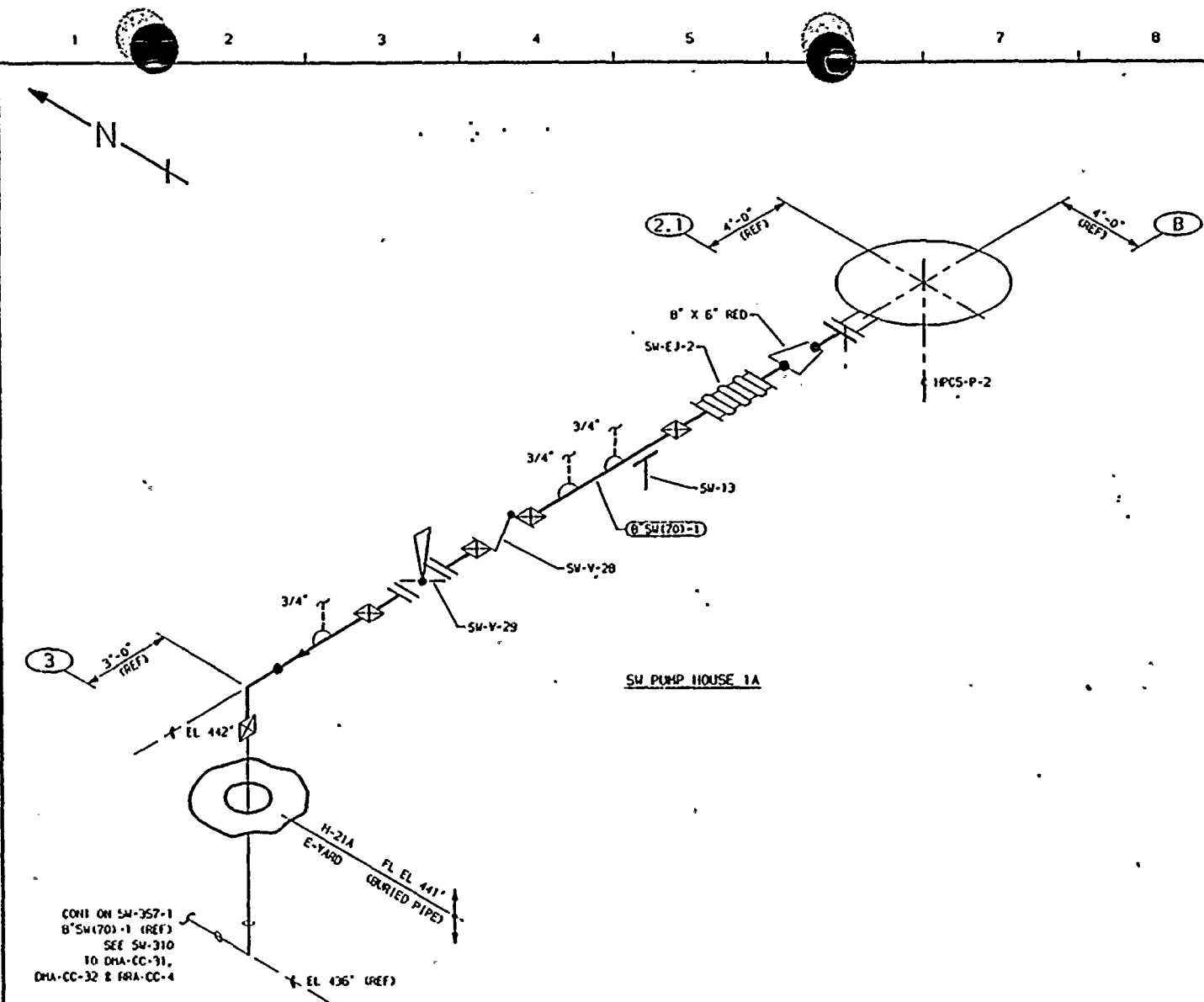
THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8" SW(30)-2	8"	STD	0.322	SA 106 GR B	CS	HA
6" SW(30)-2	6"	STD	0.280	SA 106 GR B	CS	NA

2	12-1-89	ADDED 151 DWG REF, DWG LINE CONTINUATIONS & LOGO, CHANGED SW-253 TO WELDED, MODIFIED KEYPLAN, REDRAWN	K-MCA	DPR	TFH
1	1-24-84	ADDED FM 2N G-6, ADDED KEYPLAN	K-MCA	GAK	TFH
0	11-5-80	ISSUED FOR USE	K-MCA	GAK	TFH
NO	DATE	REVISION	BY	CHKD	APVD



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# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWA-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CORRECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 224-5

BOYCE & CRAIG ISOMETRIC  
SW-290-1.3 REV 11

SERVICE WATER  
PUMP HOUSE 1A



N

KEYPLAN

QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR: GA KUGLER DRAWN: K-McA DATE: 3-12-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SW WPCS LOOP SUPPLY

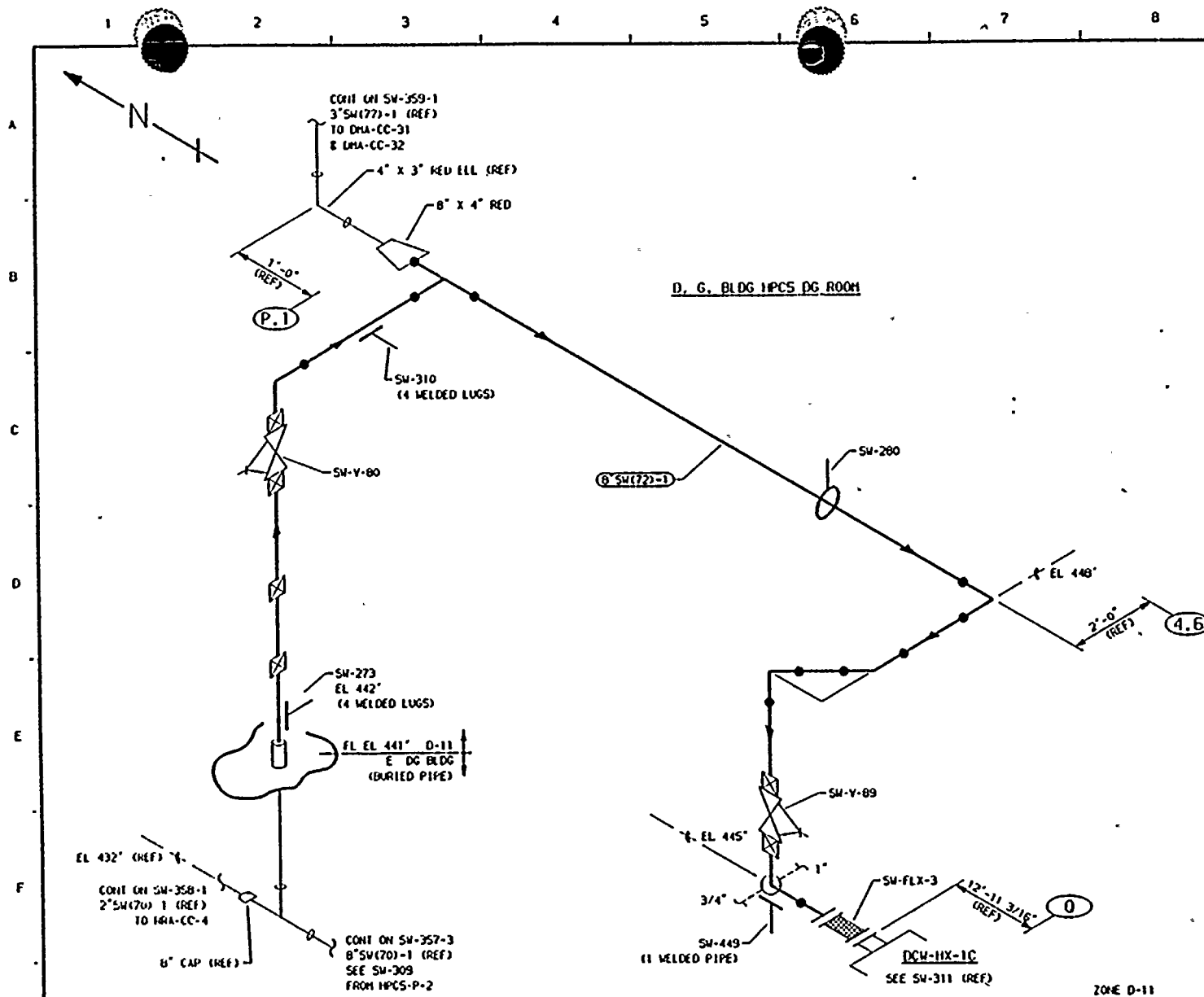
DWG NO. SW-309 REV 2

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8"SW(70)-1	8	STD	0.322	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
2	12-8-89	AKAD ISI ENG REF, ENG LINE CONT & LOGO, PWD REPLAN, ALGRAW	K-McA	DPR	TFH
1	1-24-84	REVISED AS NOTED, ADDED KEYPLAN.	K-McA	GAK	DPR
0	11-5-80	ISSUED FOR USE	K-McA	GAK	DPR



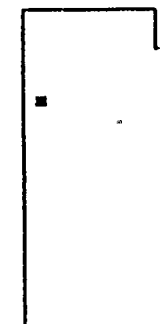


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\"
2. FOR BRANCH PIPING 4\"

## REFERENCES:

ISI - 224-G  
BOYCE & CRAIG ISOMETRICS  
SW-290-21.23 REV 6  
SW-290-24.29 REV 12



N  
KEYPLAN  
DIESEL  
GENERATOR  
BUILDING

QUALITY CLASS, 1 ASME CODE CLASS, 3  
ENGR. GA KUGLER DRAWN, K-MCA DATE, 3-12-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

MRP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SW 1PCS LOOP SUPPLY  
TO DCW-HX-1C

DWG NO. SW-310

REV 2

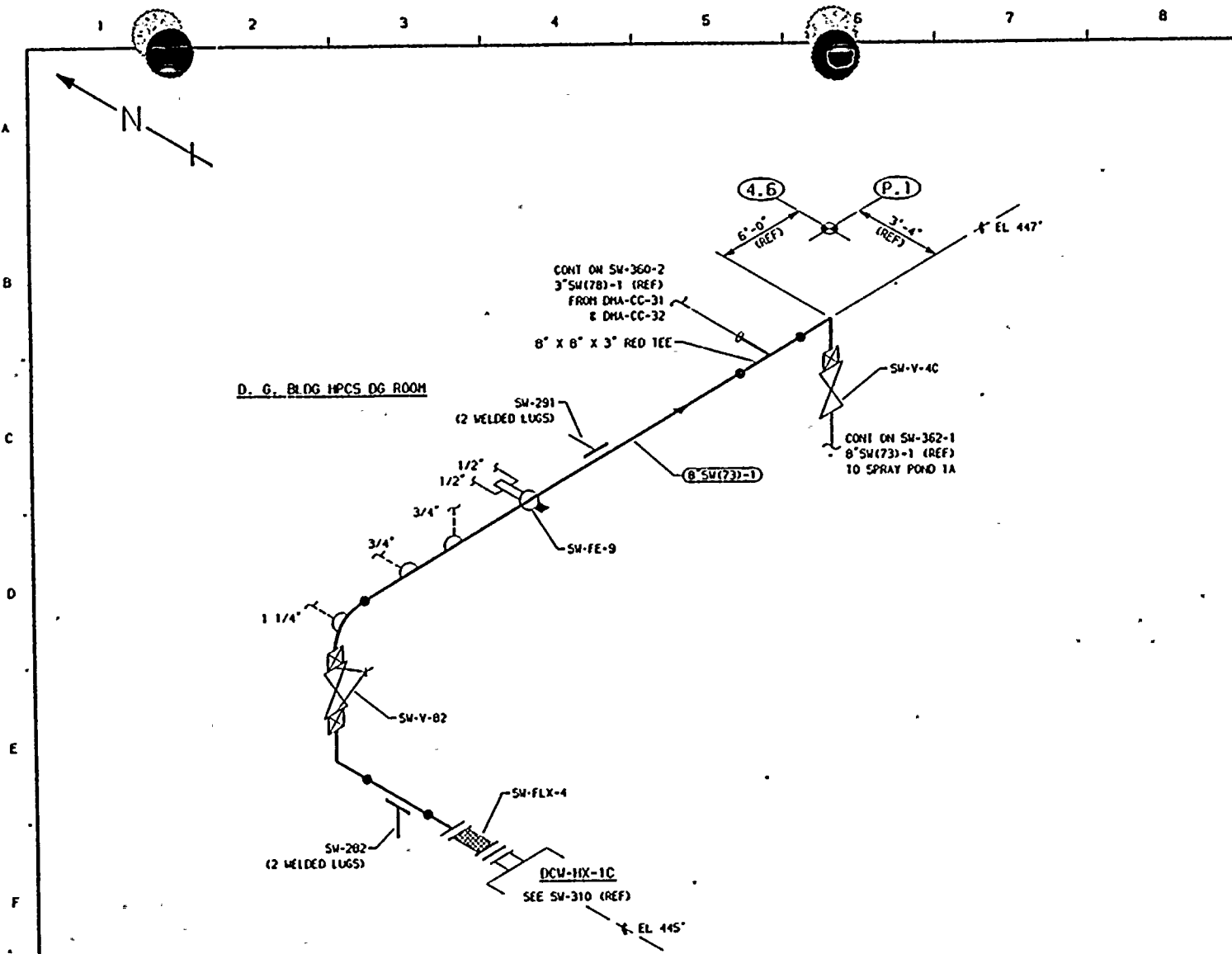
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8\"	8	STD	0.322	SA 106 GR B	CS	NA

NO	DATE	REVISION	BY	CHKD	APVD
2	12-4-89	ADDED ISI DWG REF, DNG LINE CONT & LOGO, INC KEYPLAN, REDRAWN	K-MCA	DPR	TFH
1	1-24-84	REVISED AS NOTED, ADDED KEYPLAN.	K-MCA	DPR	TFH
0	11-5-80	ISSUED FOR USE	K-MCA	GAK	TFH





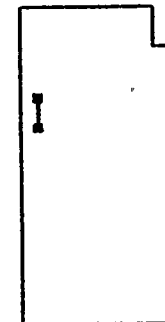


# NOTES:

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2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 224-6  
BOYCE & CRAIG ISOMETRIC  
SW-112-7.9 REV 9



N


KEYPLAN

DIESEL  
GENERATOR  
BUILDING

ZONE D-11

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2	8-4-89	ADDED ISI ENG REF, DNG LINE CONT & LOGO, PLO KEYPLAN, REDRAWN	K-MCA	DPR	JFH	8" SW(73)-1	8	STD	0.322	SA 106 GR D	CS	NA
1	1-24-84	REVISED AS NOTED	K-MCA	DPR	JFH							
0	11-5-80	ISSUED FOR USE	K-MCA	CAR	JFH							

QUALITY CLASS: 1	ASME CODE CLASS: 3
ENGR, GA KUGLER	DRAWN, K-MCA
DATE, 3-13-79	
 WASHINGTON PUBLIC POWER SUPPLY SYSTEM RIDGELAND, WASHINGTON 99352	
WMP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: SW HPDS LOOP RETURN FROM DCV-IX-1C	
DWG NO. SW-311	REV 2



# NOTES:

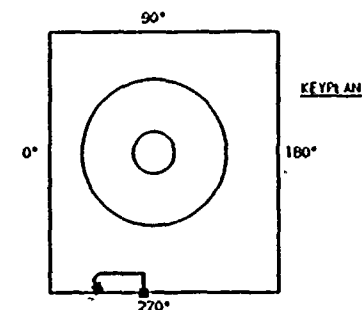
1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWD-2000.

2. DELETED

## REFERENCES:

ISI - 224-1

BOYCE & CRAIG ISOMETRIC  
SW-250-55.75 REV 11



QUALITY CLASS: 1	ASME CODE CLASS: 3
ENGR: K-McANDREW	DRAWN: K-McA DATE: 11-15-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMO, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: SW LOOP A SUPPLY  
TO FPC-HX-1A

DWG NO: SW-312-1

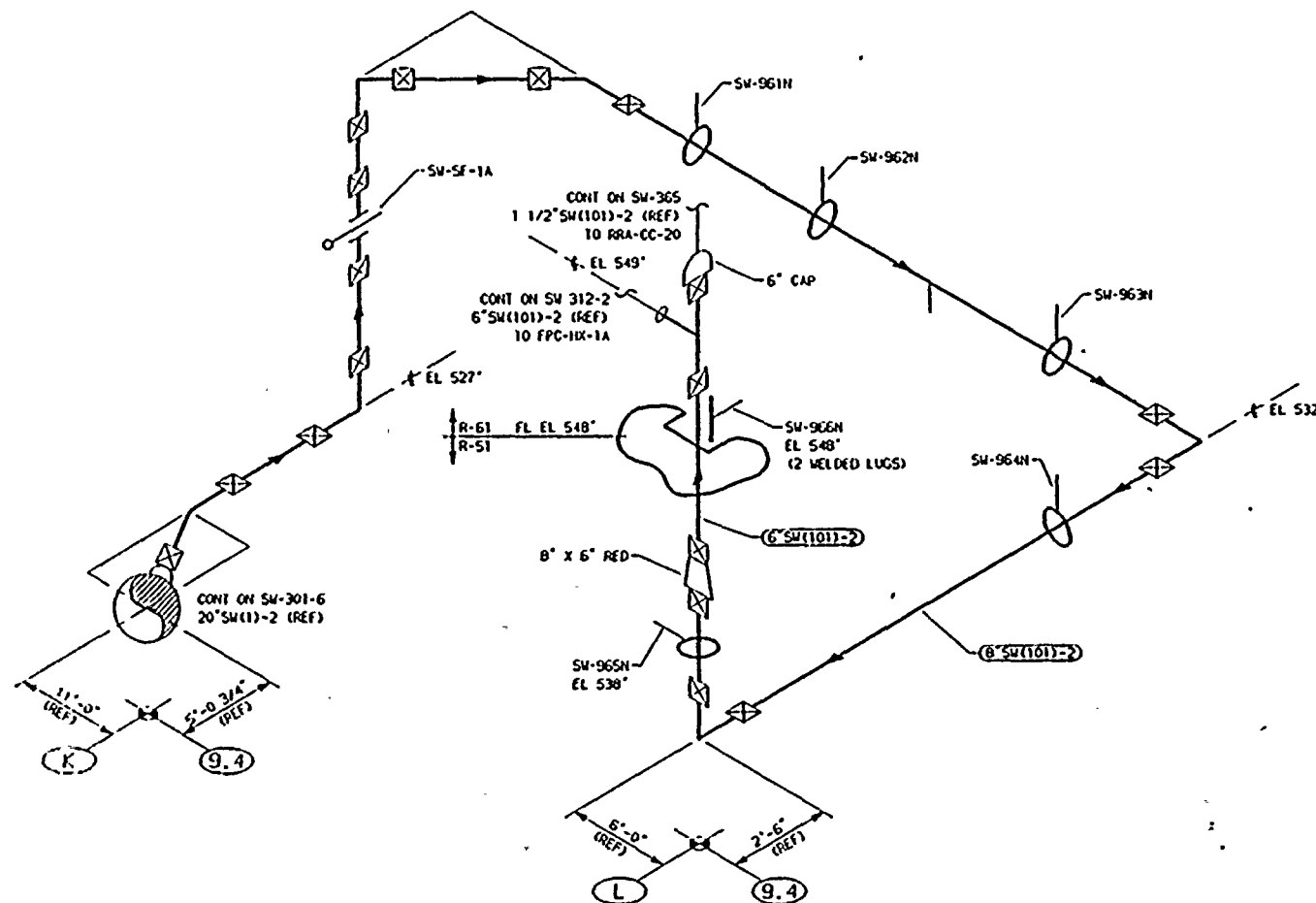
REV 1

ZONES R-51 & R-61

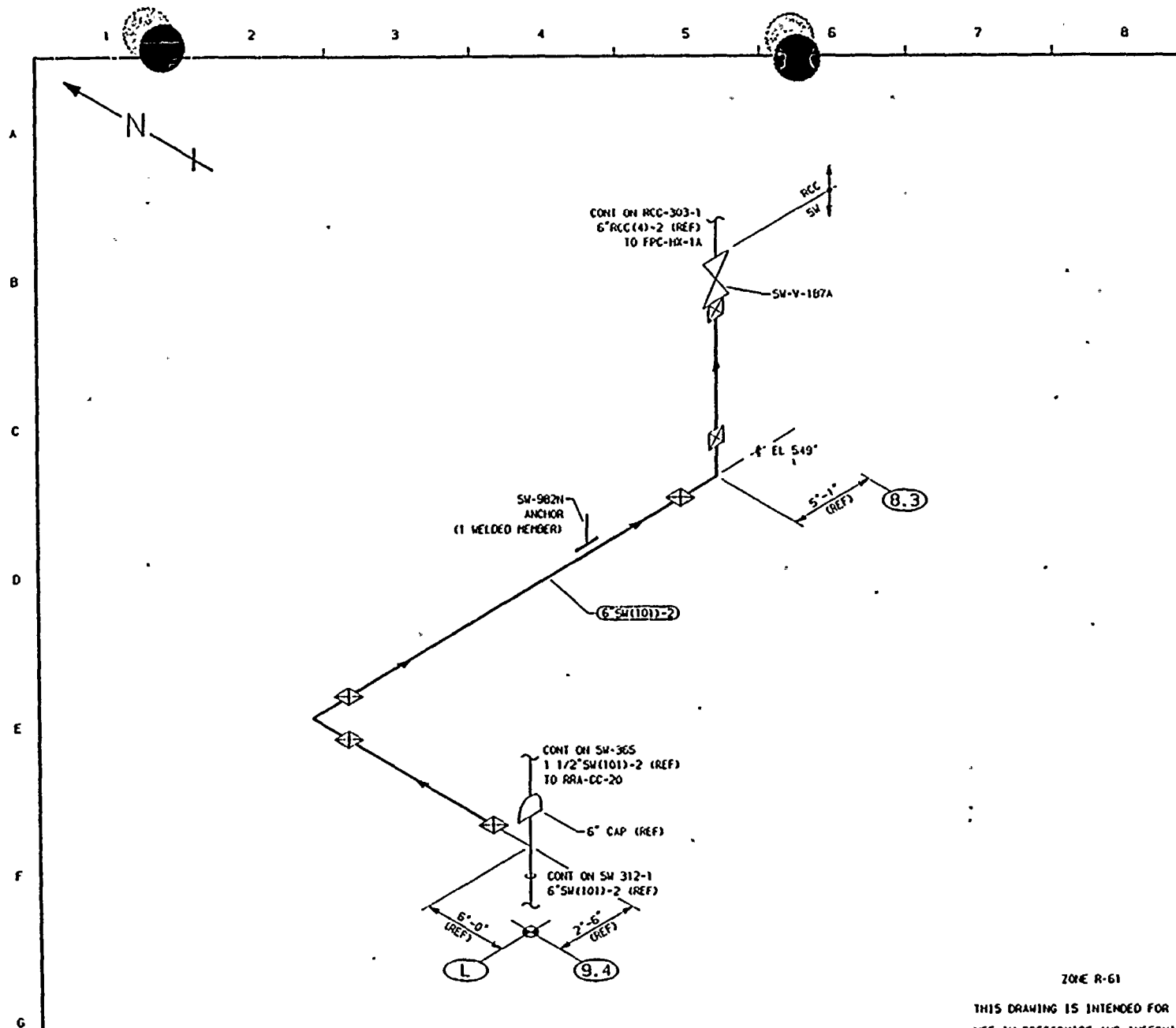
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
8" SW(101)-2	8	STD	0.322	SA 106 GR B	CS	NA
6" SW(101)-2	6	STD	0.260	SA 106 GR B	CS	NA

1	12-1-83	ADDED 1ST ENG REF, ENG LINE CONT R 1000, DELETED	K-McA	DPR	TFH
0	1-24-84	NOTE 2, MODIFIED KEYPLAN, REDRAWN	K-McA	DPR	TFH
NO	DATE	REVISION	BY	CHKD	APVD





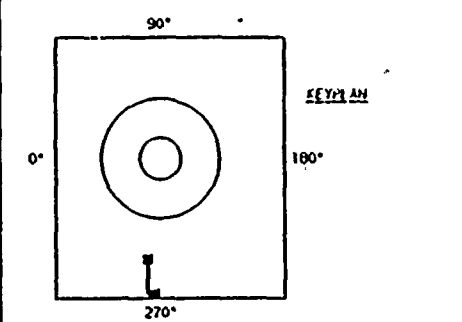


**NOTES:**

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWD-2000.

**REFERENCES:**

ISI - 224-1  
BOVEE & CRAIL ISOMETRIC  
SW-500-1.5 REV 4



ZONE R-61

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
6" SW(101)-2	6	STD	0.280	SA 106 GR B	CS	NA

1	12/1/81	MINED 1ST ENG REF, ONE LINE CONT & LOU. DELETED SW SWAN. MODIFIED RETAIN. REDRAWN	BY	CHKD	APVD
NO	DATE	REVISION	BY	CHKD	APVD

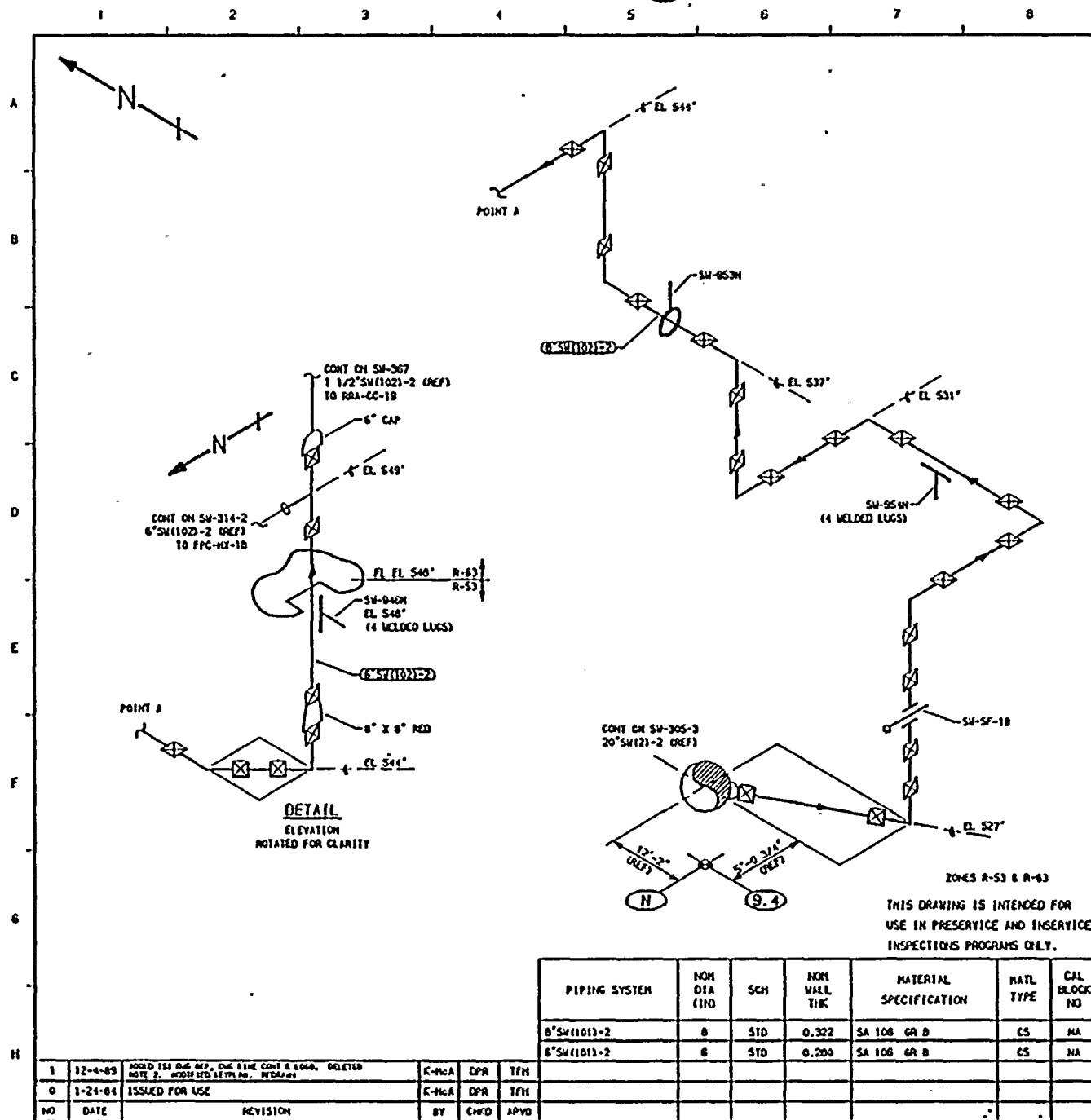
QUALITY CLASS: 1	ASME CODE CLASS: 3
ENGR: K-McANDREW	DRAWN: K-McA
DATE: 11-15-83	
WASHINGTON PUBLIC POWER <b>SUPPLY SYSTEM</b> RICHMOND, WASHINGTON 99352	
WSP-2 WELD & COMPONENT IDENTIFICATION DIAGRAM	
TITLE: SW LOOP A SUPPLY TO FPC-HX-1A	
DWG NO: SW-312-2	REV 1



				PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	NATL TYPE	CAL. BLOCK NO.
				8"SW(101)-2	8	STD	0.322	SA 106 GR B	CS	NA
				6"SW(101)-2	6	STD	0.280	SA 106 GR B	CS	NA
1	12-4-03	ADD 161 DUE REP, DUE EINE CONT & LOGS. DELETED NOTE 2, 1015111D (E101A), 1015111D		E-101A	OPR	TFM				
0	1-24-04	ISSUED FOR USE		E-101A	OPR	TFM				
NO	DATE	REVISION		BY	CHKD	APVD				







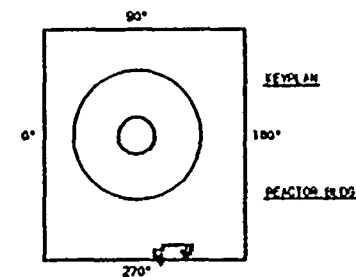
# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 1WA-5000 AND 1WA-2000.

2. DELETED

## REFERENCES:

ISI - 224-1A  
BOYCE & CRILL ISOMETRIC  
SW-251-30.84 REV 11



QUALITY CLASS: 1 ASME CODE CLASS: 3  
ENGR. K-MCANDREW DRAWN. K-MCA DATE: 11-2-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
ATLANTIC, WASHINGTON 98032

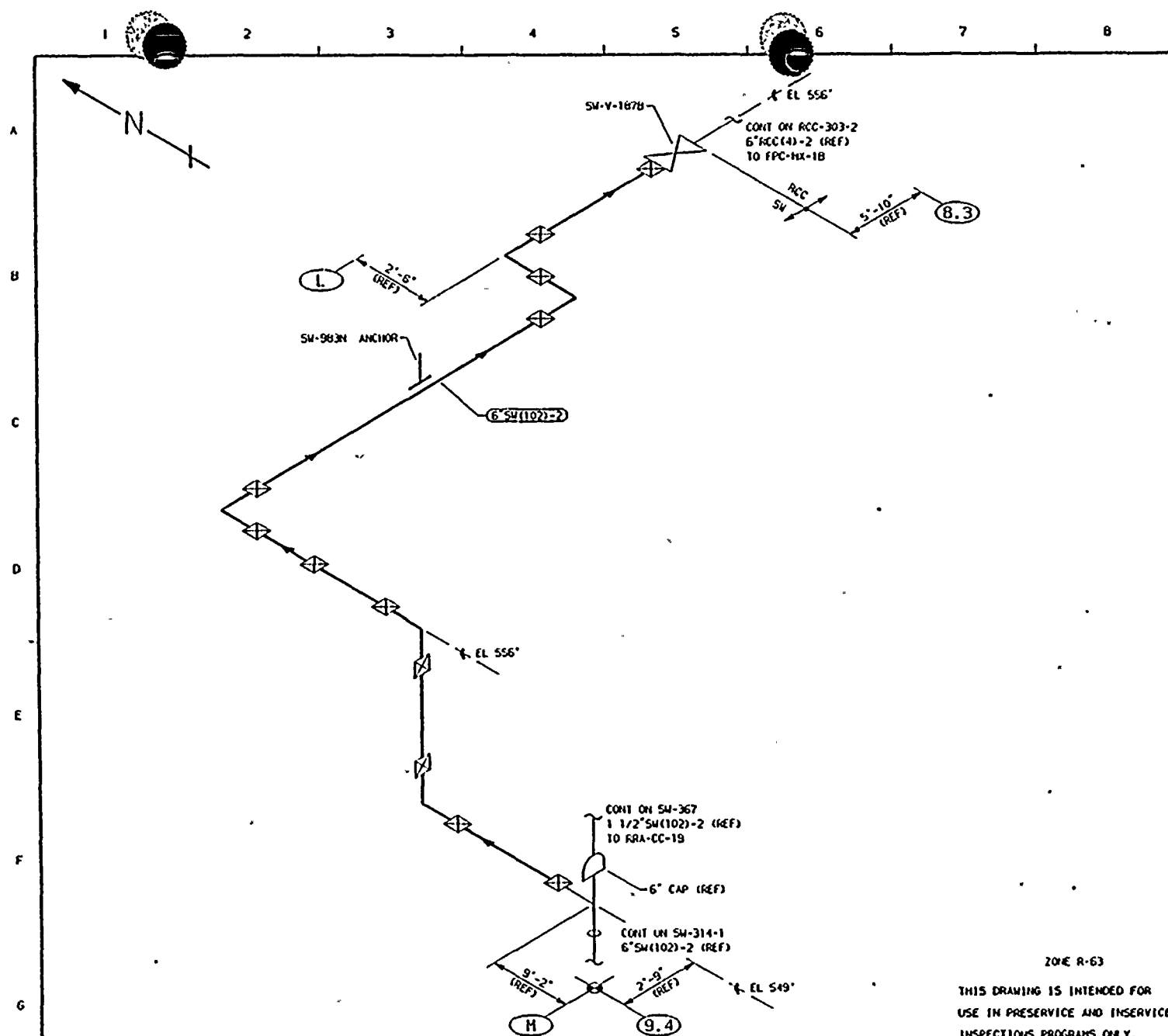
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: SW LOOP B SUPPLY  
TO FPC-HX-1B

DWG NO. SW-314-1 REV 1

1	12-4-83	ADDED 154 Dwg Ref, Dwg 5116 Cont & Log, DELETED NOTE 2, MODIFIED ATYPICAL, IN DRAWING	K-MCA	DPR	TJH
0	1-24-84	ISSUED FOR USE	K-MCA	DPR	TJH
NO	DATE	REVISION	BY	CHKD	APVD



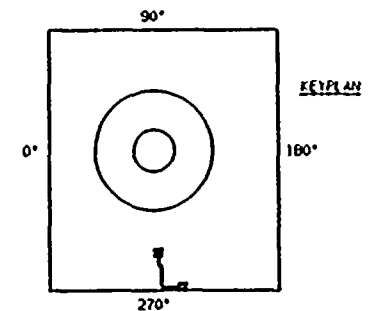


# NOTES

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# REFERENCES

ISI - 224-1A  
BOYCE & CRILL ISOMETRIC  
SW-501-1.10 REV 5



QUALITY CLASS, 1	ASME CODE CLASS, 3
ENGR, K-McANDREW	DRAWN, K-McA DATE, 11-2-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WRP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE,  
SW LOOP B SUPPLY  
TO FPC-HX-1B

DWG NO, SW-314-2

REV 1

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

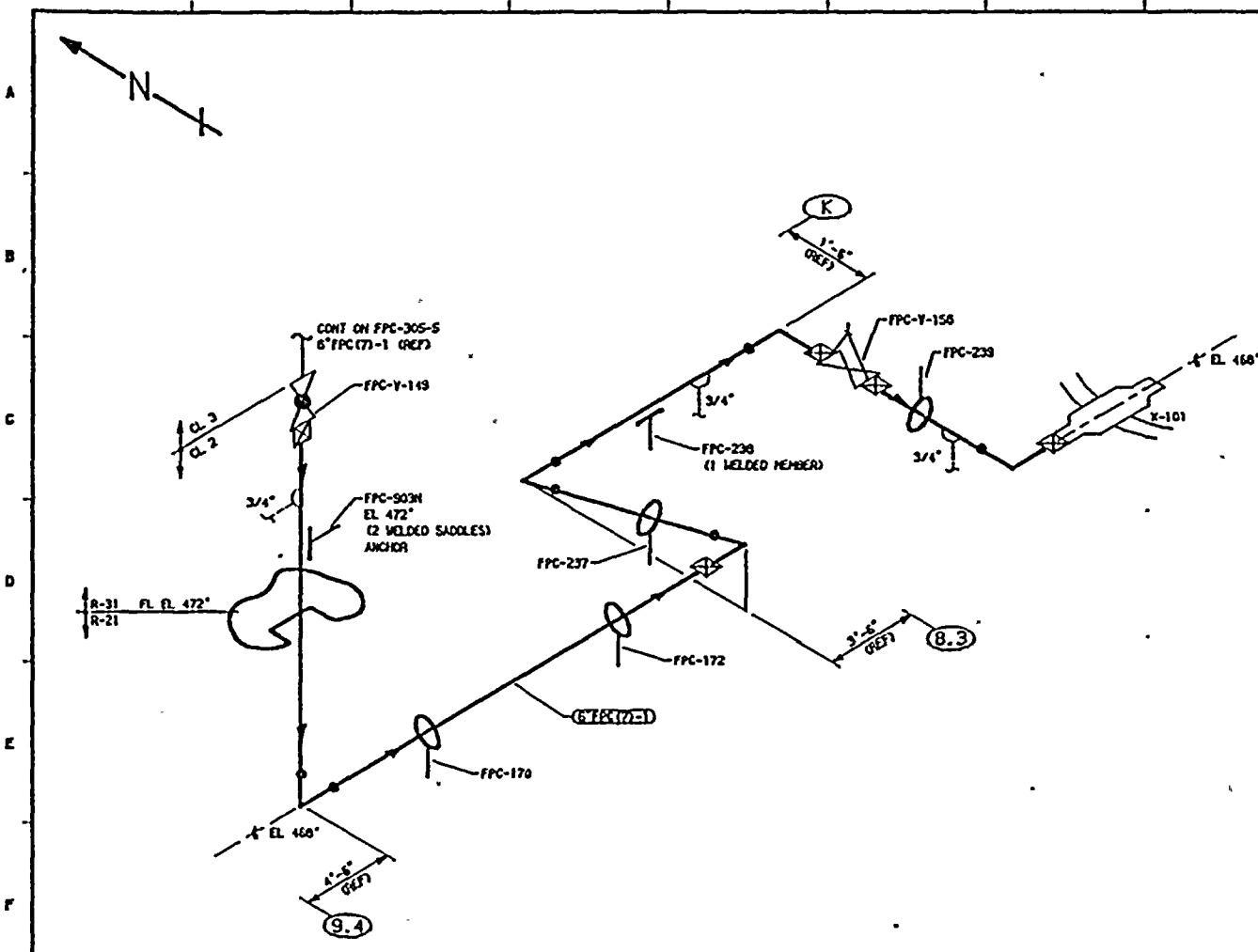
PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
6"SW(101)-2	6	STD	0.200	SA 106 GR B	CS	NA

1	11-2-83	ASME D 151, DNG REF, DNG LINE CONT & LOGO, MOD KEYPLAN, REDRAWN	K-McA	DPR	TRH
0	1-24-84	ISSUED FOR USE	K-McA	DPR	TRH
NO	DATE	REVISION	BY	CHKD	APVD







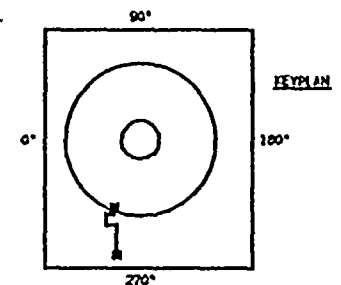


# NOTES:

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2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 226-1A  
DOYLE & CRAIG ISOMETRIC  
FPC-640-10.12 KEY B



QUALITY CLASS. 1	ASME CODE CLASS. 2
ENGR. K-McANDREW	DATE. 4-23-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

ZONES R-31 & R-21

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

NO	DATE	REVISION	BY	CHKD	APVD	PIPING SYSTEM	NOM DIA (IN)	SCH	NOM WALL THK	MATERIAL SPECIFICATION	MATL TYPE	CAL BLOCK NO
2	10-16-87	GENERAL UPDATE, ADDED 3/4" CONN, REDRAWN	K-McA	DPR	TFH	6" FPC(7)-1	6	STD	0.280	SA 106 GR B	CS	NA
1	1-24-84	REVISED AS NOTED ADDED KEYPLAN	K-McA	DPR	TFH							
0	12-2-81	ISSUED FOR USE	K-McA	DPR	TFH							

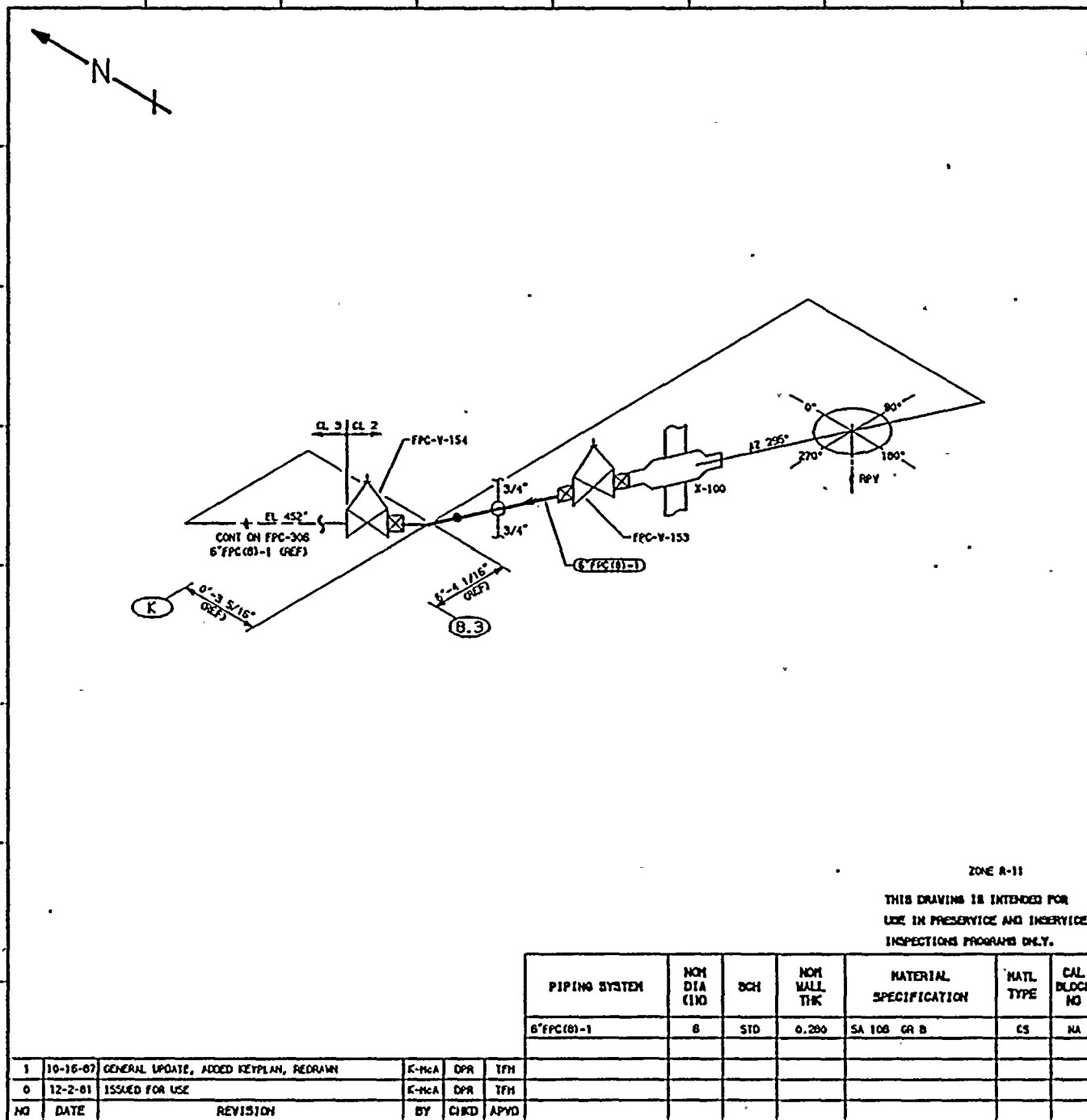
WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
FPC RETURN TO SUPPRESSION POOL

DWG NO. FPC-201  
REV 2





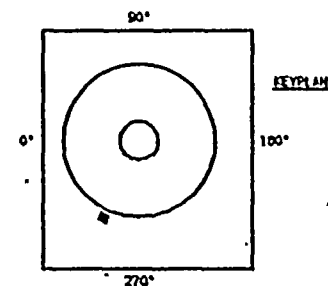


# NOTES:

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2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

151 - 226-1A  
DOYCE & CRAIG ISOMETRIC  
FPC-639-1.2 REV 11



QUALITY CLASS. 1 ASME CODE CLASS. 2

ENGR. K-MoANDREW DRAWN. K-MoA DATE. 4-27-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99302

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
SUPPRESSION POOL TO FPC-P-3 SUCTION

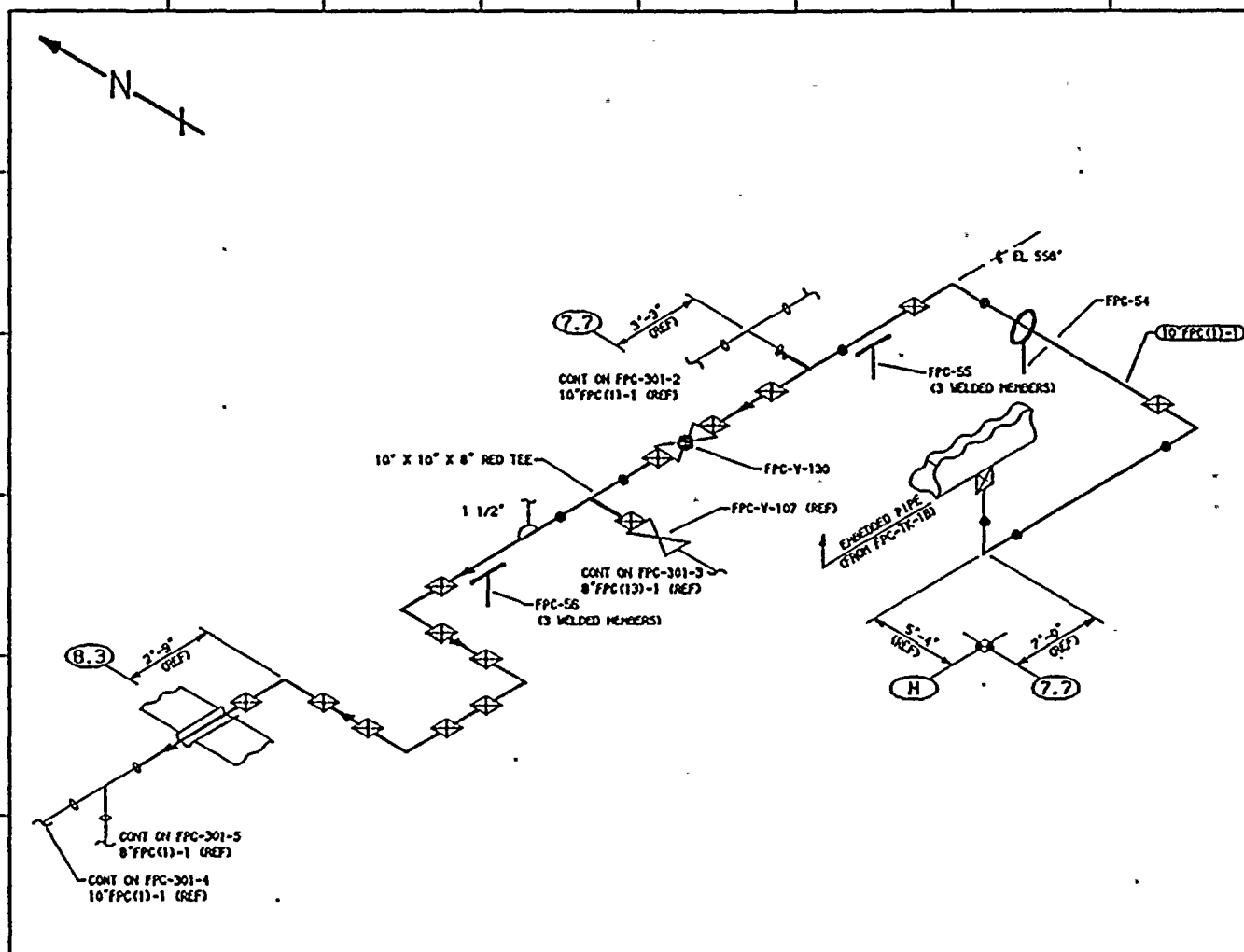
DWG NO. FPC-202

REV 1

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

$$\frac{d}{dt} \left( \frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}$$

94

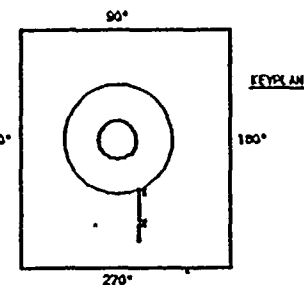


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER 19E SECTION XI, ARTICLES 19A-5000 AND 19D-2000.

## REFERENCES:

ISI - 226-1 & 226-1A  
BOYCE & GRILL ISOMETRIC  
FPC-604-4.6 REV 5



QUALITY CLASS, 11 ASME CODE CLASS, 3  
ENGR. K-McANDREW DRAWN. K-McA DATE, 3-21-79



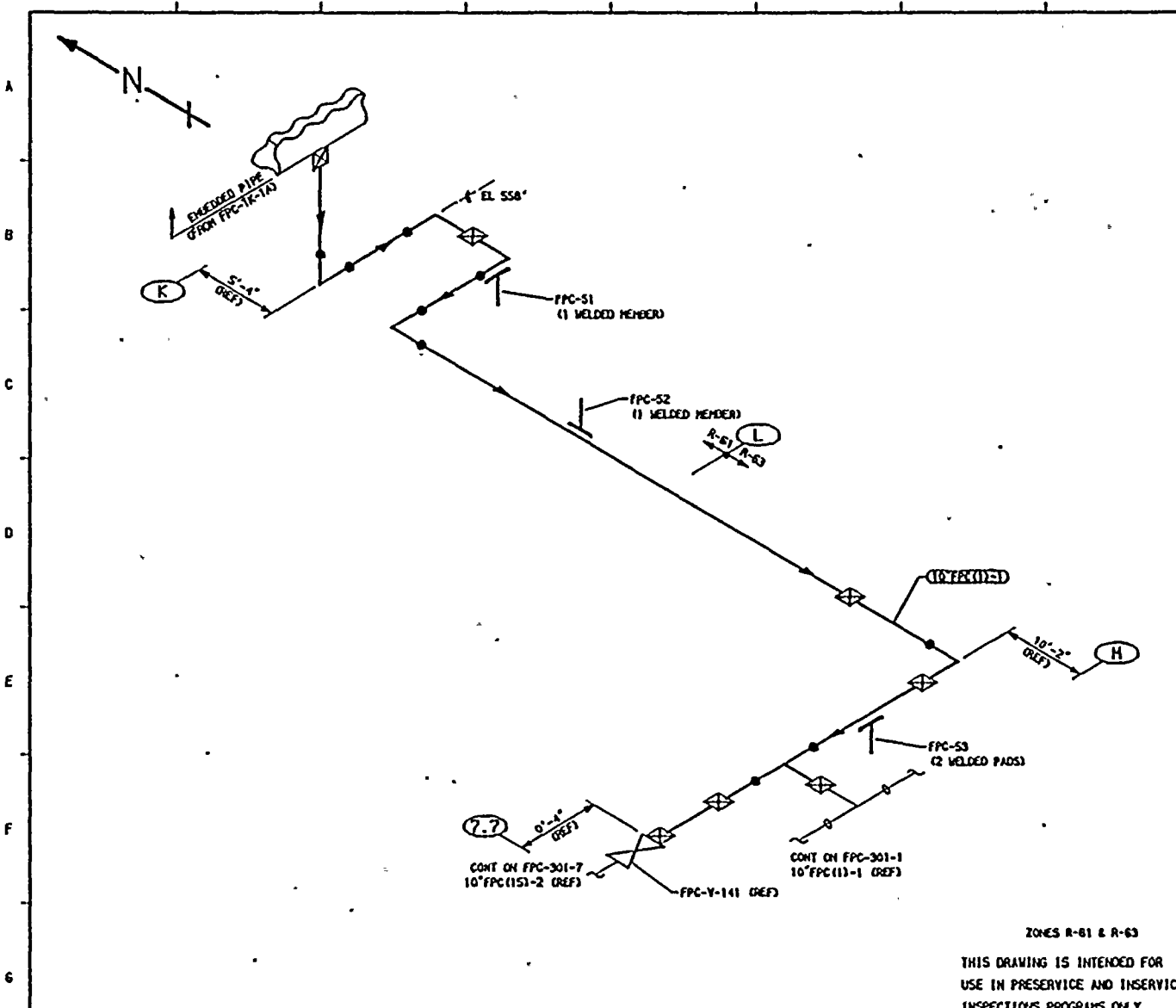
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGLAND, WASHINGTON 98352

ZONE R-63  
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

|    |          |   |               | PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|---|---------------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
|    |          |   |               | 10" FPC(11)-1 | 10           | STD | 0.365        | SA 106 GR B            | CS        | NA           |
| 2  | 11-13-82 | ADDED DUE LIME CONT & LOGO. MODIFIED KEYPLAN & TIT DUE REFERENCE. | K-McA DPR DRW |               |              |     |              |                        |           |              |
| 1  | 1-24-84  | GENERAL UPDATE REDRAWN  | K-McA DPR TFH |               |              |     |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE  | K-McA DPR TFH |               |              |     |              |                        |           |              |
| NO | DATE     | REVISION  | BY            | CHKD          | APVD         |     |              |                        |           |              |

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM  
TITLE, FUEL POOL CIRCULATION FROM FPC-TK-1B  
DWG NO. FPC-301-1 REV 2



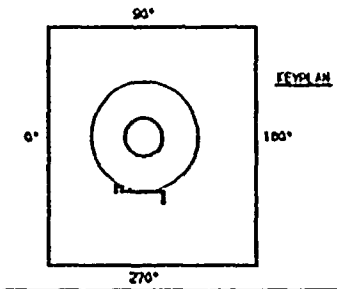


**NOTES:**

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IMA-5000 AND IMA-2000.

**REFERENCES:**

ISI - 226-1  
DOYLE & GRILL ISOMETRIC  
FPC-604-1.3 REV 6



|                   |                            |
|-------------------|----------------------------|
| QUALITY CLASS: 11 | ASME CODE CLASS: 3         |
| ENGR: K-McANDREW  | DRAWN: K-McA DATE: 3-22-79 |



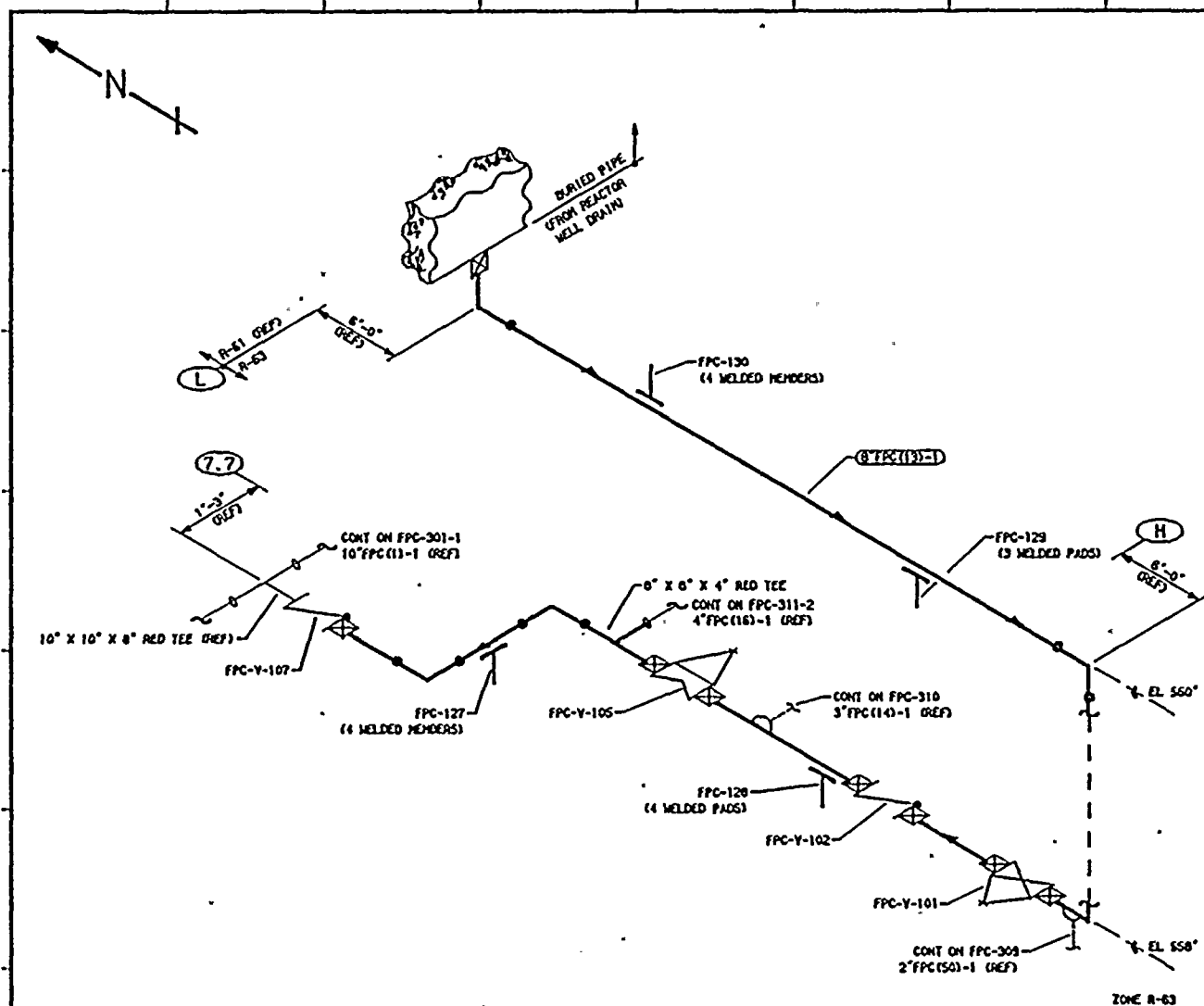
WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIO-LAND, WASHINGTON 98362

ZONES R-61 & R-63  
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

|    |          |   |               | PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|---|---------------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
|    |          |   |               | 10" FPC(11)-1 | 10           | STD | 0.365        | SA 106 GR B            | CS        | NA           |
| 2  | 11-13-82 | ADDED ISI DRAWING REFERENCE & DRAWING LINE CONTINUATION. MODIFIED KEYPLAN & LOGO. R-DRAWN | K-McA DPR DRW |               |              |     |              |                        |           |              |
| 1  | 1-24-84  | REVISED AS NOTED. ADDED KEYPLAN   | K-McA DPR TFH |               |              |     |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE  | K-McA DPR TFH |               |              |     |              |                        |           |              |
| NO | DATE     | REVISION  | BY CHFD APVO  |               |              |     |              |                        |           |              |

|  |       |
|--|-------|
| MP-2<br>WELD & COMPONENT<br>IDENTIFICATION DIAGRAM |       |
| TITLE:<br>FUEL POOL CIRCULATION FROM FPC-TK-1A     |       |
| DWG NO: FPC-301-2                                  | REV 2 |



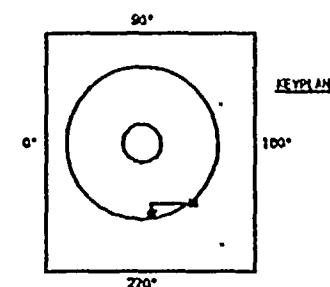


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWD-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CORRECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 226-1  
BOYCE & GRILL ISOMETRIC  
FPC-600-1.4 REV 8



QUALITY CLASS: 2 ASME CODE CLASS: 3  
ENGR. K-MOANDREY DRAWN: K-MoA DATE: 3-22-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

| NO | DATE     | REVISION                                | BY    | CHKD | APVD | PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|---|-------|------|------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 2  | 10-16-87 | GENERAL UPDATE, ADDED DWG CONT, REDRAWN | K-MoA | OPR  | TFH  | 8" FPC(113)-1 | 8            | STD | 0.322        | SA 106 GR B            | CS        | NA           |
| 1  | 1-24-84  | REVISED AS NOTED ADDED KEYPLAN          | K-MoA | OPR  | TFH  |               |              |     |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE                          | K-MoA | OPR  | TFH  |               |              |     |              |                        |           |              |

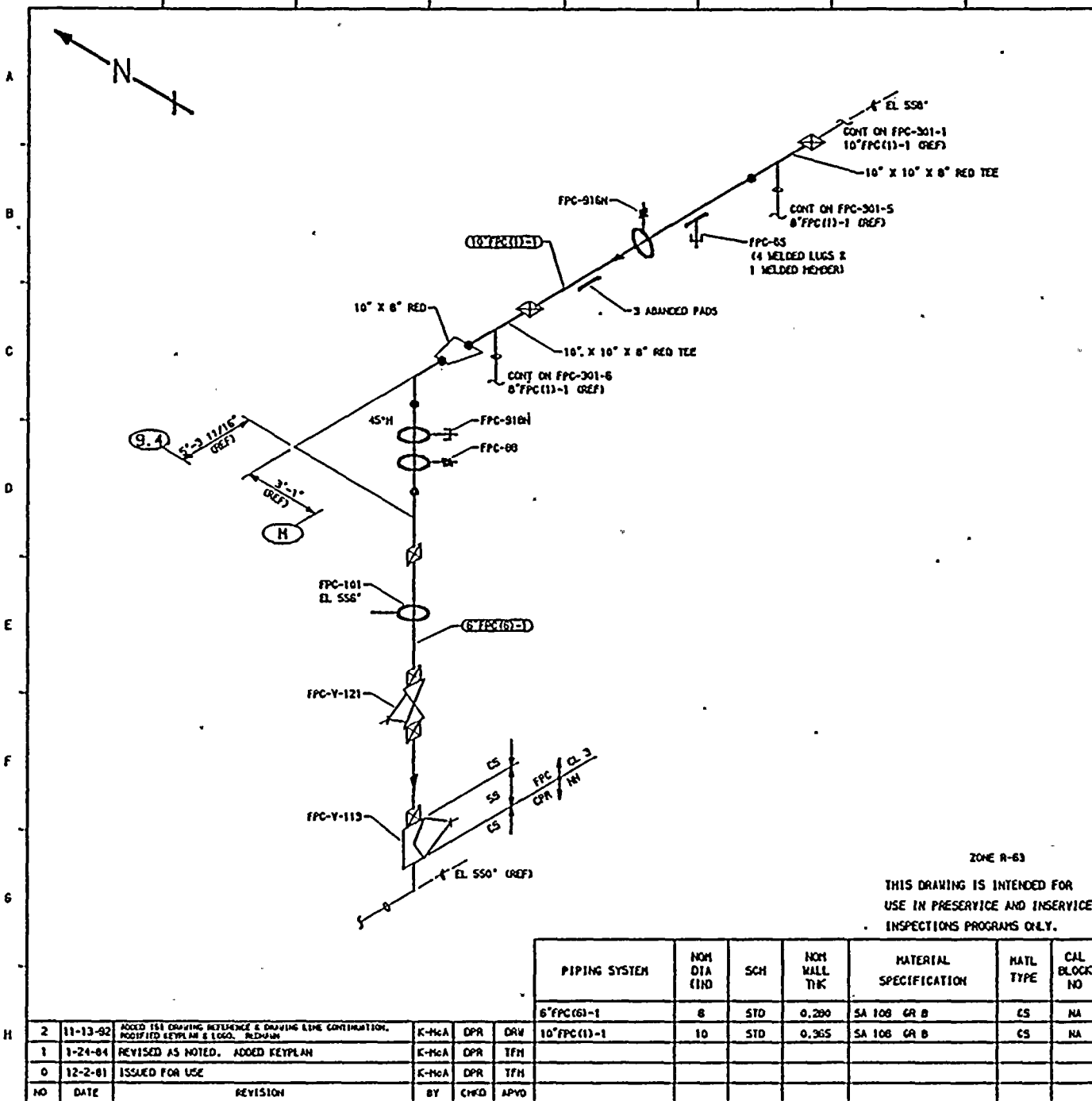
TITLE:  
FUEL POOL CIRCULATION FROM REACTOR WELL DRAIN

DWG NO. FPC-301-3

REV 2





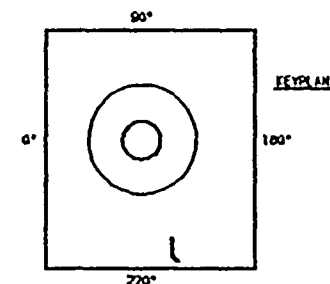


# NOTES

- THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWA-2000.

## REFERENCES

ISI - 226-1A  
DOYER & GRILL ISOMETRICS  
FPC-604-7.9 REV 8



|                   |                            |
|-------------------|----------------------------|
| QUALITY CLASS, 11 | ASME CODE CLASS, 3         |
| ENGR, K-McANDREW  | DRAWN, K-MCA DATE, 3-22-79 |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDLAND, WASHINGTON 90352

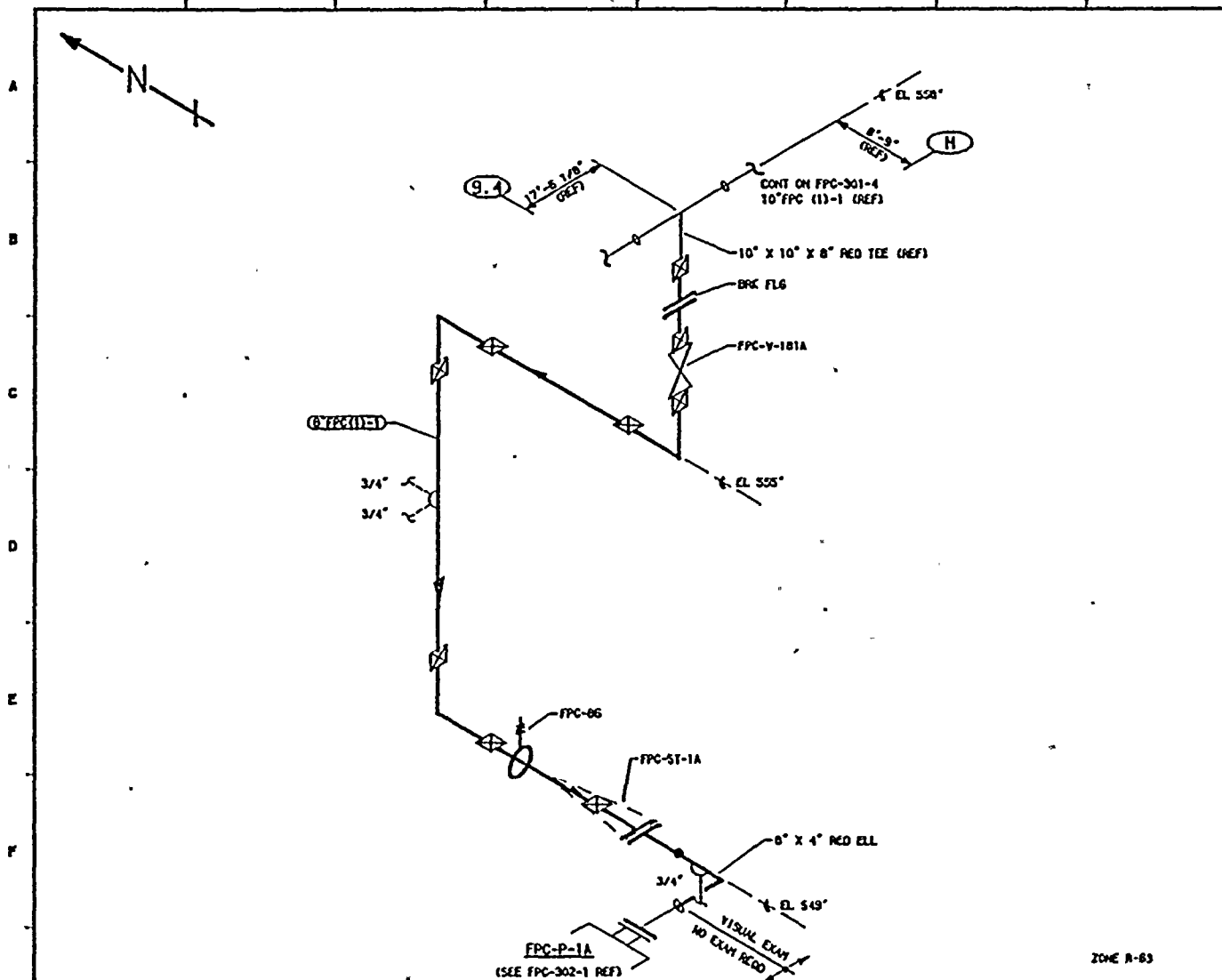
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
FUEL POOL CIRCULATION TO FPC-P-1A & 1B

DWG NO, FPC-301-4

REV 2





ZONE A-63

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

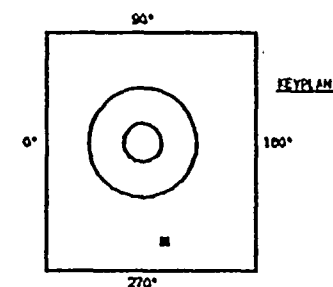
|    |          |                                       |  | PIPING SYSTEM |      |      | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|---------------------------------------|--|---------------|------|------|--------------|-----|--------------|------------------------|-----------|--------------|
|    |          |                                       |  | 8\" FPC(11)-1 |      |      | 8            | STD | 0.322        | SA 108 GR B            | CS        | NA           |
| 2  | 10-16-87 | CHANGED FPC-86 TO SPRING. ADDED LOGO. |  | K-McA         | DPR  | TFH  |              |     |              |                        |           |              |
| 1  | 1-24-84  | GENERAL UPDATE REDRAWN                |  | K-McA         | DPR  | TFH  |              |     |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE                        |  | K-McA         | DPR  | TFH  |              |     |              |                        |           |              |
| NO | DATE     | REVISION                              |  | BY            | CHKD | APVD |              |     |              |                        |           |              |

#### NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 1WA-5000 AND 1W-2000.
2. FOR BRANCH PIPING 4\" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
3. EXTEND VISUAL LEAKAGE EXAM THROUGH FPC-P-1A DRAIN PIPING TO FPC-Y-150A.

#### REFERENCES:

ISI - 226-1A  
BOYCE & CRILL ISOMETRIC  
FPC-604-10.12 REV 10



|                  |                            |
|------------------|----------------------------|
| QUALITY CLASS. 2 | ASME CODE CLASS. 3         |
| ENGR. K-McANDREW | DRAWN: K-McA DATE: 5-23-79 |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

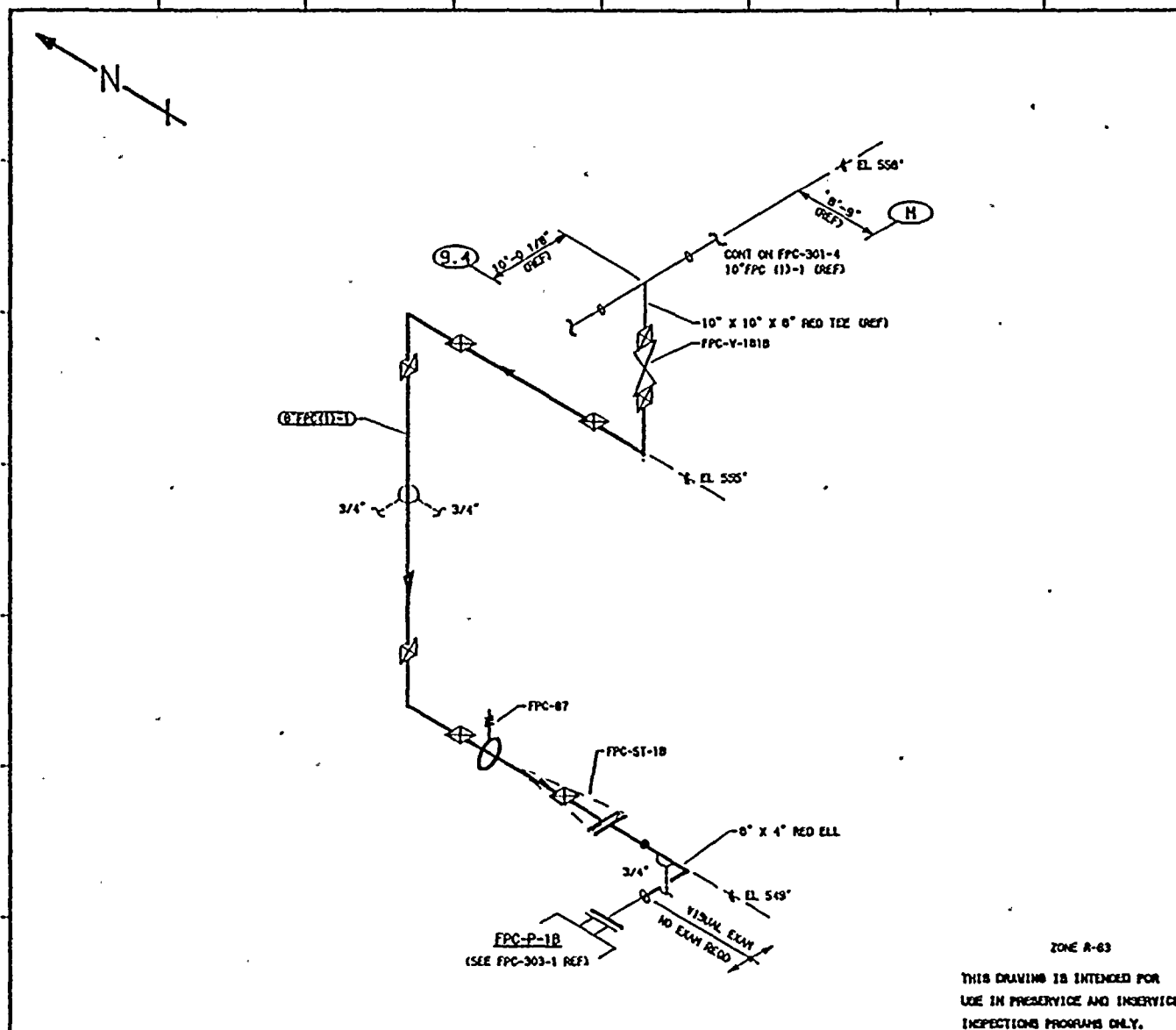
WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
FPC-P-1A SECTION  
FROM FPC-TX-1A & 1B, REACTOR MELL DRAIN

DWG NO. FPC-301-5

REV 2



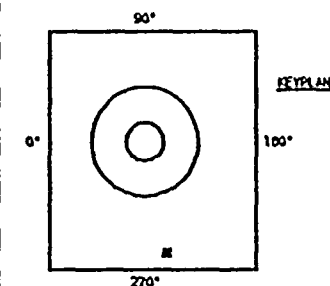


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 1WA-5000 AND 1W-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
3. EXTEND VISUAL LEAKAGE EXAM THROUGH FPC-P-18 DRAIN PIPING TO FPC-V-1500.

# REFERENCES:

ISI - 226-1A  
DOYEE & CRILL ISOMETRIC  
FPC-604-14.17 REV 12



QUALITY CLASS, 2 ASME CODE CLASS, 3  
ENGR. K-McANDREW DRAWN: K-McA DATE: 3-23-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99302

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

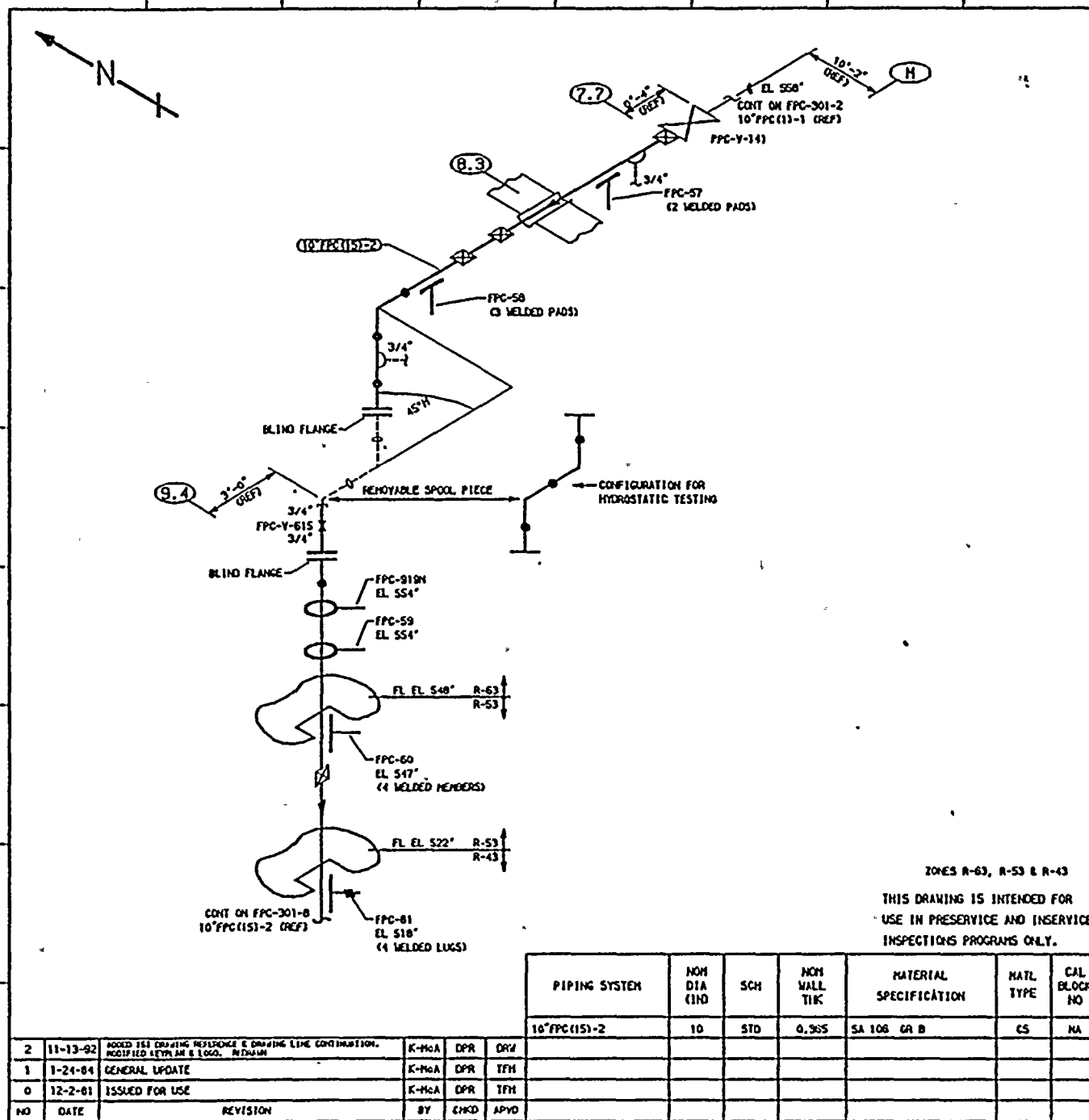
TITLE:  
FPC-P-18 SECTION  
FROM FPC-TX-1A & 1B, REACTOR MLL DRAIN

DWG NO. FPC-301-6

REV 2

| NO | DATE     | REVISION                              | BY    | CHKD | APVD | PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | NATL TYPE | CAL BLOCK NO |
|----|----------|---------------------------------------|-------|------|------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 2  | 10-16-87 | CHANGED FPC-87 TO SPRING. ADDED LOGO. | K-McA | DPR  | TFH  | 8" FPC (11)-1 | 8            | STD | 0.322        | SA 106 GR B            | CS        | NA           |
| 1  | 1-24-84  | GENERAL UPDATE REDRAWN                | K-McA | DPR  | TFH  |               |              |     |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE                        | K-McA | DPR  | TFH  |               |              |     |              |                        |           |              |



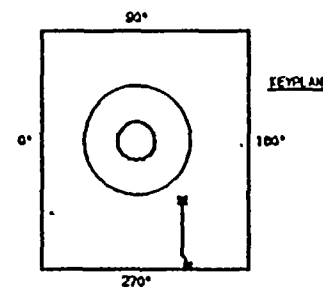


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\"/>

## REFERENCES:

ISI - 228-1  
BOYCE & CRILL ISOMETRICS  
FPC-605-1.4 REV B  
FPC-605-5.8 REV 5



QUALITY CLASS, 11 ASME CODE CLASS, 3  
ENGR. K-McANDREW DRAWN, K-McA DATE, 4-5-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDLAND, WASHINGTON 90352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
FPC INTERTIE R/R-P-2A SUNCTION

DWG NO. FPC-301-7

REV 2

ZONES R-63, R-53 & R-43

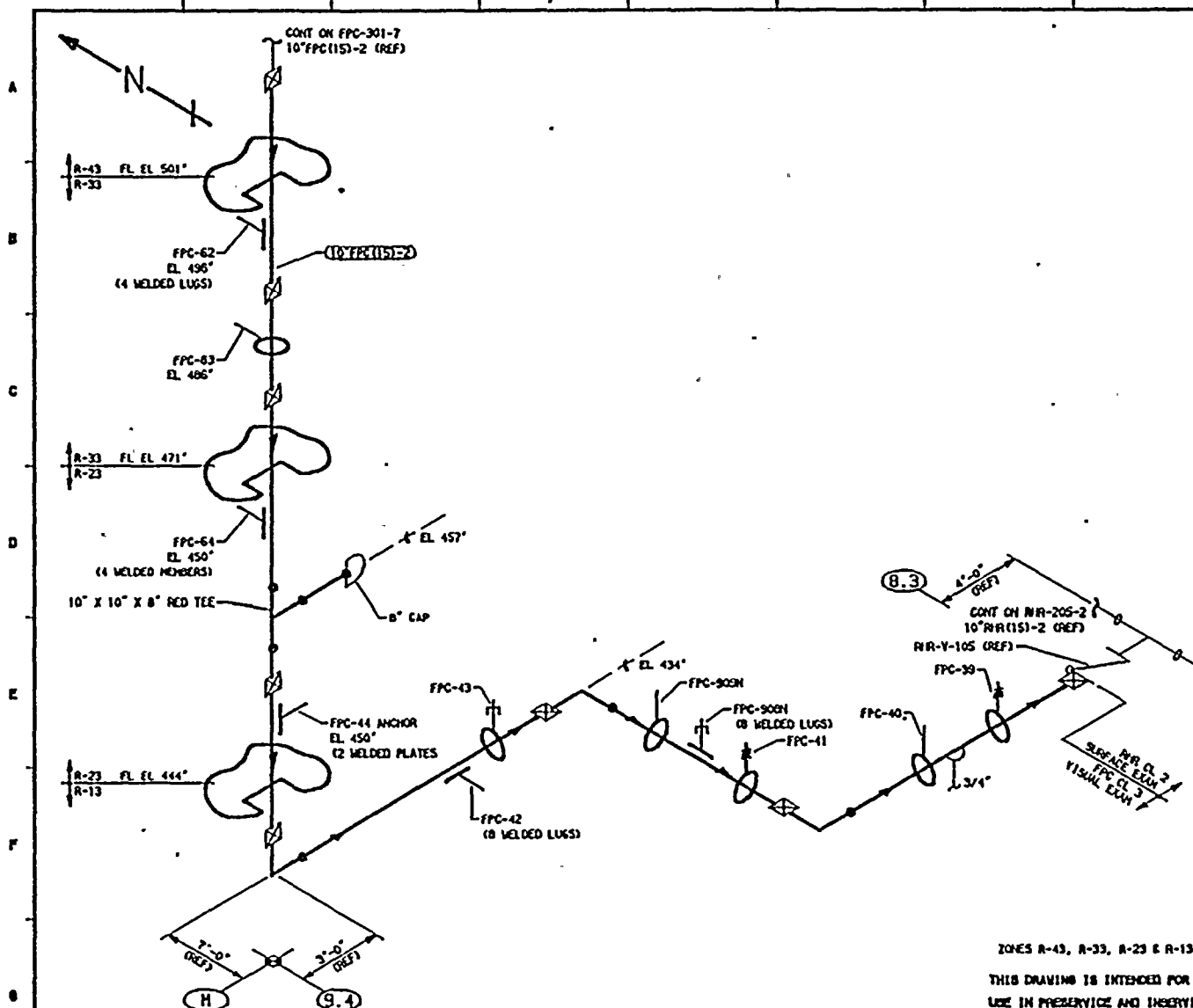
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

| PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 10"PPC(15)-2  | 10           | STD | 0.365        | SA 106 GR B            | CS        | NA           |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |

| NO | DATE     | REVISION   | BY    | CHKD | APVD |
|----|----------|--|-------|------|------|
| 2  | 11-13-92 | ADDED 1ST DRAFTING REFERENCE & DRAFTING LINE CONTINUATION. MODIFIED KEYPLAN & LOGO. IN DRAWING | K-McA | DPR  | DRV  |
| 1  | 1-24-84  | GENERAL UPDATE   | K-McA | DPR  | TFH  |
| 0  | 12-2-81  | ISSUED FOR USE   | K-McA | DPR  | TFH  |





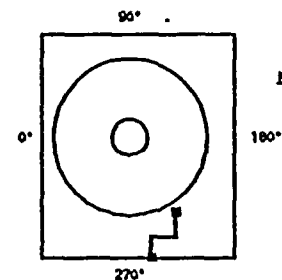


# NOTES

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## REFERENCES

- ISI - 221-1  
BOYLE & CHAIL ISOMETRICS  
FPC-605-S.8 REV 5  
FPC-605-10.12 REV 6



KEYPLAN

QUALITY CLASS, 2 ASME CODE CLASS, 3  
ENGR. K-MOANDREV DRAWN. K-MOA DATE, 4-8-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99282

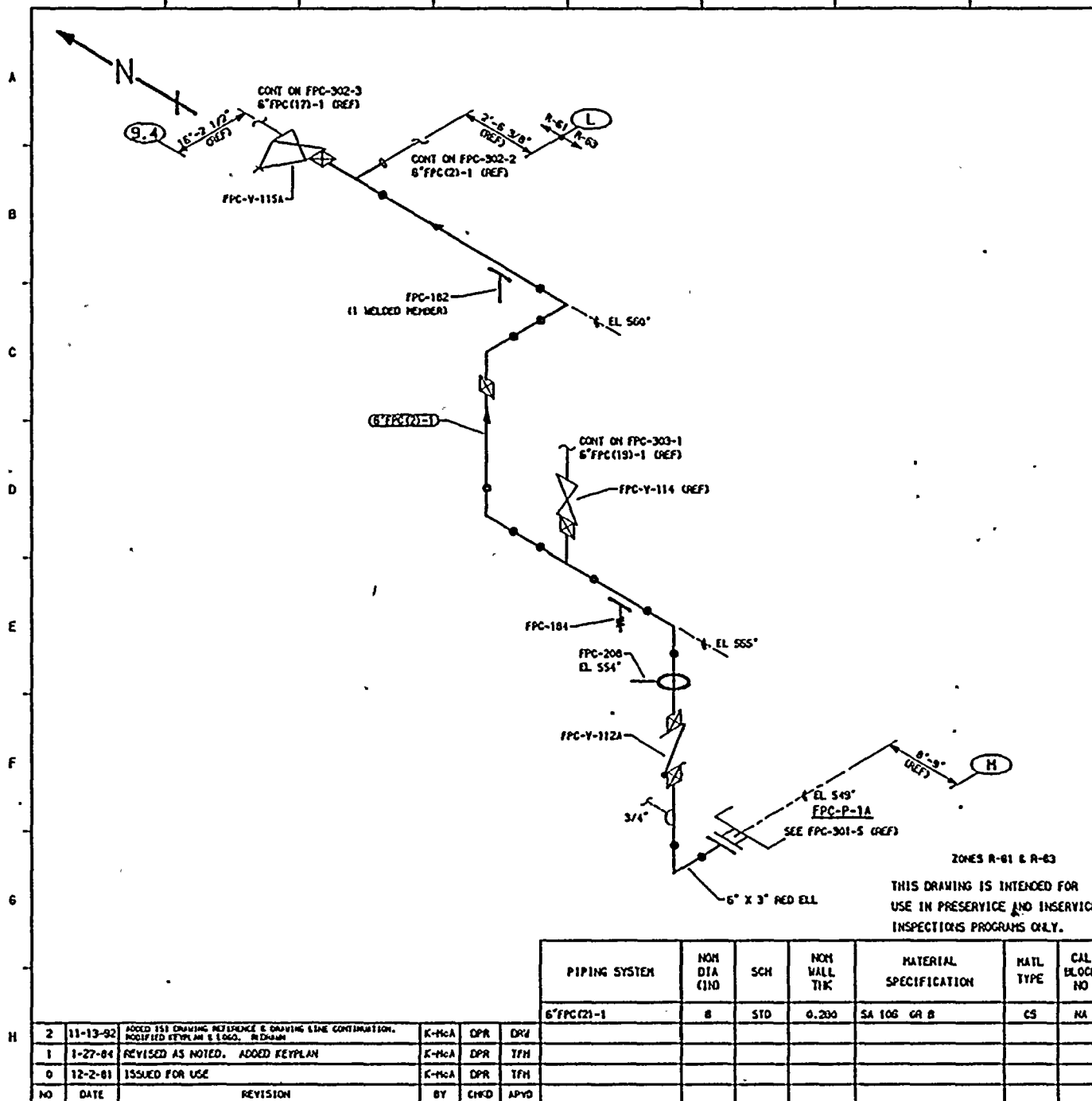
ZONES R-43, R-33, R-23 & R-13

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

|    |          |  |       |      |      | PIPING SYSTEM  | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|--|-------|------|------|----------------|--------------|-----|--------------|------------------------|-----------|--------------|
|    |          |  |       |      |      | 10" FPC (15)-2 | 10           | STD | 0.365        | SA 106 GR B            | CS        | NA           |
| 2  | 10-16-87 | ENG FPC-41 TO SPRING, FPC-42 TO RIGID & FPC-43 TO SWAMER, NOOD ISSI ONE REF, (1) ME CONT & LOGS, NO KEYPLAN, MATERIAL. | K-MCA | DPR  | TFH  |                |              |     |              |                        |           |              |
| 1  | 1-24-84  | REVISED AS NOTED ADDED KEYPLAN   | K-MCA | DPR  | TFH  |                |              |     |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE   | K-MCA | DPR  | TFH  |                |              |     |              |                        |           |              |
| NO | DATE     | REVISION   | BY    | CHKD | APVD |                |              |     |              |                        |           |              |

|   |       |
|---|-------|
| WPP-2<br>WELD & COMPONENT<br>IDENTIFICATION DIAGRAM |       |
| TITLE:<br>FPC INTERTIE NRP-P-2A SECTION             |       |
| DWG NO. FPC-301-8                                   | REV 3 |



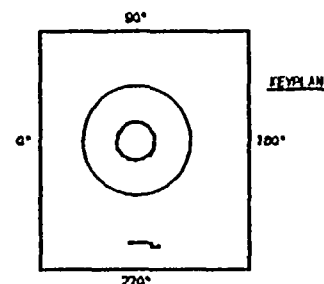


# NOTES:

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- FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

151 - 226-1A  
BOYCE & GRILL ISOMETRIC  
FPC-636-1.3 REV B



QUALITY CLASS: 11 ASME CODE CLASS: 3  
ENGR: K-McANDREW DRAWN: K-McA DATE: 4-6-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

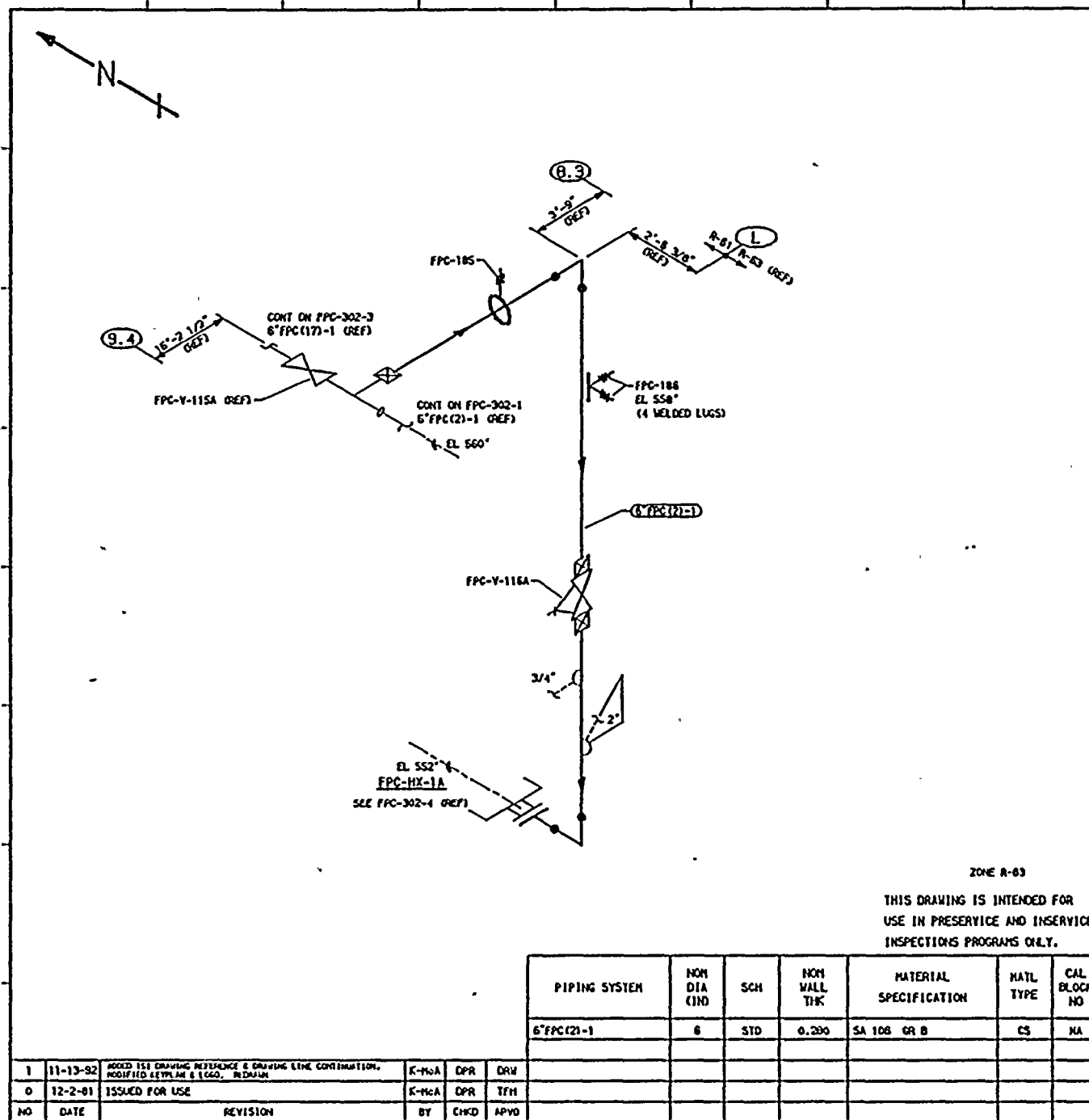
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: FPC-P-1A TO FPC-DH-1A & 1B

DWG NO. FPC-302-1

REV 2



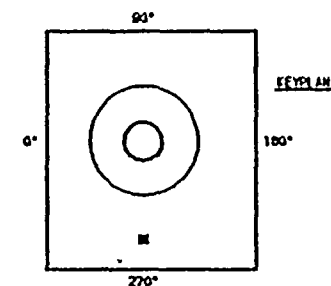


# NOTES:

- THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWA-2000.
- FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 226-1A  
DOYCE & CRAIG ISOMETRIC  
FPC-636-8.7 REV 7



QUALITY CLASS, 11 ASME CODE CLASS, 3

ENGR. K-McANDREW DRAWN. K-McA DATE, 4-9-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

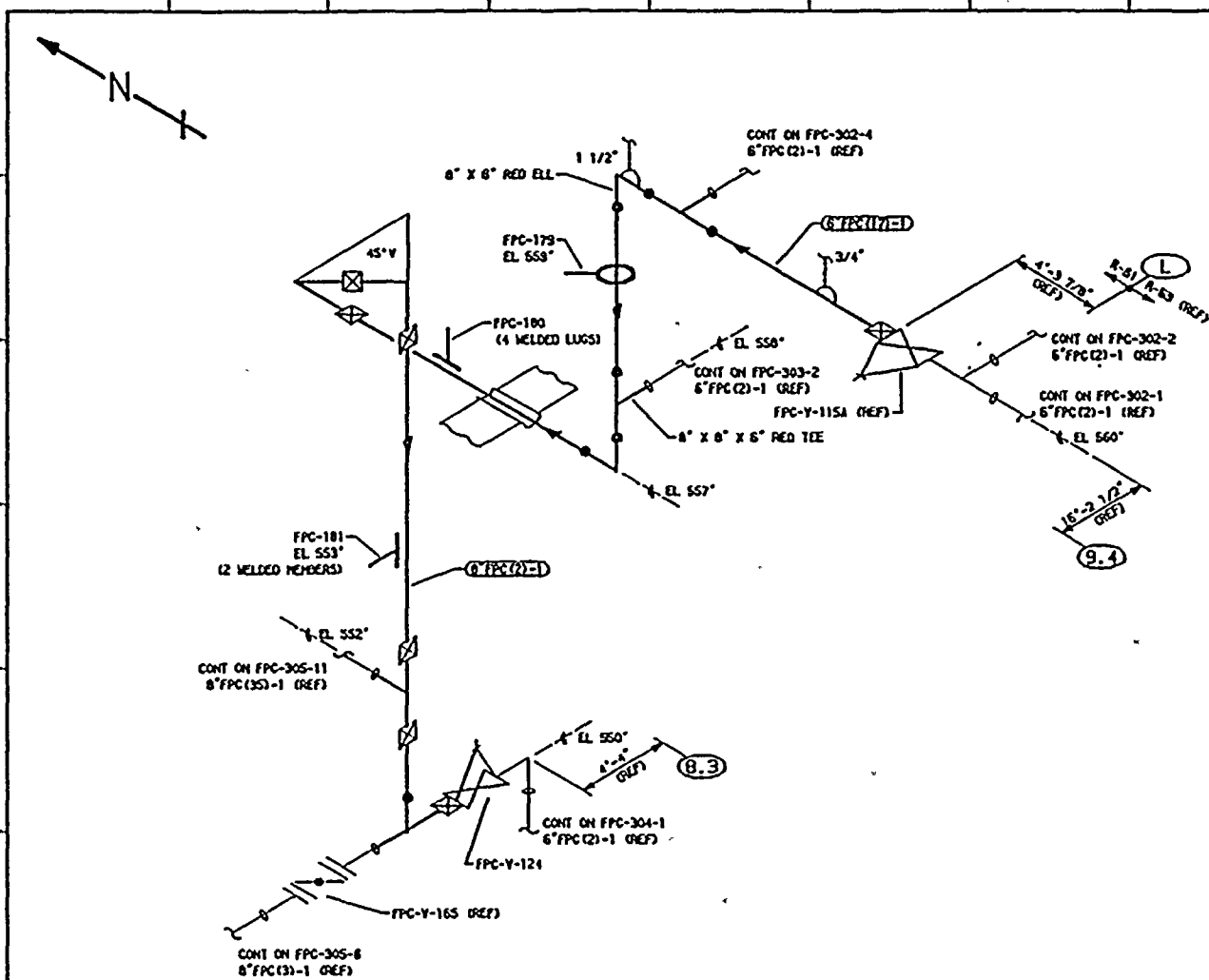
TITLE:  
FPC-P-1A DISCHARGE TO FPC-HX-1A

DWG NO. FPC-302-2

REV 1



A  
B  
C  
D  
E  
F  
G  
H



ZONE R-81

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

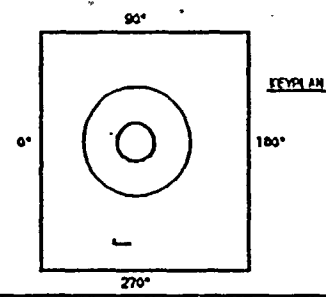
| NO | DATE     | REVISION   | BY    | CHKD | APVD | PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|--|-------|------|------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 2  | 11-13-92 | ADDED SEE DRAWING REFERENCE & DRAWING LINE CONTINUATION, MODIFIED KEYPLAN & LOGO, MEDIUM | K-McA | DPR  | DRV  | 6" FPC(17)-1  | 6            | STD | 0.200        | SA 106 GR B            | CS        | NA           |
| 1  | 1-24-84  | REVISED AS NOTED, ADDED KEYPLAN  | K-McA | DPR  | TFH  | 6" FPC(2)-1   | 8            | STD | 0.322        | SA 106 GR B            | CS        | NA           |
| 0  | 12-2-81  | ISSUED FOR USE   | K-McA | DPR  | TFH  |               |              |     |              |                        |           |              |
| NO | DATE     | REVISION   | BY    | CHKD | APVD |               |              |     |              |                        |           |              |

NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 11A-5000 AND 11A-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

REFERENCES:

ISI - 226-1A  
BOYCE & CRILL ISOMETRIC  
FPC-636-4.5 REV 11



|                   |                    |
|-------------------|--------------------|
| QUALITY CLASS: 11 | ASME CODE CLASS: 3 |
| ENGR: K-McANDREW  | DRAWN: K-McA       |
| DATE: 4-11-79     |                    |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

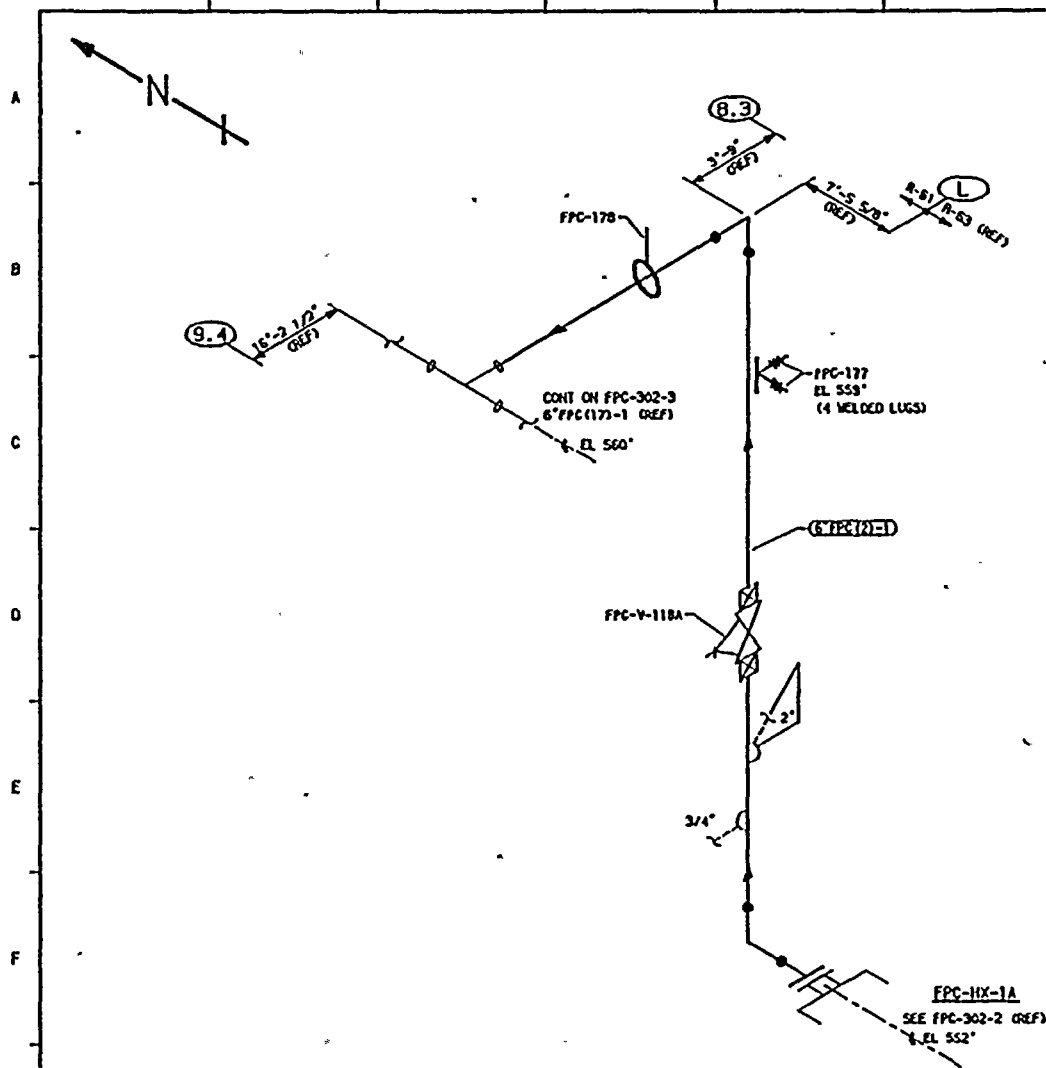
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
FPC-P-1A DISCHARGE TO FPC-DH-1A R18

DWG NO. FPC-302-3  
REV 2







ZONE R-81

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

| PIPING SYSTEM | NOM<br>DIA<br>(IN) | SCH | NOM<br>WALL<br>THK | MATERIAL<br>SPECIFICATION | MATL<br>TYPE | CAL<br>BLOCK<br>NO |
|---------------|--------------------|-----|--------------------|---------------------------|--------------|--------------------|
| 6\"FPC(2)-1   | 6                  | STD | 0.200              | SA 106 GR B               | CS           | NA                 |
|               |                    |     |                    |                           |              |                    |
|               |                    |     |                    |                           |              |                    |
|               |                    |     |                    |                           |              |                    |
|               |                    |     |                    |                           |              |                    |

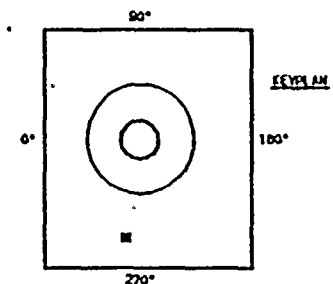
| NO | DATE     | REVISION   | BY    | CHKD | APVD |
|----|----------|--|-------|------|------|
| 1  | 11-13-92 | ADDED ISI DRAWING REFERENCE & DRAWING LINE CONTINUATION, MODIFIED SEPM AND LOGO, REDRAWN | K-McA | DPR  | DRW  |
| 0  | 12-2-81  | ISSUED FOR USE   | K-McA | DPR  | TFH  |

#### NOTES

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWA-2000.
2. FOR BRANCH PIPING 4\" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

#### REFERENCES

ISI - 226-1A  
BOYCE & GRILL ISOMETRIC  
FPC-636-B.0 REV 0



|                   |                            |
|-------------------|----------------------------|
| QUALITY CLASS, 11 | ASME CODE CLASS, 3         |
| ENGR. K-McANDREW  | DRAWN. K-McA DATE, 4-11-79 |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGLAND, WASHINGTON 90352

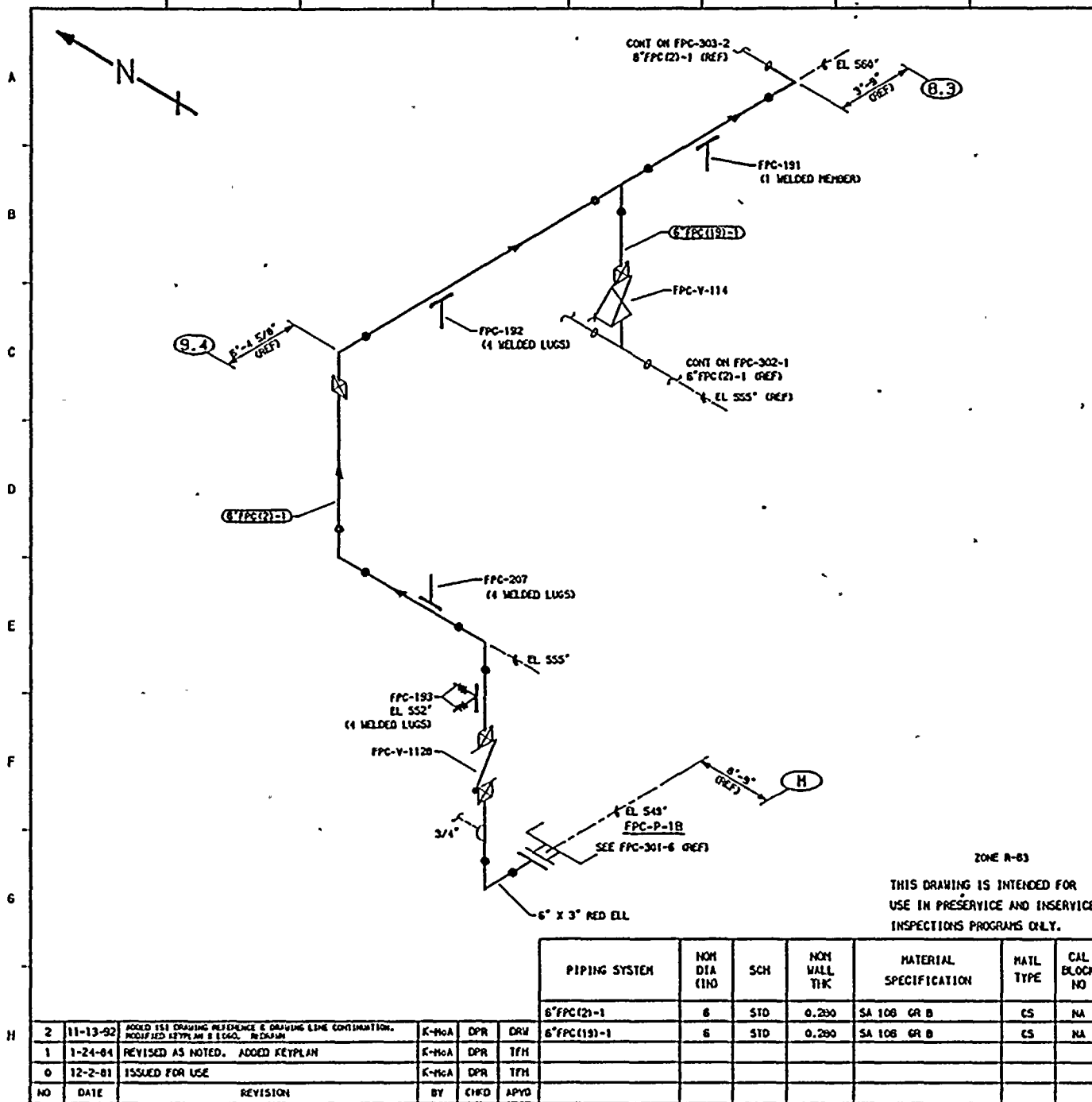
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: FPC-HX-1A TO FPC-DH-1A & 1B

DWG NO. FPC-302-4

REV 1





#### NOTES:

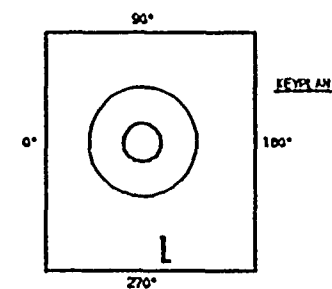
1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 11A-5000 AND 11D-2000.

2. FOR BRANCH PIPING 4" NOM. OR LESS (CORRECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

#### REFERENCES:

151 - 226-1A

BOYCE & CRAIL ISOMETRIC  
FPC-637-1.4 REV 5



|                   |                    |
|-------------------|--------------------|
| QUALITY CLASS, 11 | ASME CODE CLASS, 3 |
| ENGR, K-McANDREW  | DRAWN, K-McA       |
| DATE, 4-6-79      |                    |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

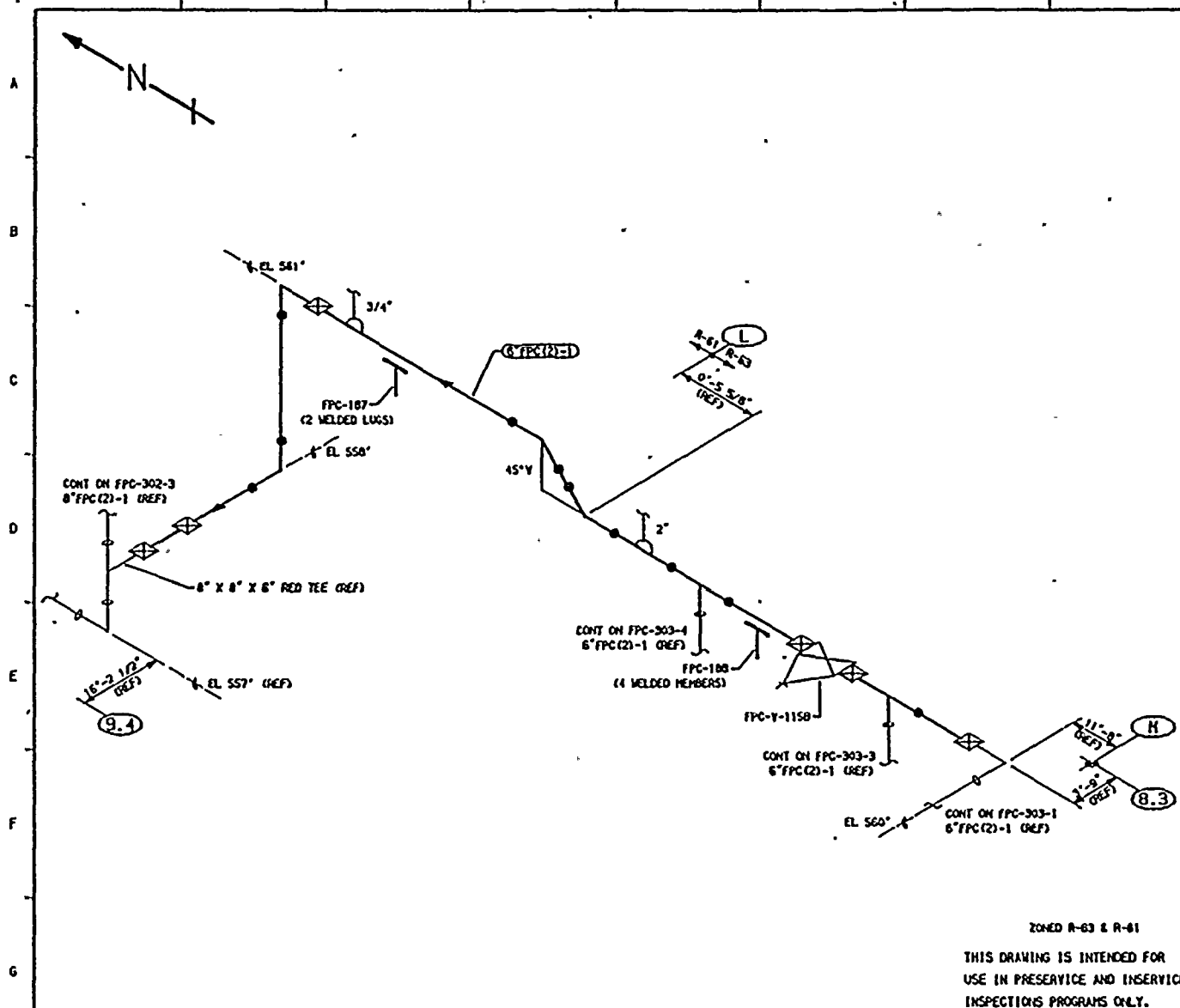
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: FPC-P-1B TO FPC-DH-1A & 1B

DWG NO. FPC-303-1

REV 2



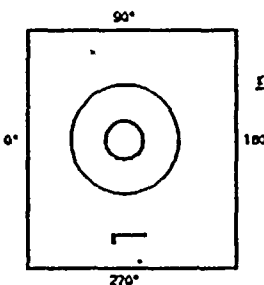


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\"/>

# REFERENCES:

ISI - 226-1A  
DOYLE & CRAIG ISOMETRIC  
FPC-637-5.7 REV 6



|                   |                            |
|-------------------|----------------------------|
| QUALITY CLASS, 11 | ASME CODE CLASS, 3         |
| ENGR. K-McANDREW  | DRAWN. K-McA DATE, 4-11-79 |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
FPC-P-1B DISCHARGE TO FPC-DH-1A & 1B

DWG NO. FPC-303-2

REV 2

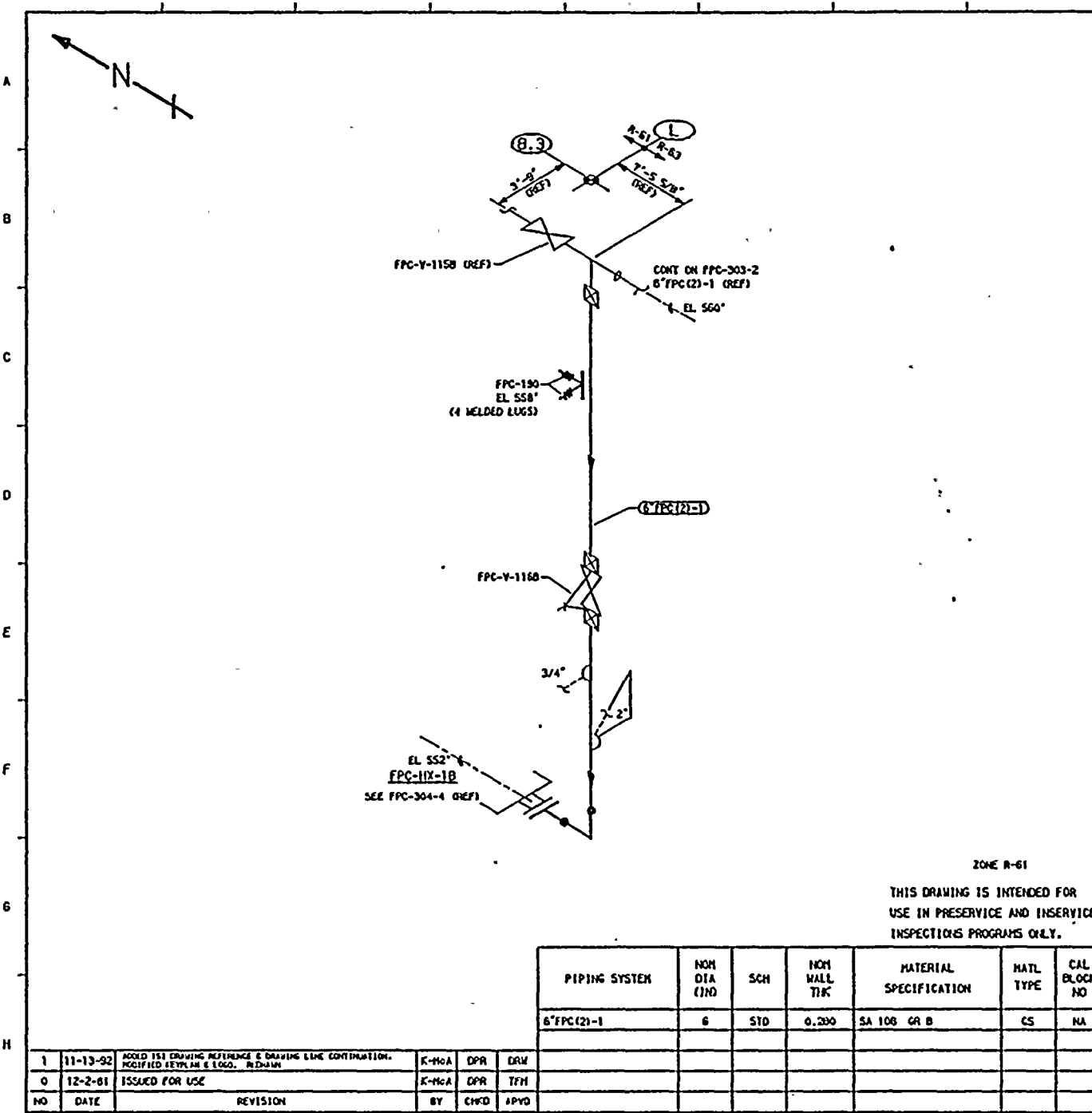
ZONED R-63 & R-61

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

| PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 6" FPC (2)-1  | 6            | STD | 0.280        | SA 106 GR B            | CS        | NA           |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |

| NO | DATE     | REVISION   | BY    | CHKD | APVD |
|----|----------|--|-------|------|------|
| 2  | 11-13-82 | ADDED 158 DRAWING REFERENCE & DRAWING LINE CONTINUATION, MODIFIED KEYPLAN & LOGO. IN DRAWN | K-McA | OPR  | DRW  |
| 1  | 1-24-84  | REVISED AS NOTED. ADDED KEYPLAN  | K-McA | OPR  | TFH  |
| 0  | 12-2-81  | ISSUED FOR USE   | K-McA | OPR  | TFH  |



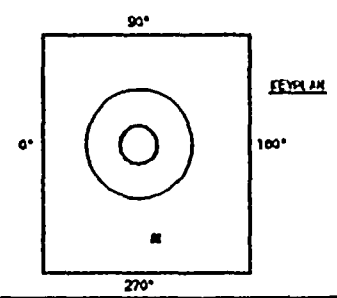


**NOTES:**

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 1XA-5000 AND 1XD-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CORRECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

**REFERENCES:**

ISI - Z26-1A  
BOYCE & CRAIG ISOMETRIC  
FPC-637-B.9 REV 9



ZONE R-61

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

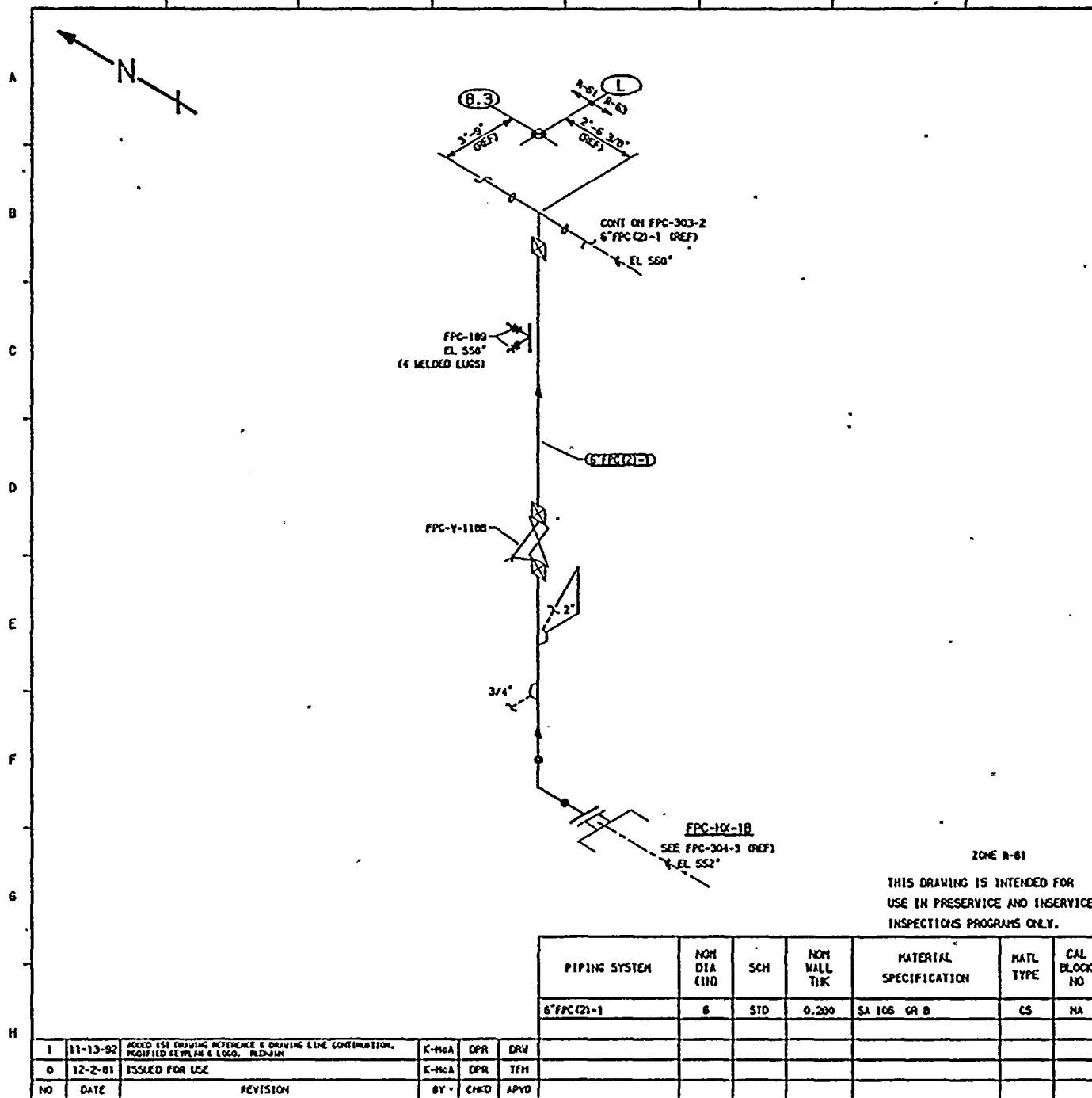
| PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 6" FPC(2)-1   | 6            | STD | 0.200        | SA 106 GR B            | CS        | NA           |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |

| NO | DATE     | REVISION   | BY    | CHKD | APVD |
|----|----------|--|-------|------|------|
| 1  | 11-13-92 | ADDED ISI DRAWING REFERENCE & DRAWING LINE CONTINUATION. MODIFIED ISOMETRIC & LOGO. - RD/DAW | K-MCA | OPR  | DRW  |
| 0  | 12-2-81  | ISSUED FOR USE   | K-MCA | OPR  | TFH  |

|  |                            |
|--|----------------------------|
| QUALITY CLASS, 11  | ASME CODE CLASS, 3         |
| ENGR. K-McANDREW   | DRAWN. K-MCA DATE, 4-11-79 |
| <p>WASHINGTON PUBLIC POWER<br/>SUPPLY SYSTEM<br/>RIOLAND, WASHINGTON 99362</p> |                            |
| <p>WPP-2<br/>WELD &amp; COMPONENT<br/>IDENTIFICATION DIAGRAM</p>               |                            |
| <p>TITLE: FPC-11X-1B TO FPC-CH-1A &amp; 1B</p>                                 |                            |
| DWG NO. FPC-303-3  | REV 1                      |





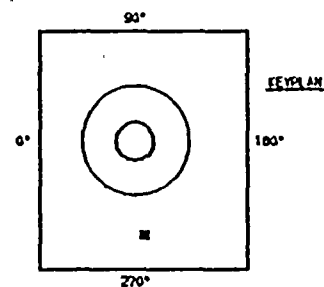


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWA-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 226-1A  
BOYCE & GRAIL ISOMETRIC  
FPC-637-10.11 REV 8



QUALITY CLASS. 11 ASME CODE CLASS. 3  
ENGR. K-MCANDREW DRAWN. K-MCA DATE: 4-11-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHMOND, WASHINGTON 98352

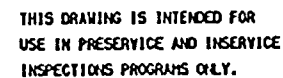
MP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
FPC-HX-1B TO FPC-DH-1A & 1B

DWG NO. FPC-303-4

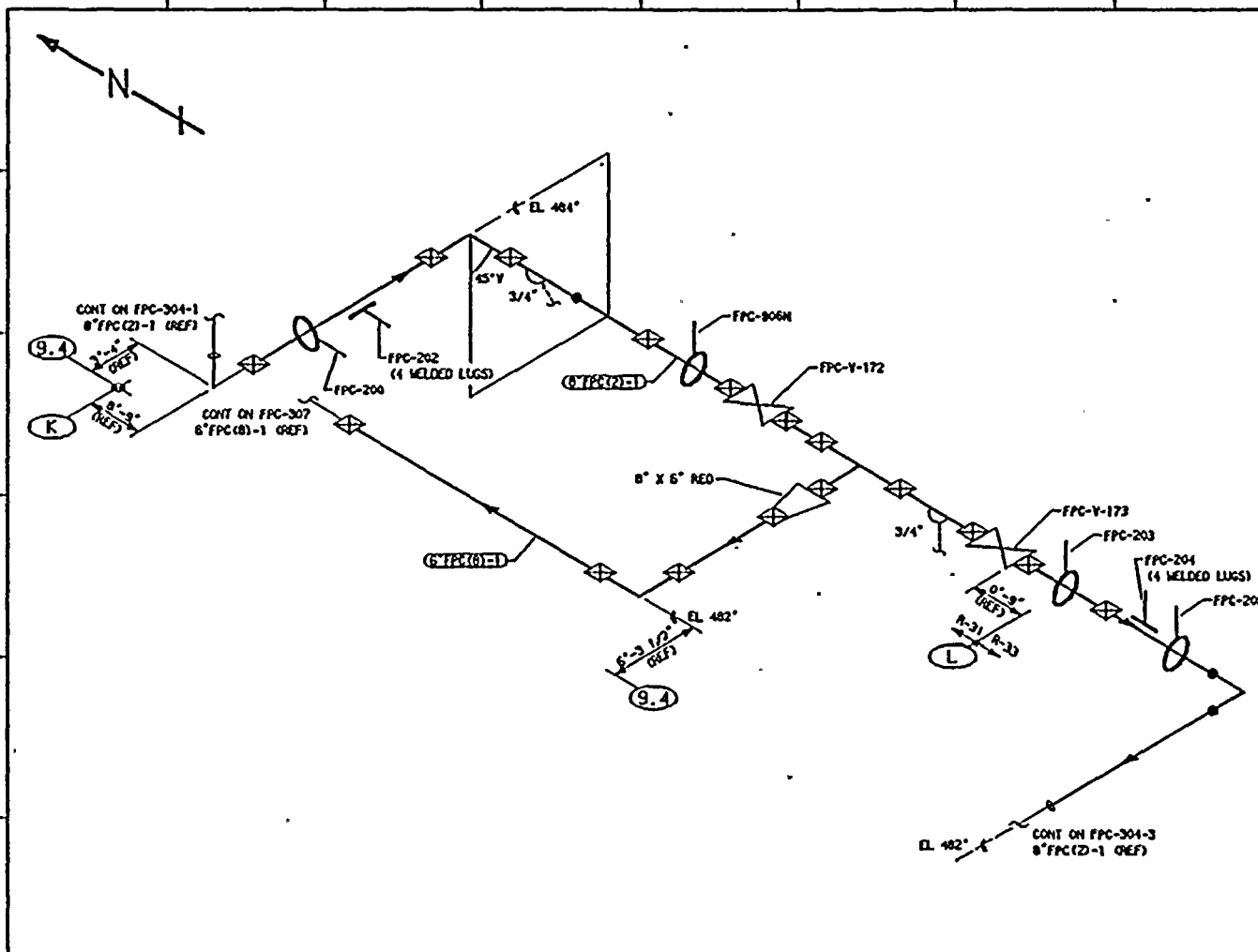
REV 1





DWG NO. FPC-304-1 REV 2



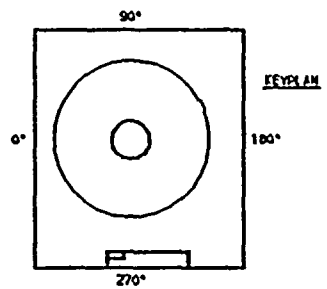


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 1WA-5000 AND 1WO-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:


151 - 226-1A  
 BOYCE & CRAIG ISOMETRIC  
 PPF-636-14.15 REV 13



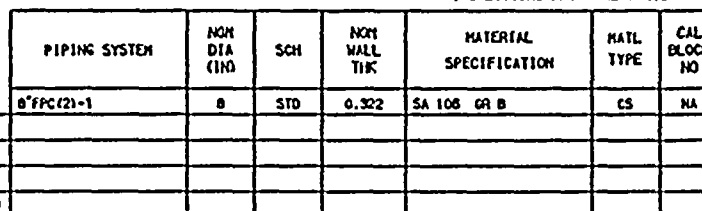
ZONES R-31 & R-33

THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

|    |          |  |       | PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|--|-------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
|    |          |  |       | 8" FPC(2)-1   | 8            | STD | 0.280        | SA 106 GR B            | CS        | NA           |
|    |          |  |       | 8" FPC(2)-2   | 8            | STD | 0.322        | SA 106 GR B            | CS        | NA           |
| 2  | 11-13-92 | ADDED DASHING LINE CONTINUATION & LOGS, MODIFIED 151 DRAWING REFERENCE & KEYPLAN | K-McA | DPR           | DRW          |     |              |                        |           |              |
| 1  | 1-24-84  | REVISED AS NOTED, ADDED KEYPLAN  | K-McA | DPR           | TFH          |     |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE   | K-McA | DPR           | TFH          |     |              |                        |           |              |
| NO | DATE     | REVISION   | BY    | CHKD          | APVD         |     |              |                        |           |              |

|   |  |                    |       |
|---|--|--------------------|-------|
| QUALITY CLASS, 11   |  | ASME CODE CLASS, 3 |       |
| ENGR. K-McANDREW  |  | DATE, 4-12-79      |       |
|  <p>WASHINGTON PUBLIC POWER<br/>SUPPLY SYSTEM<br/>RINGLAND, WASHINGTON 98352</p> |  |                    |       |
| <p>WPP-2<br/>WELD &amp; COMPONENT<br/>IDENTIFICATION DIAGRAM</p>  |  |                    |       |
| TITLE:<br><p>FPC-P-1A &amp; 1B DISCHARGE<br/>TO FPC-DN-1A &amp; 1B</p>  |  |                    |       |
| DWG NO. FPC-304-2   |  |                    | REV 2 |







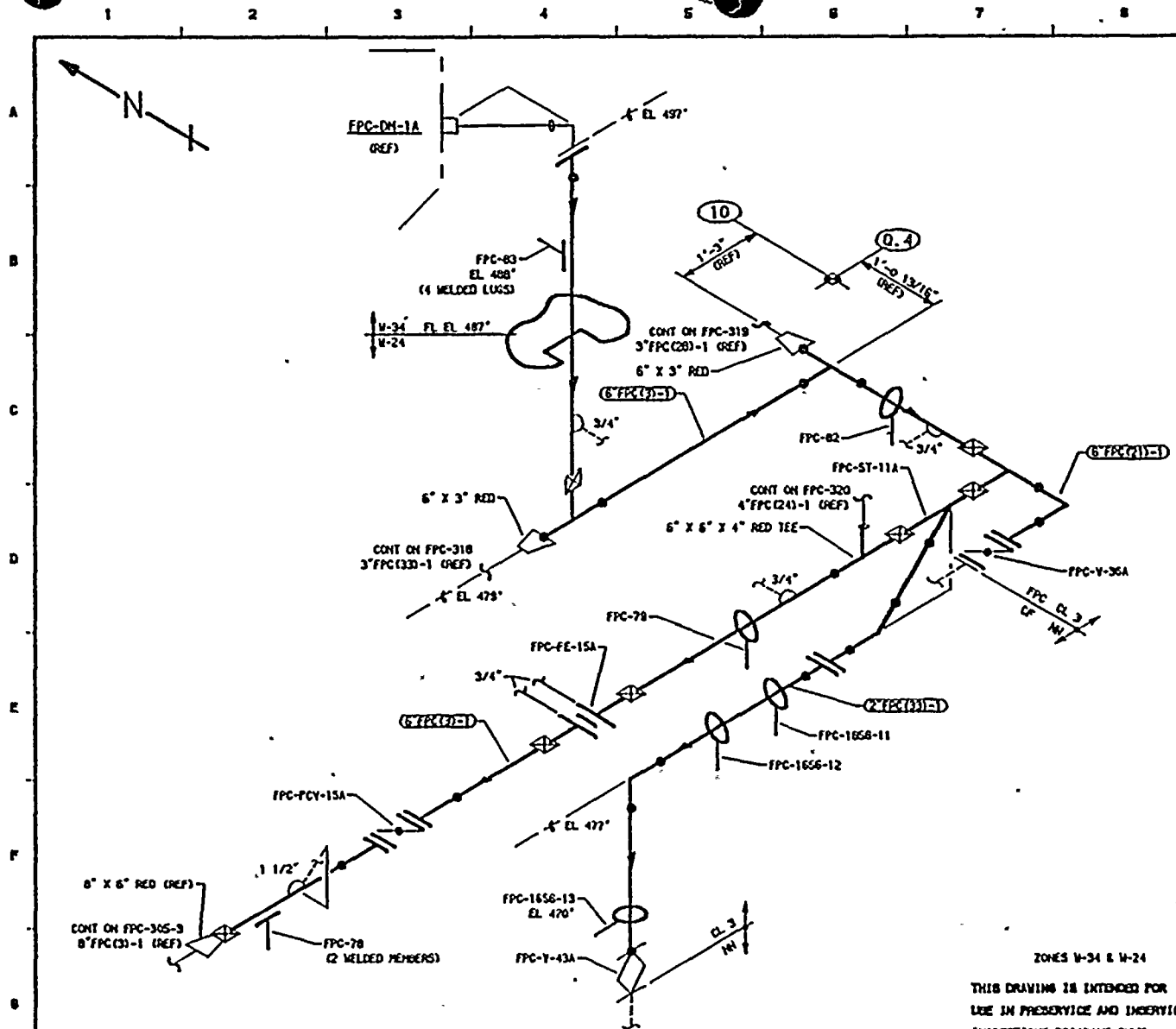












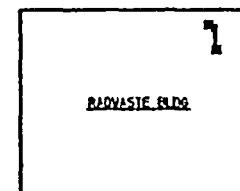
# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 1WA-5000 AND 1WD-2000.

2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 228-2  
BOYCE & GRILL ISOMETRICS  
FPC-640-24.25 REV 2  
FPC-640-20.23 REV 5  
FPC-1658-1 REV 5



N  
KEYPLAN

QUALITY CLASS: 2 ASME CODE CLASS: 3

ENGR. K-MANDREK DRAWN. K-MGA DATE: 4-17-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

ZONES W-34 & W-24

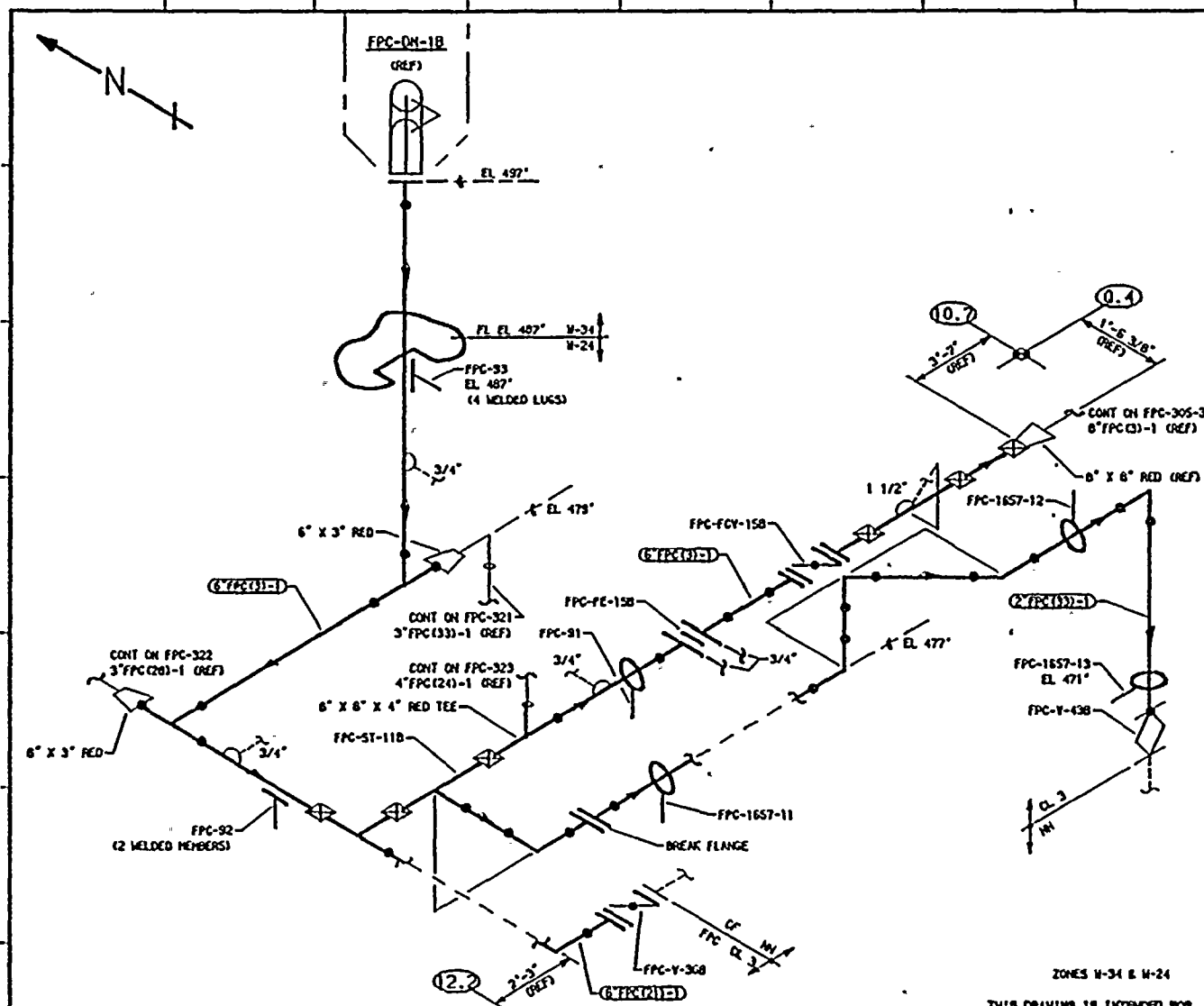
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

| NO | DATE     | REVISION                              | BY    | CHKD | APVD | PIPING SYSTEM | NOM DIA (IN) | DCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|---------------------------------------|-------|------|------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 2  | 10-16-87 | ADDED CONT DWG; 2" FPC(33)-1, REDRAWN | K-MGA | DPR  | TFH  | 6" FPC(31)-1  | 6            | STD | 0.200        | SA 106 GR B            | CS        | NA           |
| 1  | 1-24-84  | REVISED AS NOTED ADDED KEYPLAN        | K-MGA | DPR  | TFH  | 6" FPC(21)-1  | 6            | STD | 0.200        | SA 106 GR B            | CS        | NA           |
| 0  | 12-2-81  | ISSUED FOR USE                        | K-MGA | DPR  | TFH  | 2" FPC(33)-1  | 2            | 80  | 0.218        | SA 106 GR B            | CS        | NA           |
| NO | DATE     | REVISION                              | BY    | CHKD | APVD |               |              |     |              |                        |           |              |

DWG NO. FPC-305-1

REV 2



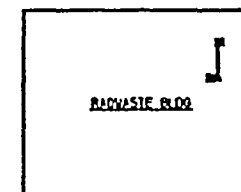


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\"/>

## REFERENCES:

ISI - 228-2  
 BOYCE & GRILL ISOMETRICS  
 FPC-640-29.30 REV 3  
 FPC-640-28.28 REV 6  
 FPC-1657-1 REV 2



QUALITY CLASS. 2 ASME CODE CLASS. 3

ENGR. K-MOANDREV DRAWN. K-MoA DATE. 4-18-79



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98002

WPP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:

FPC-DH-1B RETURN

DWG NO. FPC-305-2

REV 2

ZONES W-34 & W-24

THIS DRAWING IS INTENDED FOR  
 USE IN PRE-SERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

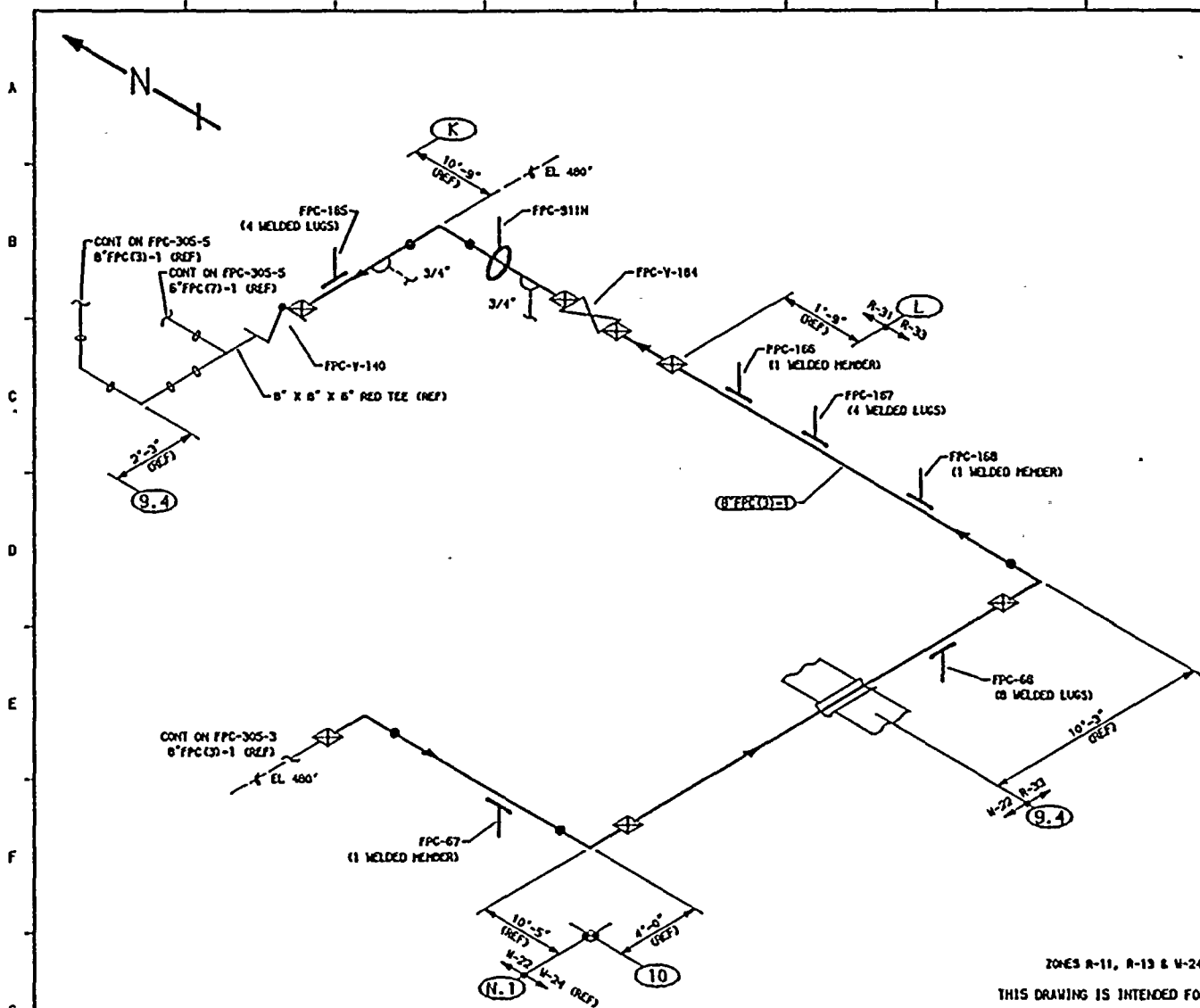
|    |          |                                     |       |      |      | PIPING SYSTEM | NOM DIA (IN) | BCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|-------------------------------------|-------|------|------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
|    |          |                                     |       |      |      | 6"FP(3)-1     | 8            | STD | 0.280        | SA 106 GR B            | CS        | NA           |
| 2  | 10-16-87 | ADDED CONT DWG, 2"FP(33)-1, REDRAWN | K-MGA | DPR  | TFH  | 6"FP(21)-1    | 6            | STD | 0.280        | SA 106 GR B            | CS        | NA           |
| 1  | 1-24-84  | REVISED AS NOTED ADDED KEYPLAN      | K-MGA | DPR  | TFH  | 2"FP(33)-1    | 2            | 80  | 0.218        | SA 106 GR B            | CS        | NA           |
| 0  | 12-2-81  | ISSUED FOR USE                      | K-MGA | DPR  | TFH  |               |              |     |              |                        |           |              |
| NO | DATE     | REVISION                            | BY    | CHKD | APVD |               |              |     |              |                        |           |              |











ZONES R-11, R-13 & V-24

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

| NO | DATE     | REVISION   | BY    | CHKD | APVD |
|----|----------|--|-------|------|------|
| 2  | 11-13-82 | ADD 151 DRAWING REFERENCE & DRAWING LINE CONTINUATION, MODIFIED KEYPLAN & LOGO. IN DRAWN | K-MCA | DPR  | DRW  |
| 1  | 1-24-84  | REVISED AS NOTED. ADDED KEYPLAN  | K-MCA | DPR  | TFH  |
| 0  | 12-2-81  | ISSUED FOR USE   | K-MCA | DPR  | TFH  |

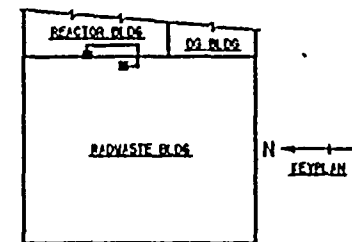
| PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 8" FPC (3)-1  | 8            | STD | 0.322        | SA 106 GR B            | CS        | NA           |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |

#### NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\"/>

#### REFERENCES:

151 - 226-1A  
BOYCE & CRAIG ISOMETRICS  
FPC-640-7.9 REV 14  
FPC-640-13.16 REV 9



QUALITY CLASS, 11 ASME CODE CLASS, 3  
ENGR, K-McANDREW DRAWN, K-MCA DATE, 4-19-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMONT, WASHINGTON 98352

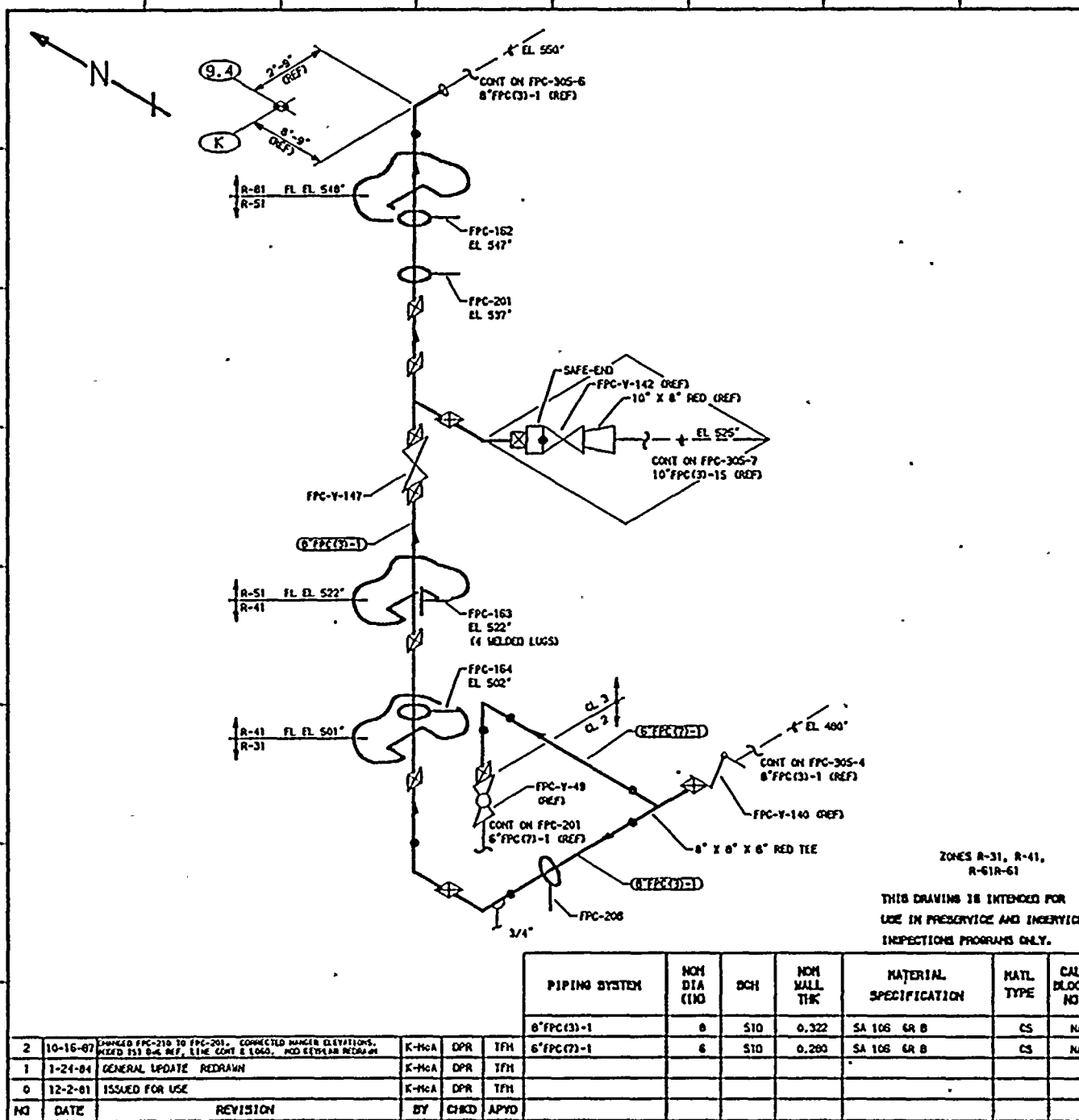
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
FPC-DH-1A & 1B RETURN

DWG NO. FPC-305-4

REV 2



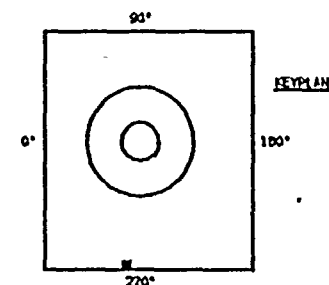


# NOTES:

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- FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 228-1A  
 BOYLE & CHAIL ISO-METRICS  
 FPC-640-1.6 REV 9  
 FPC-640-7.9 REV 14



QUALITY CLASS, 2 ASME CODE CLASS, 3  
 ENGR. K-MOANDREN DRAWN. K-MoA DATE, 4-19-79

WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHLAND, WASHINGTON 99352

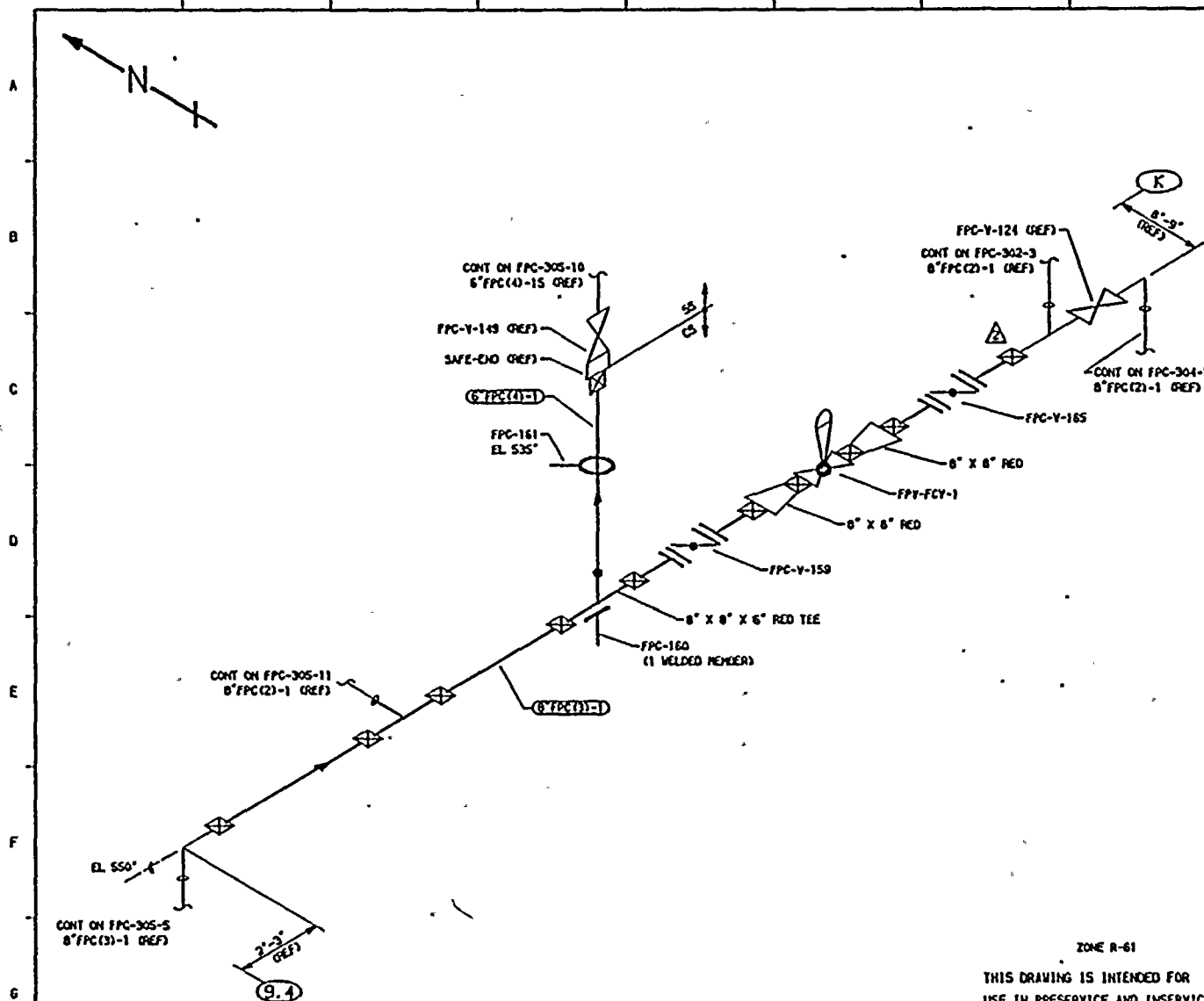
WNP-2  
 WELD & COMPONENT  
 IDENTIFICATION DIAGRAM

TITLE:  
 FPC-DM-1A & 1B RETURN

DWG NO. FPC-305-5

REV 2



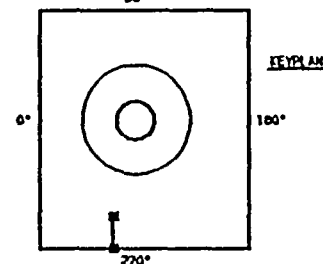


#### NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 1WA-5000 AND 1WD-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

#### REFERENCES:

ISI - 226-1A  
BOYCE & GRILL ISOMETRIC  
FPC-640-1.8 REV 9  
90°



QUALITY CLASS: 11 ASME CODE CLASS: 3  
ENGR. K-McANDREW DRAWN. K-McA DATE: 4-23-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIEHLAND, WASHINGTON 99352

ZONE R-61

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

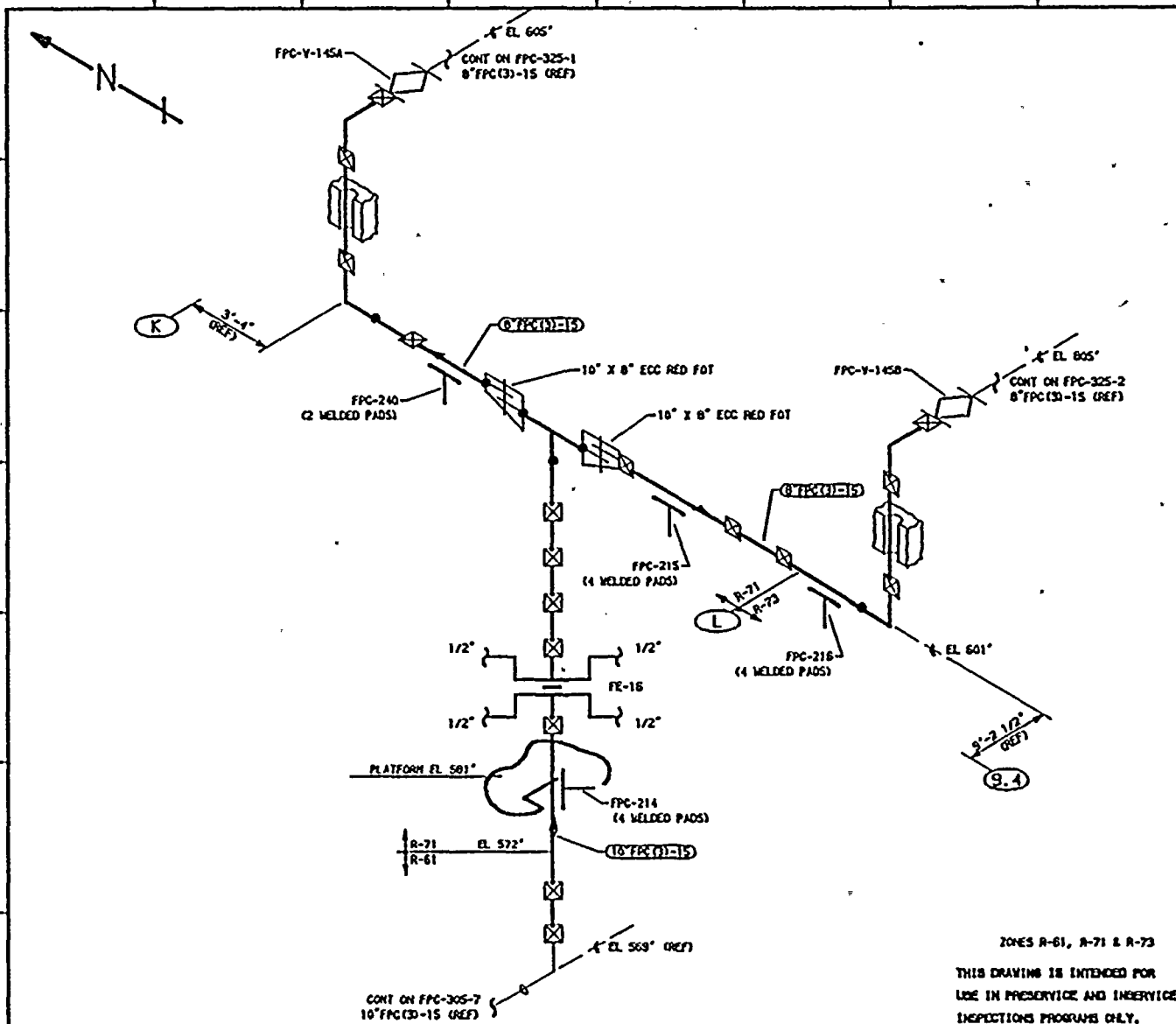
|    |          |  |  | PIPING SYSTEM | NOM DIA (IN) | SCH  | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|--|--|---------------|--------------|------|--------------|------------------------|-----------|--------------|
|    |          |  |  | 8" FPC(3)-1   | 8            | STD  | 0.322        | SA 106 GR B            | CS        | NA           |
|    |          |  |  | 8" FPC(4)-1   | 8            | STD  | 0.280        | SA 106 GR B            | CS        | NA           |
|    |          |  |  |               |              |      |              |                        |           |              |
|    |          |  |  |               |              |      |              |                        |           |              |
|    |          |  |  |               |              |      |              |                        |           |              |
| NO | DATE     | REVISION   |  | BY            | CHKD         | APVD |              |                        |           |              |
| 2  | 11-13-92 | ADDED 152 DRAWING REFERENCE, DRAWING LINE CORRECTION & FIELD WELD IN C-7, MODIFIED KEYPLAN & LEGEND, REDRAWN |  | K-McA         | DPR          | DRW  |              |                        |           |              |
| 1  | 1-24-84  | REVISED AS NOTED, ADDED KEYPLAN  |  | K-McA         | DPR          | TJH  |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE   |  | K-McA         | DPR          | TJH  |              |                        |           |              |

|   |       |
|---|-------|
| WPP-2<br>WELD & COMPONENT<br>IDENTIFICATION DIAGRAM |       |
| TITLE:<br>FPC-DN-1A & 1B RETURN                     |       |
| DWG NO. FPC-305-6                                   | REV 2 |









#### NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 19A-5000 AND 19D-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

#### REFERENCES:

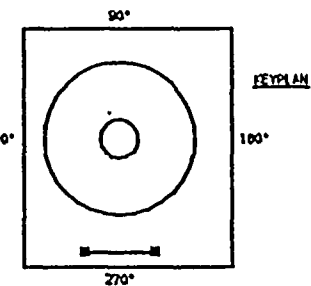
ISI - 226-1

DOYLE & CRAIG ISOMETRICS

FPC-670-3.6 REV 8

FPC-670-7.11 REV 9

FPC-670-12.16 REV 7



|                  |                            |
|------------------|----------------------------|
| QUALITY CLASS: 2 | ASME CODE CLASS: 3         |
| ENGR: K-McANDREW | DRAWN: K-McA DATE: 4-24-79 |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
FPC-DH-1A & 1B TO DIFFUSERS

DWG NO. FPC-305-B

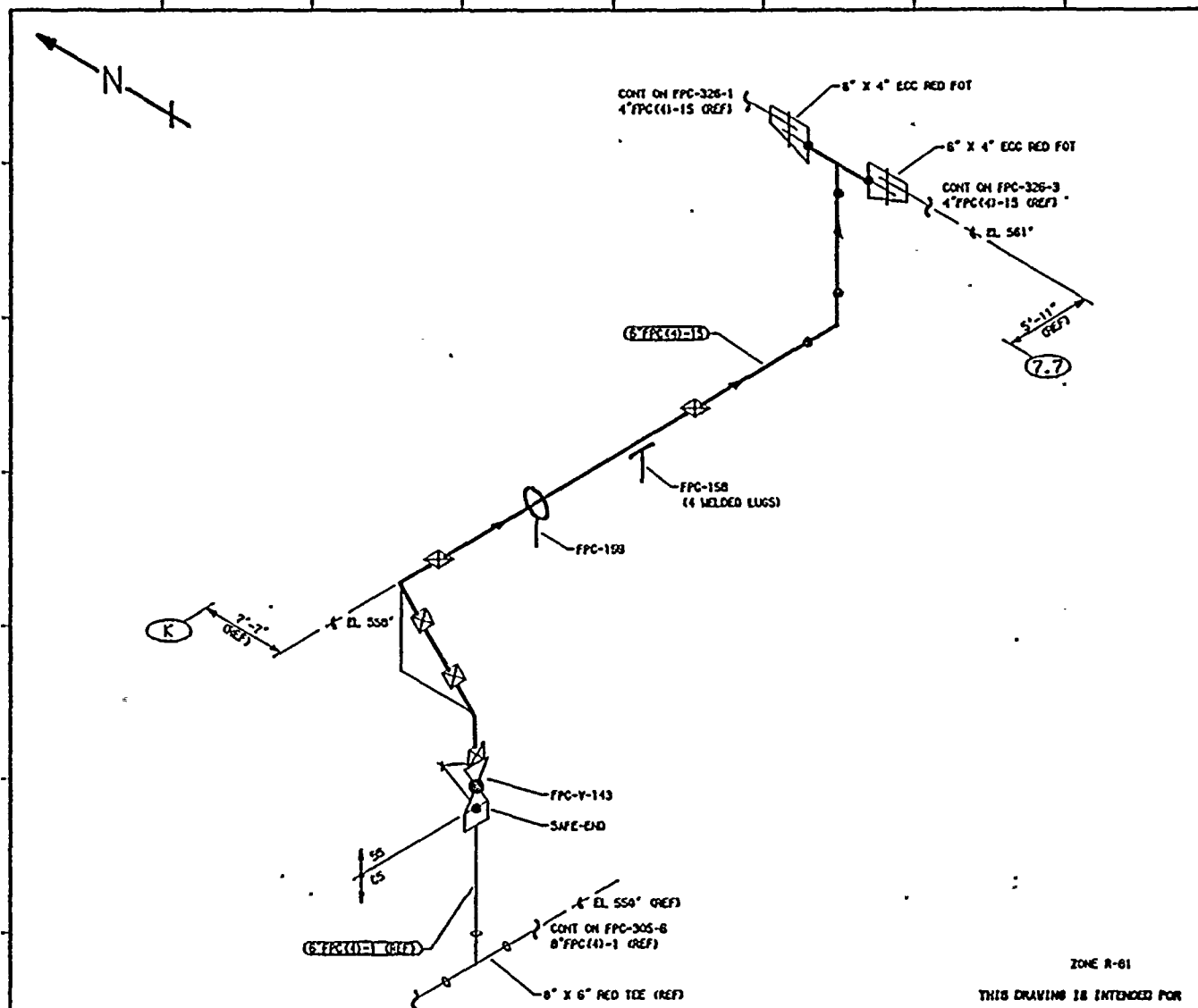
REV 2

|    |          |                                 |       |      |      | PIPING SYSTEM  | NOM DIA (IN) | DCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|---------------------------------|-------|------|------|----------------|--------------|-----|--------------|------------------------|-----------|--------------|
|    |          |                                 |       |      |      | 10" FPC (3)-15 | 10           | 105 | 0.165        | SA 312 TP 304          | SS        | NA           |
| 2  | 10-16-87 | GENERAL UPDATE, ADDED DWG CONT. | K-McA | DPR  | TFH  | 8" FPC (3)-15  | 8            | 105 | 0.140        | SA 312 TP 304          | SS        | NA           |
| 1  | 1-24-84  | GENERAL UPDATE REDRAWN          | K-McA | DPR  | TFH  |                |              |     |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE                  | K-McA | DPR  | TFH  |                |              |     |              |                        |           |              |
| NO | DATE     | REVISION                        | BY    | CHKD | APVD |                |              |     |              |                        |           |              |









ZONE R-01

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

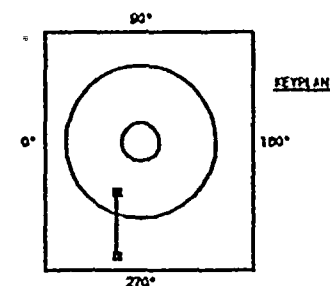
|    |          |                                |       |      | PIPING SYSTEM | NOM DIA (IN) | DCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|--------------------------------|-------|------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
|    |          |                                |       |      | 6"FPCC(41)-15 | 6            | 105 | 0.134        | SA 312 TP 304          | SS        | NA           |
| 2  | 10-16-87 | GENERAL UPDATE, REDRAWN        | K-MCA | DPR  | TFM           |              |     |              |                        |           |              |
| 1  | 1-24-84  | REVISED AS NOTED ADDED KEYPLAN | K-MCA | DPR  | TFM           |              |     |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE                 | K-MCA | DPR  | TFM           |              |     |              |                        |           |              |
| NO | DATE     | REVISION                       | BY    | CHKD | APYD          |              |     |              |                        |           |              |

# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\"/>

## REFERENCES:

ISI - 228-1  
BOYCE & CRILL ISOMETRIC  
FPC-689-1.7 REV 5



QUALITY CLASS: 2 ASME CODE CLASS: 3  
ENGR. K-McANDREW DRAWN: K-McA DATE: 4-25-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

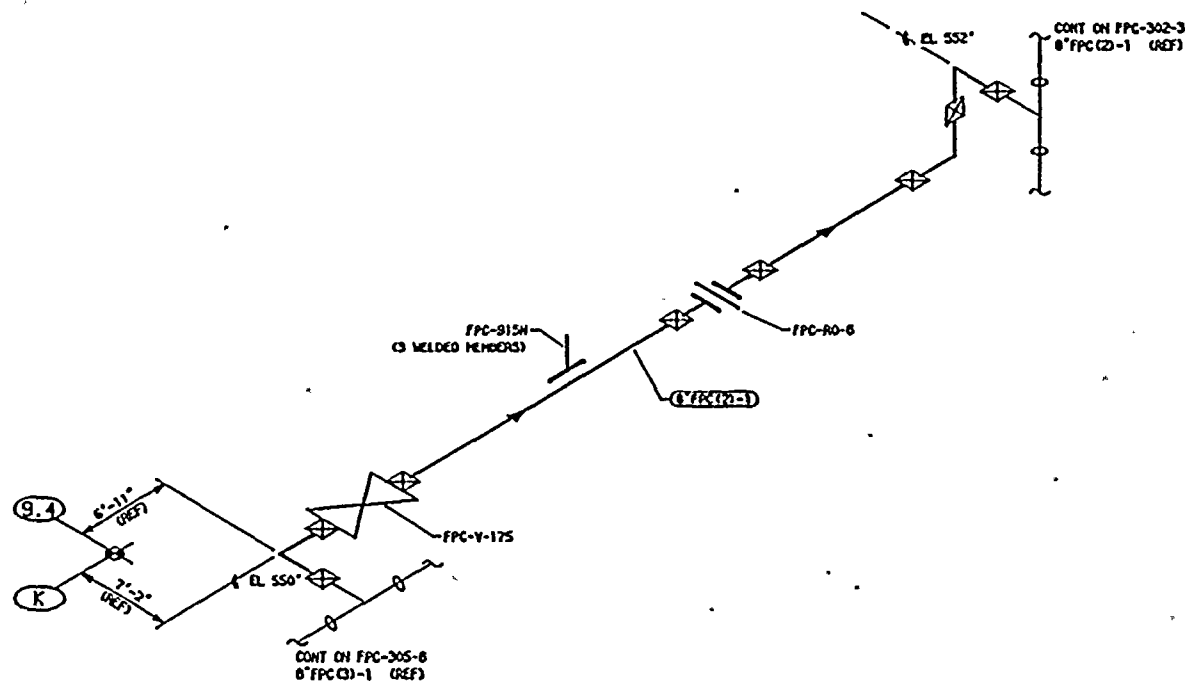
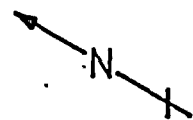
WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
FPC-DM-1A & 1B TO DIFFUSERS

DWG NO. FPC-305-10

REV 2





ZONE R-81

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

| PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 8" FPC(2)-1   | 8            | STD | 0.322        | SA 106 GR B            | CS        | NA           |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |

| NO | DATE    | REVISION                                   | BY    | CHKD | APVD |
|----|---------|--|-------|------|------|
| 1  |         | ADDED LOGO, MODIFIED ISI DWG REF & KEYPLAN |       |      |      |
| 0  | 1-24-84 | ISSUED FOR USE                             | K-MHA | DPR  | TFH  |

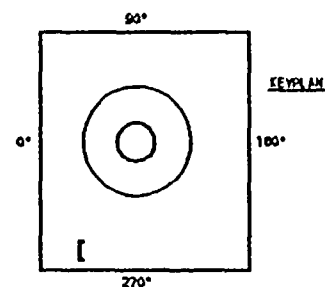
#### NOTES:

- THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES IWA-5000 AND IWD-2000.

#### REFERENCES:

ISI - 228-1A

BOYCE & CRILL ISOMETRIC  
FPC-640-31.40 REV B



|                   |                           |
|-------------------|---------------------------|
| QUALITY CLASS: 11 | ASME CODE CLASS: 3        |
| ENGR: K-McANDREW  | DRAWN: K-MHA DATE: 1-5-84 |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
R10LAND, WASHINGTON 98352

WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

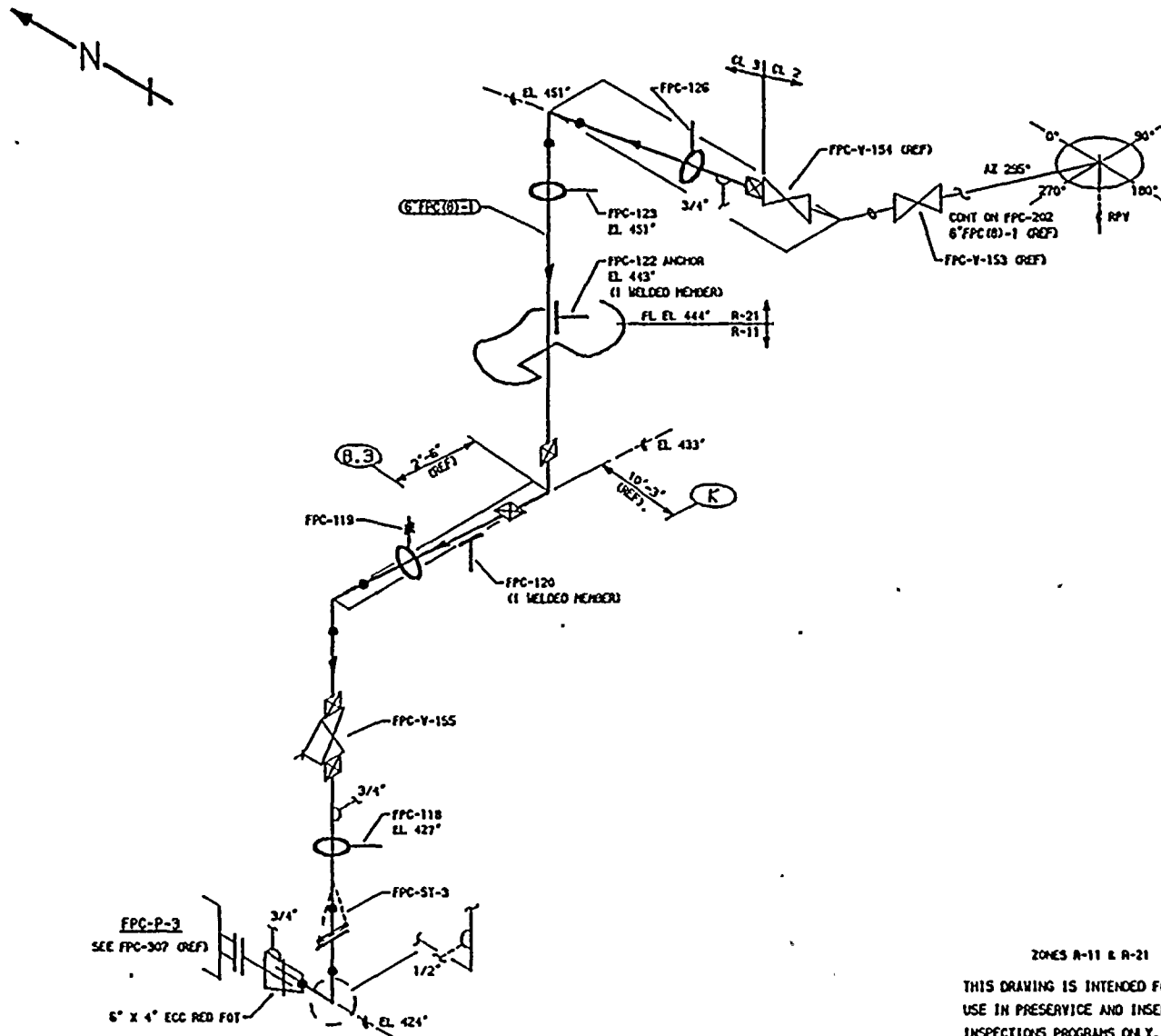
TITLE:  
BY-PASS BETWEEN INFULENT &  
EFFLUENT TO REACTOR

DWG NO. FPC-305-11

REV 1





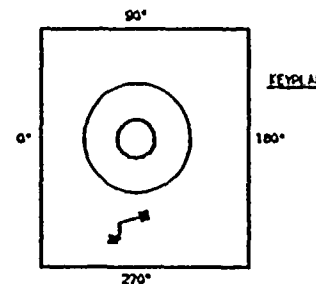


# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 1WA-5000 AND 1W-2000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

151 - 226-1A  
 BOYCE & GRILL ISOMETRICS  
 FPC-639-1.2 REV 11  
 FPC-639-3.5 REV 9



QUALITY CLASS. 11 ASME CODE CLASS. 3  
 ENGR. K-McANDREW DRAWN. K-McA DATE. 4-27-79



WASHINGTON PUBLIC POWER  
 SUPPLY SYSTEM  
 RICHMOND, WASHINGTON 98352

ZONES R-11 & R-21

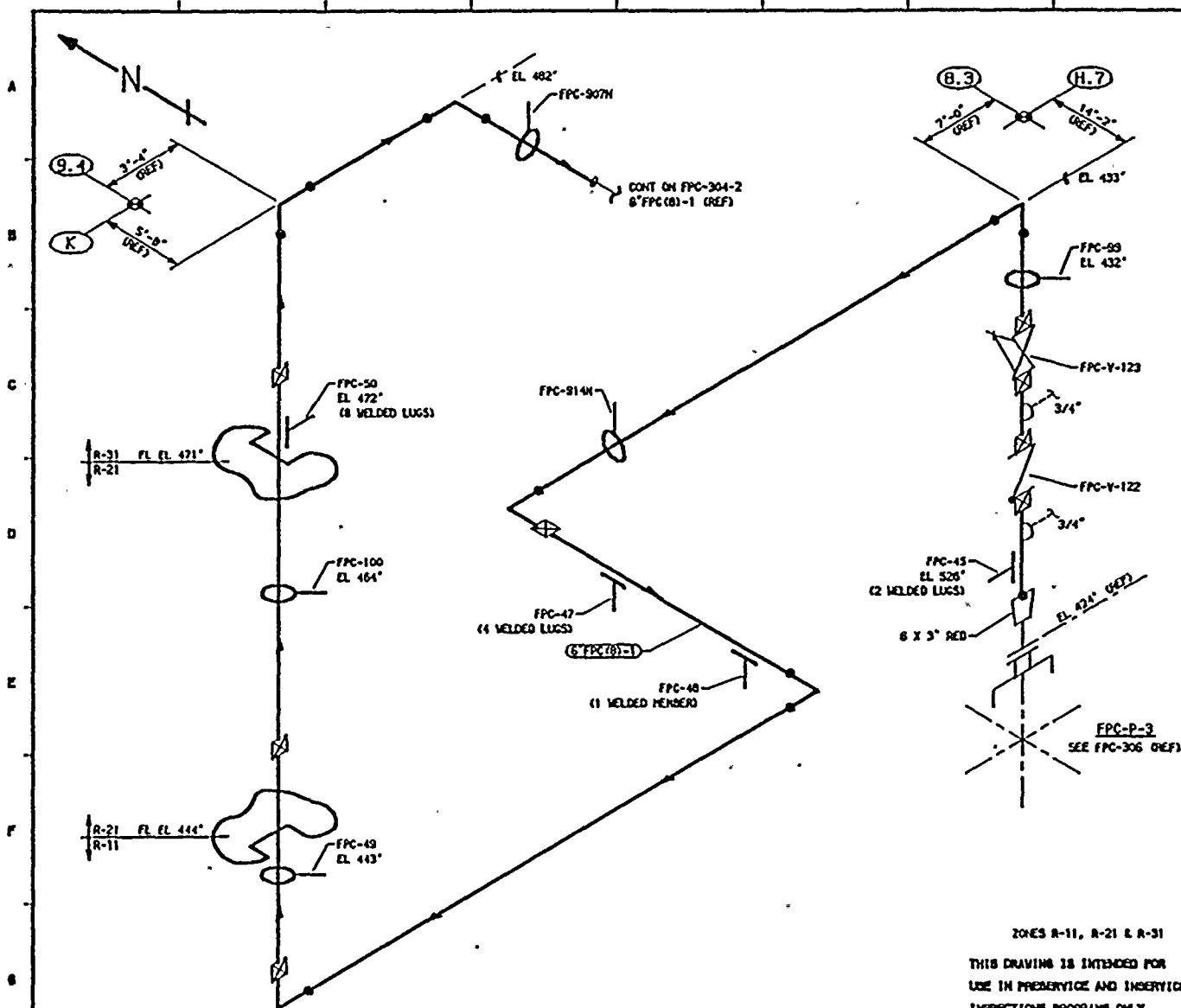
THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

| PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 6" FPC(8)-1   | 6            | STD | 0.280        | SA 106 GR B            | CS        | NA           |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |

| NO | DATE     | REVISION   | BY    | CHKD | APVD |
|----|----------|--|-------|------|------|
| 2  | 11-13-82 | ADDED 1ST DRAWING REFERENCE & DRAWING LINE CONTINUATION. ROOM RED KEYPLAN & LOGO. REVISION | K-McA | DPR  | DRW  |
| 1  | 1-24-84  | REVISED AS NOTED. ADDED KEYPLAN  | K-McA | DPR  | TFH  |
| 0  | 12-2-81  | ISSUED FOR USE   | K-McA | DPR  | TFH  |

|  |
|--|
| WP-2<br>WELD & COMPONENT<br>IDENTIFICATION DIAGRAM |
| TITLE:<br>SUPPRESSION POOL TO FPC-P-3 SUCTION      |
| DWG NO. FPC-306                                    |
| REV 2  |





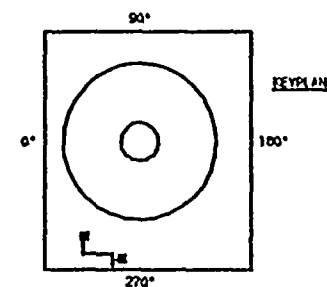
#### NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS; (2) PRESSURE DECAY TESTS OF BURIED PIPING; AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4\"

2. FOR BRANCH PIPING 4\"

#### REFERENCES:

ISI - 226-1A  
BOYCE & CHAIL ISOMETRICS  
FPC-630-1.3 REV 9  
FPC-630-4.7 REV 7



QUALITY CLASS: 2 ASME CODE CLASS: 3  
ENGR: K-McANDREW DRAWN: K-McA DATE: 4-30-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
SICLAND, WASHINGTON 98082

WFP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:

FPC-P-3 DISCHARGE

DWG NO: FPC-307

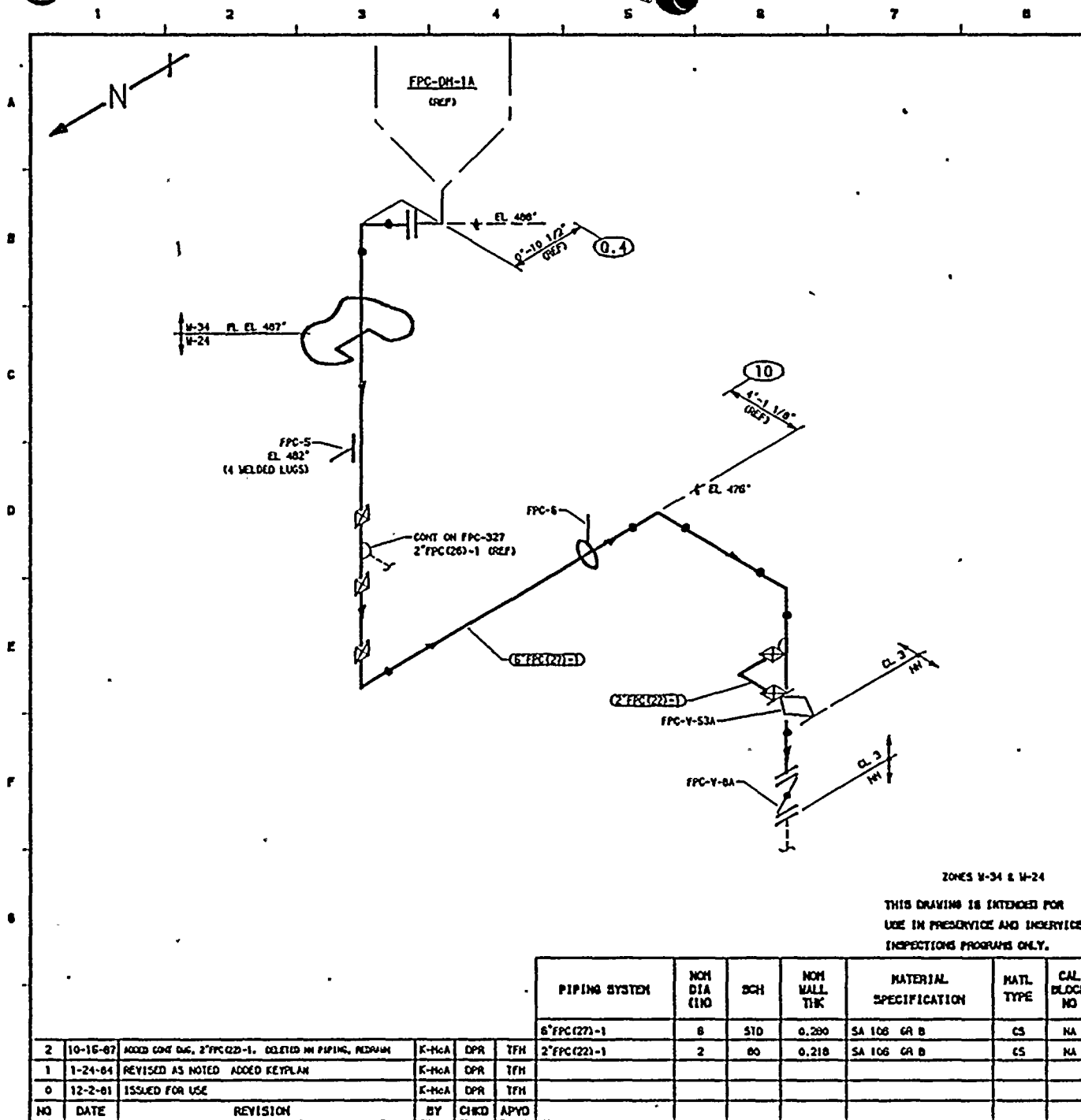
REV 2

ZONES R-11, R-21 & R-31

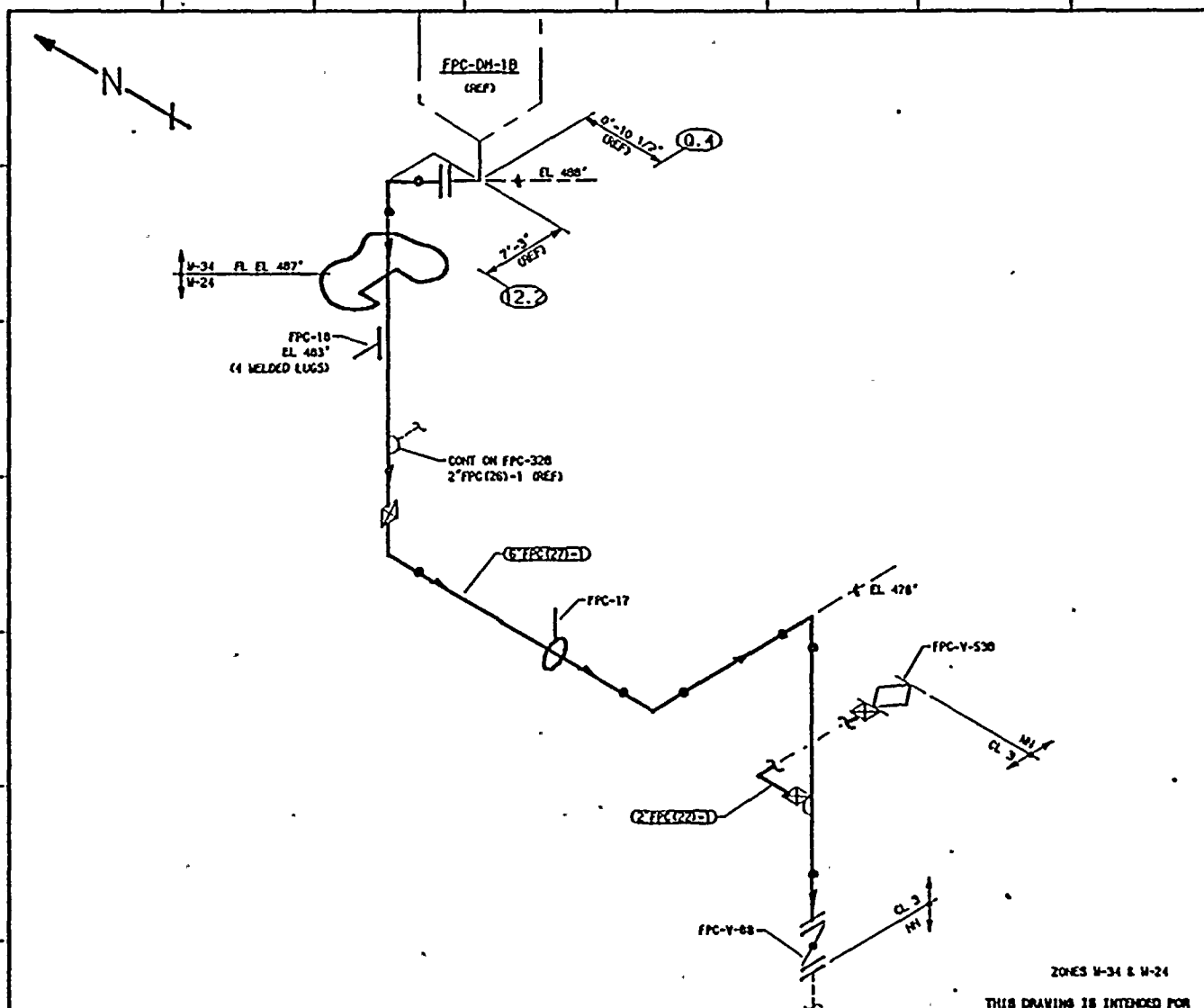
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

|    | PIPING SYSTEM | NOM DIA (IN)  | SCH   | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|---------------|---|-------|--------------|------------------------|-----------|--------------|
|    | 6\"FPC(8)-1   | 6   | STD   | 0.200        | SA 106 GR B            | CS        | NA           |
| 2  | 10-16-87      | WELD 151 Dwg REF, Dwg & LME CONT, LWD & FPC-907H, EXISTING FPC-46, MODIFIED KEYPLAN, REVISION | K-McA | DPR          | TFH                    |           |              |
| 1  | 1-24-84       | REVISED AS NOTED, ADDED KEYPLAN.  | K-McA | DPR          | TFH                    |           |              |
| 0  | 12-2-81       | ISSUED FOR USE  | K-McA | DPR          | TFH                    |           |              |
| NO | DATE          | REVISION  | BY    | CHKD         | APVD                   |           |              |









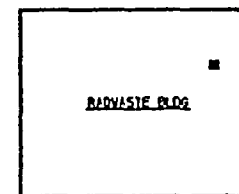
# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 11A-5000 AND 11A-2000.

2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

151 - 226-2  
BOYCE & CRAIL ISOMETRIC  
FPC-778-10.13 REV 1



N  
KEYPLAN

QUALITY CLASS: 2 ASME CODE CLASS: 3  
ENGR. K-McANDREW DRAWN: K-McA DATE: 5-1-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:

FPC-DH-1B TO FDR-TX-22

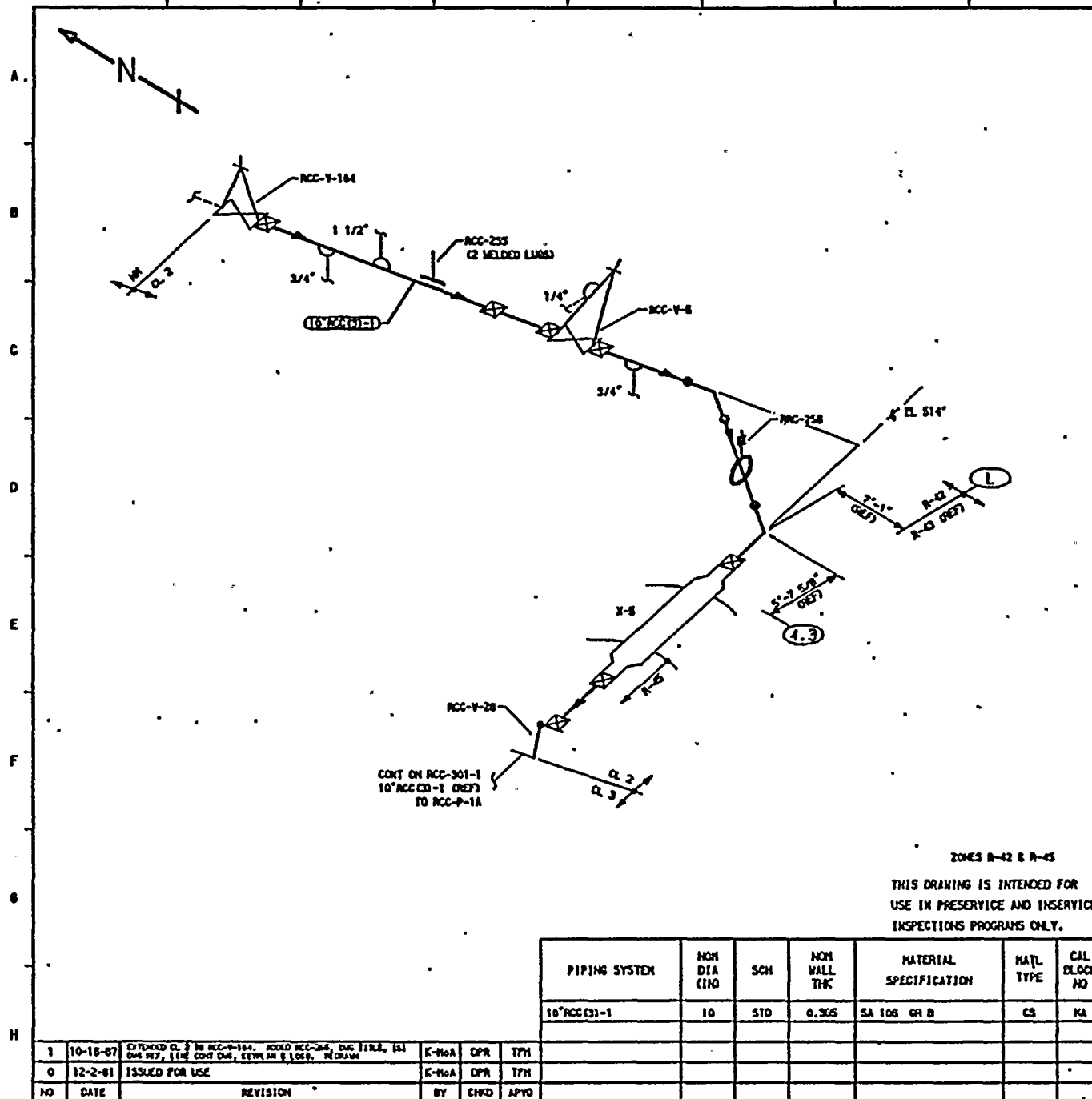
DWG NO. FPC-308-3

REV 2

ZONES W-34 & W-24  
THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

| NO | DATE     | REVISION   | BY    | CHKD | APVD | PIPING SYSTEM | NOM<br>DIA<br>(IN) | SCH | NOM<br>WALL<br>THK | MATERIAL<br>SPECIFICATION | NATL<br>TYPE | CAL<br>BLOCK<br>NO |
|----|----------|--|-------|------|------|---------------|--------------------|-----|--------------------|---------------------------|--------------|--------------------|
| 2  | 10-16-87 | ADDED CONT DWG, 2" FPC(22)-1. DELETED IN PIPING, REDRAWN | K-McA | DPR  | TFH  | 8" FPC(27)-1  | 8                  | STD | 0.200              | SA 106 GR B               | CS           | NA                 |
| 1  | 1-24-84  | REVISED AS NOTED ADDED KEYPLAN                           | K-McA | DPR  | TFH  | 2" FPC(22)-1  | 2                  | 80  | 0.218              | SA 106 GR B               | CS           | NA                 |
| 0  | 12-2-81  | ISSUED FOR USE   | K-McA | DPR  | TFH  |               |                    |     |                    |                           |              |                    |



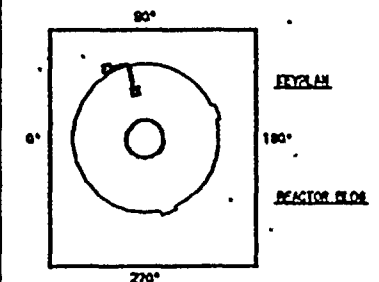


# NOTES:

- THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 11A-5008.
- FOR BRANCH PIPING 4" NOM. OR LESS CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.
- AT LOCATIONS WHERE LEAKAGE IS NORMALLY EXPECTED (e.g., VALVE STEM AND PUMP SEAL LEAKOFF CONNECTIONS) VERIFY LEAKAGE COLLECTION SYSTEM OPERABILITY ONLY. NO HYDRO TEST OF COLLECTION SYSTEM IS REQUIRED.

## REFERENCES:

ISI - 225-2  
BOYCE & CHAIL (ISOMETRICS)  
RCC-848 10.12 REV 12  
RCC-831-1.2 REV 10



QUALITY CLASS, 1 ASME CODE CLASS, 2  
ENGR, K-McANDREW DRAWN, K-McA DATE, 5-2-79



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

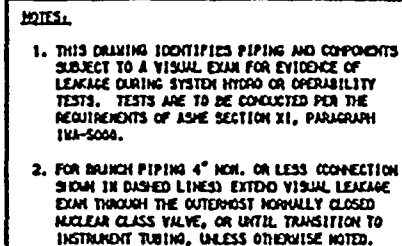
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RCC SUPPLY FROM HEAT EXCHANGERS  
TO CONTAINMENT PENETRATION X-5

DWG NO. RCC-201

REV 1

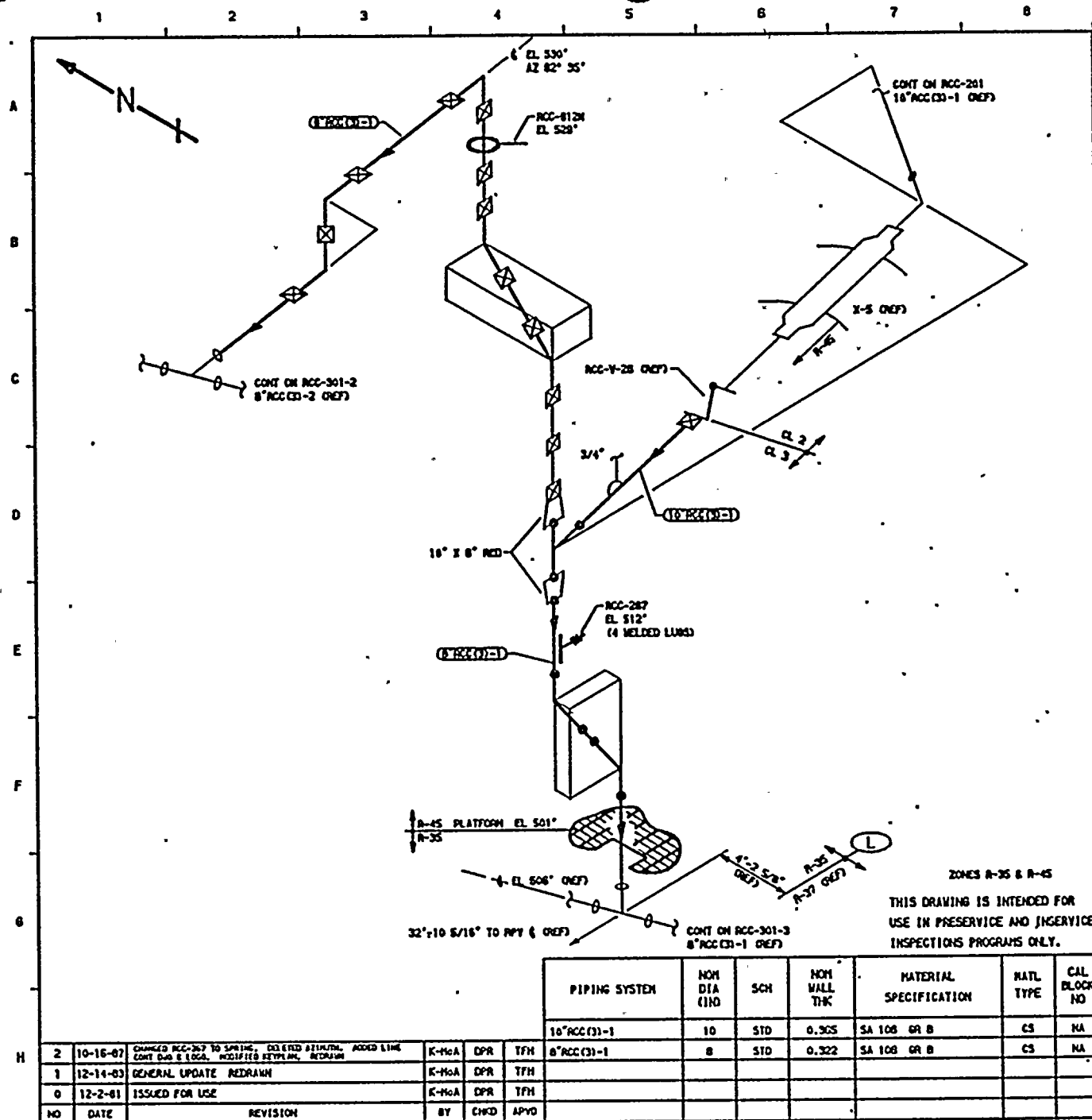




|    |          |  |       |      |      |
|----|----------|--|-------|------|------|
| 2  | 11-13-82 | ADDED 151 DUE REF, ONE LINE CONT, REF FILE & SUBJ. MODIFIED KEYPLAN & LOGS, RETURN | K-MoA | DPR  | DRM  |
| 1  | 1-24-84  | REVISED AS NOTED. ADDED KEYPLAN  | K-MoA | DPR  | THH  |
| 0  | 12-2-81  | ISSUED FOR USE   | K-MoA | DPR  | THH  |
| NO | DATE     | REVISION   | BY    | CHKD | APVD |

|   |       |
|---|-------|
| WNP-2<br>WELD & COMPONENT<br>IDENTIFICATION DIAGRAM |       |
| TITLE:<br>RCC RETURN                                |       |
| DWG NO: RCC-202                                     | REV 2 |





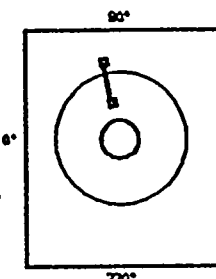
#### NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH IVA-5000.
2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

#### REFERENCE:

ISI - 225

BOYCE & CRAIG ISOMETRICS  
RCC-831-1.2 REV B  
RCC-831-23.28 REV B



KEYPLAN

REACTOR HEAD

|                  |                    |
|------------------|--------------------|
| QUALITY CLASS, 1 | ASME CODE CLASS, 3 |
| ENGR. K-McANDREW | DRAWN. K-McA       |
| DATE, 5-2-79     |                    |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGELAND, WASHINGTON 98352

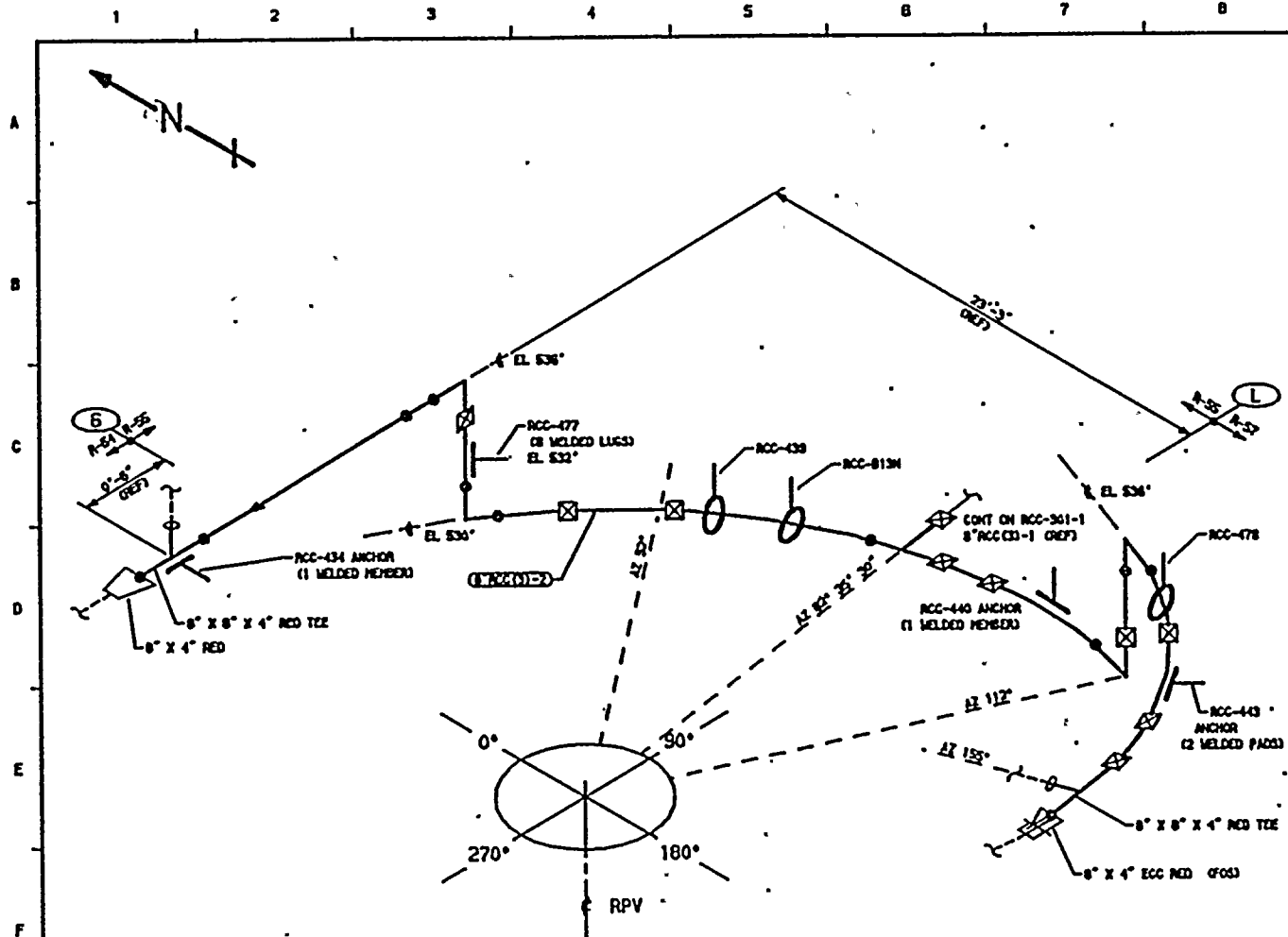
MAP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RCC SUPPLY INSIDE CONTAINMENT

DWG NO. RCC-301-1

REV 2





ZONES A-54, A-55 & A-57

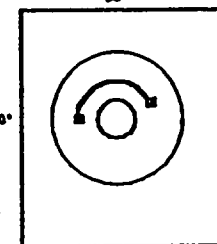
THIS DRAWING IS INTENDED FOR  
USE IN PRESENTIVE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

# NOTES:

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2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES:

ISI - 225-1  
BOYCE & CRAIG ISOMETRICS  
RCC-431-23.28 REV 8  
RCC-431-30.40 REV 7



KEYPLAN

REACTOR BUILDING

QUALITY CLASS, 11 ASME CODE CLASS, 3  
ENGR. K-McANDREW DRAWN. K-McA DATE, 5-3-78



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDLAND, WASHINGTON 99352

MAP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RCC SUPPLY TO RCC-P-1B

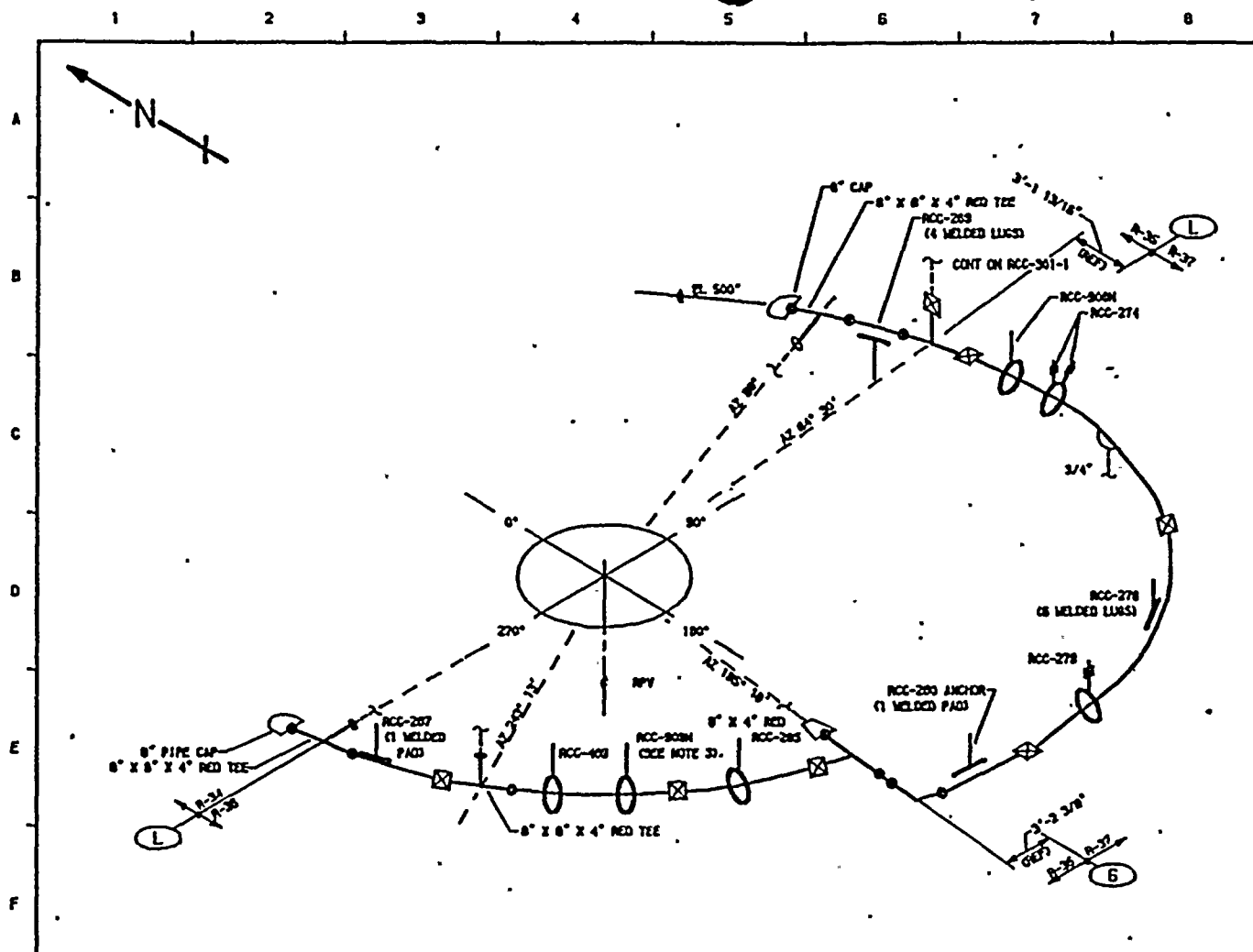
DWG NO. RCC-301-2

REV 2

| NO | DATE     | REVISION  | BY    | CHKD | APVD | PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|----------|---|-------|------|------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 2  | 11-13-82 | ADDED DASH LINE CONT & LOGO. NOO ISI Dwg RCF & KEYPLAN. | K-McA | DPR  | DRM  | 8" RCC(3)-2   | 8            | STD | 0.322        | SA 105 GR B            | CS        | NA           |
| 1  | 1-24-84  | GENERAL UPDATE REDRAWN                                  | K-McA | DPR  | TPH  |               |              |     |              |                        |           |              |
| 0  | 12-2-81  | ISSUED FOR USE  | K-McA | DPR  | TPH  |               |              |     |              |                        |           |              |





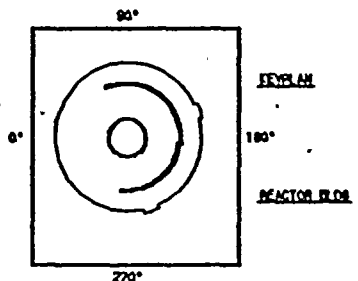


**NOTES:**

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2. FOR BRANCH PIPING 4\"
3. RCC-908H CHANGED FROM SKUDDER TO STRUT PER DOC-06-525-2A.

**REFERENCES:**

- 181 - 225-2  
 BOYCE & CAUL ISOMETRICS  
 RCC-831 - 3.5 REV 8  
 RCC-831 - 8.10 REV 7  
 RCC-831-11.15 REV 8



ZONES R-34, R-35,  
 R-36 & R-37  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

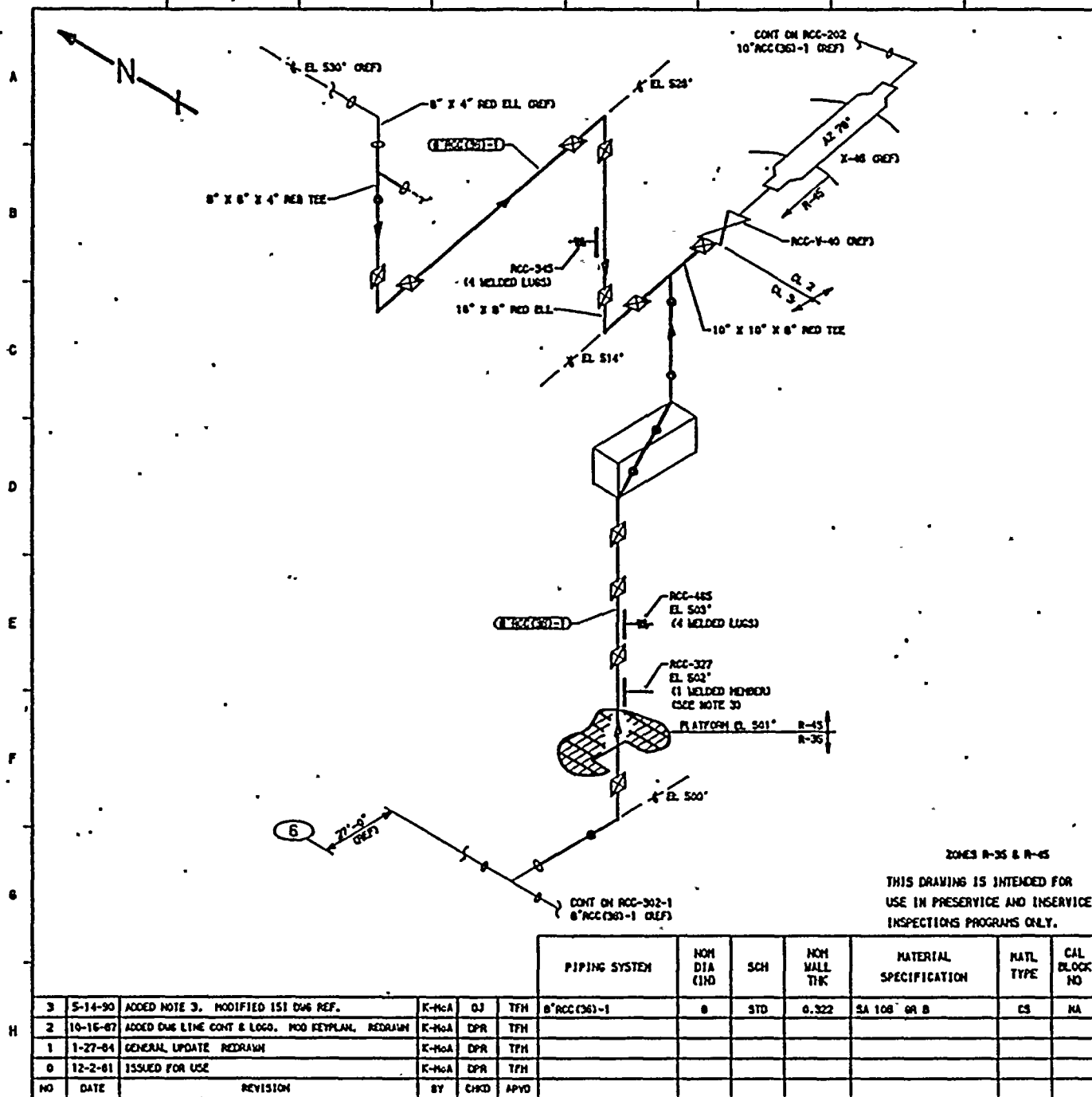
|  |           |                  |       |
|--|-----------|------------------|-------|
| QUALITY CLASS.   | 1         | ASME CODE CLASS. | 3     |
| ENGR.  | K-MANDREN | DRAWN.           | K-MCA |
| DATE.  | 5-3-79    |                  |       |
| WASHINGTON PUBLIC POWER<br>SUPPLY SYSTEM<br>RICHLAND, WASHINGTON 99352 |           |                  |       |
| WP-2<br>WELD & COMPONENT<br>IDENTIFICATION DIAGRAM                     |           |                  |       |
| TITLE:<br>RCC SUPPLY INSIDE CONTAINMENT                                |           |                  |       |
| DWG NO. RCC-301-3  |           |                  | REV 2 |

| NO | DATE    | REVISION                              | BY    | CHKD | APVD | PIPING SYSTEM | NOM DTA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|----|---------|---------------------------------------|-------|------|------|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 2  | 5-14-80 | ADDED NOTE 3 & LOGO. MOD 151 DWG REF. | K-MCA | OJ   | TFH  | 8\"           | 8            | STD | 0.322        | SA 106 GR B            | CS        | NA           |
| 1  | 1-24-84 | GENERAL UP-DATE REDRAWN               | K-MCA | DPR  | TFH  |               |              |     |              |                        |           |              |
| 0  | 12-2-81 | ISSUED FOR USE                        | K-MCA | DPR  | TFH  |               |              |     |              |                        |           |              |









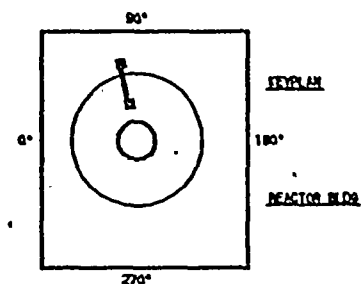
# NOTES:

1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT TO A VISUAL EXAM FOR EVIDENCE OF LEAKAGE DURING SYSTEM HYDRO OR OPERABILITY TESTS. TESTS ARE TO BE CONDUCTED PER THE REQUIREMENTS OF ASME SECTION XI, PARAGRAPH 11A-5000.
2. FOR BRANCH PIPING 4\"/>

## REFERENCE:

ISI - 225-2

BOYCE & ORAIL ISOMETRICS  
RCC-830-30.32 REV 13  
RCC-830-37.38 REV 8



|                  |                           |
|------------------|---------------------------|
| QUALITY CLASS, 1 | ASME CODE CLASS, 3        |
| ENGR. K-McANDREW | DRAWN. K-MCA DATE, 5-4-79 |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
BIOLING, WASHINGTON 98552

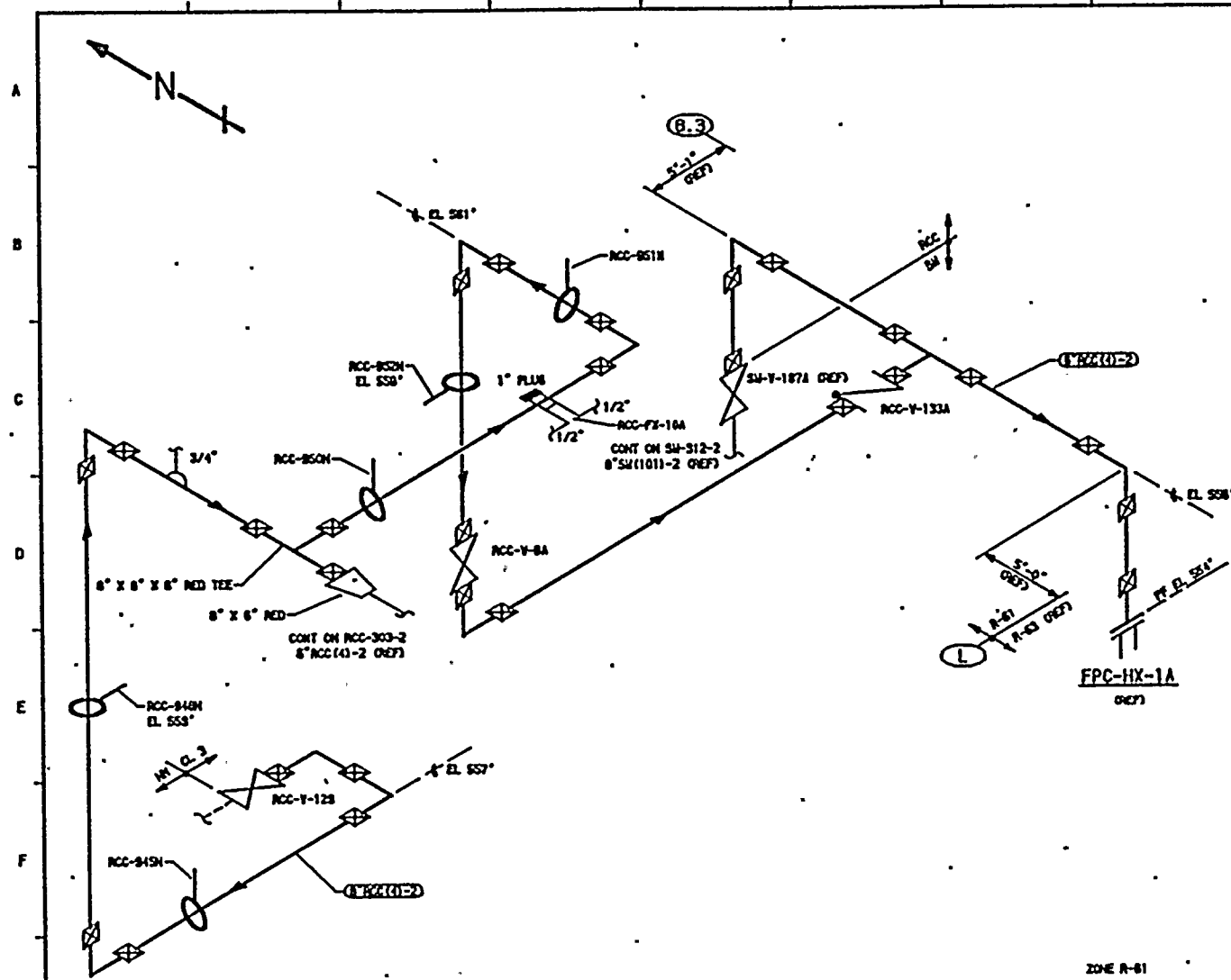
WP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: RCC RETURN INSIDE CONTAINMENT

DWG NO. RCC-302-2

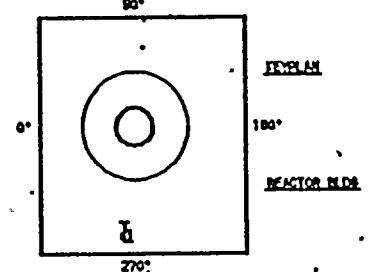
REV 3





- NOTES:**
1. THIS DRAWING IDENTIFIES PIPING AND COMPONENTS SUBJECT ONLY TO A VISUAL EXAM FOR (1) EVIDENCE OF LEAKAGE DURING SYSTEM PRESSURE OR OPERABILITY TESTS, (2) PRESSURE DECAY TESTS OF BURIED PIPING, AND (3) LOSS OF SUPPORT CAPABILITY OR INADEQUATE RESTRAINT FOR SUPPORTS AND HANGERS ON PIPING EXCEEDING 4" NOM. TESTS SHALL BE CONDUCTED PER ASME SECTION XI, ARTICLES 19A-5000 AND 19D-2000.
  2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

**REFERENCE:**  
 ISI - 225-4  
 BOYCE & CRILL ISOMETRIC  
 RCC-850-8.10 REV 10



ZONE R-01  
 THIS DRAWING IS INTENDED FOR  
 USE IN PRESERVICE AND INSERVICE  
 INSPECTIONS PROGRAMS ONLY.

| PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 8" RCC(3)-2   | 8            | STD | 0.280        | SA 106 GR B            | CS        | NA           |
| 8" RCC(3)-2   | 8            | STD | 0.322        | SA 106 GR B            | CS        | NA           |

| NO | DATE     | REVISION   | BY    | CHKD | APVD |
|----|----------|--|-------|------|------|
| 1  | 11-13-92 | ADDED DASH LINE CONT & LOGO, MOD ISI Dwg REF & KEYPLAN | K-MGA | DPR  | DRW  |
| 0  | 12-2-81  | ISSUED FOR USE   | K-MGA | DPR  | TTH  |

|  |                             |
|--|-----------------------------|
| QUALITY CLASS, 1   | ASME CODE CLASS, 3          |
| ENGR. K-MANDREW  | DRAWN, K-MGA DATE, 11-10-83 |
| WASHINGTON PUBLIC POWER<br>SUPPLY SYSTEM<br>RICHLAND, WASHINGTON 99352 |                             |
| WPP-2<br>WELD & COMPONENT<br>IDENTIFICATION DIAGRAM                    |                             |
| TITLE:<br>RCC SUPPLY TO FPC-HX-1A                                      |                             |
| DWG NO. RCC-303-1  | REV 1                       |



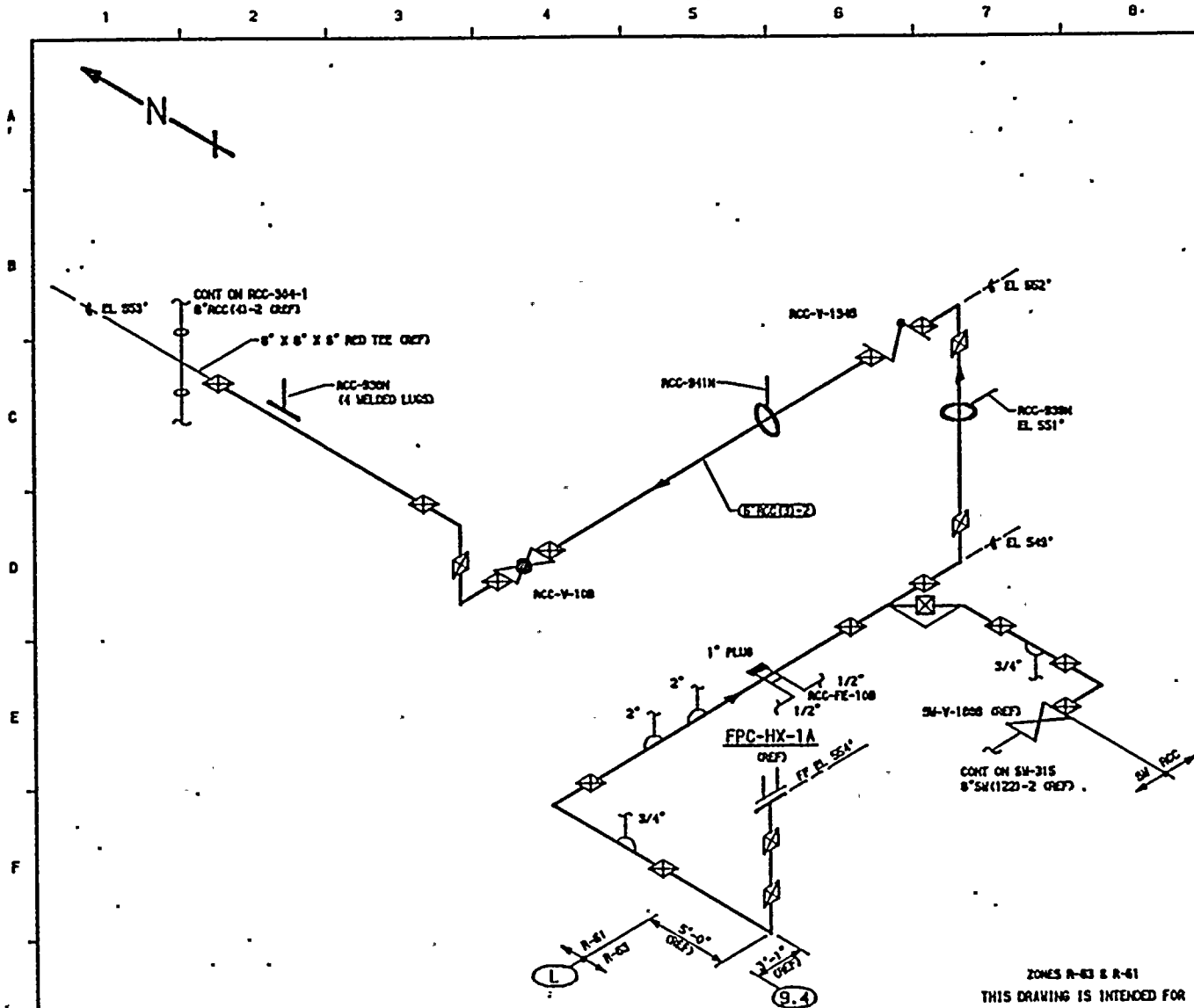










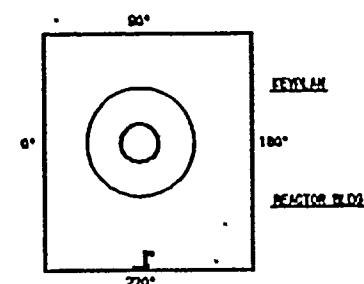


# NOTES

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2. FOR BRANCH PIPING 4" NOM. OR LESS (CONNECTION SHOWN IN DASHED LINES) EXTEND VISUAL LEAKAGE EXAM THROUGH THE OUTERMOST NORMALLY CLOSED NUCLEAR CLASS VALVE, OR UNTIL TRANSITION TO INSTRUMENT TUBING, UNLESS OTHERWISE NOTED.

## REFERENCES

ISI - 225-4  
BOYCE & CRILL ISOMETRIC  
RCC-825-19.21 REV 18



QUALITY CLASS, I. ASME CODE CLASS, 3  
ENGR. K-McANDREW DRAIN. K-McA DATE, 11-29-83



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RICHLAND, WASHINGTON 99352

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE:  
RCC RETURN FROM FPC-HX-1B

DWG NO. RCC-304-2

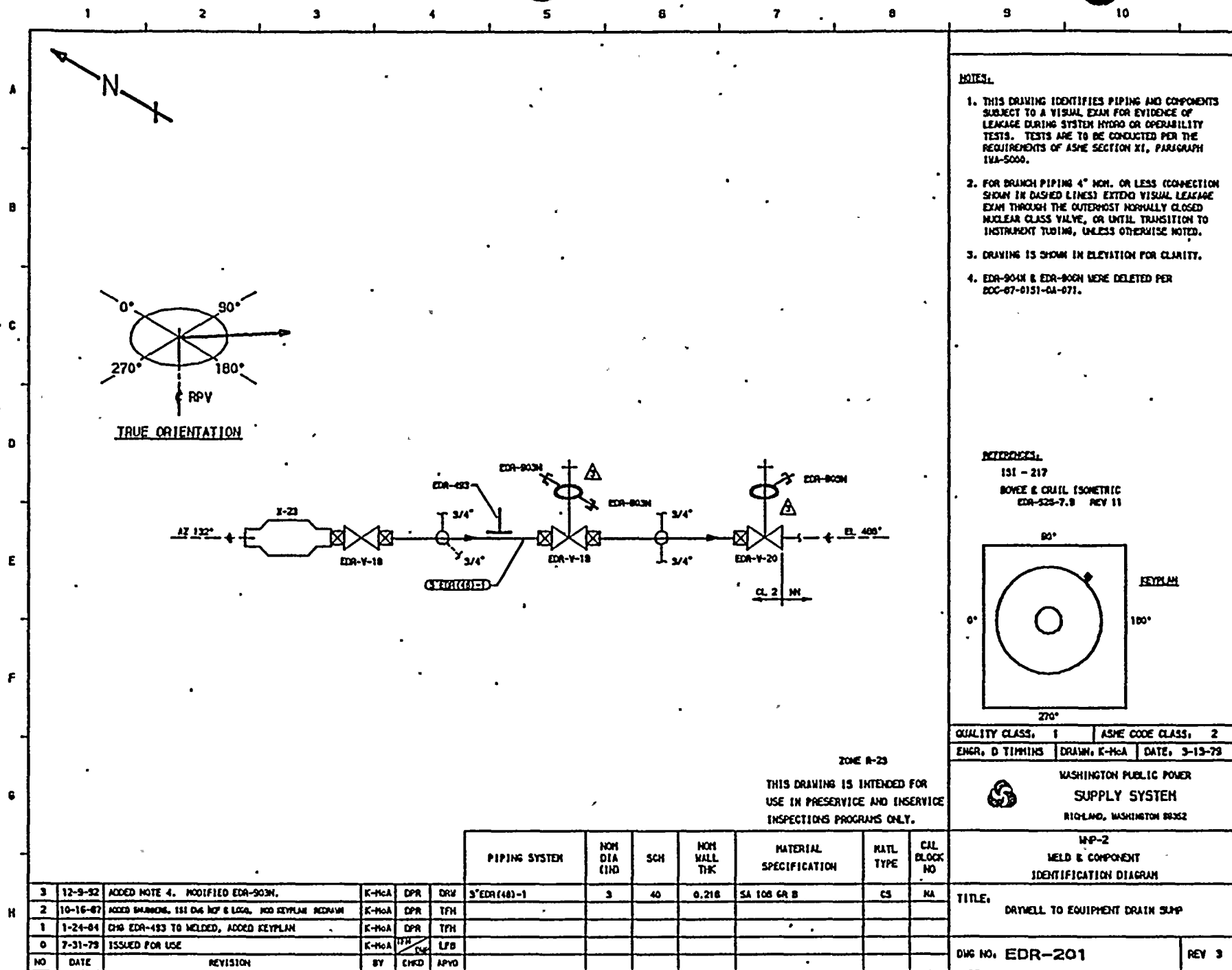
REV 1

| PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 6" RCC(3)-2   | 6            | STD | 0.280        | SA 106 GR B            | CS        | NA           |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |

| NO | DATE     | REVISION  | BY    | CHKD | APVD |
|----|----------|---|-------|------|------|
| 1  | 11-13-82 | ADDED Dwg LINE CONT & LOGO. NO ISI Dwg REF & KEYPLAN. | K-McA | DPR  | DRY  |
| 0  | 12-2-81  | ISSUED FOR USE  | K-McA | DPR  | TFH  |

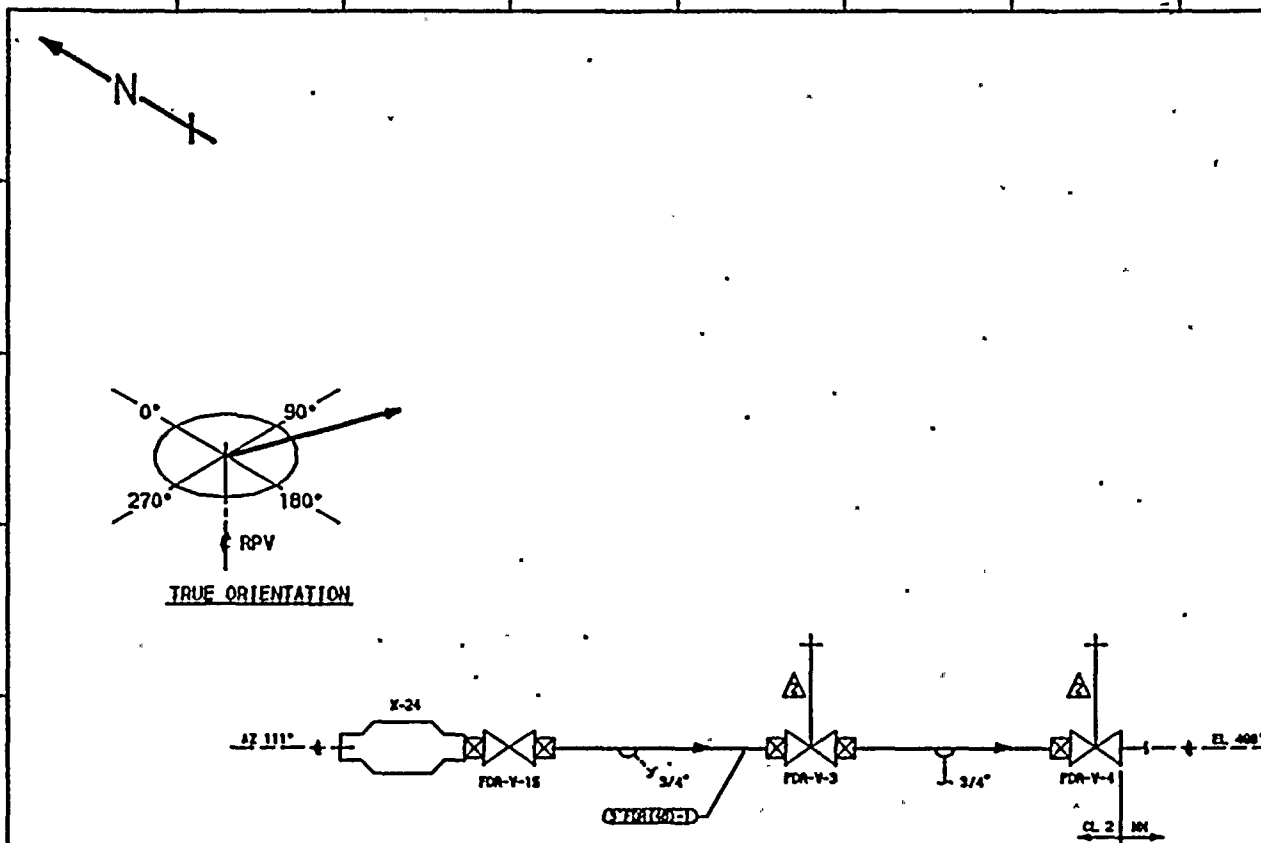


2-2  
1-1  
1-1  
1-1









ZONE R-23

ZONE R-23

THIS DRAWING IS INTENDED FOR  
USE IN PRESERVICE AND INSERVICE  
INSPECTIONS PROGRAMS ONLY.

| PIPING SYSTEM | NOM DIA (IN) | SCH | NOM WALL THK | MATERIAL SPECIFICATION | MATL TYPE | CAL BLOCK NO |
|---------------|--------------|-----|--------------|------------------------|-----------|--------------|
| 3" FDR (40)-1 | 3            | 40  | 0.218        | SA 106 GR B            | CS        | NA           |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |
|               |              |     |              |                        |           |              |

| NO | DATE     | REVISION  | BY    | CHKD | APVD |
|----|----------|---|-------|------|------|
| 2  | 12-9-82  | ADDED NOTE 4.   | K-MGA | DPR  | DRV  |
| 1  | 10-16-87 | ADDED SHOWN, ISI DUE TO REP & LOGO. MOD KEYPLAN REDRAWN | K-MGA | DPR  | TFM  |
| 0  | 7-31-79  | ISSUED FOR USE  | K-MGA | TFM  | LFB  |

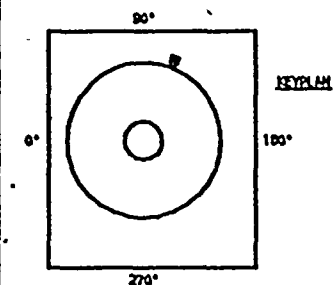
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3. DRAWING IS SHOWN IN ELEVATION FOR CLARITY.
4. FDR-900N, FDR-901N, FDR-902N & FDR-903N WERE DELETED PER DOC-87-0151-04-071.

## DETAILS:

ISI - 217

BOWIE & CRILL ISOMETRIC  
FDR-527-7.8 REV B



|                  |                    |
|------------------|--------------------|
| QUALITY CLASS, 1 | ASME CODE CLASS, 2 |
| ENGR, D TIMMIS   | DATE, 3-13-79      |



WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM  
RIDGEMONT, WASHINGTON 98382

WPP-2  
WELD & COMPONENT  
IDENTIFICATION DIAGRAM

TITLE: REACTOR DRAIN TO FLOOR DRAIN SUMP

DWG NO. FDR-201

REV 2

