

Win. H. Zimmer Nuclear Power Station
Hydrostatic/Pneumatic Test Report
(Page 1)

Test No. RR-27

A. Test Parameters

1. System to be tested REACTOR RECIRCULATION (RR)
Cleanliness Class "B"
2. Bldg. or Location of test RR BLDG
3. Orientation and Terminal Points of test SEE ATTACHED P&ID
elevation of high point 553' elevation of low point 530'
el.
4. Attached Drawing Numbers & Revision Numbers M-47-1 REV:G

5. Pipe Fabricator: KEI Other
6. Type Test: Hydrostatic ☒ Pneumatic ☐
7. Test Media FRYQUEL EHC HYDRAULIC FLUID
(USE SYSTEM HYDRAULIC UNIT FOR PRESSURE SOURCE)
8. Test Plan (Select One)
Hydrostatic KEI 10-101 ☒ Pneumatic KEI 10-103 ☐
Hydrostatic KEI 10-102 ☐

9. A. Required Test Pressure 3000 P.S.I.G. (minimum at highest elev)

- ① From S&L Piping Line List
2. 1.25 times design pressure Ref. ASME Code
3. 1.5 times design pressure Ref. ANSI B31.1
4. As specified by CG&E Construction Engineer for Class 0 Systems only

N/A
Signature/Date

- B. Maximum pressure to which system can be pressurized 3180 P.S.I.G.
(material or component restraint)

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Hydrostatic/Pneumatic Test Report
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Test No. KEI-111

C. Gauge location (elevation) 530' expected static pressure reading
10 PSIG

D. Specified test pressure (9A + 9C) 3015 PSIG

E. Greater of 3/4 test pressure or design pressure (ASME test only)
3000 PSIG

F. Holding test pressure (~~3000~~) 3000 PSIG

10. Test Parameters completed by Steve J. Patten 9-5-78
Signature/Date

Verified

APK
KEI Q.A. Engineer

B. Test Prerequisites

1. Valve Lineup completed by Steve J. Patten 3/1/79
Signature/Date

2. Water Analysis Report available N/A
and acceptable. KEI-QA Signature/Date R.

3. Test Gauges: Note Range shall be more than $1\frac{1}{2}$ times test pressure
but less than 4 times test pressure.

S/N 111111 Range 0-5000 Psi Calib. date 10-12-75 Due date 4-23-79

S/N 111111 Range 0-5000 Psi Calib. date 1-27-79 Due date 2-17-79

27/79 Retest - S/N 111111 Range 0-5000 Psi Calib. date 9/11/79 Due date 3/11/80

28/79 Retest - WTG-63 0-5000

" " Ambient Temp. 79°

T-S 1:00

T-R 2:00

H T- 10 min

9/11/79

3/11/80

ATTRACTION OF THE WATER 2 1/2 HZ
PER 1000 FT

Hydrostatic/Impermeability Test Report
(1000)

Test No. 111-1

C. Test Results

1. Ambient temp. 70° Media temp. 70°
2. Time test started 2:25 PM Time test pressure reached 2:30 PM
Hold time 10 min Time test completed 2:45 PM
Test Gauge Pressure Reading at test 1025 PSIG
3. Test Results & Remarks: SEE EXCEPTIONS ON BACK
NO LEAKS

4. Test conducted by: [Signature] 3/1/79
Signature/date

5. Remove test tags, remove test equipment, etc. 1R

[Signature] 3/1/79
Signature/date

D. Test Witnessed and Accepted By:

1. KEI Hydrotest Super.
and/or Engineer

[Signature] 3/1/79
Signature/date

2. Quality Assurance Representative

[Signature] 3-1-79
Signature/date (with 1 ACCEPTED ON BACK)

3. CG&E Representative/Ohio Special Insp.

C. F. Wood 3/1/79
Signature/date

4. Authorized Nuclear Inspector

[Signature] 3/1/79
Signature/date

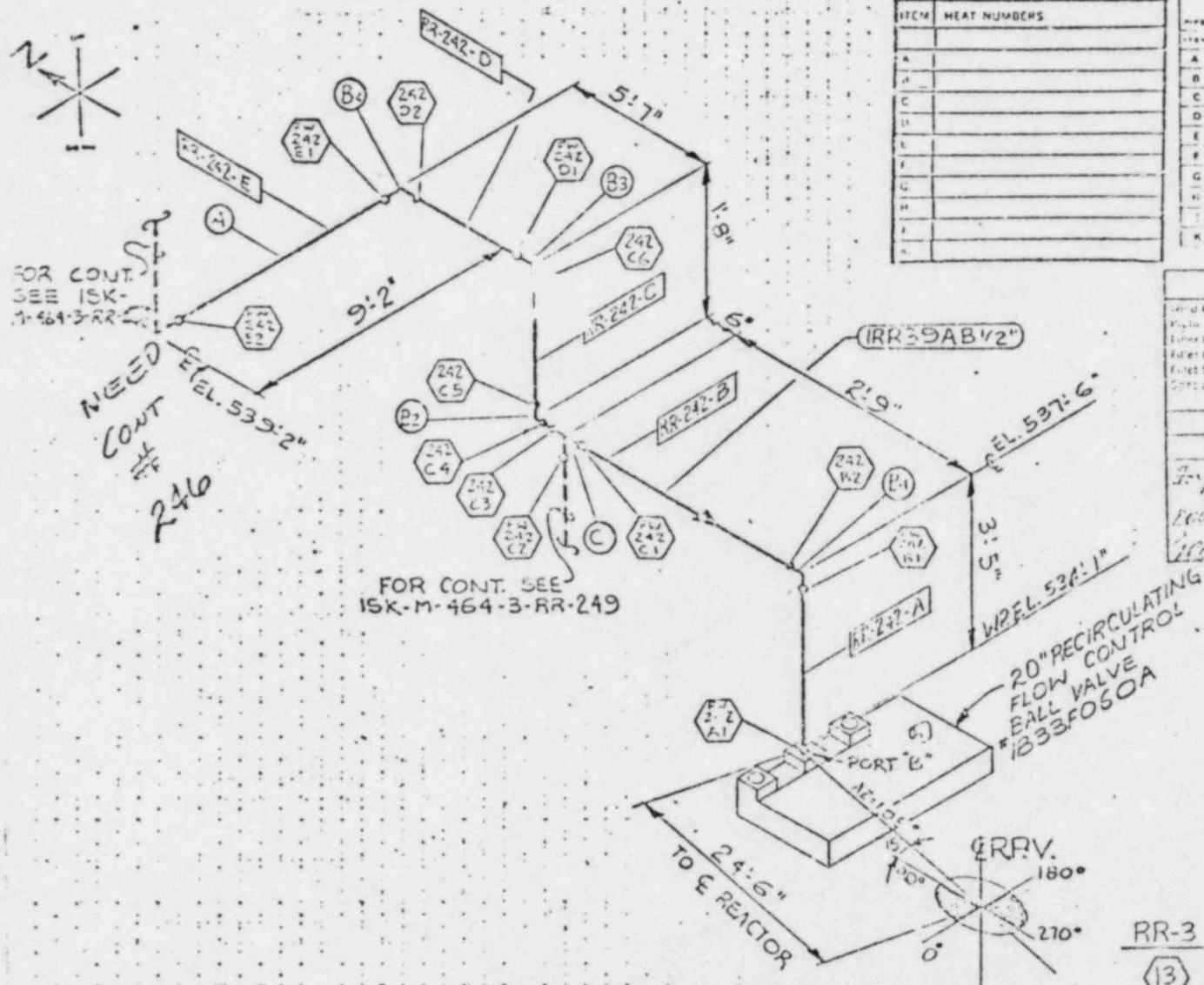
HYDROSTATIC TEST VALVE LINE UP

Hydro RR-27

VALVE NUMBER	POSITION	COORDINATES	DRAWING NUMBER
1B33F3-3		-4	M-47-1
1B33F3-4B	Closed	-4	M-47-1

Note: Protect all instruments in panels, on racks, etc. from Hydro Test Pressure.

THIS DRAFT ISSUED FOR
 INFORMATION ONLY
 NOT TO BE USED FOR
 PHYSICAL CONSTRUCTION



ITEM	HEAT NUMBERS
A	
B	
C	
D	
E	
F	
G	
H	
I	
J	
K	

MATERIAL - TAKE-OFF CLASS B ESSENTIAL			
2540 WZ		2	
ITEM	QTY	UNIT	REMARKS
A	23	LB	2540 WZ
B	4	EA	2540 WZ
C	1	EA	2540 WZ
D			
E			
F			
G			
H			
I			
J			
K			

KE-I WELD DATA - SMALL CODE PIPING			
ITEM	QTY	UNIT	REMARKS
1	1	EA	Verify proper alignment, backing, and fit.
2	1	EA	Verify proper alignment, backing, and fit.
3	1	EA	Verify proper alignment, backing, and fit.
4	1	EA	Verify proper alignment, backing, and fit.
5	1	EA	Verify proper alignment, backing, and fit.
6	1	EA	Verify proper alignment, backing, and fit.
7	1	EA	Verify proper alignment, backing, and fit.
8	1	EA	Verify proper alignment, backing, and fit.
9	1	EA	Verify proper alignment, backing, and fit.
10	1	EA	Verify proper alignment, backing, and fit.

JF Scott
 7-11-78

The welding data noted on this ISK shall not apply to groove weld connections to large bore pipe.

CLEAN CLASS	EL	SEW-C CLASS	B
DESIGN TEMP	185°F	DESIGN PRESS	1000 PSI
REF SPEC	42256	INSULATION	N/A
WELD PROCEDURE			
LINE NO. IRR39ABV2"			
HANGER NO.			
PIECE NOS. RR-242-A, B, C, D, E			
M-47-1, M-42-3			
AA-533 REACTOR RECIRC			
RR-3			
REACTOR RECIRC			

NO.	DATE	BY	DESCRIPTION

WM. H. ZIMMER NUCLEAR POWER STATION UNIT 1

KAISER
 ENGINEERS

KAISER ENGINEERS INC.
 1010 10TH ST. S.W.
 SEASIDE, CALIF. 94132

уложу ви-



FOR CONT. SEE
DWG M-464-1
LINE NO. 1RR16A3

WREL. 553:108"

CLASS D"

1'6"

CLASS B"

8'2"

1'3"

38'7 1/8 TO C.R.P.V. @ AT 93°

3° HOR.

C.R.P.V.
180°
270°
0°
90°

POS A"
EL. 553:6'8"

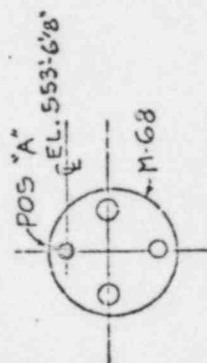
M-68

END D.
101° VERT.
TL: 5:9

END D.
163° VERT.
TL: 5:9

FOR CCNT. SEE
ISK-M-464-3

FOR CCANT. SEE
ISK-M-4643-RR-242



HEAD

DETAIL

Sle 000m-255A

R.R-3



TOTAL WFL: 58

WM. A. ZIMMER NUCLEAR POWER STATION UNIT 1

KAISER

M. A. GEFEN (P. Z. C. 1978, 1980, 1981, 1982)

ALL BEARING PER FIELD
CONSTRUCTION PROCEDURE 2-255

The weld metal composition was 0.6% C, 0.8% Mn, 0.02% S, 0.005% P, 0.005% Cu, 0.005% Ni, 0.005% Nb, 0.005% Ti, 0.005% Al, 0.005% Fe.

CLEAN CLASS	B	M-S-C-CLASS	IS
DESIGN TEMP	185°F	DESIGN PRESS	100 PSI
SIP SPEC	H-2256	NO. LAB IN	17A
WELD PROCEDURE			
TENS NO	HR99ABVZ		
MAKERS NO			
PAGE NO	1	REV	A, B, C, D
DATE	11-11-64	BY	JH
PROJECT	A-E53 REACTOR HDS		
	RHS REACTOR HDS		
	RHS REACTOR HDS		

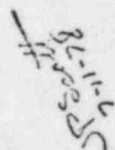
M-51-1, M-56-2
AA-553 REACTOR
R.L.S.
REACTOR RECTOR

Ext. 376

397

Don H: 5/1/10

○



ITEM	HEAT NUMBERS
A	
B	
C	
D	
E	
F	
G	
H	
I	
J	
K	

[illegible]

RR-11

CLEAN CLASS	B	WHS-C CLASS	B
DESIGN TEMP	150 F	CERT PRESS	2500 PSIG
MAT SPEC	A-2256	INSULATION	N/A
WELD PROCEDURE			
LINE NO.	15-11A-B		
HANGER NO.	01114		
PIC NO.	25-07-A-B		
MAT NO. M-471-M-464-B A-2500 REACTOR A-2500 REACTOR A-2500 REACTOR			

6070 1410

WM. H. ZIMMER NUCLEAR POWER STATION UNIT 1

KAISER
ENGINEERS

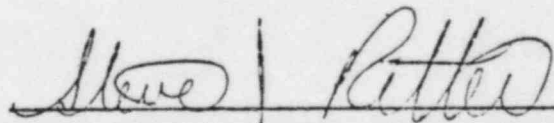
$$H = \{H_1, \dots, H_n\} \text{ (for } H_i \in H, i = 1, \dots, n\})$$

SPECIAL HYDROSTATIC TEST INSTRUCTIONS

HYDROSTATIC TEST NO. LR-27

This Hydrostatic Test is to be conducted in accordance with Rucker Control System Manual TM 81999, Section 5, Paragraph 5.7.3.

Hydrostatic Testing shall be accomplished as part of Construction Testing under the supervision of G.E. Turnover Engineer T. F. VanNatta, in conjunction with other required tests.


Hydrostatic Test Engineer

Hydrostatic/Pneumatic Test Report
(Page)

Test #: CR 27

E. HYDROSTATIC / PNEUMATIC TEST EXCEPTIONS

1. EXCEPTION: (1) VALVE 1825222 NOT INSPECTED (2) TIME OF TEST (11:00 AM - 12:15 PM)
(2) WELD 24-11 NOT INSPECTED (3) TIME OF TEST
(3) PIPE REMOVED AFTER COMPLETION OF TEST (11:00 AM - 12:15 PM)
ALL WELDS TO BE TESTED AND MARKED ON ISK'S PR-2462 & PR-249

2. CORRECTIVE ACTION TAKEN: _____

3. KEI HYDROTEST SUPERINTENDENT AND/OR ENGINEER: R. L. Wood 9/27/79

SIGNATURE / DATE

4. QUALITY ASSURANCE REPRESENTATIVE: Larry C. McCall 9/27/79

SIGNATURE / DATE

5. CG&E REPRESENTATIVE / OHIO SPECIAL INSPECTOR: R. L. Wood 9/27/79

SIGNATURE / DATE

6. AUTHORIZED NUCLEAR INSPECTOR: James R. Blanton 9/27/79

SIGNATURE / DATE

1. EXCEPTION: NO LEAKS ON 9/27/79 REEST

2. CORRECTIVE ACTION TAKEN: _____

3. KEI HYDROTEST SUPERINTENDENT AND/OR ENGINEER: _____

SIGNATURE / DATE

4. QUALITY ASSURANCE REPRESENTATIVE: _____

SIGNATURE / DATE

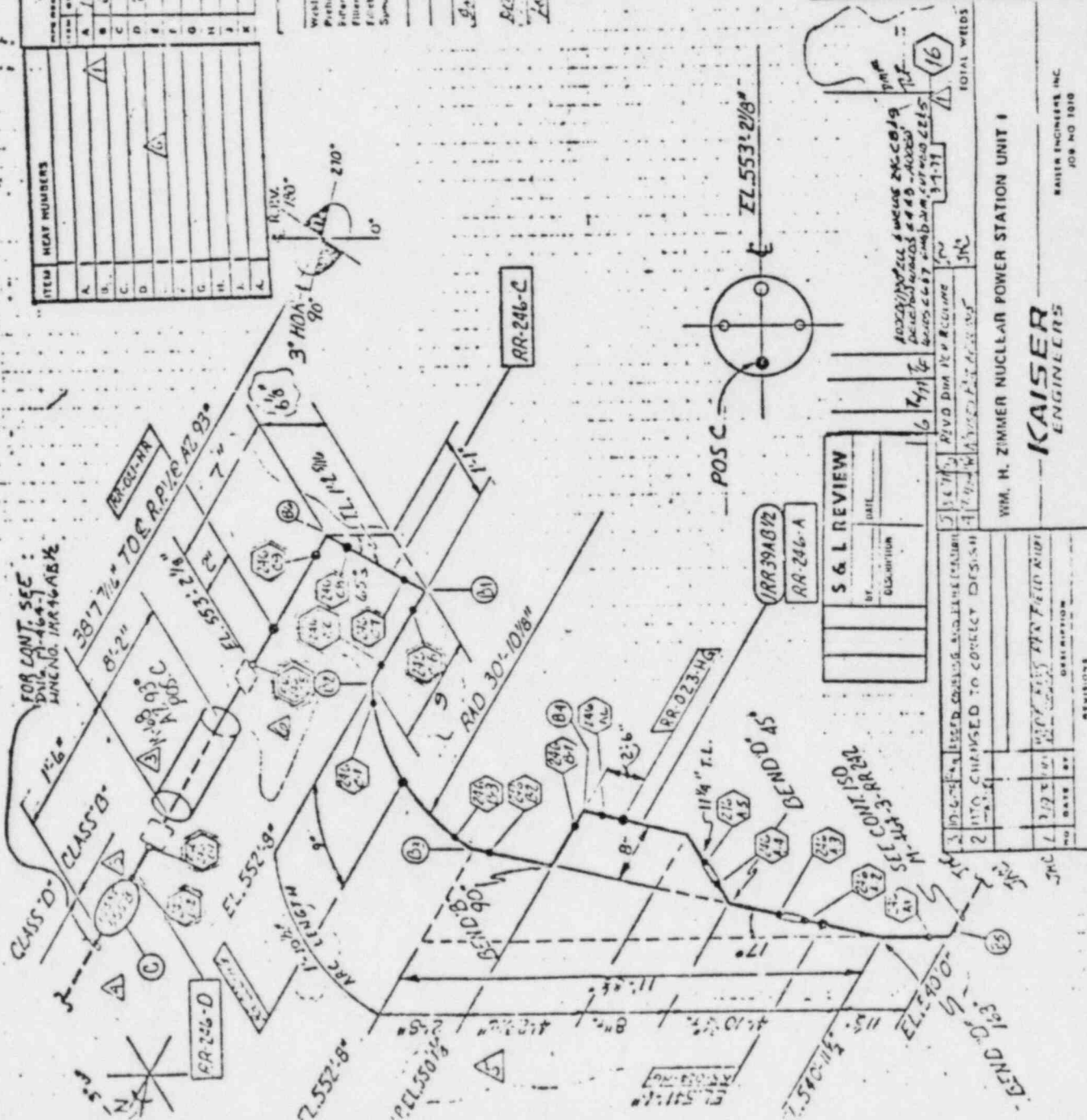
5. CG&E REPRESENTATIVE / OHIO SPECIAL INSPECTOR: _____

SIGNATURE / DATE

6. AUTHORIZED NUCLEAR INSPECTOR: _____

SIGNATURE / DATE

THIS LOG IS FOR
 THE FOLLOWING
 NOT TO BE USED FOR
 PHYSICAL CONSTRUCTION



MATERIAL - TAKE-OFF CLASS B ESSENTIAL									
940 WZ 2									
MATERIAL DESCRIPTION & QTY									
ITEM	QTY	UNIT	ITEM	QTY	UNIT	ITEM	QTY	UNIT	ITEM
A	1	LF	1/2"	805	PIPE	ASTM A182	GR TP304	2	B
B	1	EA	1/2"	2000	NO FL	ASTM A182	F304	1	L
C	1	EA	1/2"	150	VALVE	GLOBE		1	L
D	2	LL	1/2"	200	FL	ASTM A182	F304	1	L
E	1	EA	1/2"	150	VALVE	GLOBE		1	L
F	1	EA	1/2"	150	VALVE	GLOBE		1	L
G	1	EA	1/2"	150	VALVE	GLOBE		1	L
H	1	EA	1/2"	150	VALVE	GLOBE		1	L
I	1	EA	1/2"	150	VALVE	GLOBE		1	L
J	1	EA	1/2"	150	VALVE	GLOBE		1	L
K	1	EA	1/2"	150	VALVE	GLOBE		1	L

KE-1 WELD DATA - SMALL BORE PIPING

WELD PROCEDURE	WELD TYPE	WELD POSITION	WELD DATE
Weld Procedure 2-205	Weld Type 1	Weld Position 1	Weld Date 1/1/19

ALL BENDING PER FIELD
 CONSTRUCTION PROCEDURE 2-205
 BEND A - 92° - 22'
 BEND B - 50° - 0'
 BEND C - 87° - 38'
 BEND D - AS NOTED

The welding data noted on this LK shall not apply
 to groove weld connections to large bore pipe.

CLEAN CLASS	DESIGN TEMP	DESIGN PRESS	INSULATION	WELD PROCEDURE	LINE NO	PIECE NOS	PIECE QTY
B	185°F	3000 PSI	N/A	IRR39AB1/2	1	1	1

S & L REVIEW

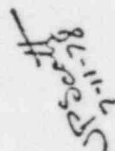
DATE	DESCRIPTION
1/1/19	1/1/19

KAISER ENGINEERS

WM. H. ZIMMER NUCLEAR POWER STATION UNIT 1

REVISIONS

NO	DATE	DESCRIPTION
1	1/1/19	1/1/19



ITEM	HEAT NUMBERS
A.	
B.	
C.	
D.	
E.	
F.	
G.	
H.	
I.	
J.	

[illegible]

The welding data noted on the 15X steel and alloy to cover weld connections to base metal.

CLEAN CLASS	B	SEISMIC CLASS	3
DESIGN TEMP	185°F	DESIGN PRESS	20.0 PSIG
REF SPEC	HT-2256	INSULATION	N/A
WELD PROCEDURE			
LINE NO	1RR-11A B 1/2"		
HANGER NO			
PICER NOS	RR-249-A1		
	M-47-1, M-464-B		
	AA-534 REACTION		
	KL-5		
	REACTION RECIRCULATION		
	M-464-3-RR-249		

2R-3

NO	DATE	BY	DATE	DESCRIPTION	REVISIONS
1	3/27/51	E		MADE KEYS PER FIELD MEMO	
SAL REVIEW					

WM. H. ZIMMER NUCLEAR POWER CORPORATION

KAISER ENGINEERS

KAISER ENGINEERS, INC.
PO BOX 1918

TOTAL WELD

WM. H. ZIMMER NUCLEAR POWER SECTION UNIT 1

KAISER
ENGINEERS

610, One BC
2nd Year: One BC

