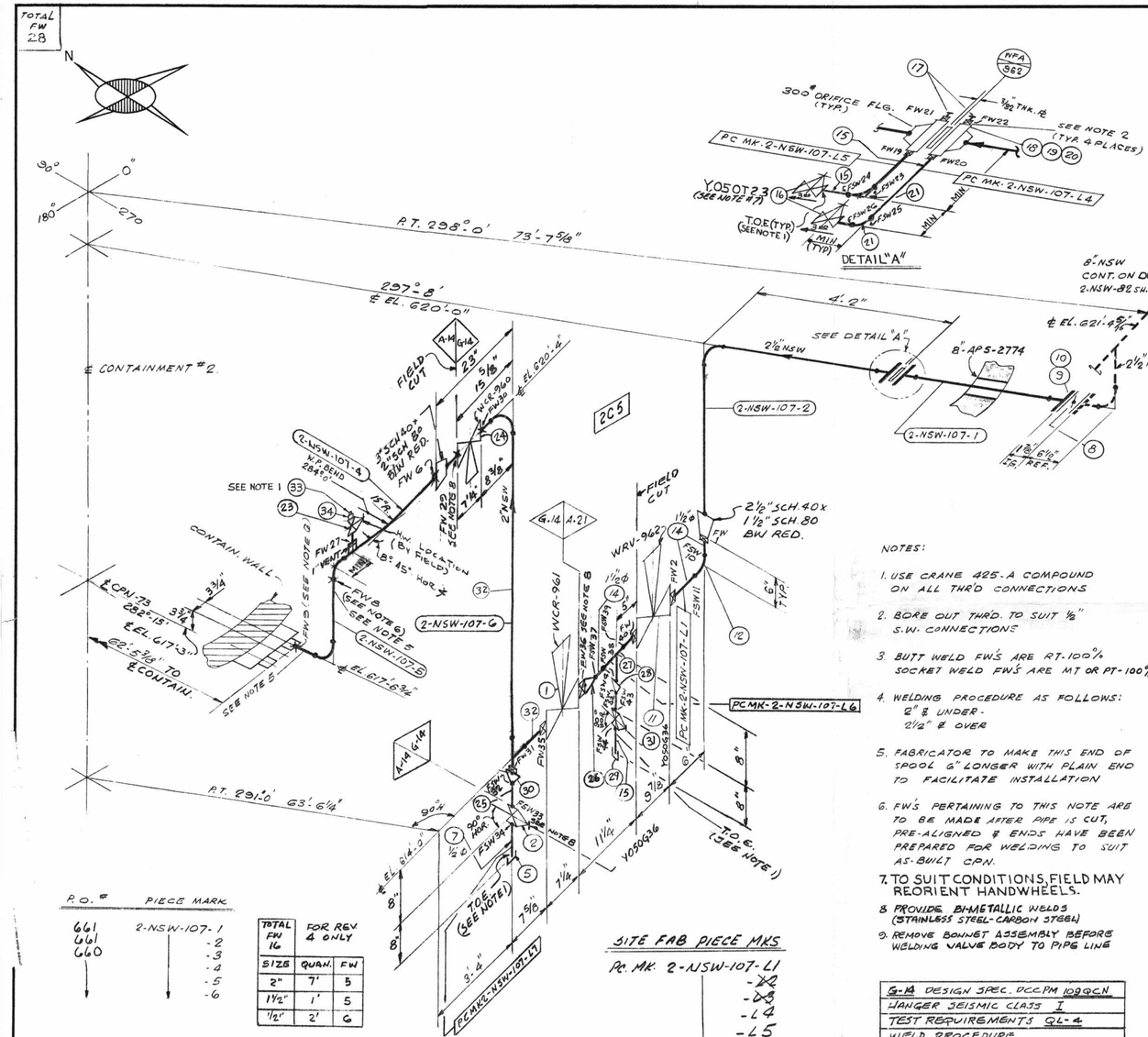
TOTAL FW 28



R.O. #	PIECE MARK
661	2-NSW-107-1
661	-2
660	-3
	-4
	-5
	-6

TOTAL FW 16	FOR REV 4 ONLY	
SIZE	QUAN.	FW
2"	7'	5
1 1/2"	1'	5
1/2"	2'	6

SITE FAB PIECE MKS

PC. MK. 2-NSW-107-L1
-L2
-L3
-L4
-L5
-L6
-L7

NOTES:

1. USE CRANE 425-A COMPOUND ON ALL THR'D CONNECTIONS
2. BORE OUT THR'D. TO SUIT 1/2" S.W. CONNECTIONS
3. BUTT WELD FW'S ARE RT-100% SOCKET WELD FW'S ARE MT OR PT-100%
4. WELDING PROCEDURE AS FOLLOWS: 2" & UNDER - 2 1/2" & OVER
5. FABRICATOR TO MAKE THIS END OF SPOOL 6" LONGER WITH PLAIN END TO FACILITATE INSTALLATION
6. FW'S PERTAINING TO THIS NOTE ARE TO BE MADE AFTER PIPE IS CUT, PRE-ALIGNED & ENDS HAVE BEEN PREPARED FOR WELDING TO SUIT AS-BUILT CPN.
7. TO SUIT CONDITIONS, FIELD MAY REORIENT HANDWHEELS.
8. PROVIDE BI-METALLIC WELDS (STAINLESS STEEL-CARBON STEEL)
9. REMOVE BONNET ASSEMBLY BEFORE WELDING VALVE BODY TO PIPE LINE

G-14 DESIGN SPEC. DCCPM 109QCN
HANGER SEISMIC CLASS I
TEST REQUIREMENTS QL-4
WELD PROCEDURE
QSL-04 TESTING SEE NOTE 3

ISO SHT. NO. 2109

QSL	ITEM	QTY.	SIZE	MATERIAL DESCRIPTION	TAG No. OR ASTM MAT'L.	HEAT NO.
04	1	1	2"	B/M DIAPH. CONTROL VA. S.S.	WCR-961	
	2	1	1/2"	600# S.W. C.S. GATE VALVE	Y050G36	
	5	1	1/2"	3000# C.S. THR'D CAP	A-181 GR. I OR 2	
	7	AS REQ'D	1/2"	PIPE (SCH. 80) SMLS C.S.	A-106 GR B	
01	8	1	2 1/2"	125# C.I. WAFER BUTTERFLY VA.	12FW25RS	
	9	4	5/8"ϕ	5" LG. HEX. HD. MACH. BOLT	A-307 GR. B	
	10	4	5/8"	HEAVY HEX. NUT CL. 2 TOL.	↓	
	11	1	1/2"	S.W. REGULATING VALVE	WRV-962	
	12	1	1/2"	3000# C.S. S.W. 90° ELL	A-181 GR. I OR II	
	14	AS REQ'D	1/2"	PIPE (SCH. 80) SMLS C.S.	A-106 GR. B.	
	15	AS REQ'D	1/2"	PIPE (SCH. 80) SMLS. C.S.	↓	
	16	2	1/2"	200# THR'D GLOBE VA. BRONZE OR BRASS	Y050T23	
	17	2	1/2"	3000# C.S. S.W. PLUG	A-181 GR. I OR II	
	18	2	2 1/2"	1/8" THK. SPIRAL WOUND STYLE CG. C.S. COMP. RING GASKET	TYPE 304	
	19	8	3/4"ϕ	4" LG STUD BOLT	A-193 GR B7	
	20	16	3/4"	HEAVY HEX. NUT	A-194 GR 2H	
	21	2	1/2"	90° ELL. 3000# SW. CS	A-181 GR I OR II	
04	23	1	1"	600# S.W. GLOBE VA., CARB. STL.	Y-100T36	
04	24	1	2	B/M DIAPH. CONTROL VA. S.S.	WCR-962	
	25	AS REQ'D	1/2"	PIPE (SCH 80S) SMLS	A312 GR TP 304	
01	26	1	2 1/2 x 1 1/2"	3000# C.S. S.W. RED. INSERT	A181 GR I OR II	
	27	1	1 1/2"	3000# C.S. S.W. TEE	"	
	28	1	1 1/2" x 1/2"	3000# C.S. S.W. RED. INSERT	"	
	29	1	1/2"	3000# C.S. THR'D CAP	"	
04	30	1	2 1/2"	3000# S.S. S.W. RED. INSERT.	A-182 GR F-304	
01	31	1	1/2"	600# S.W. C.S. GATE VALVE	Y-050G36	
04	32	AS REQ'D	2"	PIPE (SCH 80S) SMLS	A-312 GR. TP 304	
	33	1	3/4"	3000# THR'D. PLUG, C.S.	A-181 GR. I OR II	
	34	1	1" x 3/4"	3000# 1" S.W. x 3/4" THR'D. RED. INSERT, C.S.	↓	

REVISION RECORD

NO.	DATE	DRN. CHK.	DESCRIPTION	REMARKS
1	7/8/74	JM NIP	REMOVED HOLDS ON PC MK-2-NSW-107-L4 & L5, ADDED ITEM #21 ON B/M, INSULATION STAMP, P.O. #660 & 661, NOTE #7, QUANTITY CHANGE ON ITEM #15 PER AEP ARR'G'T. DWG 2-5567C-	FIELD ACTN. REQ'D. —
2	1-20-76	P.G.A. B.R.	REVISED BY AEP DESIGN: PER RFC-12-671, ADDED: 3" CHECK VA. Y-200 C36, 1/2" DRAINS VA. NO. Y-050G36 1" VENT VA. NO. Y-100T23	ACTION REQ'D.
MF 3	12/76	D.N. K	DELETED CY050G36. CHANGED VA. NO CY050G36 TO Y050G36 & FW.	
MF 4	9/14/81	A.G. DR.	PER RFC DC-2549. REPLACED 2" CHECK VA. & WCR-961 1502. VA. WITH DIAPH. CONTROL VA'S WCR-961, -962, ADDED: PIPE SPEC. G-14, NOTES 8 & 9 WELD BOM, WELDS FW 29 TO 31, 35, 36, 40 FSW 32 TO 34, 37 TO 39, 41 TO 44, PCMK-L6, L7, 2-NSW-107-6 ITEM NOS 24 TO 31 TO B/M, DIM'S, REVISED ITEM NO 1, DELETED ITEM NOS. 3, 4, 6, 13 & 22.	FIELD ACTION REQ'D.
MF 5	6/21/82	JM VD	PER RFC DC 12-2549 ADDED ITEM 32 TO B/M & ITEM 25 WAS SCH 40S PIPE & ADDED PLUG TO ITEM 23 & B/M	FIELD ACTION REQ'D.
MG 6	8/26/84	WT JM	PER RFC-DC-12-2549 ADDED RED. INSERT, ITEM 34 TO VALVE, ITEM 23. ITEM 23 WAS Y-100T23 & ITEM 33 WAS 1"	NO ACTION REQ'D.

D-21

SIZE	NOM.	FW
3"	22'	3
2 1/2"	15'	—
2"	7'	8
1 1/2"	2'	6
1/2"	6'	10
1"	—	1

INSULATION SPEC DCCPM450QCS FOR REQUIREMENTS

SIZE	THICK.	NOM.	REMARK
3"	1"		GLASS
2 1/2"	1"		GLASS

A-21 DESIGN SPEC DCCPM 102 QCS
HANGER SEISMIC CLASS II
TEST REQUIREMENTS QL 4 N/A
WELD PROCEDURE SEE NOTE 4
QSL 01 TESTING N/A

A-14 DESIGN SPEC DCCPM 109 QCN
HANGER SEISMIC CLASS I
TEST REQUIREMENTS QL 4
WELD PROCEDURE SEE NOTE 4
QSL 04 TESTING SEE NOTE 3

DESIGN SPEC.	SEE
HANGER SEISMIC CLASS	DESIGN
TEST REQUIREMENTS	CODE
MATERIAL CLASS	STAMP

W.P. = WORKING POINT
T.O.E. = THREAD ONE END
T.B.E. = THREAD BOTH ENDS
B.O.E. = BEVEL ONE END
T.O.P. = TOP OF PIPE ELEV
Q.S.L. = MATERIAL QUALITY REQUIREMENTS
T.L. = TRUE LENGTH

B.O.E. = BEVEL BOTH ENDS
P.O.E. = PLAIN ONE END
P.B.E. = PLAIN BOTH ENDS
S.O.E. = SHAPE ONE END
B.O.P. = BOTTOM OF PIPE ELEV.

FW = FIELD WELD
H = HORIZONTAL
V = VERTICAL
SW = SHOP WELD
FSW = FIELD SHOP WELD

B = FIELD WELD
O = AUTOMATIC SHOP WELD
● = MANUAL SHOP WELD
■ = VERIFY DIMENSION IN FIELD

PIPE

A-53	A-106	A-376	A-312
	GR. B		GR TP 304

STD.	XY	XXY	10	20	30	40	60	80	100	120	140	160
						X						

SMLS | WLDD

FITTINGS

A-105	A-234	A-182
A-403	A-181	

TESTING

N.D.T. SEE DESIGN CODE STAMP

M.T.	P.T.	R.T.	U.T.

PRESSURE TEST

MED.	PRESS.	DURATION

ADDITIONAL

POUR/ZONE No. 2C5 FLOW DIAGRAM 2-5114A
REQUIRED COMPLETION DATE Q.S.L. SEE DESIGN
FABRICATED BY TUBECO WELD PROCEDURE CODE STAMP.

NPS DESIGNS INC.
NEW YORK, N.Y.

2NSW-107
Instrument Room Ventilation
Unit 4 Supply Line

INDIANA & MICHIGAN ELECTRIC CO.
DONALD C. COOK NUCLEAR PLANT

DWN: SG DATE: 12-16-71 CONTAIN. VICINITY
CKD. LdB DATE: 2-25-72
ISSUED
REF. DWG. 2-5497A
DWG. NO. 2-NSW-107
REV. 6