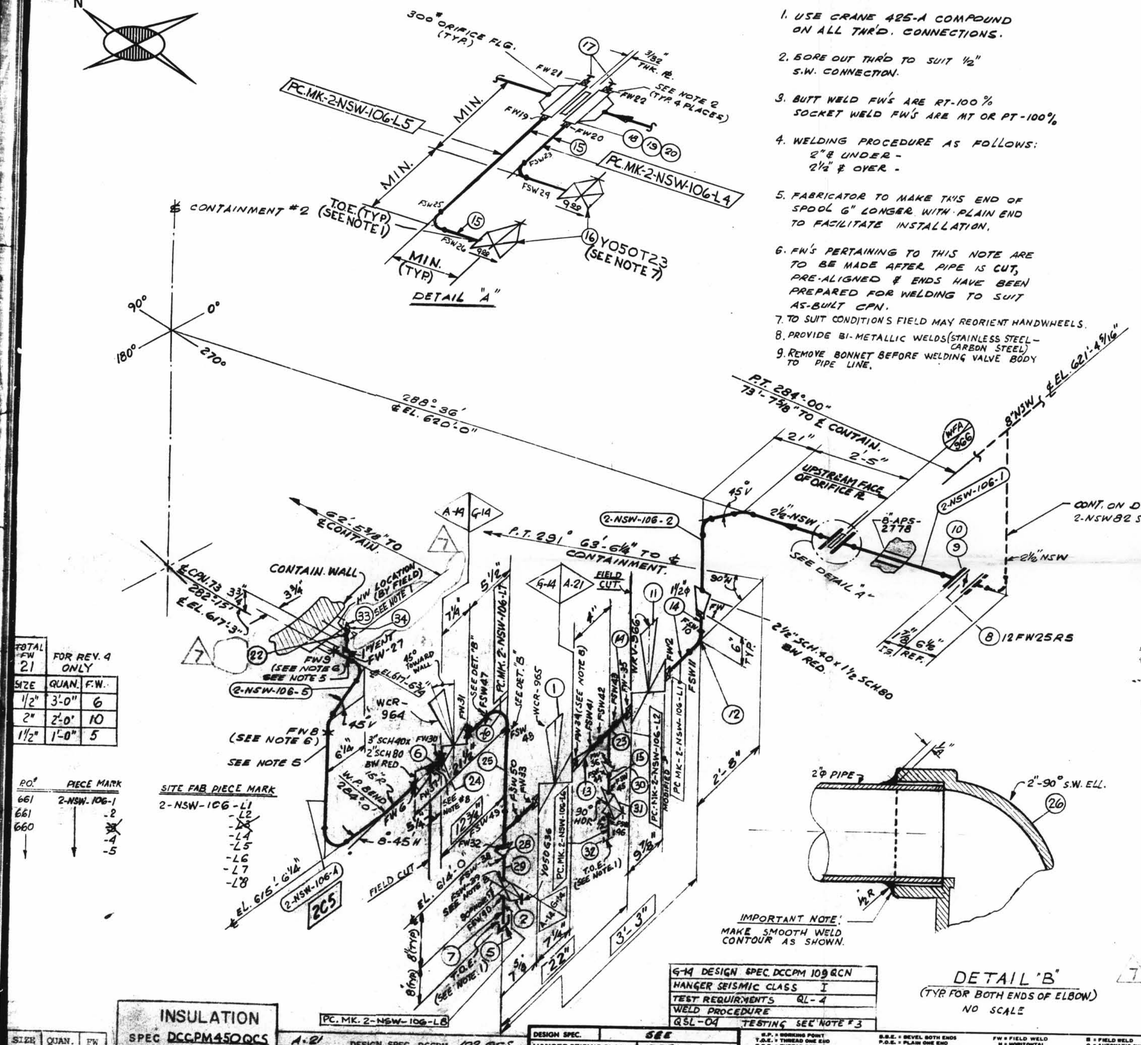
TOTAL FW 29



NOTES:

1. USE CRANE 425-A COMPOUND ON ALL THRD. CONNECTIONS.
2. BORE OUT THRD TO SUIT ½" S.W. CONNECTION.
3. BUTT WELD FW'S ARE RT-100% SOCKET WELD FW'S ARE MT OR PT-100%
4. WELDING PROCEDURE AS FOLLOWS:
   2"ϕ UNDER - GTAW
   2½"ϕ & OVER - SMAW
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 CONDITION'S FIELD MAY REORIENT HANDWHEELS.
8. PROVIDE BI-METALLIC WELDS (STAINLESS STEEL - CARBON STEEL)
9. REMOVE BONNET BEFORE WELDING VALVE BODY TO PIPE LINE.

ISO SHT. NO. 2108

QSL	ITEM	QTY.	SIZE	MATERIAL DESCRIPTION	TAG No. OR ASTM MAT'L.	HEAT NO.
04	1	1	2"	S.W. DIAPH. CONTROL VA. S.S.	WCR-965	
	2	1	½"	600# S.W. C.S. GATE VALVE	Y050G36	
	5	1	½"	3000# C.S. THRD CAP	A-181 GR I OR II	
	6	AS REQ'D	2"	PIPE (SCH. 80) SMLS. C.S.	A-106 GR. B	
	7	AS REQ'D	½"	PIPE (SCH. 80) SMLS. C.S.	↓	
01	8	1	2½"	125# C.I. WAFER BUTTERFLY VA.	12FW25RS	
	9	4	⅝"ϕ	5" LG. HEX. HD. MACH. BOLT.	A-307 GR. B	
	10	4	⅝"	HEAVY HEX. NUT. CL. 2 TOL.	↓	
	11	1	½"	S.W. REGULATING VALVE	NRV-3GG	
	12	1	½"	3000# C.S. S.W. 90° ELL.	A-181 GR. I OR II	
	13	1	2½"x½"	3000# C.S. S.W. RED. INSERT.	↓	
	14	AS REQ'D	½"	PIPE (SCH. 80) SMLS C.S.	A-106 GR. B.	
	15	AS REQ'D	½"	PIPE (SCH. 80) SMLS C.S.	↓	
	16	2	½"	200# THRD. GLOBE VA. (BONNET OR BRASS TRIM)	YO50T23	
	17	2	½"	3000# C.S. SW. PLUG	A-181 GR. I OR II	
	18	2	2⅛" ϕ	1/8" THK. SPIRAL WOUND, STYLE CG. C.S. COMP. RING GASKET.	TYPE 304	
	19	8	⅜"ϕ	4" LG. STUD BOLT	A-193 GR. B7	
	20	16	⅜"	HEAVY HEX NUT	A-194 GR. 2H	
04	22	1	1"	600# S.W. GLOBE VA., CARB. STL.	Y-100T36	

REVISION RECORD

NO.	DATE	DRN CHK	DESCRIPTION	REMARKS
1	7-8-74	JM MWH	REMOVED HOLDS ON PC.MK-2-NSW-106-L4 & L5 ADDED ITEM #21 ON B/M, INSULATION STAMP PO #660 & 661, NOTE #7, # QUANTITY CHANGE ON ITEM #15 ON B/M. PER A.E.P. ARRG'T DWG. 2-5567C-1	FIELD ACTION REQ'D
2	10-16-76	PGA B.R.	REVISED BY AEP DESIGN: PER RFC-12-671: REVD: ITEM #2 Y-050G36 WAS CV-050G36. ADDED "VENT-VALVE 1/2 Y-100T23, 2" CHECK VALVE Y-200C36	ACTION REQ'D.
MF	12-2-76	D.W.	CHANGED VA. NO. TO Y200C36 WAS T36.	
4	9-1-81	K.A. D.R.	PER RFC #DC-12-2549 REPLACED ISOL VA'S WCR-964 & WCR-965 WITH DIAPH. CONTROL VA'S WCR-964 & 965 ADDED: PIPE SPEC. G-14, DIM'S, WELD BOX, FW 30-37, FSW 38-50 ITEM NO'S 23 THRU 32 TO B/M NOTES 8 & 9 PC.MK-2-NSW-106-L6, L7 & L8 DELETED ITEM NO. 3, 4 & 21 FROM B/M, PC.MK. 2-NSW-106-L3 & PC.MK-2-NSW-106-L3, REV. ITEM NO 1 IN B/M, MODIFIED PC.MK-2-NSW-106-L2.	FIELD ACTION REQ'D.
MF	7-23-81	KA LB	PER RFC #DC-12-2549 ROTATED ACTUATOR OF VALVE WCR-964 TO 15° VERT. FROM CONTAINMENT WALL	FIELD ACTION REQ'D
MF	6-11-82	KA E.G.	PER RFC-DC-12-2549 REVISED ORIENTATION OF WCR-964, BOXED DIMENSION'S INDICATE FIELD INFO. DIMS. 5'2" WAS 5'7⅛, 3⅛" WAS 3'8 & 4" WAS 6'4. ITEMS 25 & 27 WERE SCH 40S PIPE, ADDED DET. "B" & ADDED 1" PLUG TO ITEM 22 & 34	FIELD ACTION REQ'D
MF	6-16-82	WT JM	PER RFC-DC-12-2549 ADDED PLUG, ITEM 33, & RED. INSERT, ITEM 34, TO VALVE, ITEM 22, WHICH WAS Y-100T23.	NO ACTION REQ'D.

QSL	ITEM	QTY	SIZE	MATERIAL DESCRIPTION	TAG NO. OR ASTM MAT'L	HEAT NO.
01	23	1	1½	3000# C.S. S.W. TEE	A-181 GR. I OR II	
04	24	1	2"	S.W. DIAPH. CONTROL VA. S.S.	WCR-964	
	25	1	2"	PIPE SCH. 80S SMLS S.S.	A-312 GR. TP-304	
	26	1	2"	3000# S.S. S.W. 90° ELL	A-182 GR. F-304	
	27	1	2"	3000# S.S. S.W. TEE	↓	
	28	1	2½"x2"	3000# S.S. S.W. RED. INSERT		
	29	AS REQ'D	½"	PIPE SCH 80 S SMLS S.S.	A-312 GR. TP-304	
01	30	1	1¼"x½"	3000# C.S. S.W. RED INSERT	A-181 GR. I OR II	
	31	1	½"	600# S.W. C.S. GATE VALVE	Y050G36	
	32	1	½"	3000# C.S. THR'D CAP	A-181 GR. I OR II	
04	33	1	¾"	3000# THK'D. PLUG, C.S.	↓	
	34	1	1"x¾"	3000# 1"S.H.X ¾" THK'D. RED. INSERT, C.S.		

TOTAL FW 21	FOR REV. 4 ONLY	
SIZE	QUAN.	F.W.
½"	3'-0"	6
2"	2'-0"	10
1½"	1'-0"	5

80°	PIECE MARK
	2-NSW-106-1
661	-2
661	-3
660	-4
	-5

SIZE	QUAN.	FW
3"	11'	3
2½"	14'	—
2"	2'	18
1½"	2'	6
1¼"	3'	11
1"	—	1

INSULATION

SPEC DCCPM450QCS FOR REQUIREMENTS

LINE SIZE	NOM THK. IN.	REMARKS
3"	1"	GLASS
2½"	1"	GLASS

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

A-14 DESIGN SPEC. DCCPM 103 QCN
HANGER SEISMIC CLASS I
TEST REQUIREMENTS QL- 4
WELD PROCEDURE SEE NOTE 4
QSL-04 TESTING SEE NOTE 3

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

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

B.P. = BORING 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.
T.M.L. = MATERIAL QUALITY REQUIREMENTS
T.L. = TRUE LENGTH

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

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

S = FIELD WELD
A = AUTOMATIC SHOP WELD
M = MANUAL SHOP WELD
V = VERIFY DIMENSION IN FIELD

PIPE														
A-53 GR. B.		A-106 GR. B.		A-376 GR TP-304		A-312 GR TP-304								
STD.	XY	XXY	10	20	30	40	60	80	100	120	140	160		
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. 265 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-106
Instrument Room Ventilation
Unit 3 Supply Line

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

DWN: S.G.	DATE: 12-15-71	CONTAIN. VICINITY	
CKD: LdB	DATE: 2-15-72	DWG. NO. 2-NSW-106	REV. 7
ISSUED			
REF. DWG. 2-5457A			

D-20