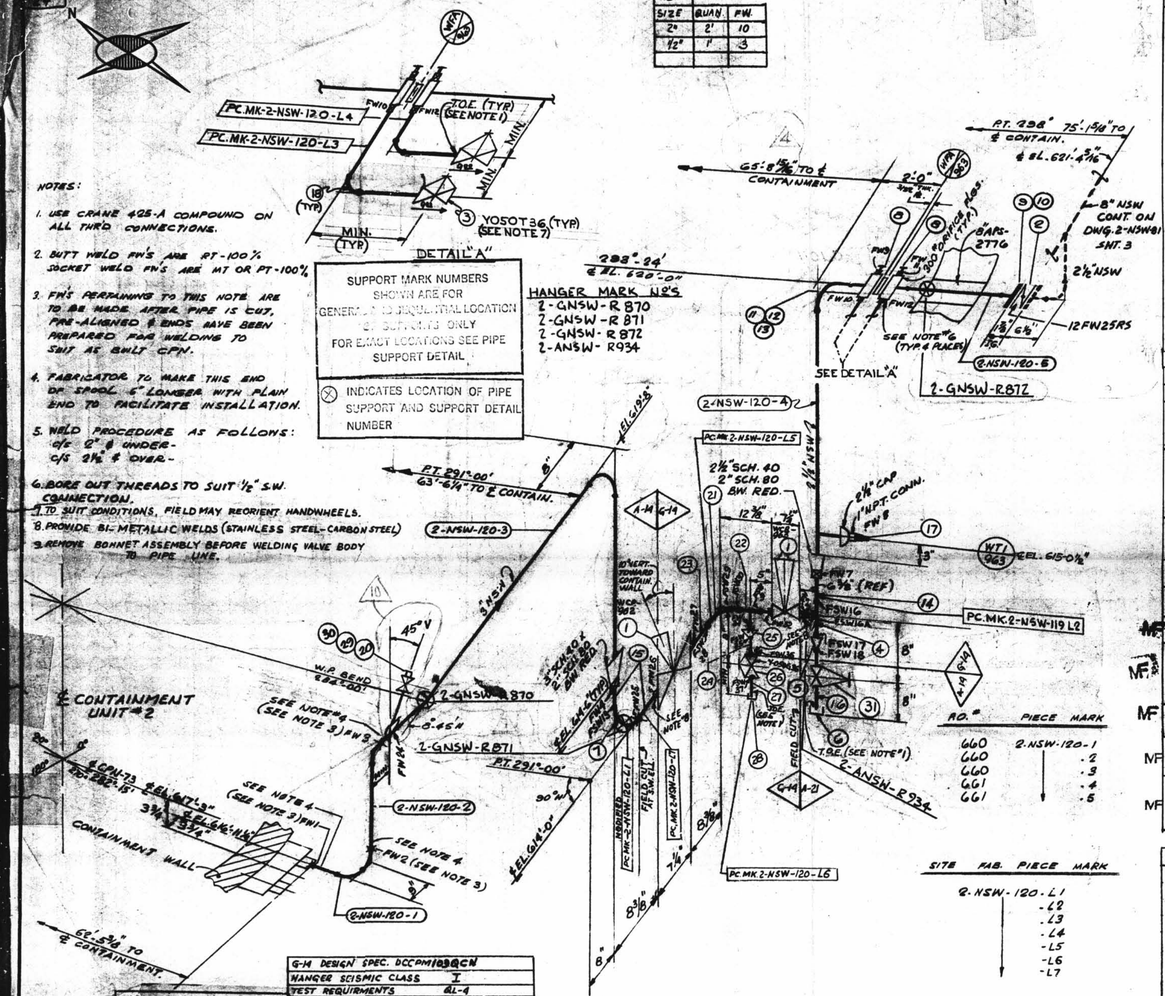
TOTAL FW	FOR REV. 7. ONLY
13	

SIZE	QUAN.	FW.
2"	2'	10
1½"	1'	3



NOTES:

1. USE CRANE 425-A COMPOUND ON ALL THRD CONNECTIONS.
2. BUTT WELD FW'S ARE RT-100% SOCKET WELD FW'S ARE MT OR PT-100%
3. 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.
4. FABRICATOR TO MAKE THIS END OF SPOOL 5" LONGER WITH PLAIN END TO FACILITATE INSTALLATION.
5. WELD PROCEDURE AS FOLLOWS: c/s 2" & UNDER- c/s 2½ & OVER-
6. BORE OUT THREADS TO SUIT ½" S.W. CONNECTION.
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.

ISO SHT. NO. 2166

QSL	ITEM	QTY.	SIZE	MATERIAL DESCRIPTION	TAG NO. OR ASTM MAT'L	HEAT NO.
04	1	2	2"	S.W. DIAPH. CONTROL VALVE S.S.	WCR-962 WCR-962	
01	2	1	2½"	125# C.I. WAFER BUTTERFLY VA.	12FW25RS	
	3	2	½"	800# C.S. S.W. GLOBE VALVE.	Y-050T36	
	4	1	2"	3000# S.W. TEE C.S.	A-181 GR. II OR II	
	5	1	2"x½"	3000# S.W. REDUCING INSERT C.S.		
	6	1	½"	3000# SCR'D. CAP C.S.		
04	7	1	2"	3000# S.W. C.S. 90° ELL		
01	8	2	½"	3000# S.W. PLUG. C.S.		
	9	4	5/8"ø	5" LG. HEX. HD. MACH. BOLT	A-307 GR. B	
	10	4	5/8"	HEAVY HEX. NUT CL. 2 TOL.		
	11	2	2½"	125# SIZE SPIRAL WOUND, FLEXITALLIC GASKET STYLE CG TYPE 304		
	12	8	5/8"ø	4" LG. STUD BOLT	A-193 GR. B7	
	13	16	5/8"	HEAVY HEX. NUT	A-194 GR. 2H	
	14	AS REQ'D	2"	PIPE (SCH. 80) SMLS. C.S.	A-106 GR. B	
04	15	AS REQ'D	2"	PIPE (SCH. 80) SMLS. C.S.		
01	16	AS REQ'D	½"	PIPE (SCH. 80) SMLS. C.S.		
	17	1	1"	BI-METAL THERM WELL	WFI-967	
	18	2	½"	3000# 90° ELL. S.W. C.S.	A-181 GR. LOR II	
	30	1	¾"	3000# THR'D PLUG.	A-181 GR. I OR II	
04	20	1	1"	600# C.S. S.W. GLOBE VALVE	Y-100T36	
01	31	1	½"	150# THR'D GATE VALVE BRONZE OR BRASS	Y-050G22	

REVISION RECORD

NO.	DATE	DRN CHK	DESCRIPTION	REMARKS
1	8-15-74	JM E.S.C.	REMOVED HOLDS ON PC.MK-2-120-L3 & L4. ADDED ITEM #18 ON B/M. PO.#660 (CL) NOTE #7 AND INSULATION STAMP PER A.E.P. ARRG'T DWG.# 2.54971-3	FIELD ACTION REQ'D.
2	1-20-76	DK B.R.	REVISED BY A.E.R. DESIGN: PER RFC-DC-12-E-671: ADDED: 2" S.W. CONTROL VALVE-WCR-962, ½" DRAIN-VALVE NO. Y-050T36, 1" VENT-VALVE NO. Y-100T23.	FIELD ACTION REQ'D.
3	12/2/76	W.R. W.R.	63 3/8" WAS 63 7/16" DELETED ITEM #19; REVISED ITEM #34 #20 TO AGREE WITH RFC-DC-12-671)	
4	7/19/78	JB	REVISED: DIM. 65'-8 7/16" WAS 65'-8 1/16"	
5	4/21/79	WMC	AS PER RSN-RFC-0168. REV. QTY ITEM #3 VA. Y-050T36 WAS Y-050T23	
MF 6	6/20/79	WMC	REVISED ITEM #20 VA. Y-100T36 WAS Y-050T23	
MF 7	8/13/79	K.A. DM	PER RFC DC-12-2549 ADDED: PIPE SPEC. G-14, PC. MK. 2-NSW-120-L5, 2-NSW-120-L6 & CT, DIM'S, FIELD WELD BOX, NOTES 8 & 9, FIELD WELDS 25-28 & 32-34, FSW 28-31 & 35-37, ITEM #'S 21 THRU 28 TO B/M, REVISED ITEM'S 6, 7, & 20 B/M, MODIFIED PC. MK. 2-NSW-120-L1.	FIELD ACTION REQ'D.
MF 8	8/24/79	RF JM	PER RFC-DC-12-2549 ADDED WELD SYMBOL & DIMS 23 & 24 WELDS. SCH. 80 PIPE. ADDED ITEMS INSERT & PLUG TO ITEM 20 & 5	FIELD ACTION REQ'D.
MF 9	8/11/80	DK BRM LB	PER RFC-DC-12-2876 REV'D ITEM 5 QTY FROM 3 TO 2. ADDED ITEM 31 & SUPPORT DETAILS. SUPERSEDED NGR 150. 1-GNSW-120 ALL ABOVE TO REFLECT AS-BUILT CONDITIONS.	NO FIELD ACTION REQ'D.
MF 10	7/12/80	EBB DOM LB	TO REFLECT AS-FOUND CONDITIONS PER RFC-DC-12-3010, REVISED: 1" VENT ORIENTATION.	NO FIELD ACTION REQ'D.

QSL	ITEM	QTY	SIZE	MATERIAL DESCRIPTION	TAG NO. OR ASTM MAT'L	HEAT NO.
04	21	1	2"	3000# S.W. S.S. 90° ELL.	A-182 GR. F-304	
	22	1	2"	3000# S.W. S.S. TEE		
	23	AS REQ'D	2"	PIPE (SCH. 80S) SMLS. S.S.	A-312 GR. TP-304	
	24	AS REQ'D	½"	PIPE (SCH. 80S) SMLS. S.S.		
	25	1	2"x½"	3000# S.W. REDUCING INSERT S.S.	A-182 GR. F-304	
	26	1	½"	600# C.S. S.W. GATE VALVE	Y-050G26	
	27	AS REQ'D	½"	PIPE (SCH. 80) SMLS. C.S.	A-106 GR. B	
	28	1	½"	3000# SCR'D CAP C.S.	A-181 GR. I OR II	
	29	1	1"SW x ¾"	THR'D 3000# RED. INSERT	A-181 GR. I OR II	

INSULATION

SPEC DCCPM450QCS FOR REQUIREMENTS

ITEM	QUAN.	FW
3"	16'	3
2½"	10'	-
2"	1'	11
1½"	-	3
½"	4'	3

LINE SIZE	NOM. THK. IN.	REMARKS
		NONE REQ'D

G-H DESIGN SPEC.	DCCPM109QCN
HANGER SEISMIC CLASS	I
TEST REQUIREMENTS	QL-4
WELD PROCEDURE QSL-04	TESTING SEE NOTE 2
4-21 DESIGN SPEC.	DCCPM 109 QCE
HANGER SEISMIC CLASS	I
TEST REQUIREMENTS QL-	N/A
WELD PROCEDURE	SEE NOTE 8
QSL-04	TESTING N/A
4-22 DESIGN SPEC.	DCCPM 109 QCN
HANGER SEISMIC CLASS	I
TEST REQUIREMENTS QL-	4
WELD PROCEDURE	SEE NOTE 8
QSL-04	TESTING SEE NOTE 7

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

B.P. = WORKING POINT
T.O.E. = THREAD ONE END
B.O.E. = BEVEL ONE END
B.B.E. = BEVEL BOTH ENDS
P.O.E. = PLAIN ONE END
P.B.E. = PLAIN BOTH END
S.O.E. = SOCKET ONE END
S.B.E. = SOCKET BOTH END
T.O.P. = TOP OF PIPE ELEV.
B.O.P. = BOTTOM OF PIPE ELEV.
S.R.I. = MATERIAL QUALITY REQUIREMENTS
T.L. = TRUE LENGTH
FW = FIELD WELD
H = HORIZONTAL
V = VERTICAL
S.W. = SOCKET WELD
FSW = FIELD SHOP WELD
B = FIELD WELD
A = AUTOMATIC SHOP WELD
M = MANUAL SHOP WELD
D = VERIFY DIMENSION IN FIELD

PIPE														
A-53		A-106		A-376	A-312									
		GR. B			GRTP-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. 2CE
REQUIRED COMPLETION DATE
FABRICATED BY TUBECO

FLOW DIAGRAM 2-51144
Q.S.I. SEE DESIGN
WELD PROCEDURE CODE STAMP

NPS DESIGNS INC.
NEW YORK, N.Y.

2NSW-120
Instrument Room Ventilation
Unit 4 Return Line

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

DWN. S.G.	DATE 1-8-74	CONTAIN. VICINITY	
CKD. LJB	DATE 2-8-74	DWG. NO. 1 OF 1	2-NSW-120
ISSUED			
REF. DWG. 2-54974			

D-30