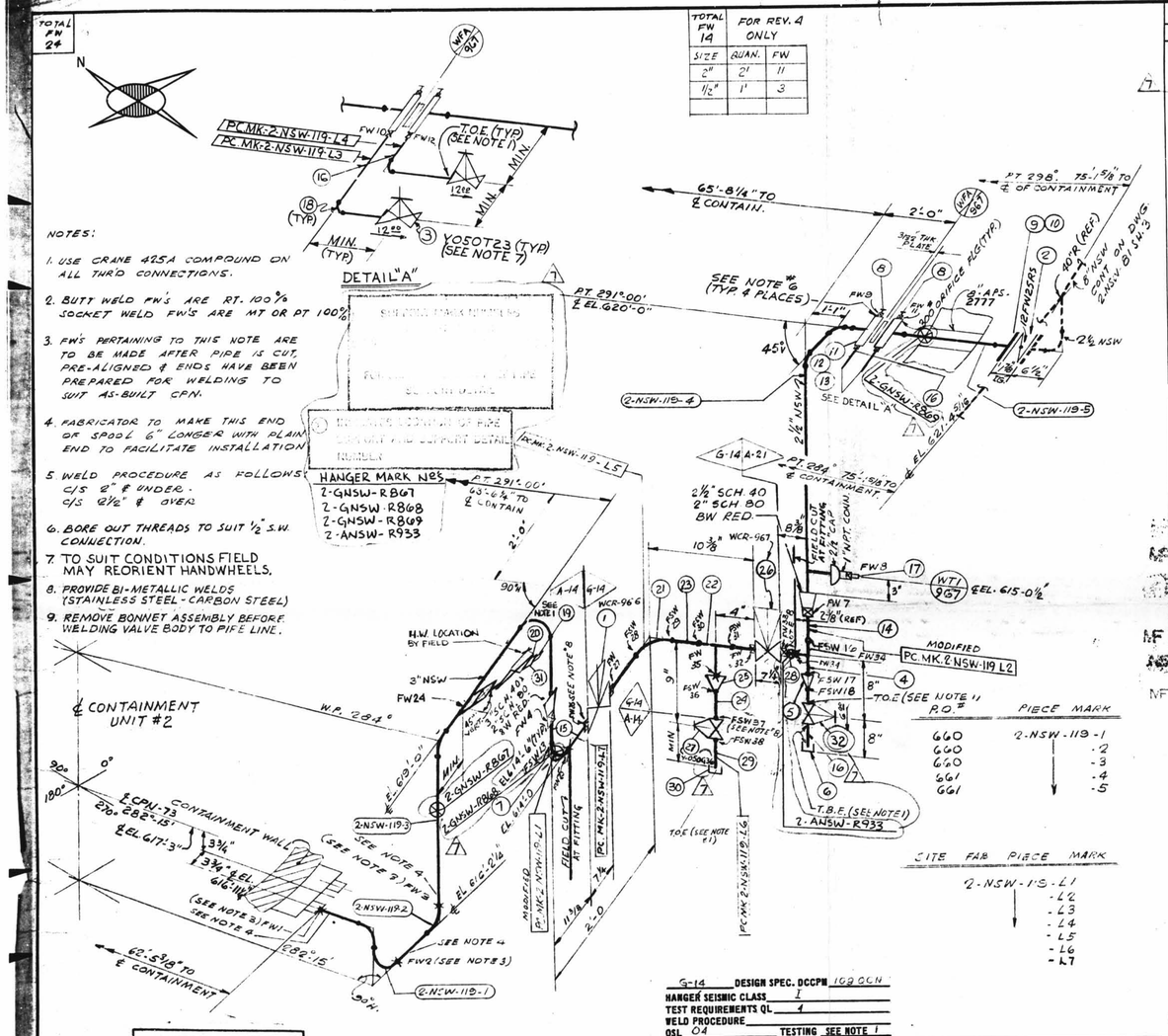
TOTAL FW 24

TOTAL FW 14	FOR REV. 4 ONLY	
SIZE	QUAN.	FW
2"	21	11
1/2"	1'	3



NOTES:

1. USE CRANE 425A 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 OR SPOOL 6" LONGER WITH PLAIN END TO FACILITATE INSTALLATION
5. WELD PROCEDURE AS FOLLOWS: C/S 2" & UNDER - C/S 2 1/2" & OVER
6. BORE OUT THREADS TO SUIT 1/2" 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. 2165

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-966	
01	2	1	2 1/2"	125# C.I WAFER BUTTERFLY VA	12FW25R-S	
	3	2	1/2"	200# SCR'D. GLOBE VA. BRONZE OR BRASS	YO50T23	
	4	1	2"	3000# S.W. TEE C.S.	A-181 GR. I OR II	
	5	1	2" x 1/2"	3000# S.W. REDUCING INSERT CS.		
	6	1	1/2"	3000# SCR'D CAP C.S.		
04	7	1	2"	3000# S.W. C.S. 90° ELL		
01	8	2	1/2"	3000# S.W. PLUG C.S.		
	9	4	5/8"	5" LG. HEX. HD MACH BOLT	A-307 GR. B	
	10	4	5/8"	HEAVY HEX. NUT CL. 2 T&L		
	11	2	2 1/2"	1/8" THK. SPIRAL WOUND FLEXITALLIC GASKET STYLE CG TYPE 304		
	12	8	3/4" x 4"	4" LG STUD BOLT	A-193 GR. B7	
	13	16	3/4"	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	1/2"	PIPE (SCH. 80) SMLS CS		
	17	1	1"	BI-METAL THERM WELL	WT1-967	
	18	2	1/2"	3000# 90° ELL. S.W. C.S.	A-181 GR. I OR II	
04	19	1	3/4"	3000# THR'D. PLUG, C.S.		
04	20	1	1"	600# S.W. GLOBE VA., CARB. STL.	Y-100T36	

REVISION RECORD				
NO.	DATE	DRN. CHK.	DESCRIPTION	REMARKS FIELD ACT'N REQ'D
1	8-5-74	JM E.J.G.	REMOVED HOLDS ON PC MK-2-NSW-119-L3 & L4. ADDED 1 ITEM #18 ON B/M. RO #660 & 661. NOTE #7 AND INSULATION STAMP PER A.E.P. ARRG'T DWG. #2-5497A-3	
2	1/20/76	DR. B.P.	REVISED BY A.E.P. DESIGN: PER RFC-DC-12-671: ADDED; 2" S.W. CONTROL VA.-WCR-966, 1/2" DRAIN-VALVE No Y-050G36, 1" VENT-VALVE No Y-100T23	ACTION REQ'D.
3	12-2-76	DR	WT1-967 WAS WT1-927	
4	8/8/84	J.L.	PER RFC-DC-12-2549. ADDED: PIPE G-14, PC. MK'S L5, L6, & L7, DIWS, FIELD WELD BOX, NOTES 8 & 9, FIELD WELDS 25-27 & 32-35, FSW 28-31 & 36-38 ITEM NO'S 21 THRU 30 TO B/M. REVISED ITEM NO. 1 IN B/M. MODIFIED PC. MK'S L1 & L2, DELETED ITEM NO. 18 IN B/M.	
5	8/1/84	JM	PER RFC-DC-12-2869 ITEMS 23 & 29 WERE SCH 40s PIPE, & ADDED PLUG TO ITEM 20 & 31.	FIELD ACTION REQ'D
6	8/1/84	WT	PER RFC-DC-12-2549 ADDED RED. INSERT, ITEM 31, & PLUG, ITEM 19, TO VALVE, ITEM 20. ITEM 19 WAS 1" & ITEM 20 WAS Y-100T23.	NO ACTION REQ'D.
7	8/1/84	DK.	PER RFC-DC-12-2876 REV'D ITEM 3 QTY FROM 3 TO 2. ADDED ITEM 32 & SUPPORT DETAILS. SUPERSEDED HGR 150 2-GNSW-119. ALL ABOVE TO REFLECT AS-BUILT CONDITIONS.	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 80's) SMLS S.S	A-312 GR TP-304	
	24	AS REQ'D	1/2"	PIPE (SCH 80's) SMLS S.S.		
	25	1	2" x 1/2"	S.W. REDUCING INSERT S.S.	A-182 GR F-304	
	26	1	2"	S.W. DIAPH CONTROL VA. SS.	WCR-967	
04	27	1	1/2"	600# C.S S.W GATE VA.	Y-050G36	
01	28	AS REQ'D	2"	PIPE (SCH. 80) SMLS., C.S.	A-106, GR. B	
04	29	AS REQ'D	1/2"	PIPE (SCH. 80) SMLS., C.S.		
	30	1	1/2"	3000# SCR'D. CAP, C.S.	A-181 GR. I OR II	
	31	1	1/2" x 3/4"	3000# I'S.W. X 3/4" THR'D. RED. INSERT, C.S.		
01	32	1	1/2"	150# SCR'D GATE VALVE BRASS OR BRONZE	Y-050G22	

SIZE	QUAN.	FW
3"	16'	3
2 1/2"	20'	—
2"	1'	11
1"	—	2
1/2"	4'	8

INSULATION

SPEC DCCPM 450 QCS FOR REQUIREMENTS

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

A-21 DESIGN SPEC. DCCPM 102 QCS
HANGAR SEISMIC CLASS I
TEST REQUIREMENTS QL-N/A
WELD PROCEDURE SEE NOTE 5
QSL-01 TESTING N/A

A-14 DESIGN SPEC. DCCPM 103 QCN
HANGAR SEISMIC CLASS I
TEST REQUIREMENTS QL-4
WELD PROCEDURE SEE NOTE 5
QSL-04 TESTING SEE NOTE 2

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

A.P. = BURNING 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.B.E. = BEVEL BOTH ENDS
P.O.E. = PLAIN ONE END
P.B.E. = PLAIN BOTH ENDS
S.O.E. = SNAPE ONE END
B.O.P. = BOTTOM OF PIPE ELEV.
FW = FIELD WELD
H = HORIZONTAL
V = VERTICAL
W = WELD
FSW = FIELD SHOP WELD
B = FIELD WELD
O = INDICATES SHOP WELD
S = SHOP WELD
F = FIELD WELD
D = VERIFY DIMENSION IN FIELD

PIPE												
A-53		A-106		A-376		A-312						
GR B						GR TP 304						
STD.	XY	XXY	10	30	30	40	40	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. 2C5
REQUIRED COMPLETION DATE
FABRICATED BY TUBECO

FLOW DIAGRAM 2-5144
Q.S.L. SEE DESIGN
WELD PROCEDURE CODE STAMP

NPS DESIGNS INC.
NEW YORK, N.Y.

2NSW-119
Instrument Room Ventilation
Unit 3 Return Line

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

CONTAIN. VICINITY

DWN. SG	DATE 10-7-72	DWG. NO. 2-NSW-119	REV. 7
CKD. LdB	DATE 2-25-72		
ISSUED			
REF. DWG. 2-5497A			

D-29