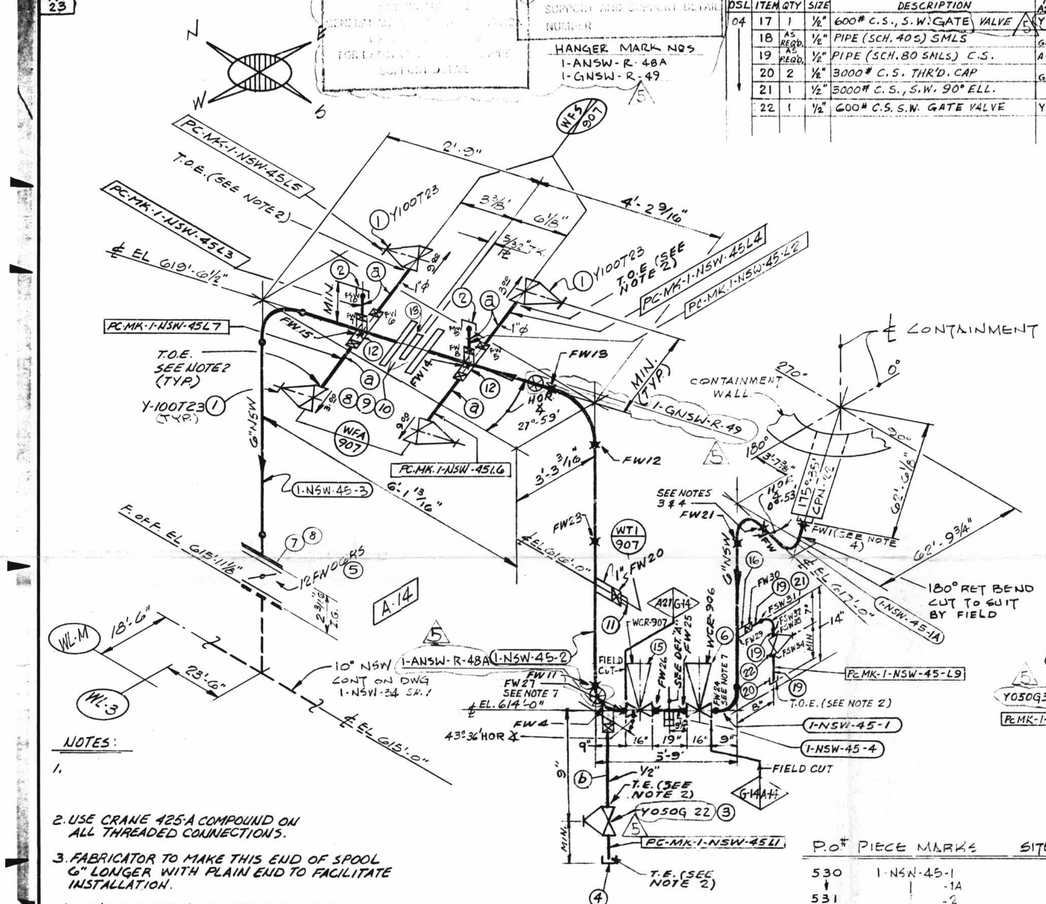
TOTAL FW 23

SUPPORT MARK NUMBERS

INDICATES LOCATION OF PIPE SUPPORT AND SUPPORT DETAIL NUMBER

HANGER MARK NOS
1-ANSW-R-48A
1-GNSW-R-49



NOTES:

1.

2. USE CRANE 425-A COMPOUND ON ALL THREADED CONNECTIONS.

3. FABRICATOR TO MAKE THIS END OF SPOOL 6" LONGER WITH PLAIN END TO FACILITATE INSTALLATION.

4. FW'S PERTAINING TO THIS NOTE ARE TO BE MADE AFTER PIPE IS PRE-ALIGNED & ENDS HAVE BEEN PREPARED FOR WELDING TO SUIT AS BUILT CPN.

5. C/S 2" & UNDER
C/S 2 1/2" & OVER

6. BUTT WELDS: RT-100% TESTING.
SOCKET WELDS: PT-100% TESTING.

7. PROVIDE BI-METALLIC WELDS (STAINLESS STEEL-CARBON STEEL)

8. REMOVE BONNET ASSEMBLY BEFORE WELDING VALVE BODY TO PIPE LINE.

SIZE	QUAN.	FW
6"	18'	10
1"	4'	9
1/2"	1'	4

TOTAL FW 13	FOR REV. 3 ONLY	
SIZE	QUAN.	FW
6"	2'-0"	4
1/2"	4'-0"	9

G-14 DESIGN SPEC. DCCPM 109QCN
HANGER SEISMIC CLASS I
TEST REQUIREMENTS QL 4
WELD PROCEDURE
QSL 04 TESTING SEE NOTE 6

A-14 DESIGN SPEC. DCCPM 103QCN
HANGER SEISMIC CLASS I
TEST REQUIREMENTS QL 4
WELD PROCEDURE SEE NOTE 5
QSL 04 TESTING RT-100%

A 21 DESIGN SPEC. DCCPM 102QCS
HANGER SEISMIC CLASS II
TEST REQUIREMENTS QL 1
WELD PROCEDURE SEE NOTE 5
QSL 01 TESTING N/A

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

B.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. - HUB LENGTH

B.B.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 Y - FIELD WELD
H - HORIZONTAL
V - VERTICAL
SW X SHOP WELD
FSW Y FIELD SHOP WELD

B - FIELD HELD
O - AUTOMATIC SHOP WELD
I - MANUAL SHOP WELD
E - 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

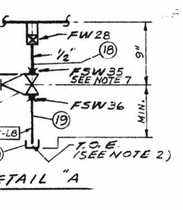
ADDITIONAL

DSL	ITEM	QTY	SIZE	DESCRIPTION	TAG NO. OR ASTM MAT'L	HEAT NO.
				MATERIAL (CONTINUED)		
04	17	1	1/2"	600# C.S., S.W. GATE VALVE	Y050G36	
	18	AS REQ'D.	1/2"	PIPE (SCH. 40S) SMLS	A-312 GR. TP-304	
	19	AS REQ'D.	1/2"	PIPE (SCH. 80 SMLS) C.S.	A-106, GR. B	
	20	2	1/2"	3000# C.S. THR'D. CAP	A-181 GR. I OR II	
	21	1	1/2"	3000# C.S., S.W. 90° ELL.		
	22	1	1/2"	600# C.S. S.W. GATE VALVE	Y050G36	

MATERIAL 150 SHT No 1305

DSL	ITEM	QTY	SIZE	DESCRIPTION	TAG NO. OR ASTM MAT'L	HEAT NO.
01	1	4	1"	200# BRONZE OR BRASS THRD. GLOBE VALVE	Y100T23	
	2	2	1"	3000# C.S. S.W. CAP	A-181 OR A-105 GR. I OR II	
	3	1	1/2"	150# BRONZE OR BRASS THRD. GATE VALVE	Y050G22	
	4	1	1/2"	3000# C.S. THRD. CAP	A-181 OR A-105 GR. I OR II	
	5	1	6"	125# C.S. BUTTERFLY VALVE	12FW06RS	
04	6	1	6"	B.W. DIAPH. CONTROL VALVE, S.S.	WCR-906	
01	7	8	3/4"	ϕ x 5 1/2" LG. MACH. BOLT W/HEX. HD.	A-307 GR. B	
	8	16	3/4"	HEAVY HEX. NUT CL. 2 TOL.	A-307 GR. B	
	9	8	3/4"	ϕ x 3 5/8" LG. MACH. BOLT	A-307 GR. B	
	10	2	6"	1/16" THK. GASKET COMP. ASBESTOS RUBBER BONDED, FULL FACE		
	11	1	1"	THERMOWELL	WT1-907	
	12	2	1"	3000# C.S. S.W. 1/2" CPL'G.	A-105 OR A-181 GR. I OR II	
	13	1	6"	150# 9/32" THK. PL. d = 5.427	WFA-907	
01	a	AS REQ'D	1"	PIPE (SCH. 80 SMLS) C.S.	A-106, GR. B	
01	b	AS REQ'D	1/2"	PIPE (SCH. 80, SMLS) C.S.		
04	15	1	6"	B.W. DIAPH. CONTROL VALVE, S.S.	WCR-907	
	16	1	1/2"	3000# C.S. HALF CPLNG.	A-181 GR. I OR II	

REV.	DATE	DR. CHK	DESCRIPTION	REMARKS
1	5/7-72	J.Q. / L.P.	REMOVED HOLD" ADDED NOTES 3 & 4 & PC-MK-NOS 1-NSW-45-L4, L6 & L7. COND'S FOR WFA-907, ITEMS 5 THRU 13 TO B/M. ITEM NO 1 WAS QTY 2. WFS-907 WAS WFA-907. DELETED NOTE 1 REV. 4 DWG. 1-5497	FIELD ACTION REQ'D / —
2	1-20-76	H.M.	REVISED BY A.E.P. DESIGN PER RFC-DC-12-671 TO REFLECT AS BUILT WHEN ISOLATION VALVE WAS ADDED.	NO ACTION REQ'D
3	1/13/82	WT / LB	PER RFC-DC-12-2549, ADDED: PIPE SPEC. G-14, DIM'S., R-MKS-4, L-8, L-9, WELD BOX, NOTES 6, 7 & 8. FIELD WELDS FW 24 TO 30, FSW 31 TO 36. ITEMS 15 TO 22 IN B/M. DELETED ITEM 14 FROM B/M. REVISED ITEM 16 IN B/M.	FIELD ACTION REQ'D.
4	1/28/82	EG / JM	PER RFC-DC-12-2549 AS PER FIELD 1/4" DIM. WAS 10", LOCATED TEST CONN.	FIELD ACTION REQ'D
5	8/11/81	DK / LB	PER RFC-DC-12-2876 REV'D VALVE TYPE ADDED SUPPORT MARK NOS, SUPERSEDED HGR. ISO 1-GNSW-45. ALL ABOVE TO REFLECT AS-BUILT CONDITIONS.	NO FIELD ACTION REQ'D



DETAIL "A"

P.O.#	PIECE MARKS	SITE FAB PIECE MARKS
530	1-NSW-45-1	1-NSW 45L1
	-1A	L2
531	-2	L3
	-3	L4
	-4	L5
		L6
		L7
		L8
		L9

N.P.S. DESIGNS

FABRICATOR NOTE: FABRICATION MUST CONFORM TO LATEST A.E.P. ARRGT. DWGS.

LABOR COST CONTROL	
USE ONLY WITH	
PIPE SIZE	
SCHEDULE	
TYPE	
ISO START DATE	
ISO FINISH DATE	
WORK OPERATION	LINE ITEM NUMBER
HANGER INST.	
ERECT	
WELD	
RADIO-G – X-RAY	
STRESS RELIEVE	
MISC. WORK	

LABOR COST CONTROL	
USE ONLY WITH	
PIPE SIZE	
SCHEDULE	
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ISO START DATE	
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WORK OPERATION	LINE ITEM NUMBER
HANGER INST.	
ERECT	
WELD	
RADIO-G – X-RAY	
STRESS RELIEVE	
MISC. WORK	

POUR/ZONE No. A-14
REQUIRED COMPLETION DATE
FABRICATED BY
FLOW DIAGRAM 1-5114A
Q.S.L. SEE DESIGN
WELD PROCEDURE SEE NOTE STAMP

REVISION RECORD

NO.	DATE	DESCRIPTION

1NSW-45
Lower Containment Ventilation
Unit 2 Return Line

LIVSEY & COMPANY, INC.
DONALD C. COOK NUCLEAR PLANT

DWN. WJP	DATE 9-14-71	AUXILIARY BLDG	
CKD. GN	DATE 9-29-71	DWG. NO. 1-NSW-45	REV. 5
ISSUED			
REF. DWG. 1-5437			

D-77