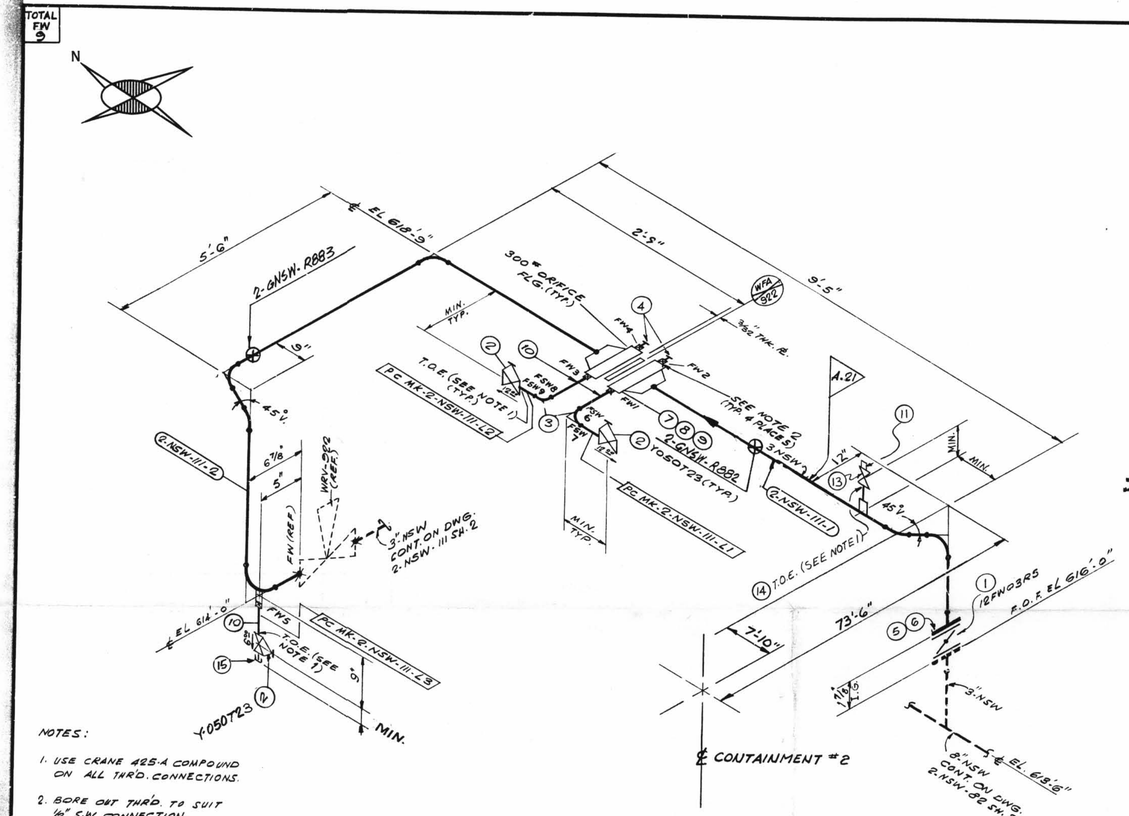
TOTAL FW 9



NOTES:

1. USE CRANE 425-A COMPOUND ON ALL THRD. CONNECTIONS.
2. BORE OUT THRD. TO SUIT ½" S.W. CONNECTION.
3. WELD PROCEDURE AS FOLLOWS:
   C/S 2" & UNDER-
   C/S 2½" & OVER-

P.O. #	PIECE MARK
	2-NSW-111-1
	-2

SITE FAB.	PIECE MARK
	2-NSW-111-L1
	-L2
	-L3

SUPPORT MARK NOS.
2-GNSW-R882
2-GNSW-R883

ISO SHT. NO. 2116

QSL	ITEM	QTY.	SIZE	MATERIAL DESCRIPTION	TAG No. OR ASTM MAT'L.	HEAT NO.
01	1	1	3"	125# C.I. WAFER BUTTERFLY VA.	12FWO3RS	
	2	3	½"	200# THR'D. GLOBE VA. BRONZE OR BRASS	Y050T23	
	3	2	½"	3000# C.S. S.W. 90° ELL	A-181 GR. I OR II	
	4	2	½"	3000# C.S. S.W. PLUG.	↓	
	5	4	5/8"ø	5" LG. HEX. HD. MACH. BOLT.	A-307 GR. B.	
	6	4	5/8"	HEAVY HEX. NUT. CL. 2 TOL.	↑	
	7	2	3"	1/8" THK. SPIRAL WOUND STYLE CG. C.S. COMP. RING GASKET.	TYPE 304	
	8	8	¾"ø	6½" LG. STUD BOLT	A-193 GR. B7	
	9	16	¾"	HEAVY HEX. NUT	A-194 GR. 2H.	
	10	AS REQD	½"	PIPE (SCH. 80) SMLS. C.S.	A-106 GR. B	
	11	1	1"	PLUG THR'D 3000# C.S.	A-181 Gr. I or II	
01	13	1	1"	200# THR'D GLOBE VA. BRONZE BRASS	Y-100T23	
	14	AS REQD	1"	PIPE (SCH. 80) SMLS. C.S.	A-106 Gr. B	
	15	1	½"	3000# CAP. THRD., C.S.	A-181 Gr. I or II	

NO.	DATE	DR/CHK	DESCRIPTION	REMARK
1	12-30-76	WP	ADDED: 1" VENT & ITEMS 11, 12, 13, & 14 TO B/M	
2	7/21/89	EBB/DBM/LB	TO REFLECT AS-FOUND CONDITIONS FOR RFC-DC-12-3010 PER FWR #759 REV. 1, DELETED: ½" PLUG & ITEM NO. 12 ON B/M ADDED: SUPPORT MARK NOS. & SUPERSEDES HGR. 150. # 2-GNSW-111 SH. # 1, ADDED: ½" CAP & ITEM NO. 15 ON B/M TO SUIT	NO FIELD ACTION REQ'D.

D-23A

INDICATES LOCATION OF PIPE SUPPORT AND SUPPORT DETAIL NUMBER

SUPPORT FABRICATORS SHOULD REFER TO ISOMETRIC DRAWING FOR COMPLETE SCOPE OF SUPPORT FABRICATION

SIZE	QUAN.	FR
3	23	0
1½"	2	9

DESIGN SPEC.	OCCPM 102QCS
HANGER SEISMIC CLASS	II
TEST REQUIREMENTS	N/A.
MATERIAL CLASS	A-21 SPEC 104

B.P. = WORKING POINT
T.O.E. = TUBE OR 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. = SCREWED 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
O = AUTOMATIC SHOP WELD
M = MANUAL SHOP WELD
V = VERIFY DIMENSION IN FIELD

PIPE														
A-53	A-106 GR. B		A-376		A-312									
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.	N.A.			
M.T.	P.T.	R.T.	U.T.	
PRESSURE TEST				
MED.	PRESS.	DURATION		

ADDITIONAL

POUR/ZONE No. RCE
REQUIRED COMPLETION DATE
FABRICATED BY TUBECO

FLOW DIAGRAM 1-2-5114A
Q.S.L. Q1
WELD PROCEDURE SEE NOTE 3

NPS DESIGNS INC.
NEW YORK, N.Y.

LIVSEY & COMPANY, INC.
INDIANA & MICHIGAN ELECTRIC CO.
DONALD C. COOK NUCLEAR PLANT

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

DWN. SG DATE 4-87 CONTAIN. VICINITY
CKD. LdB DATE 3/3/87
ISSUED
REF. DWG. 2-5437A
DWG. NO. 2-NSW-111 SH. 1 OF 2.
REV. 2

2NSW-111 (sheet 1 of 2)
Upper Containment Ventilation
Unit 1 Supply Line