PENETRATION DESCRIPTION / PENETRATION ASSEMBLY DESCRIPTION / PROCESS LINE DESCRIPTION

DWG. NO. NS1246

PENETRATION DESCRIPTION

PENETRATION NO (SEE NOTE 11)	SERVICE	℄ ELEVATION	℄ AZIMUTH	SLEEVE MATERIAL	MINIMUM SLEEVE SIZE (NOM ID)	INSIDE CONTAINMENT CELL NUMBER	SLEEVE LENGTH (IN) SEE NOTE 10: INSIDE	SLEEVE LENGTH: OUTSIDE	PENETRATION DETAIL: NO	PENETRATION DETAIL: DWG NO	ACTUAL SLEEVE SIZE SEE NOTE 12: NOM SIZE (SEAMLESS)	OUTSIDE DIAMETER (SEAM WELDED)	SCHEDULE OR WALL THICKNESS	REINFORCING INSERT THICKNESS (SEE NOTE 12)
R12E0053	PPS PRIMARY CHANNEL C (RC)	844'-9"	75°	CS	11.376"	167	8	18	N-11	NN766	12	NA	80	2.00
R12E0054	SPARE (CA)	843'-6"	21°			161A								
R12E0055	SPARE (PB)	830'-0"	21°			161A								
R12E0056	SPARE	826'-0"	75°			164								
R12E0057	INSTRUMENTATION CLASS 1E DIV 2 (I2)	826'-0"	22°30'			161A								
R12E0058	INSTRUMENTATION CLASS 1E DIV 1 (I1)	744'-6"	131°			105F								
R12E0059	SPARE (PA)	843'-6"	24°			161A								
R12E0060	INTERGRATED LEAK RATE TEST (INSTR)	830'-0"	24°			161A								
R12E0061	SPARE (SC)	830'-0"	70°52'			164								
R12E0062	SPARE (PA)	847'-6"	32°			161A								
R12E0063	SPARE (CA)	847'-6"	35°			161A			N-11	NN766	12	NA	80	2.00
R12E0034	DELETED	—	—	—	—	—	—	—	—	—	—	—	—	—
R12E0055	CONTROL CLASS 1E DIV 1 (C1)	847'-6"	56°	CS	11.376"	161A	8	18	N-11	NN766	12	NA	80	2.00
R12E0065	INSTRUMENTATION NORMAL A SYSTEM (IA)	847'-6"	38°			161A								
R12E0067	480V PWR CLASS 1E DIV 1 (P1)	847'-6"	60°			161A			N-11					
R12E0068	INSTRUMENTATION CLASS 1E DIV 2 (I2)	743'-0"	213°			105A	42	28	N-12					
R12E0069	480V PWR NORMAL A SYSTEM (PA)	847'-6"	41°			161A	8	18	N-11					
R12E0070	CONTROL NORMAL A SYSTEM (CA)	847'-6"	44°											
R12E0071	INTERGRATED LEAK RATE TEST (INSTR)	847'-6"	47°		3.364"									
R12E0072	SPARE (I1)	847'-6"	50°		11.376"									
R12E0073	INSTRUMENTATION CLASS 1E DIV 1 (I1)	847'-6"	53°			161A								
R12E0074	SPARE (RC)	847'-6"	71°			167								
R12E0075	CONTROL NORMAL B SYSTEM (CB)	826'-0"	95°22'			164								
R12E0076	SPARE (CB)	826'-0"	97°22'			164			N-11	NN766	12	NA	80	2.00
R12E0077	DELETED	—	—	—	—	—	—	—	—	—	—	—	—	—
R12E0078	SPARE (IB)	826'-0"	100°42'	CS	11.376"	164	8	18	N-11	NN766	12	NA	80	2.00
R12E0079	INSTRUMENTATION NORMAL B SYSTEM (IB)	826'-0"	102°42'			164								
R12E0080	SPARE (SA)	826'-0"	276°			162			N-11	NN766	12	NA	80	2.00
E0081	DELETED	—	—	—	—	—	—	—	—	—	—	—	—	—
R12E0082	SPARE (RA)	843'-6"	273°	CS	11.376"	165	8	18	N-11	NN766	12	NA	80	2.00
R12E0083	PPS SECONDARY CHANNEL A (SA)	830'-0"	278°			162								
R12E0084	PPS PRIMARY CHANNEL A (RA)	847'-6"	278°			165					12			
R12E0085	4160V PWR NORMAL A SYSTEM (YA)	825'-6"	108°		16.126"	161A					18			
R12E0086	480V PWR CLASS 1E DIV 3 (P3)	825'-6"	111°30'		11.376"						12			
R12E0087	SPARE (PA)	850'-11"	215°											
R12E0088	SPARE (CA)	850'-11"	218°											
R12E0089	INSTRUMENTATION NORMAL A SYSTEM (IA)	845'-8½"	215°											
R12E0090	SPARE (IB)	828'-0"	119°											
R12E0091	SPARE (CB)	832'-0"	119°											
R12E0092	SPARE (PB)	836'-0"	119°											
R12E0093	SPARE	849'-0"	119°			161A			N-11					
R12E0094	480V PWR CLASS 1E DIV 2 (P2)	743'-0"	216°			105A	42	28	N-12	NN766	12	NA	80	2.00
R12E0095	DELETED	—	—	—	—	—	—	—	—	—	—	—	—	—
R12E0096	DELETED	—	—	—	—	—	—	—	—	—	—	—	—	—
LAST NO E0199														

PENETRATION ASSEMBLY DESCRIPTION

PENETRATION NO	MATERIAL REQUIREMENTS: WELD-NECK FLANGE	CAPPED HEAD	BELLOW EXPANSION FITTING	PROCESS LINE COUPLING	FLUED HEAD	OPERATE BASE EARTHQUAKE DESIGN LOADS: Mb = RESULTING BENDING MOMENT (FT LBS)	Fa = AXIAL FORCE (LBS)	FL = RESULTANT LATERAL LOADS (LBS)	Mt = TORSIONAL MOMENT (FT LBS)	SAFE SHUTDOWN EARTHQUAKE DESIGN LOADS: Mb = RESULTING BENDING MOMENT (FT LBS)	Fa = AXIAL FORCE (LBS)	FL = RESULTANT LATERAL LOADS (LBS)	Mt = TORSIONAL MOMENT (FT LBS)	WELDING END DETAILS: INSIDE END OF SLEEVE: TYPE NO	INSIDE END: DWG NO	OUTSIDE END OF SLEEVE: TYPE NO	OUTSIDE END: DWG NO
R12E0053	CS	NA	NA	NA	NA	1500	300	1000	0	1800	500	1200	0	II E	NN700	NA	NA
R12E0063	CS	NA	NA	NA	NA									II E	NN700	NA	NA
R12E0034	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R12E0055	CS	NA	NA	NA	NA	1500	300	1000	0	1800	500	1200	0	II E	NN700	NA	NA
R12E0076	CS	NA	NA	NA	NA									II E	NN700	NA	NA
R12E0077	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R12E0078	CS	NA	NA	NA	NA	1500	300	1000	0	1800	500	1200	0	II E	NN700	NA	NA
R12E0080	CS	NA	NA	NA	NA									II E	NN700	NA	NA
E0081	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R12E0082	CS	NA	NA	NA	NA	1500	300	1000	0	1800	500	1200	0	II E	NN700	NA	NA
R12E0085						3000	550	2000		3600	1000	2400					
R12E0086						1500	300	1000		1800	500	1200					
R12E0094	CS	NA	NA	NA	NA									II E	NN700	NA	NA
R12E0095	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R12E0096	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

PROCESS LINE DESCRIPTION

PENETRATION NO	DESIGN PRESSURE (PSIG)	DESIGN TEMPERATURE (°F)	FLOW DIRECTION	NOMINAL LINE SIZE	WALL THICKNESS	MATERIAL	A S M E CLASSIFICATION	PIPE SCHEDULE		REMARKS
R12E0053	10	250°	NA	NA	NA	NA	2	NA		NOTE 1-H
R12E0034	—	—	—	—	—	—	—	—		
R12E0055	10	250°	NA	NA	NA	NA	2	NA		NOTE 1-H
R12E0077	—	—	—	—	—	—	—	—		
R12E0078	10	250°	NA	NA	NA	NA	2	NA		NOTE 1-H
E0081	—	—	—	—	—	—	—	—		
R12E0082	10	250°	NA	NA	NA	NA	2	NA		NOTE 1-H

PRC APERTURE CARD

NOTES, REFERENCE DWGS AND LEGEND SEE DWGS NS1233 & NS1234

REVISIONS

NO	AUTH	REVISION
5 CONT	B27-106	THICKNESS AND MATERIAL REQUIREMENTS COLS(A-6 TO K-6) (A-5 TO K-5), HOLD 27000057 BY ADDING INFO. FOR WELDING END DETAILS COL. (A-3 TO K-3) HOLD 27000056 BY DELETING CONTAINMENT ISOLATION METHOD COL. (K-2) REVISED SLEEVE LENGTH FOR PEN E0053-67,69-93(B-36) 27AA/DD-1103
	L10-104	REVISED: ELEVATION OF PEN. E0093 (B-7) CINDT 27AA/DD-1103
6	B12-110	DELETED HOLD #12000240 & ADDED SERVICE DESCRIPTION FOR PEN R12E0053 THRU R12E0094 CINDT 27CS/DD-1206
3	L27-030	DELETED PEN E0064, RE-DESIGNATED N0035. RE-DESIGNATED PEN E0071 FROM TBD TO INTEGRATED LEAK RATE TEST INSTM & REVISED SLEEVE ID FROM 11.376 TO 3.364. CINDT 27AA-CS/DD-715
4		REVISED LOC. PEN. E0087, 88, 89, (C7). CINDT 27AA/CS DD-836; — do — E0067 (C7) CINDT 27AA/CSDD-886
5	B27-106	ADDED: "SEE NOTE 11" TO PENETRATION NO COL (K-8), "SEE NOTE 10" TO SLEEVE LENGTH COL. (K-6); AND INSIDE CONTAINMENT CELL NO COL & INFO. (A-6, TO K-6) DELETED: HOLD 27000058 BY ADDING INFO FOR PEN. DETAIL, ACTUAL SLEEVE SIZE, REINFORCING INSERT
0	—	B & R DRAWING RELEASE STATUS AS APPROVED PER CINDT # 293. 295. 297. 300. 303. 304. 308. 309
0	27AA	REVISED PER LRM CHANGES. ADDED (B-J 8) HOLD # 12000240 REVISED PEN E0095 & E0096 APPROVED FOR CONSTRUCTION
1	27AA/DD-421	REMOVED HOLD # 27000060 AND ADDED PENETRATION LOADS(A-K 4). APPROVED FOR PROJECT USE ECP-B-27-013
2	27AA/DD675	REVISED PEN E0053 THRU E0076, E0078 THRU E0080, E0082 THRU E0094, REVISED PEN LOADING E0078, ADDED NOTES TO REMARKS DELETED E0077, E0095 & E0096 ECP-B-26-003 & ECP-B-27-030

NEXT ASSY

DWG DATA TYPE 2

B & R DRAWING RELEASE STATUS: PRELIMINARY / APPROVED

B & R RELEASE APPROVAL

SCALE NONE

3067

NUCLEAR SAFETY RELATED

PROJECT MANAGEMENT CORP.

CLINCH RIVER BREEDER REACTOR PLANT

BURNS AND ROE, INC. ENGINEERS AND CONSTRUCTORS

BREEDER REACTOR DIVISION ORADELL, N. J.

REACTOR CONTAINMENT BUILDING ELECTRICAL PENETRATION LIST SDD 27

DWG. NO. NS1246 REV. 6 SH. OF

DDAELE EECBURO

EECPROJ

RIDS

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