



CAR-2165  
G-095

DETAIL Y  
TEST CONNECTIONS  
NO SCALE

ITEM NO.	A	B	C
1	TSWI-331-1	TSWI-176-1	TSWI-V215-1
2	TSWI-3305-1	TSWI-3305N-1	TSWI-V4635W-1
3	TSWI-270-1	TSWI-1550-1	TSWI-V751-1

DETAIL X  
VENTS & DRAINS  
NO SCALE

ITEM NO.	A	B	C	TYPE	FOR EQUIP. NO.
1	2SW-3058-1	2SW-3058-1	2SW-V4635-1	VENT	
2	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	AM-1
3	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
4	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
5	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
6	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
7	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
8	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
9	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
10	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
11	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
12	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
13	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
14	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
15	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
16	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
17	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
18	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
19	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
20	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
21	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
22	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
23	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	
24	2SW-3058-1	2SW-3058-1	2SW-V4635-1	DRAIN	

NOTES:

ALL PIPING TO CONFORM TO EBASCO PIPING LINE LIST DRAWING CAR-126-070 AND EBASCO PIPING SPECIFICATION CAR-SH-30.

NO ALLOWANCE HAS BEEN MADE FOR WELDS OR GASKETS.

UNLESS OTHERWISE NOTED: ALL PIPE BENDS TO HAVE A RADIUS OF 5 PIPE DIAMETERS. WHERE PIPE WALL THICKNESS IS NOT SUFFICIENT TO MAKE A SATISFACTORY BEND, A SECTION OF PIPE OF SUFFICIENT WALL THICKNESS AS PER PFI STANDARD FOR NPS AND PER ASME SECTION III FOR NUCLEAR SAFETY, SHALL BE UTILIZED FOR THE BEND.

ELBOWS TO BE LONG RADIUS AND INDICATED BY SHARP CORNERS.

FOR SMALL BRANCH PIPE CONNECTIONS, SEE DESIGN GUIDES MH-20, MH-21, AND PIPING SPECIFICATION.

ALL FLOOR PENETRATIONS TO BE SLEEVED. WALL PENETRATIONS TO BE EITHER PERMANENT RECTANGULAR OPENINGS OR SLEEVES. FOR TYPICAL SLEEVE DETAILS SEE DRAWING CAR-216-0-222. ALL SLEEVES TO BE TYPE "A" UNLESS OTHERWISE NOTED. FOR SIZES AND LOCATIONS SEE CONCRETE-HYDRAULIC DRAWINGS.

PIPING WILL NOT BE CUT FOR COLD SPRING. DESIGN AND LOCATION OF PIPE HANGERS FOR THE SUPPORT OF DEAD WEIGHT, BY HANGER FABRICATOR.

FOR STRESS ANALYZED LINES, ANCHORS AND RESTRAINT FOR SEISMIC PROTECTION TO BE DESIGNED BY HANGER FABRICATOR AT THE LOCATION SHOWN ON THE EBASCO STRESS ANALYSIS.

OPENINGS 8 INCHES IN DIAMETER AND OVER, FOR SHOP FABRICATED PIPING, IN GRATING AND CHECKERED PLATE FLOORS, SHALL BE PROVIDED IN THE SHOP. ALL OTHER OPENINGS ARE TO BE PROVIDED IN FIELD.

NO WELDS ARE PERMITTED ON PORTIONS OF PIPE THAT FALL WITHIN SLEEVES.

PIPING ERECTOR TO VERIFY ALL CONTAINMENT BUILDING WALL PENETRATION WORKING POINTS IN FIELD BEFORE PIPE ERECTION.

VALVES 2" & UNDER, WITH INCLINED STEMS, TO BE INSTALLED WITH FLOW AGAINST SEAT.

FOR ACCEPTABLE VARIATIONS TO SMALL SIZE CAPPED PIPING (DRAINS, VENTS, ETC.), SEE DWG. CAR-216-0-107502.

FOR AS-BUILT/AS-CONSTRUCTED INFORMATION FOR THE SERVICE WATER SYSTEM REFER TO: 216-0-12781

Penetration M-91  
(inside containment)

50-400  
9810050081  
9/28/98  
9810200289

NO.	DATE	REVISION	BY	CHK.	APPROVED
10	6/1	THIS REVISION REPRESENTS N-5 DOCUMENTATION FOR THE SERVICE WATER SYSTEM. ADDED: NOTES (E, F, G).	JAK	AK	[Signature]
9	5/1/98	INCORPORATED DCA-M-082 (C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z).	JAK	AK	[Signature]
8	4/1/98	INCORPORATED REF. P-2448 (D, H, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z).	JAK	AK	[Signature]

REFERENCE DRAWINGS

LIST OF DRAWINGS	CAR-1364-B-125
VALVE AND SPECIALTY LIST	CAR-1364-B-069
PIPING LINE LIST	CAR-1364-B-070
INSTRUMENT LIST	CAR-2166-B-432
FLOW DIAGRAM - CIRC. & SERVICE WATER SYSTEMS	
SHEET 1 - UNIT 1	CAR-2167-G-047
SERVICE & COOLING WATER PIPING - CONTAINMENT BLDG PART, PLANS & SECTS - UNIT 1	CAR-2169-G-096

**NUCLEAR SAFETY  
RELATED IN PART ONLY**

CAR-2165  
G-095

**APPROVED FOR CONSTRUCTION**

THIS DOCUMENT IS DELIVERED IN ACCORDANCE WITH AND IS SUBJECT TO THE PROVISIONS OF SECTION 1 OF THE CONTRACT BETWEEN CAROLINA POWER & LIGHT COMPANY AND AS AMENDED.

CAROLINA POWER & LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT  
SERVICE & COOLING WATER PIPING  
CONTAINMENT BUILDING  
PLAN  
UNIT 1

EBASCO SERVICES INCORPORATED

SCALE: 1/8" = 1'-0"  
DATE: 5-2-98  
BY: MCH  
CHECKED BY: [Signature]  
DATE: 5-2-98  
DRAWN BY: [Signature]  
DATE: 5-2-98

CAR-2165  
G-095

PLAN  
AT FL. EL. 221.00 & 226.00

9810200289