

3.06 CRITERIA FOR ESTABLISHING SPACING & LOADS FOR SEISMIC CONDUIT SUPPORTS

- A. FOR CONDUIT SUPPORTS IN EITHER HORIZONTAL OR VERTICAL RUNS, THE SPACING SHALL BE OBTAINED FROM SHEET 55-28.
- B. ALLOWABLE STRAP LOADS SHOWN FOR DIFFERENT STRAP TYPES ARE TO BE USED IN QUALIFYING EQUIVALENT STRAPS OR CLAMPS.
- C. MULTIPLE CONDUIT RUN SPANS SHALL BE BASED ON THE MINIMUM SPAN CORRESPONDING TO ANY CONDUIT IN THE BANK AS SHOWN ON SH. 55-28. TO FIND THE TOTAL LOAD ON A SUPPORT FOR MULTIPLE CONDUIT RUNS ADD THE INDIVIDUAL REACTIONS SHOWN ON SH. 55-28. ADJUSTED TO THE MINIMUM SPAN.
- D. DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SUPPORTS SHALL BE IN ACCORDANCE WITH AISC, U.N.
- E. FOR STRUCTURAL BLDG STEEL SEE EBASCO STRUCTURAL STEEL DRAWINGS.
- F. FOR EMB. FL LOCATIONS SEE COMPOSITE PENETRATION AND EMB. STEEL DRAWINGS.
- G. B-LINE STRUTS & STRAPS OR U-BOLTS (OR APPROVED ALTERNATE) ARE REQUIRED AS A MEANS OF CONNECTING CONDUIT TO THE STRUCTURAL STEEL SEISMIC SUPPORT AND ARE REQUIRED ONLY AT THE LOCATION OF THE SEISMIC SUPPORT TO WHICH CONDUIT WILL BE ATTACHED. ONLY THOSE SUPPORT MEMBERS IDENTIFIED BY A SINGLE ASTERISK (\*) SHALL SUPPORT CONDUIT.
- H. ADDITIONAL STRUTS MAY BE ATTACHED TO SUPPORT MEMBERS IDENTIFIED BY (\*) FOR POTENTIAL FUTURE USE. CONDUIT SUPPORTING MEMBERS (\*) MAY BE PREFABRICATED WITH STRUTS ON ONE OR MORE SIDES OF THE SUPPORT MEMBER. A TUBE STEEL SUPPORT MEMBER WITH ONE STRUT ATTACHED IS TYPICALLY REFERRED TO AS "FA-1", WITH TWO STRUTS ATTACHED IS REFERRED TO AS "FA-2" SEE SH. 55-35.
- I. THE MINIMUM LENGTH OF STRUT REQUIRED FOR SUPPORTING A CONDUIT WITH A CONDUIT STRAP IS DETAILED ON SH. 55-35.
- J. REFER TO EBASCO SPECIFICATION WPPSS 3240-590 FOR TOLERANCES NOT SPECIFIED IN THIS DRAWINGS SERIES.
- K. FOR TYPICAL CONNECTION DETAILS FOR ALL BUILDINGS SEE SH. 55-4 TO SH. 55-8.
- L. EACH SEISMIC SUPPORT TYPE MAY BE LOADED UP TO THE WEIGHT LIMIT SPECIFIED IN THE LOADING TABLE FOR THAT SUPPORT. CONDUIT MAY BE ATTACHED TO ANY SUPPORT MEMBER (\*) AT ANY LOCATION, ON ANY FACE PRACTICAL.
- M. WELD SIZES TO BE DETERMINED BY CONTRACTOR PER AWS REQUIREMENTS, U.N.
- N. REFERENCE TO CONCRETE WALLS OR CEILINGS IMPLIES INTERNAL STRUCTURES AND CONTAINMENT VESSEL (AND VISA VERSA). ALSO SEE NOTES ON SH. 55-28.
- P. SEISMIC SUPPORTS DETAILED IN THIS DRAWING ARE NOT TO BE ATTACHED TO THE STAIR TOWER STRUCTURE, LOCATED BETWEEN RB COLUMNS CR-5 AND CR-6 FROM EL. 425.00 TO EL. 467.00.
- Q. SEE OPTIONAL DETAILS ON SH. 55-35 TO USE U-BOLTS IN CONJUNCTION WITH TUBE STEEL.
- R. CONTAINMENT VESSEL MOUNTED SUPPORTS ARE TO BE ATTACHED TO CONT. VESSEL PAD PLATES ONLY, UNLESS NOTED.
- S. MINIMUM CONDUIT  $\phi$  TO  $\phi$  SPACING SHALL BE BASED ON THE FOLLOWING:
  - A. CONDUIT STRAPS BUTT END TO END, (SEE NOTE 3.06V FOR OPTION)
  - B. MINIMUM U-BOLT HOLE  $\phi$  TO  $\phi$  SPACING IS GREATER THAN OR EQUAL TO 1 1/8"

- T. AS AN OPTION, GUSSET PLATES MAY BE SQUARED-OFF RATHER THAN CONTOURED AS SHOWN IN THE DETAILS PROVIDED THE MINIMUM WELD LENGTH AND SIZE AS SHOWN IS MAINTAINED.
- U. B-LINE MEMBERS ARE SHOWN FOR REFERENCE ONLY. SEE GENERAL NOTES AND SHEET 55-35 FOR ADDITIONAL INFORMATION. B-LINE STRUT TO BE CUT BACK AS REQUIRED TO ACCOMMODATE CONNECTION DETAIL.
- V. B-LINE STRUT B42 B, OR APPROVED ALTERNATE, MAY BE USED IN LIEU OF B42 STRUT TO ALLOW DECREASING E TO F CONDUIT SPACING.
- W. DRILLED IN EXPANSION TYPE ANCHOR PLATES MAY BE USED IN LIEU OF EMBEDDED PLATES AS REQUIRED. INSTALLATION OF EXPANSION ANCHORS SHALL BE PER EBASCO SPECIFICATION WPPSS-3240-467. IF THE SHOWN PLATE TYPE IS NOT AVAILABLE, AN ALTERNATE PLATE TYPE WITH HIGHER CAPACITY MAY BE USED. SEE SH. 55-32 FOR PLATE CAPACITY SEQUENCE. INSTALLATION CONTRACTOR SHALL MAINTAIN AS BUILT RECORD OF LOCATION & TYPE OF ANCHOR PLATES INSTALLED.

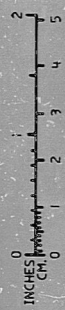
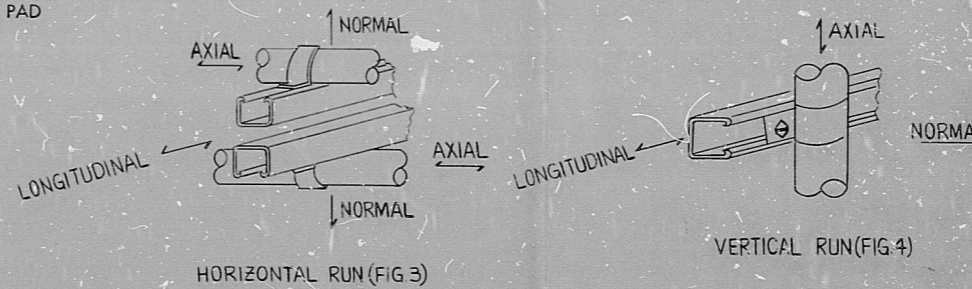
MAX LOADS FOR BOLTED CONDUIT STRAPS (LBS) SAFETY FACTOR = 3

STRAPS IN ACCORDANCE WITH SPEC 3240-511 ATTACHMENT #7

CONDUIT SIZE	STRAP TYPE FIG 3 OR 4 (B-LINE OR ENGINEER APPROVED EQUAL)	LONGITUDINAL (LBS)	NORMAL (LBS)	AXIAL (LBS)	BOLT * TORQUE (FT. LBS)
3/4"	B 2100 - 1	250	1000	250	6
1"	B 2100 - 2	250	1000	250	6
1 1/2"	B 2100 - 4	250	1000	250	6
2"	B 2100 - 5	300	2000	500	19
3"	B 2100 - 7	800	2000	500	19
4"	B 2100 - 9	1000	2500	750	45
5"	B 2100 - 10	1000	2500	750	45
6"	B 2100 - 11	1000	2500	750	45

PRO APERTURE CARD

\* TORQUE TOLERANCE + 2 FT. LBS. TORQUE VALUES PER NEMA & B-LINE TEST DATA.



THIS SHEET IS FOR SEISMIC APPLICATIONS IN REACTOR BLDG AND CONDENSATE & REFUELING WATER STORAGE TANK AREA AS INDICATED IN NOTE 3.04-9, SH. 5B.

REV	DATE	BY	APPROVED
5			
4			
3			
2			
1			

EBASCO SERVICES INCORPORATED		WASHINGTON PUBLIC POWER SUPPLY SYSTEM	
DIV. ELEC. DR. S.P.	APPROVED	NUCLEAR PROJECTS NO. 3 & 5	
CH. K. ENG	<i>[Signature]</i>	GENERAL NOTES, SYMBOLS AND REFERENCE DRAWINGS	
DATE JULY 21, 1981	<i>[Signature]</i>	WPPSS-3240	
		D-5023	
		SHEET 55-26	



**RIDS**

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