

3.04 - CONDUIT SEISMIC SUPPORT:

1. SEISMIC SUPPORTS FOR DIMENSIONED EXPOSED CONDUIT ARE LOCATED ON ELECTRICAL DRAWINGS 3240-G5460; SUPPORT DETAILS SHOWN ON STRUCTURAL DWGS 3240-G3479.
2. FOR TYPICAL SEISMIC SUPPORT DETAILS FOR FIELD ROUTED CONDUITS IN RAB & FHB SEE SHEETS 55-1 THRU 55-22 THIS DRAWINGS.
3. WHEN MORE THAN ONE CONDUIT SUPPORT POINT (FOR EXAMPLE: EC-2056, EC-2057) HAS BEEN COMBINED INTO A SINGLE CONDUIT SUPPORT ASSEMBLY, AS SHOWN ON THE A-S DWGS, THE SUPPORT ASSEMBLY NEED ONLY BE IDENTIFIED ONCE WITH THE LOWEST CONDUIT SUPPORT POINT NUMBER (IE: EC-2056), INVOLVED WITH THE SUPPORT ASSEMBLY.
4. A SEISMICALLY SUPPORTED CONDUIT SHALL BE SUPPORTED AS SHOWN IN FIGURES 4 & 5, SHEET 5G, WHERE IT ENTERS TRAYS, PANELS, AND OTHER ELECTRICAL EQUIPMENTS OTHER THAN PULL OR TERMINAL BOXES. CONDUIT SHALL BE SUPPORTED WITHIN ONE FOOT SIX INCHES (1' - 6") OF WHERE IT ENTERS A PULL OR TERMINAL BOX. CONDUITS ENTERING THE BOTTOM OF A PULL OR TERMINATION BOX REQUIRES NO SUPPORT IF CONDUIT IS EMBEDDED IN CONCRETE WITHIN 3' - 0" FROM THE BOTTOM OF THE BOX.
5. CONDUIT ENTERING THE TOP OF SAFETY RELATED ELECTRICAL EQUIPMENT OTHER THAN PULL OR TERMINAL BOXES SHALL HAVE A 4" GAP. SEE FIG. 6, SH. 5G FOR DETAILS.
6. TO MINIMIZE SIZE OF FIELD ROUTED CONDUIT SEISMIC SUPPORTS, THE CONDUIT SHALL BE ROUTED AS CLOSED TO WALLS & CEILINGS AS POSSIBLE.
7. CABLE TRAY SUPPORTS IN THE CABLE VAULT CAN BE USED TO SUPPORT FIELD RUN CONDUITS WHEN INSTALLED IN ACCORDANCE WITH THE FOLLOWING EQUATION (CABLE VAULT ONLY).

$$W_c = (N \times 10 \times \ell N) + (C \times M \times 10 \times \ell M)$$

WHERE WC = MAXIMUM ALLOWABLE WEIGHT (lbs) OF CONDUIT THAT MAY BE SUPPORTED FROM AN EXISTING (NUMBERED SUPPORT) CABLE TRAY SUPPORT.

N = NUMBER OF TRAYS SPANNING BETWEEN SUPPORT BEING EVALUTED AND ADJACENT SUPPORTS.

M = NUMBER OF TRAYS SUPPORTED BY BRIDGE STEEL SPANNING BETWEEN AN "ER" TRAY SUPPORT.

C = PERCENT OF TRAY WEIGHT DISTRIBUTED TO A GIVEN "ER" SUPPORT.

ℓN = DISTANCE BETWEEN TRAY SUPPORTS FOR TRAYS DEFINED ABOVE.

ℓM = DISTANCE BETWEEN TRAY SUPPORTS FOR TRAYS DEFINED ABOVE.

TRAY SUPPORT = SUPPORT DENOTED BY CIVIL DESIGN DRAWINGS WITH A "ER" SUPPORT NUMBER.

THE FOLLOWING CONDITIONS/REQUIREMENTS MUST ALSO BE MAINTAINED:

- 7.1 FIELD RUN CONDUIT MAY BE ATTACHED TO EXISTING TRAY SUPPORTS AT ANY LOCATION OF ANY NON-TRAY SUPPORTING MEMBER PROVIDED THE ADDITIONAL LOAD IN ANY HANGER MEMBER DOES NOT EXCEED 1 KIP NOR ANY POST EXCEED 3 KIPS.
- 7.2 A HANGER MEMBER IS DEFINED AS A NON-TRAY SUPPORTING MEMBER WHICH CONNECTS TO BUILDING STRUCTURE AT ONLY ONE POINT.
- 7.3 A POST IS DEFINED AS A VERTICAL SUPPORT MEMBER WHICH SPANS FROM FLOOR TO CEILING.
- 7.4 ADDITIONAL STEEL MAY BE ATTACHED TO A TRAY SUPPORT TO SUPPORT CONDUIT. THE MINIMUM MEMBER SIZE SHALL BE L4 x 4 x 1/2 WITH A MAXIMUM SPAN LENGTH OF 6' - 0".
8. FOR TYPICAL SEISMIC SUPPORT DETAILS FOR FIELD ROUTED CONDUITS IN REACTOR BLDG SEE SHEETS 55-4 THRU 55-8 & 55-26 THRU 55-35.
9. FOR TYPICAL SEISMIC SUPPORT DETAILS FOR FIELD ROUTED CONDUITS IN CONDENSATE & REFUELING WATER STORAGE TANK AREA, USE SAME CRITERIA AS DESIGNATED FOR INTERNAL STRUCTURE & CONTAINMENT VESSEL. SEE SHEETS 55-4 THRU 55-8 & 55-26 THRU 55-35.

INCHES
CM

PRO
APERTURE
CARD

NUCLEAR SAFETY RELATED				WPPSS QUALITY CLASS II 3G			
EBASCO SERVICES INCORPORATED				WASHINGTON PUBLIC POWER SUPPLY SYSTEM			
DIV. ELEC. DR. S.P.				NUCLEAR PROJECTS NO. 3 & 5			
CH. K. ENG				GENERAL NOTES, SYMBOLS AND REFERENCE DRAWINGS			
DATE MAY 7, 1982				WPPS-3240			
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RIDS

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