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COMPANY PRIVATE

FIRST CLASS MAIL

Installation Engineering Handbook 18
Western Electric Company, Incorporated
Kearny Works

T. I. Section 6B
7-14-71

TEMPORARY INSTRUCTION

WIRING - RUNNING - AND CUTTING

ARMORED WIRE AND CABLE IN WORKING OFFICES

1. GENERAL

- 1.1 When running armored wire and cable in working offices, it is important that adequate protection be provided around live equipment. To minimize the possibility of a short circuit or service interruption, the changes shown below are being made in Section 6B.

2. INSTRUCTIONS

- 2.1 Change the title and numbers of paragraphs 10.10 through 10.103 as follows:

10.10 Running Armored Wire and Cable in Working Offices.

- 10.101 Because of the danger of shorting the shielding on BX armored wire and cable and flexible conduit to live bus bars and equipment, provide adequate protection around live equipment. Adequate protection means heavier, thicker and more durable protection fastened securely when working with the larger and heavier armored wires and cables. When a number of such cables have to be run in the vicinity of (under, over, or around) live or working equipment, provide substantial rigid protection in the form of fiberboard, Masonite, heavy paper board or other electrically insulating, fire resistant or fire-proof materials obtained locally. Secure the protection adequately so it cannot be kicked-up, worked-up or dislodged. When running in a quantity of small cables, they may be run simultaneously by temporarily bundling them about every foot and a half to two foot. Men should be stationed in strategic locations along the length of the run to provide control of the wire movement around live equipment.

- 10.102 On cable racks above or near live equipment, or equipment which may be alive before the cables are permanently secured to the racks, secure in such a manner as to prevent them from coming in contact with the live equipment. Where additional armored cables are to be run to a live power board, strip the armor to the required length for the power board end. Where feasible, run the cable or wire from the distant end toward the power board and secure the butts at the proper point. Secure the cable, starting at the power board end progressing to the distant end.
- 10.103 When only a few small cables are being run in, insulating plastic or rubber hose may be slipped over the cable for the length it must run through the hazardous area. Large inside diameter hose without fittings, such as washing machine drain hose, may be procured locally. As temporary protection, slip on the sections of hose and secure them with twine or tape so the sections do not separate or shift and run the hose and cable in together. The hoses are slid off after the permanent ties are made and then only enough as required to make each successive tie.
- 10.104 In extremely hazardous locations a combination of rigid protection or protective sheeting as covered in paragraph 10.101, together with hose may be appropriate.
- 10.105 When a Method of Procedure is written, the planned protection and precautionary measures to be used for running armored cable shall be included in the MOP.

10.11 Splicing Armored Wire and Cable

- 10.111 To splice or tap armored cable, use an outlet box or a conduit fitting of a size required for the wire or cable in question with connectors and reducers as required. The fittings shall be securely mounted with approved metal fasteners and shall be large enough to allow connectors to be handled and inspected and so located as to be readily accessible.

Manager, Product Engineering