ELECTRICAL PROTECTION OF BURIED PLANT

Purpose: The purpose of this addendum is to add the requirement to bond metallic buried plant housings to vertical pole ground wires on power poles if the buried plant housing is mounted on the power pole or within a man's reach of the power pole. If they are not bonded together the vertical pole ground wires that are connected to multigrounded neutral conductors may become energized during power fault conditions and thereby create a shock hazard to anyone simultaneously contacting the vertical pole ground wire and the buried plant housing.

Additions: After Section 5, Page 7, add:

6. Bonding of metallic buried plant housings to vertical pole ground wires.

6.1 When a metallic buried plant housing is mounted on a power pole, the grounding connector of the housing shall be bonded with a #10 AWG bare copper wire to the vertical pole ground wire, if present, on the pole. The purpose of this bond is to maintain the ground wire and the buried plant housing at the same potential, thereby preventing a shock hazard that otherwise might exist during a fault condition on the power line.

6.2 With certain types of cable carriers, the carrier equipment manufacturers have recommended that the carrier equipment <u>not</u> be connected to an electric system ground. In such instances carrier equipment housings and/or metallic buried plant housings enclosing carrier equipment should be bonded to vertical pole ground wires as required herein in paragraph 6.1, but the carrier circuitry and chassis should be isolated from the metallic housing by insulation having at least 20 kV dc dielectric strength. The provision of this dielectric between the carrier circuitry and the housing makes it possible to use floating by-pass protection or protection grounded to a remote separate ground, and still maintain the buried housing at the same potential as the vertical pole ground wire. It is the responsibility of the carrier equipment suppliers to provide the 20 kV dielectric strength between the carrier circuitry and chassis, and the metallic housing. See TE & CM-822 for additional details on carrier protection.