

ELECTRICAL INSPECTION BULLETIN

B-04-038.1

Identification of Conductors in Parallel



(Effective 2015/11/15)

In recent months NSPI has encountered several incidents involving the installation of conductors run in parallel whereby the phases were crossed creating a serious safety hazard to NSPI personnel and the Electrical Contractor.

Improper grouping of phase conductors when in parallel can result in phase to phase, or phase to ground faults.

Electrical Contractors when installing parallel conductors in single or three phase applications are required to clearly mark the conductors so as to identify proper phase groupings.

Identification can be achieved by using colored phasing tape installed at each end of the conductor at the time of installation, and where the conductor is exposed. This would include such locations as; service entrance weatherheads, meter sockets, main switchboards, panelboards, URD boxes, and padmount transformers.

Colour coding shall be in compliance with Rule 4-038 (3) "Colour of Conductors".

Installation Requirements

For overhead and underground services located on poles, in addition to the colour phase tape requirements, parallel conductors shall have the neutral group and each phase group tied together and shorted at the weatherhead. This will enable the Wiring Inspector to verify proper phasing when performing a megger test. Shorting of each phase and neutral conductor groups can be accomplished by stripping back the conductor insulation and twisting the conductors (or strands) together for each group.

Electrical contractors shall also perform a megger test to ensure proper phasing and grouping of conductors. Upon request, contractors may be asked to provide a record of the test.

Failure to comply with these requirements will result in re-inspection fees and delays in obtaining utility service connections.

Note:

1) This bulletin replaces former NSPI bulletin B-4-036.1