**ELECTRICAL INSPECTION BULLETIN**
**B-02-136**
**Insulation Integrity**

*(Effective 2015/11/15)*

This bulletin applies to all Temporary, Residential, Commercial, Industrial, and Institutional wiring installations up to a maximum system voltage of 750 volts.

(1) Existing wiring installations shall be exempt from this requirement unless required as a result of direct damage that may have jeopardized the integrity of the original wiring installation.

(2) New circuits added to an existing installation shall be tested in accordance with this bulletin.

**Subject:**
Effective April 1st 2011, NSPI electrical inspectors will no longer be performing insulation integrity testing (meggering) during inspections of electrical wiring installations except for main service conductors prior to energizing.

**Rationale:**

In many instances NSPI wiring inspection personnel are encountering installations that are energized making it difficult to perform Insulation Integrity Testing (meggering).

**Requirements:**

Electrical contractors are required to perform megger testing prior to a final inspection.

Contractors are to verify by testing that all interior wiring is; free from shorts, broken, open, or incorrect connections, proper polarity, and that neutrals are free from connections to ground beyond the supply side of the consumer's service box except as permitted in section 10 of the Canadian Electrical Code Part 1 (CEC)

Megger testing is to be performed on all branch circuit wiring on the load side of a consumer's main overcurrent device, including sub-feeders and in some instances multiple readings will be required due to the complexity of the installation.

Contractors shall record their results for all testing performed and shall have the testing results available for viewing by the inspection department upon request at the time of inspection.

In performing either an insulation resistance or a dielectric strength test, the neutral (or neutrals) shall be disconnected from ground for the test and be reconnected afterwards.

## Final Acceptance of Consumer Installations

A final inspection report will not be granted if;

(A) Proof of insulation integrity testing is not provided when requested by the electrical inspector, or

(B) At the request of the inspector an audit test is performed by the contractor and the results are not at an acceptable level.

**Notes:**

(1) Insulation integrity may be jeopardized from, but not limited to, floods, excessive humidity, mildew, fires, lightning strikes, surges, improper fusing, rodents, or sunlight.

(2) For new circuits added to an existing installation, in which only one inspection would normally be performed, the contractor shall have available the test results for viewing by the inspection department at the time of inspection.

(3) To ensure conformity to this bulletin, the inspection department will be requesting contractors to perform megger testing on a random basis at the time of inspection to verify the results provided are accurate.

(4) NSPI will not be responsible to remove any customer installed connections, if required, to verify continuity, neutral integrity, or troubleshooting of any customer owned electrical equipment.

(5) When removing and reinstalling connections, contractors are to ensure all lugs have been torqued to the manufacturers recommended values.

(6) When insulation resistance or dielectric strength tests are performed, precautions should be taken to ensure that voltage-sensitive devices such as ground fault circuit interrupters, arc-fault circuit interrupters, and other electronic equipment are not subjected to voltages that will damage the device.

(7) This bulletin replaces former NSPI bulletin B-2-132.