

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 26 05 00 - Common Work Results - Electrical.
- .2 Section 26 05 14 – Power Cable and Overhead Conductors (1001V)
- .3 Section 01 91 13 - General Commissioning (Cx) Requirements

Part 2 Products

- .1 Not applicable

Part 3 Execution

3.1 CABLE INSTALLATION IN DUCTS

- .1 Remove and replace damaged cables as indicated in ducts.
- .2 Do not pull spliced cables inside ducts.
- .3 Splice cables in maintenance holes as indicated.
- .4 Terminate cable in switchgear as indicated.
- .5 Use CSA approved lubricants of type compatible with cable jacket to reduce pulling tension.
- .6 Before pulling cable into ducts and until cables are properly terminated, seal ends of non-leaded cables with moisture seal tape.
- .7 After installation of cables, seal duct ends with duct sealing compound.

3.2 FIELD QUALITY CONTROL

- .1 Perform tests in accordance with Section 26 05 00 - Common Work Results – Electrical and Section 01 91 13 – General Commissioning (Cx) requirements.
- .2 Perform tests using qualified personnel. Provide necessary instruments and equipment.
- .3 Perform high potential tests or low frequency tests on cables prior to installing cables in ducts.
- .4 Check phase rotation and identify each phase conductor of each feeder.
- .5 Check each feeder for continuity, short circuits and grounds. Ensure resistance to ground of circuits is not less than 5,000 megohms.
- .6 Pre-acceptance tests.
 - .1 After installing cable but before splicing and terminating, perform insulation resistance test with very low frequency test on each phase conductor.
 - .2 Check insulation resistance after each splice and/or termination to ensure that cable system is ready for acceptance testing.

- .7 Acceptance tests.
 - .1 Ensure that terminations and accessory equipment are disconnected.
 - .2 Ground shields, ground wires, metallic armour and conductors not under test.
 - .3 Insulation Resistance Testing.
 - .1 Conduct very low frequency testing in accordance with manufacturer's ICEA recommendations.
 - .4 Load permissible testing:
 - 1. Perform load tests Tto verify the cables can carry their rated capacity.
 - .5 Thermo-graphic infra-red Scan Testing.
 - .1 Perform thermo-graphic scan on cable connections after cables were on load to ensure no bad connections.
 - .2 Record any abnormal temperature.
 - .3 Include photo image in maintenance manual.
- .8 Provide test results showing location at which each test was made; cable tested and result of each test.
- .9 Remove and replace entire length of cable if cable fails to meet any of test criteria

END OF SECTION