

## **DIVISION 16 - ELECTRICAL**

### **Section 16950 - Testing**

#### **Introduction**

Testing for all areas shall be listed under this section and referenced back to the appropriate Section.

Testing shall be done in accordance with NETA standards.

#### **Part 1 - General**

- Written documentation shall be provided to the UA electrical engineer for all testing accomplished under this section.
- Although NETA test standards are referenced herein for brevity it is required that the engineering firm, rewrite the test standards for application to the specific project.
- All the required testing shall be fully spelled out in the specifications.
- Cable shall be tested on their respective reels.
- Cable shall be VLF tested with terminations in place after assembly.
- All testing shall be performed by a Third Party Tester, unless permission is granted by UA Electrical Engineer.

#### **Part 2 - Products**

- A partial list of equipment to be tested shall include:
  - Feeders and cables
  - high voltage switchgear
  - transformers
  - panelboards
  - switchboards
  - emergency generator
  - ups type systems.
  - 50 Hp and larger motors - absorption - polarization index
- Testing of medium voltage cables (5KV or 15KV), transformers, and switchgear shall be by a third party testing firm which has all of the equipment and capabilities for performing the specified tests.
- All other testing shall be accomplished by the electrical contractor doing the work.

#### **Part 3 - Execution**

- All medium voltage rated cable shall be tested in accordance with NETA testing standards.
- Medium voltage transformers, cable, and switchgear shall be tested in accordance with NETA testing standards, with a complete written report provided to the U of A prior to completion of the project. All testing of this equipment shall be accomplished in the presence of the Engineer or a representative of the University Facilities Management Electric Shop.
- For actual requirements of each area, verify testing requirements with the Engineer.
- All wire and cable utilized on the 120/208 and 480/277 volt systems shall be tested.

- Ground resistance testing shall utilize the fall of potential method of testing.
- All panelboards and switchboards shall be meggar tested prior to energizing.
- All connections inside of switchboards, panelboards, motor control centers, and similar equipment shall be torqued and tested prior to energizing the equipment.

**End of Section 16950**