SECTION 16360
MEDIUM VOLTAGE INTERRUPTER SWITCHES

PART 1 - GENERAL

1.01 SUMMARY
A. Section Includes:
   1. Medium voltage interrupter switches.
B. Related Sections:
   1. Section 03300 - Cast-in-Place Concrete: Concrete Pad for Equipment Support.

1.02 REFERENCES
A. Where appropriate, refer to Current ANSI and NEMA Standards for material ratings.
B. Institute of Electrical and Electronic Engineers (IEEE)

1.03 SYSTEM DESCRIPTION
A. Primary Distribution:
   1. The UCB Campus is served by a campus owned primary underground distribution system. Distribution voltage is nominally 7970/13800V, 3Ø, 4 wire wye system.

1.04 SUBMITTALS
A. Require submittals under the provisions of Section 16010 - Basic Electrical Requirements and Section 01300 - Submittals.

PART 2 - PRODUCTS

2.01 MANUFACTURERS
A. Vacuum Interrupter Switches:
   1. S&C Vista Switch
2. Or equal as specifically approved by Department of Utility Services prior to Specification.

2.02 EQUIPMENT

A. Vacuum Interrupter Switches:

1. System Voltage:
   a. 13.8 kV, 3Ø, 60 Hz, 4 wire, wye

2. Maximum Design Voltage:
   a. 15 kV

3. Basic Impulse Level:
   a. 95 kV

4. Ampacity:
   a. Minimum ampacity shall be 600 Amps.

5. Short Circuit Rating:
   a. Minimum momentary and fault close of 25 kA-asymmetrical.

6. Accessories:
   a. Incoming Cable Terminations:
      1. Bushing wells for vacuum and/or oil switches.
      2. Mounting provision for Fault indicators
      3. Potential indications
      5. Remote low pressure alarm.
      6. Remote switch status open/closed
   b. Operating handle permanently mounted, lockable in both positions.
c. Vacuum switches shall include a pressure gauge and fill valve.

d. Ground studs will be provided on all switches.

7. Housing:

a. Construction:

i. Weatherproof/waterproof NEMA 4 for outdoor installations and NEMA 12 for indoor.

ii. Manufacturer’s standard finish.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Require installation in accordance with manufacturer’s instruction and be pad mounted.

3.02 FIELD QUALITY CONTROL

A. Perform insulation resistance test in each phase to ground and phase to phase using manufacturer’s recommended voltage.

B. Perform contact resistance test across each switch blade, reject contacts with resistance in accordance with manufacturer’s recommendation. If manufacturer’s data is not available, investigate any valves which deviate from adjacent poles by more than 25%.

C. Require tests to be performed in the presence of a representative of the Department of Utility Services.

D. All cable and/or bus connections shall be torqued to manufacturer’s recommendations and witnessed by the owner and manufacturer shall submit certification that all connections have been properly torqued.

E. For all new switch installation or switch replacement the contractor will include new cable fault indicators as per section E16366.

F. Perform HI-POT test for the integrity of all poles and vacuum bottles per manufacturer’s specification.

END OF SECTION 16360