

## SECTION 26 24 13 - SWITCHBOARDS

### PART I - GENERAL

#### 1.1 CONSTRUCTION

- A. ALL PHASE, NEUTRAL, AND GROUND BUSSES SHALL BE TINNED COPPER.
- B. SWITCHBOARDS SHALL BE FULLY RATED. NO SERIES RATING ALLOWED.
- C. SWITCHBOARDS SHALL HAVE SUFFICIENT SHORT-CIRCUIT CURRENT RATING FOR THE AVAILABLE FAULT CURRENT.

### PART 2 - PRODUCTS

#### 2.1 FUSIBLE MAIN SECONDARY SWITCH UNIT(S)

- A. Secondary Switch Units: When required, shall be quick-make, quick-break, bolted pressure switches. Switches shall be complete with UL Class "L" Time-Delay fuses with 200,000 ampere interrupting capacity.

#### 2.2 FUSIBLE FEEDER SWITCH DEVICES

- A. Larger Than 600 Amps: Main switches larger than 600 amperes shall be quick make, quick break, bolted pressure switches with NEMA Class "L" fuses.
- B. 200,000 Ampere Interrupting Capacity: Fuses for all switches shall be UL listed, current limiting, time delay, silver link, fuses with 200,000 ampere interrupting capacity. Dual element fuses shall be self-protecting from extraneous heat.
- C. All fuses 600 volts or less shall be manufactured by Bussmann, Mersen, or Littlefuse.. *[Note to PSC: Contact Owner in regard to the Capital Project Brand Name Policy.]*
- D. Feeder Circuit Breaker
  - 1. Shall be manually or electrically (as required) operated draw-out type or molded case, in the proper pole arrangement, and possess current ratings and interrupting capacity.
  - 2. All electrical equipment such as sub-stations, bus-duct, panelboards, switchboards and motor control centers shall be constructed to withstand the short circuit current, symmetrical and asymmetrical, for the number of cycles as required by the rating of the particular overcurrent protective device.
  - 3. Campus lights, steam tunnel lights, pumps, outdoor tennis courts, or an adjacent building may be supplied with power from the secondary switchgear or switchboard of the building. Branch circuit overcurrent device, especially for these subsidiary loads, shall be a part of the secondary switchgear or switchboard in the room.

- E. Manufacturers: Eaton, GE or Square D.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Labels: All conductors at the main secondary protective device shall be clearly identified with 1-inch high stencil letters with orange-colored paint.
- B. Tapping of an existing Switchboard buss to add feeder circuit breaker/ fusible switches is not permitted without a written permission from F & S Engineering department. However, should a written permission be granted, then taps shall comply with the following:
  - 1. Taps will have to be done using U.L. Listed materials.
  - 2. Taps will have to be done per switchboard manufacturer instructions to maintain the U.L. Listing of the electrical equipment.

### 3.2 QUALITY CONTROL

- A. Testing Secondary Voltages: After installation, the switchboard unit sub-station shall be energized for test and the secondary voltages checked for phase rotation between phases, and between each phase and neutral before the main secondary overcurrent protective device is closed.

END OF SECTION **26** 24 13

This section of the *U of I Facilities Standards* establishes minimum requirements only.  
It should not be used as a complete specification.