

## Section 5—Service Equipment

### 5–1 Customer Service Equipment

#### 5–1a Customer/Contractor

- ☑ Provide each service entrance with disconnecting means and overload protection.
- ☑ Install the service equipment in a clean, dry, readily accessible location as near as practical to the service entrance point. Service equipment must conform to NEC and applicable local requirements.
- ☑ Ensure the voltage rating is suitable to the service available.
- ☑ Ensure an ampere rating that is adequate for the initial and anticipated future load current requirements. The device must be capable of interrupting load current at its ampere rating.
- ☑ Ensure a short-circuit current interrupting capability at the service voltage of not less than the value specified by the company and NEC Article 110-9.
- ☑ Conform with the latest standards of American National Standards Institute, Inc. (ANSI)
- ☑ Consider using a circuit breaker as a disconnecting means, which meets these requirements:
  - An operating mechanism of mechanically trip-free construction.
  - An overload-tripping device on each pole arranged for delayed overcurrent protection with instantaneous tripping for currents of fault magnitude.

#### 5–1b Company

- ☑ Determine the short circuit current available from its system at the service location, upon request.

### 5–2 Service Greater Than 400 Amperes

**Note:** In most cases, metering transformers are required for this type of installation.

#### 5–2a Customer/Contractor

- ☑ Contact company to discuss this type of service installation and the related requirements.
- ☑ Install equipment in accordance with the NEC and company requirements.

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- ☑ Provide connections made ahead of the main service equipment for fire pumps, control power for circuit breakers, etc., with disconnecting means and overload protection adequate for the duty. Such connections must be made only when in compliance with the NEC, where specifically approved by the company and the authority having jurisdiction, and must be metered, either by the existing meter or an additional meter.

### 5–2b Company

- ☑ Provide the equipment that is to be installed by the customer (CT Metering).
- ☑ Connect all power and control conductors.

### 5–3 Service Greater Than 600 Volts

#### General

Service greater than 600 volts is supplied where conditions warrant. A cost is associated with the higher voltage metering installation. The company designates the type of service available and nominal voltage.

The location of the service equipment and the general electrical arrangements are selected by mutual agreement between the customer and the company.

### 5–3a Customer/Contractor

- ☑ Consult with the company regarding its requirements for basic insulation level (BIL), protective equipment, metering facilities, short circuit data, relay recommendations, etc.
- ☑ Supply a fused load break switch (manual or automatic) on the loadside of the company's metering.
- ☑ Submit detailed plans and loading information to the company prior to the purchase of equipment or proceeding with the installation (e.g., switchgear, transformers, etc.).

**More detailed information is available by obtaining a copy of the Metal Clad Switchgear Guidelines booklet. The publication is available at the company's regional offices upon request.**

**Remember to follow NEC and company requirements to make every service installation a safe one.**

### 5–3b Company

- ☑ Approve metal-enclosed switchgear prior to customer purchase.