

- b. The overcurrent protective device shall not open with a re-start transient of 24 times the full-load current of the fire pump motor(s).
- c. The overcurrent protective device shall not open within 10 minutes at 300 percent of the full-load current of the fire pump motor(s).
- d. The trip point for circuit breakers shall not be field adjustable. [20:9.2.3.4.1]

(b) *On-Site Standby Generators.* Overcurrent protective devices between an on-site standby generator and a fire pump controller shall be selected and sized to allow for instantaneous pickup of the full pump room load, but shall not be larger than the value selected to comply with 430.62 to provide short-circuit protection only. [20:9.6.1.1]

This requirement correlates with 695.3(D)(1) covering the required capacity of an on-site standby generator. OCPDs supplied by an on-site standby generator are not required to be sized to carry the locked-rotor current (LRC) of the fire pump(s) indefinitely. The on-site standby generator is not limited to supplying only the fire pump. Where other pump room loads such as lights or fans are supplied, the generator must have sufficient capacity to instantaneously carry the entire load supplied. The OCPDs are not required to provide overload protection and are required to be sized per 430.62.

(3) Disconnecting Means. All disconnecting devices that are unique to the fire pump loads shall comply with items 695.4(B)(3)(a) through (B)(3)(e).

(a) *Features and Location — Normal Power Source.* The disconnecting means for the normal power source shall comply with all of the following: [20:9.2.3.1]

- (1) Be identified as suitable for use as service equipment.
- (2) Be lockable in the closed position. The provision for locking or adding a lock to the disconnecting means shall be installed on or at the switch or circuit breaker used as the disconnecting means and shall remain in place with or without the lock installed.
- (3) Not be located within the same enclosure, panelboard, switchboard, switchgear, or motor control center, with or without common bus, that supplies loads other than the fire pump.
- (4) Be located sufficiently remote from other building or other fire pump source disconnecting means such that inadvertent operation at the same time would be unlikely.

Exception to 695.4(B)(3)(a): For a multibuilding campus-style complex(s) installed under the provisions of 695.3(C), only the requirements in 695.4(B)(3)(a)(2) shall apply for normal power source disconnects.

A disconnecting means supplied by one of the individual sources specified in 695.3(A) cannot be installed in distribution equipment that supplies other than fire pump loads. Although Article 700 permits separate switchboard sections for other standby

loads, 695.4(B)(3)(a)(3) does not permit it for fire pump source disconnecting means.

(b) *Features and Location — On-Site Standby Generator.* The disconnecting means for an on-site standby generator(s) used as the alternate power source shall be installed in accordance with 700.10(B)(6) for emergency circuits and shall be lockable in the closed position. The provision for locking or adding a lock to the disconnecting means shall be installed on or at the switch or circuit breaker used as the disconnecting means and shall remain in place with or without the lock installed.

A disconnecting means supplied by an on-site standby generator is permitted to be installed in equipment that supplies other loads. However, compliance with 700.10(B)(6) is required. The effect of this requirement is that a fire pump feeder cannot be supplied from equipment in which the fire pump conductors are installed in the same enclosure or vertical switchboard section with conductors supplying loads that are designated or classed as legally required standby (Article 701) or optional standby (Article 702) loads. To help minimize inadvertent opening of the fire pump circuit, the disconnecting means is required to be capable of being locked in the closed (on) position.

(c) *Disconnect Marking.* The disconnecting means shall be marked "Fire Pump Disconnecting Means." The letters shall be at least 25 mm (1 in.) in height, and they shall be visible without opening enclosure doors or covers. [20:9.2.3.1(5)]

(d) *Controller Marking.* A placard shall be placed adjacent to the fire pump controller, stating the location of this disconnecting means and the location of the key (if the disconnecting means is locked). [20:9.2.3.2]

(e) *Supervision.* The disconnecting means shall be supervised in the closed position by one of the following methods:

- (1) Central station, proprietary, or remote station signal device
- (2) Local signaling service that causes the sounding of an audible signal at a constantly attended point
- (3) Locking the disconnecting means in the closed position

(f) Sealing of disconnecting means and approved weekly recorded inspections when the disconnecting means are located within fenced enclosures or in buildings under the control of the owner [20:9.2.3.3]

Supervision of the disconnecting means is required to ensure an uninterrupted power supply to the fire pump. Ideally, power supply conductors are run directly to the listed fire pump control and/or transfer equipment without the need for an additional service disconnecting means and overcurrent protection. However, this arrangement is not always possible; therefore, the single disconnecting means in 695.4(B) is permitted, provided it is locked in the closed position or monitored to ensure that it remains in the closed position.

Supervision (monitoring) of the disconnecting means by a local (protected premises) fire alarm system, central station, proprietary supervising station, or remote supervising station