environmental air." Non–power-limited cables in other spaces used for environmental air must be marked NPLFP, as specified in 760.176(C).

Exception No. 3: Type NPLFP-CI cable shall be permitted to be installed to provide a 2-hour circuit integrity rated cable.

(3) Riser. Cables installed in vertical runs and penetrating one or more floors, or cables installed in vertical runs in a shaft, shall be Type NPLFR. Floor penetrations requiring Type NPLFR shall contain only cables suitable for riser or plenum use.

Exception No. 1: Type NPLF or other cables that are specified in Chapter 3 and are in compliance with 760.49(C) and encased in metal raceway.

Exception No. 2: Type NPLF cables located in a fireproof shaft having firestops at each floor.

Informational Note: See 300.21 for firestop requirements for floor penetrations.

Exception No. 3: Type NPLF-CI cable shall be permitted to be installed to provide a 2-hour circuit integrity rated cable.

(4) Other Wiring Within Buildings. Cables installed in building locations other than the locations covered in 760.53(B)(1), (B)(2), and (B)(3) shall be Type NPLF.

Exception No. 1: Chapter 3 wiring methods with conductors in compliance with 760.49(C).

Exception No. 2: Type NPLFP or Type NPLFR cables shall be permitted.

Exception No. 3: Type NPLFR-CI cable shall be permitted to be installed to provide a 2-hour circuit integrity rated cable.

Part III. Power-Limited Fire Alarm (PLFA) Circuits

760.121 Power Sources for PLFA Circuits.

Δ **(A) Power Source.** The power source for a power-limited fire alarm circuit shall be as specified in the following:

Informational Note No. 1: See Chapter 9, Tables 12(A) and 12(B), for the listing requirements for power-limited fire alarm circuit sources.

(1) A listed PLFA or Class 3 transformer
(2) A listed PLFA or Class 3 power supply
(3) Listed equipment marked to identify the PLFA power source

Informational Note No. 2: Examples of listed equipment are a fire alarm control panel with integral power source; a circuit card listed for use as a PLFA source, where used as part of a listed assembly; a current-limiting impedance, listed for the purpose or part of a listed product, used in conjunction with a non-power-limited transformer or a stored energy source, for example, storage battery, to limit the output current.

(B) Branch Circuit. The branch circuit supplying the fire alarm equipment(s) shall comply with the following requirements:

(1) The branch circuit shall supply no other loads.
(2) The branch circuit shall not be supplied through ground-fault circuit interrupters or arc-fault circuit interrupters.
(3) The location of the branch-circuit overcurrent protective device shall be permanently identified at the fire alarm control unit.
(4) The circuit disconnecting means shall have red identification, shall be accessible only to qualified personnel, and shall be identified with the following words: "FIRE ALARM CIRCUIT." The red identification shall not damage the overcurrent protective devices or obscure the manufacturer's markings.
(5) The fire alarm branch-circuit disconnecting means shall be permitted to be secured in the "on" position.

Informational Note: See 210.8(A)(5), Exception, for requirements on receptacles in dwelling-unit unfinished basements that supply power for fire alarm systems.

To help ensure that any branch circuit that supplies power to fire alarm equipment does not get turned off, 760.121(B)(5) permits the use of a locking device to secure the disconnecting means in the "on" position. In Exhibit 760.6, a circuit breaker is being used as the branch-circuit disconnecting means for fire alarm equipment with a circuit breaker lock in place to keep it locked in the "on" position. The circuit breaker lock is also red in color and clearly identified as "FIRE ALARM," which further assists in maintaining that the branch-circuit power to the fire alarm equipment remains on and is supplying the necessary power.

See also

760.41(B) for more information on branch-circuit requirements for fire alarm systems

Δ **760.124 Circuit Marking.** The equipment supplying PLFA circuits shall be durably marked where plainly visible to indicate each circuit that is a power-limited fire alarm circuit.

760.127 Wiring Methods on Supply Side of the PLFA Power Source. Conductors and equipment on the supply side of the

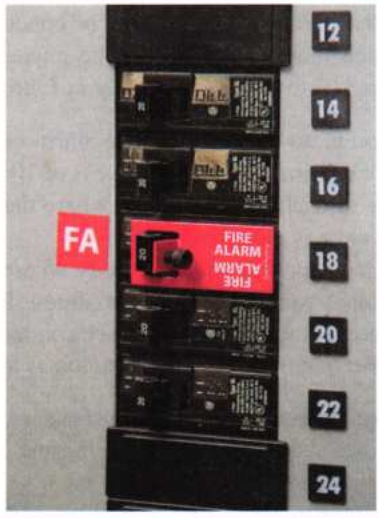

EXHIBIT 760.6 Circuit breaker lock. *(Courtesy of Space Age Electronics, Inc., Sterling, MA)*