GEW 96-14

607.1, 607.2, 607.2.1, 607.2.2, 607.3, 607.3.1, 607.4, 607.6, 607.7

Proponent: Gary Klein, Affiliated International Management, LLC, representing self (gary@aim4sustainability.com); Craig Conner, representing self (craig.conner@mac.com)

Revise as follows:

- **607.1** Prescriptive compliance. Scope. Where buildings are designed using the prescriptive-based compliance path in accordance with Section 601.3.2, Service water heating systems shall comply with the provisions of the *International Energy Conservation Code* and the provisions of this section.
- 607.2 Service water heating (SWH) equipment performance requirements. Service water heating equipment shall comply with Sections 607.2.1 and 607.2.2.
- **607.2.1 Equipment covered by federal standards.** Equipment covered by federal minimum efficiency standards shall comply with the minimum efficiency requirements of the *International Energy Conservation Code*.
- 607.2.2 Water heater controls for dwelling units. Water heaters installed in dwelling units in buildings shall be equipped with external water temperature thermostat controls. The controls shall allow the occupant to set the water temperature at a setting that is below 100°F (38°C) and greater than or equal to 50°F (10°C).
- **607.3 Pools, hot tubs and spas.** Pools, hot tubs and spas shall comply with the efficiency requirements of the *International Energy Conservation Code*.
- **607.3.1 Pools in conditioned space.** For pools that are located within the conditioned space, not less than 25 percent of the annual energy consumption of pool operation and not less than 50 percent of the peak design space heating, ventilation, and cooling requirements for the space in which the pool is located shall be by one or both of the following:
 - 1. An onsite renewable energy system.
 - 2. A heat recovery system.
- **607.4 Snowmelt systems.** Snow melt systems shall comply with the requirements of the *International Energy Conservation Code*. Hydronic systems shall supplement not less than 25 percent of the design snow melting total annual consumption measured in Btu/ft (J/m), energy per unit area. Electric systems shall supplement not less than 50 percent of the design snow melt peak load demand. These requirements shall be supplied by one or both of the following:
 - 1. An onsite renewable energy system.
 - A heat recovery system.

Exception: Emergency service ingress and egress are exempt from the requirements of Section 607.4.

607.6 Service water heating piping insulation. Service water heating piping shall be thermally insulated in accordance with Table 606.4. Where hot water distribution piping is installed within attics and crawlspaces, the insulation shall continue to cover the pipe for a distance not less than 6 inches (152 mm) beyond the building thermal envelope. Where hot water distribution piping is installed within walls, the insulation shall completely surround the pipe with not less than 1 inch (25 mm) of insulation. Where hot water piping is installed in a wall cavity of insufficient size to accommodate the pipe and insulation levels of Table 606.4, the insulation thickness shall be permitted to have the maximum thickness that the wall cavity can accommodate, but not less than 4r_2 -inch (12 mm) thick.

Exception: Insulation is not required for the following:

- Factory-installed piping within service water heating equipment tested and rated in accordance with Section 606.4.
- 2. Piping conveying fluids that is neither heated nor cooled, including cold water supply and natural gaspiping.
- 3. Hot water supply piping exposed under sinks, lavatories and similar fixtures.
- 4. Hot water distribution piping buried within blown-in or sprayed roof/ceiling insulation, such as fiberglass or cellulose, where the insulation completely and continuously surrounds the pipe.

607.7 Circulating hot water systems. Controls that allow continuous, timer, or water temperature-initiated (aquastat) operation of a circulating pump—are—prohibited. Gravity—or thermosyphon circulation loops—are—prohibited. Pumps on circulating hot water systems shall—be activated on demand by either a hard-wired or wireless activation control of one of the following types:

- 1. A normally open, momentary contact switch.
- 2. Motion sensors that make momentary contact when motion is sensed. After the signal is sent, the sensor shall go into a lock out mode for not less than 5 minutes to prevent sending a signal to the electronic controls while the circulation loop is still hot.
- 3. A flow switch.
- 4. A door switch.

The controls for the pump shall be electronic and operate on the principal of shutting off the pump with a rise in temperature. Electronic controls shall have a lock-out to prevent operation at temperatures greater than 105°F (41°C) in the event of failure of the device that senses temperature rise. The electronic controls shall have a lock out mode for not more than 5 minutes that prevents extended operation of the pump if the sensor fails or is damaged.

Reason: The sections that have been deleted are covered in the IECC or the IPC.

Cost Impact: Will not increase the cost of construction. The proposal removes provisions

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