

TECHNICAL SERVICE BULLETIN

Stiebel Eltron Tankless Electric Water Heaters and UPC 413.1 and ASSE Standard 1070-2004

Uniform Plumbing Code 413.1 Limitation of Hot Water Temperature for Public Lavatories.

Hot water delivered for public-use lavatories shall be limited to a maximum temperature of 120°F (49°C) by a device that conforms to ASSE 1070 or CSA B125.3. The water heater thermostat shall not be considered a control for meeting this provision.

ASSE 1070-2004 Performance Requirements for Water Temperature Limiting Devices

Water Temperature Limiting Devices shall control & limit the water temperature to fittings for sinks, lavatories or bathtubs and are intended to reduce the risk of scalding. They are intended to supply tempered water to plumbing fixture fittings, or be integral with plumbing fixture fittings supplying tempered water. The device shall be equipped with an adjustable and lockable means to limit the setting towards the hot position.

UPC 413.1 is intended to eliminate scalding danger in lavatories with unrestricted public access. It is not intended to apply to private residential bathrooms or commercial bathrooms not open to the general public.

(See: http://www.aspephx.com/jay_articles/public_use_faacilities.pdf)

All Stiebel Eltron DHC-E models and Tempra® Plus models can be limited to a maximum 109°F temperature output. There are no internal plumbed components that limit the temperature. The temperature limit is set and secured on the printed circuit board inside the water heater. This limit is independent of the external thermostat. Stiebel Eltron Mini™, DHC, and Tempra® B tankless electric models do not have this internal limiting capability.

There are advantages to installing a separate external device rather than installing a water heater that includes a plumbed component as an internal limiting device. These are:

- ▶ Separate external limiting devices can be accessed to set or reset the temperature limit without opening the water heater and disrupting service by cutting electricity to the water heater.
- ▶ Fixtures with an integral limiting device also meet the requirements of ASSE 1070-2004. If such a fixture is installed, it is not necessary that the water heater have its own temperature limiting device.

- ▶ A separate limiting device installed below the water heater can not leak onto internal water heater circuitry causing mechanical or electrical failure.
- ▶ It is easy to ensure that a separate limiting device meets lead-free requirements.
- ▶ Total installed costs for the water heater plus a limiting device are easily controlled and cost effective.

Stiebel Eltron's DHC-E TLC is a temperature limiting control designed for our DHC-E models. The DHC-E TLC includes an ASSE 1070-2004 compliant mixing valve and comes as a complete assembly. It is sold separately from the DHC-E 8/10 and DHC-E 12.

