

Preventing Burns and Scalding Injuries from Water Systems

Burns and scalding injuries from tap water occur in apartment complexes, hotels/motels, long-term care facilities, healthcare facilities, educational facilities, etc. Hot water systems throughout the United States and Canada should have thermal shock and scald protection for showers. Yet, many facilities are not taking advantage of these protective devices. Burns and scalding injuries are preventable. Use the checklist below to audit your hot water system protection devices, and address any "No" responses to reduce the risk of burns and scalding injuries.

	Yes	No	N/A
Testing the Temperature of the Water			
How hot is the water that is coming out of the tap?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the water temperature determined using a dial stem thermometer?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the use of digital thermometers to measure water temperature prohibited?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the water allowed to run for 3-5 minutes from the faucet before the thermometer stem is inserted at an angle to register the water temperature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the thermometer calibrated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the water temperature checked at the point of use by running a hand through the water and checking the back of the hand for redness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plumbing Considerations			
Is the water heater set at 120°F (49°C)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the water heater is set at 140°F (60°C) to kill germs, such as Legionella bacteria (LB), then are thermostatic mixing valves used to dispense water to hot water outlets at a safe 120°F (49°C)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are point-of-use devices used in shower fixtures to protect against thermal shock?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are anti-scald, thermal shock valves installed at all possible points of contact, including:			
• Sinks (bath and kitchen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Bathtubs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Showers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Hot tubs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Whirlpools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a temperature actuated flow reduction (TAFR) valve installed before the showerhead or shower arm?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	N/A
Are plumbing systems equipped with individual pressure balancing, thermostatic, or combination pressure balancing-thermostatic valves?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is an existing, combination shower/tub installation equipped with a TAFR valve at both the tub spout and showerhead?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is water from the water heater recirculating continuously?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do energy management activities compromise the water system that depends on water recirculation to sense and control temperature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the building plumbing system have redundant protection against the risk of burns or scalding injuries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the Bathroom			
When the tub is being filled, is it checked by running the back of a hand through the water to confirm that the temperature is suitable for bathing children or the elderly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are special tub spouts and showerheads installed that prevent hot water burns?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can the temperature of the water be adjusted without help?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have persons receiving services ever complained that the water is too hot?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the event of a plumbing malfunction, are grab bars and anti-slip surfaces installed to limit slips and falls in showers and tubs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recordkeeping and Maintenance			
Is tap water temperature monitored?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are written temperature logs maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were problems identified with the water temperature logs? (Describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were actions taken to address reports of water that was too hot? (Describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were any thermal shocks reported when the system was tested by flushing a toilet while running the hot water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are central mixing valves adjusted seasonally?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is hard water treated to minimize mineral deposit buildup?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the facility evaluated to determine if conditions for hot water usage have changed since the initial design?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If a temperature element is damaged, is it replaced?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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