

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. Please contact your Hanover Risk Solutions Consultant with any questions.

What is the temperature of the water that is coming out of the tap? _____

Testing the Temperature of the Water

| | YES | NO* | N/A |
|--|-----|-----|-----|
| Is the water temperature determined using a dial stem thermometer? | | | |
| Is the use of digital thermometers to measure water temperature prohibited? | | | |
| 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? | | | |
| Is the thermometer calibrated? | | | |
| 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? | | | |

Plumbing Considerations

| | YES | NO* | N/A |
|---|-----|-----|-----|
| Is the water heater set at 120°F (49°C)? | | | |
| 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 disperse water to hot water outlets at a “safe” 120°F (49°C)? | | | |
| Are point-of-use devices used in shower fixtures to protect against thermal shock? | | | |

Plumbing Considerations (continued)

| | YES | NO* | N/A |
|---|-----|-----|-----|
| Are anti-scald, thermal shock valves installed at all possible points of contact, including: | | | |
| • Sinks (bath and kitchen) | | | |
| • Bathtubs | | | |
| • Showers | | | |
| • Hot tubs | | | |
| • Whirlpools | | | |
| Is a temperature actuated flow reduction (TAFR) valve installed before the showerhead or shower arm? | | | |
| Are plumbing systems equipped with individual pressure balancing, thermostatic or combination pressure balancing-thermostatic valves? | | | |
| Is an existing, combination shower/tub installation equipped with a TAFR valve at both the tub spout and showerhead? | | | |
| Is water from the hot water heater re-circulating continuously? | | | |
| Do energy management activities not compromise the water system that depends on water recirculation to sense and control temperature? | | | |
| Does the building plumbing system have redundant protection against risk of burns or scalding injuries? | | | |

In the Bathroom

| | YES | NO* | N/A |
|--|-----|-----|-----|
| 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? | | | |
| Are special tub spouts and showerheads installed that prevent hot water burns? | | | |
| Can the temperature of the water be adjusted without help? | | | |
| Have persons receiving services ever complained that the water is too hot? | | | |
| In the event of a plumbing malfunction, are grab bars and anti-slip surfaces installed to limit slips and falls in showers and tubs? | | | |

Recordkeeping and Maintenance

| | YES | NO* | N/A |
|--|-----|-----|-----|
| Is tap water temperature monitored? | | | |
| Are written temperature logs maintained? | | | |
| Were no problems identified with the water temperature logs? (Describe) | | | |
| Were actions taken to address reports of water that was too hot? (Describe) | | | |
| Were thermal shocks (if any) not reported when the system was tested by flushing a toilet while running hot water? | | | |
| Are central mixing valves adjusted seasonally? | | | |
| Is hard water treated to minimize mineral deposit build-up? | | | |
| Is the facility evaluated to determine if conditions for hot water usage have changed since the initial design? | | | |
| If a temperature element is damaged, is it replaced? | | | |

*Comment on "No" responses: _____

 To learn more about Hanover Risk Solutions, visit hanoverrisksolutions.com



The Hanover Insurance Company
440 Lincoln Street, Worcester, MA 01653

hanover.com
The Agency Place (TAP)—<https://tap.hanover.com>

Copyright ©2010, ISO Services, Inc.

The recommendation(s), advice and contents of this material are provided for informational purposes only and do not purport to address every possible legal obligation, hazard, code violation, loss potential or exception to good practice. The Hanover Insurance Company and its affiliates and subsidiaries ("The Hanover") specifically disclaim any warranty or representation that acceptance of any recommendations or advice contained herein will make any premises, property or operation safe or in compliance with any law or regulation. Under no circumstances should this material or your acceptance of any recommendations or advice contained herein be construed as establishing the existence or availability of any insurance coverage with The Hanover. By providing this information to you, The Hanover does not assume (and specifically disclaims) any duty, undertaking or responsibility to you. The decision to accept or implement any recommendation(s) or advice contained in this material must be made by you.