

WASHINGTON STATE BUILDING CODE COUNCIL
APPLICATION FOR REVIEW OF A PROPOSED STATEWIDE AMENDMENT
TO THE WASHINGTON STATE BUILDING CODE
2012 Code Adoption Cycle

Log # _____
(office use only)

PLEASE FOLLOW INSTRUCTIONS ON PAGE FIVE

1. State Building Code to be Amended:

- | | |
|---|---|
| <input type="checkbox"/> International Building Code | <input type="checkbox"/> State Energy Code |
| <input type="checkbox"/> International Residential Code | <input type="checkbox"/> International Mechanical Code |
| <input type="checkbox"/> ICC ANSI A117.1 Accessibility Code | <input type="checkbox"/> International Fuel Gas Code |
| <input type="checkbox"/> International Fire Code | <input type="checkbox"/> NFPA 54 National Fuel Gas Code |
| <input checked="" type="checkbox"/> Uniform Plumbing Code | <input type="checkbox"/> NFPA 58 Liquefied Petroleum Gas Code |

Section 413.1, 414.5, & 418.0 **Page** 34, 35

2. Applicant Name (Specific local government, organization or individual):

Nancy Bernard, WSDOH, School Environmental Health and Safety Program

3. Signed:

Nancy P. Bernard	Public Health Advisor	3/1/2012
Proponent	Title	Date

4. Designated Contact Person:

Nancy Bernard	IAQ and School EH&S Programs Manager
Name	Title

Address: PO Box 47825, Olympia, WA 98504-7825

Office Phone: (360) 236-3072 **Cell:** (360)236-3072 **Fax:** (360)236-2261

E-Mail address: nancy.bernard@doh.wa.gov

5. Proposed Code Amendment. Use 'legislative format' including both old and new language. **See instructions on page five for specific details.** Please use a separate sheet for each separate proposal.

Code: UPC

Section 413.1, Page 34

Amend section to read as follows:

413.1 Limitation of Hot Water Temperature for Public Lavatories. Hot water delivered from 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 suitable control for meeting this provision. Automatically mixed water (where the user cannot adjust the temperature) will be tempered water (water having a temperature range between 85°F (29°C) and 110°F (43°C).

Section 414.5, Page 34

Amend section to read as follows:

414.5 Limitation of Hot Water in Bathtubs and Whirlpool Bathtubs. The maximum hot water temperature discharging from the bathtub and whirlpool bathtub filler shall be limited to 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 suitable control for meeting this provision. Automatically mixed water (where the user cannot adjust the temperature) will be between 105°F (40°C) and 110°F (43°C).

Section 418.0, Page 35

Amend section to read as follows:

418.0 Shower and Tub-Shower Combination Control Valves. Showers and tub-shower combinations in buildings shall be provided with individual control valves of the pressure balance, thermostatic, or combination pressure balance/thermostatic mixing valve type that provide scald and thermal shock protection. These valves shall conform to ASSE 1016 or ASME A 112.18.1/CSA B 125.1. Gang showers, when supplied with a single temperature-controlled water supply pipe, shall be controlled by a mixing valve that conforms to ASSE 1069. Handle position stops shall be provided on such valves and shall be adjusted per the manufacturer's instructions to deliver a ~~maximum mixed water setting of 120°F (49°C)~~ between 105°F (40°C) and 110°F (43°C). The water heater thermostat shall not be considered a suitable control for meeting this provision.

Are additional pages attached?

Yes

No X

Please note number of additional pages:

Supporting Data for Statewide Amendment Proposals. This information is required for all statewide amendment proposals. **Attach supporting documentation, as necessary; incomplete proposals will not be accepted.**

The SBCC requires supporting data on any amendment proposal to show:

1. That it meets basic criteria – See Part I to specify how this proposal meets the criteria for code amendment.
2. The intended effect—See Part II to describe the purpose of the proposed amendment, including the benefits and the problems addressed.
3. The potential impacts or benefits to business—See Part III/Types of Construction, to explain how methods in construction businesses, industries and services would be affected.
4. The potential impact on enforcement procedures, See Part III/Types of Services Required, to provide some analysis of the impacts on code enforcement in local jurisdictions.
5. Economic costs and benefits – Use the Table in Part IV of this form to estimate the costs and benefits of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance.

Part I ❖ Background information on amendment.

Code References: 413.1, 414.5, and 418.0

Title: Limitations of Hot Water Temperature for Public Lavatories, Limitations of Hot Water in Bathtubs and Whirlpool Bathtubs, Shower and Tub-Shower Combination Control Valves

Related codes: IPC 416.5 (Does this amendment change other related codes?) No

Proponent: Nancy Bernard _____ Phone: 360-236-3072 _____ Date: 3/1/12 _____

NOTE: State-wide and emergency state-wide amendments to the state building code must be based on one of the following criteria; please indicate the pertinent rationale for the proposed amendment by selecting from the list below:

- (1) The amendment is needed to address a critical life/safety need.
- (2) The amendment is needed to address a specific state policy or statute.
- (3) The amendment is needed for consistency with state or federal regulations.
- (4) The amendment is needed to address a unique character of the state.
- (5) The amendment corrects errors and omissions.

Part II ❖ Amendment Benefit:

PROBLEM(S) ADDRESSED (Describe the intended effect of the proposed code amendment):

120 °F as a maximum for hot water at handwashing and shower/bath taps is an important public health protection to prevent scalding. It is not a comfortable temperature for washing. The IPC uses the commonly accepted term “tempered water” (85-110°F) and requires automatically mixed hand washing water to be in this range.

Generally, people shower at temperatures between 105 and 110°F. One study showed an average of 107.5°F (<http://www.stanford.edu/group/greendorm/research/water.html>). According to the Consumer Product Safety Commission, exposure to 120 °F for five minutes can result in third-degree burns (<http://www.cpsc.gov/cpsc/pub/pubs/5098.html>). The UFAS (Uniform Federal Accessibility Standard) sets 105°F as the maximum for automatically controlled water (1988 edition, and ADA (American with Disabilities Act). Hot tubs should not exceed 104°F (<http://www.cdc.gov/healthywater/pdf/swimming/resources/operating-public-hot-tubs-factsheet.pdf>)

Due to *Legionella* concerns, it is important the hot water tank not be used to control the maximum hot water temperature.

PRIMARY REASON FOR AMENDMENT: (Describe how the amendment meets one of the criteria listed above)

Handwashing is the most effective means of controlling communicable disease transmission. The general public is more likely to wash their hands if the water temperature is comfortable. When users could mix the hot and cold water to their own comfort range, the 120 °F as a maximum for hot water was all that was necessary. Now that so many public fixtures deliver water at only one temperature, it is important that the widely adopted “tempered water” standard be used. The same is true if showers or tubs deliver only one temperature. Public facilities seem to frequently forget to adjust the water temperature to a comfortable range.

UPC 416.3 already requires the “maximum hot water discharging from a bidet shall be limited to 110°F (43°C) by a device that conforms to ASSE 1070 or CSA B125.3. The water heater thermostat shall not be considered a suitable control for meeting this provision.”

TYPE OF BENEFITS PROJECTED:

Increased, safer handwashing, bathing, and showering.

Part III ♦ Amendment Impacts or Benefits:

TYPES OF CONSTRUCTION: x New Construction x Alteration/Tenant Improvement/Repair
 Residential-Single Family Residential-Multi Family x Commercial x Industrial

List businesses/industries affected by amendment:

Manufacturers: _____
 Specific Construction Contractors & Trades: _____
 Construction Supply Industry: _____
 Specialty Trades: _____
 Types of Buildings: All buildings covered by WAC 51/50/IBC with public handwashing and showers
 Fire Protection Industry: _____

TYPES OF SERVICES REQUIRED:

- Reporting.** Brief Description _____
- Record Keeping.** Brief Description _____
- Other.** Brief Description _____
- Indirect Cost to Industry.** Indicate whether there are multiple sources to obtain the equipment, material or service required by this proposal. If not, provide a justification of the benefit versus small business impact.

Part IV ♦ Amendment Costs and Benefits: No additional costs over current rule.

Building Type	Construction ¹			Enforcement ²			Operations & Maintenance ³		
	Costs	% impact ⁴	Benefits ⁵	Costs	% impact	Benefits	Costs	% impact	Benefits
Residential									
Single family									
Multi-family									
Commercial/Retail									
Industrial									
Institutional									

¹ \$ / square foot of floor area or other cost. Attach data. **Construction** costs are costs prior to occupancy, and include both design and direct construction costs that impact the total cost of the construction to the owner/consumer.

² Cost per project plan. Attach data. **Enforcement** costs include governmental review of plans, field inspection, and mediated litigation required for enforcement.

³ Cost to building owner/tenants over the life of the project.

⁴ Cost differential over a specific size project or range of projects as determined by the proponent. Provide sufficient cost and benefit detail to clarify the impact to the Council. All data should be created and referenced to third party reputable sources for verification.

⁵ Note sectors with measurable benefit from Part II, including benefits to a) the user, b) the public, c) the industry, and/or d) the economy; use e) for all of the above.

GENERAL INSTRUCTIONS FOR MAKING A CODE CHANGE PROPOSAL:

1. Check the boxes for the code or codes for which amendments are being proposed.
2. Provide the name of the local government, organization, or individual proposing the code change.
3. Proponent must sign and date the proposal as noted.
4. Provide contact information for the person designated to work with the Council and staff to supply information on the proposed changes as needed; please include name, address, phone number and e-mail address.
5. The specific section for which an amendment is proposed should be listed. The **entire section** should be reproduced, including the existing and the proposed amendatory language.

This must be prepared in legislative style formatting. Specifically, all added words should be underlined; all deleted words should be struck through. Any separate new sections added should be inserted in the appropriate place in the existing code language in order to continue the established numbering system of the code. If more than one section is proposed for amendment or more than one page is needed for reproducing the affected section of the code, additional pages may be attached.

6. **SUPPORTING DATA REQUIREMENTS FOR ALL STATEWIDE AMENDMENT PROPOSALS:** You must attach background information with all statewide amendment proposals. The attached worksheet provides requirements for supporting data. All information will be forwarded to the Council as part of the amendment's documentation. TAG findings and projections from the worksheet will be tabulated to summarize projected benefits and impacts and will be included with TAG comments and recommendations. SBCC staff may request additional information as needed to clarify any potential impacts, and may perform additional research and analysis as needed when requested by the Council or the Standing Committee.
7. Please send an electronic copy of your completed proposal to SBCC staff at:
sbcc@ga.wa.gov

NOTE: YOU MAY REPRODUCE THIS FORM AND ADD ADDITIONAL PAGES AS NEEDED.