

Public Review Draft

Proposed Addendum bi to Standard 189.1-2017

Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

First Public Review (June 2020)
(Draft Shows Proposed Changes to Current Standard)

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Foreword

This addendum revises requirements for multiple showerhead installations. The changes are consistent with an MOU between Plumbing Manufacturers Institute and the Alliance for Water Efficiency.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum bi to 189.1-2017

Add a new definition to Chapter 3 as follows:

shower outlet device: Any outlet component supplied by a shower valve excluding tub spouts.

Modify Section 6.3.2.1 as follows:

6.3.2 Building Water Use Reduction

6.3.2.1 Plumbing Fixtures and Fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following requirements, as shown in Table 6.3.2.1:

...

- h. Residential showerheads and Shower Outlet Devices.** Maximum flow rate of showerheads shall not exceed 2.0 gpm (7.6 L/min) when tested in accordance with ASME A112.18.1/CSA B125.1. *Residential* showerheads shall comply with the performance requirements of the USEPA WaterSense Specification for Showerheads. The total combined flow rate from all *shower outlet devices* controlled by one shower valve shall not exceed 2.0 gpm (7.6 L/m) including multiple shower outlet devices serving one shower compartment.
- i. ~~Residential shower compartment (stall) in dwelling units and guest rooms.~~** ~~The allowable flow rate from all shower outlets (including rain systems, waterfalls, bodys-prays, and jets) that can operate simultaneously shall be limited to a total of 2.0 gpm (7.6 L/min).~~
Gang or Group Showers. Each *shower outlet device* in gang or group showers shall not exceed 2.0 gpm (7.6 L/m) for each 1296 square inches (0.8361 m²) of shower floor area. Where the shower outlet devices are wall mounted or ceiling mounted, the shower outlet devices shall be installed not less than 35 inches (889 mm) apart as measured horizontally.

Exception to 6.3.2.1(i): Where the area of a shower compartment exceeds 2600 in² (1.7 m²), an additional flow of 2.0 gpm (7.6 L/min) shall be permitted for each multiple of 2600 in² (1.7 m²) of floor area or fraction thereof.

Table 6.3.2.1 Plumbing Fixtures and Fittings Requirements

| Plumbing Fixture | Maximum |
|--|--|
| Water closets (toilets)—flushometer single-flush valve type | Single-flush volume of 1.28 gal (4.8 L) |
| Water closets (toilets)—flushometer dual-flush valve type | Full-flush volume of 1.28 gal (4.8 L) |
| Water closets (toilets)—single-flush tank-type | Single-flush volume of 1.28 gal (4.8 L) |
| Water closets (toilets)—dual-flush tank-type | Full-flush volume of 1.28 gal (4.8 L) |
| Urinals | Flush volume 0.5 gal (1.9 L) |
| Public lavatory faucets | Flow rate—0.5 gpm (1.9 L/min) |
| Public metering self-closing faucet | 0.25 gal (1.0 L) per metering cycle |
| <i>Residential</i> bathroom lavatory sink faucets | Flow rate—1.5 gpm (5.7 L/min) |
| <i>Residential</i> kitchen faucets | Flow rate—1.8 gpm (6.8 L/min) ^a |
| <i>Residential</i> showerheads | Flow rate—2.0 gpm (7.6 L/min) |
| <i>Residential</i> shower compartment (stall) in <i>dwelling units</i> and guest rooms <u>lodging facilities</u> | Flow rate from all <u>showerheads and shower outlets</u> , <u>shower outlet devices</u> total of 2.0 gpm (7.6 L/min) <u>per shower valve</u> |
| <u>Gang or Group showers</u> | Flow rate—2.0 gpm (7.6 L/min) for each 1296 <u>square inches (0.8361 m²) of shower floor area</u> |

a. With provision for a temporary override to 2.2 gpm (8.3 L/min) as specified in Section 6.3.2.1(g).