

GEW97-14

607.5, Chapter 12

Proponent: Brenda Thompson, Chair, representing Sustainability, Energy, and High Performance Code Action Committee (SEHPCAC@iccsafe.org)

Revise as follows:

607.5 Waste Drain water heat recovery system. The following ~~building types~~ occupancies shall be provided with a ~~waste drain water heat recovery system units~~ that will preheat the incoming water used for hot water functions by not less than 10°F (5.6°C):

1. Group A-2, occupancy restaurants and banquet halls;
2. Group F, occupancy laundries;
3. Group R-1, occupancy boarding houses (~~transient~~), hotels (~~transient~~), motels (~~transient~~);
4. Group R-2 occupancy buildings;
5. Group A-3, occupancy health clubs and spas; and
6. Group I-2, occupancy, Condition 1 hospitals, psychiatric hospitals and Condition 2 nursing homes.

Exception: ~~Waste Drain water heat recovery systems are~~ shall not be required for single-story slab-on-grade and single-story on crawl-space buildings.

Drain water heat recovery units shall comply with CSA B55.2. Potable water-side pressure loss shall be less than 10 psi at maximum design flow. For Group R occupancies, the efficiency of drain water heat recovery units shall be in accordance with CSA B55.1.

Add new standards as follows:

CSA

B55.1-2012 Test method for measuring efficiency and pressure loss of drain water heat recovery units.

B55.2-2012 Drain water heat recovery units.

Reason: This proposal has 2 goals:

1. Provide coordination with CE283-13 which was approved in 2013. It provides references to two standards for drain water heat recovery units in the 2015 IECC. However, the IECC doesn't require drain water heat recovery, but it does provide 2 referenced standards which must be met if and where drain water heating is installed in a building. Section 607.5 of the IgCC specifically requires drain water heat recovery in specified occupancies and uses. The text of the IECC drain water heat recovery provisions for 2015 are as follows:

C404.8 Drain water heat recovery units. Drain water heat recovery units shall comply with CSA 55.2. Potable water-side pressure loss shall be less than 10 psi at maximum design flow. For Group R occupancies, the efficiency of drain water heat recovery unit efficiency shall be in accordance with CSA 55.1.

The proposal coordinates with the new terminology in the 2015 IECC while maintaining the requirement that the units be provided in the specified occupancies.

2. Clarifies the application of the section to various occupancies and not to 'buildings'. This will clarify that if a building is of mixed occupancy that the drain water heat recovery requirements be applied to the portions of the building containing the listed occupancies. This will prevent the misunderstanding such as an 10 story office building with a health club on the first floor having to provide drain water heat recovery for the whole building rather than just the health club portion. 'Transient' is deleted from the listings under the R-1 occupancy because the IBC specifies that R-1 occupancy is transient in nature.

Cost Impact: Will not increase the cost of construction

This is primarily an editorial proposal to coordinate the provisions of the IECC and the IgCC. If there is a cost increase, it was established by adding the reference standards in the IECC.

Analysis:

A review of the standard proposed for inclusion in the code, CSA B55.1-2012 and CSA B55.2-2012 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 1, 2014.

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