



OFFICE OF HOUSING

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-8000

December 18, 2015

MEMORANDUM FOR: All Primary Inspection Agencies

FROM: Pamela Beck Danner, Administrator
Office of Manufactured Housing Programs

SUBJECT: Tankless Water Heater-- Code Sections to Facilitate
AC Letter Reviews and Approvals

A handwritten signature in black ink, appearing to read "Pamela Beck Danner".

The issue of whether a tankless water heater can be used in the construction of a manufactured home has been an issue brought to the Department several times recently. This correspondence is intended to clarify the Department's position on this issue and reconfirm guidance previously provided to PIAs. HUD had previously found and continues to find that tankless water heaters do not comply with all requirements and aspects addressed in the Manufactured Home Construction and Safety Standards (MHCSS), 24 CFR 3280, related to hot water heaters. Therefore, in order to install tankless water heaters in manufactured homes, a manufacturer would need to request and obtain HUD approval through an Alternative Construction (AC) letter in accordance with 24 CFR § 3282.14 of HUD's Procedural and Enforcement Regulations.

Further, manufacturer AC requests to build homes with tankless water heaters need to address all of the applicable requirements of the standards as well as the submission requirements outlined in 24 CFR §3282.14. Therefore, this correspondence outlines some of technical areas for which a manufacturer, in its AC request, needs to demonstrate equivalent or superior performance.

There are five sections in the MHCSS that need to be considered, and as necessary addressed:

1. **§3280.609(c)** states that, "All water heaters shall be installed with approved and listed fully automatic valve or valves designed to provide temperature and pressure relief."
2. **§3280.703 Minimum Standards.** The HUD Standards reference, "Gas Water Heaters— Volume I, *Storage* Water Heaters with input ratings of 75,000 BTU per hour or less— ANSI Z21.10.1-1998 with Addendum Z21.10.1a-2000" and "Household Electric *Storage* Tank Water Heaters , Tenth Edition—UL 174-1996, with 1997 revisions." (*emphasis added*)

3. **§3280.707(a)** states that a heat-producing appliance (e.g. water heater), "...shall be listed or certified by a nationally recognized testing agency for use in manufactured homes." The term "certified for use in manufactured homes" does not necessarily mean that the device fully complies with all of the HUD Standards.
4. **§3280707(d) Performance efficiency.** "Each automatic *storage* water heater must comply with the efficiency requirements of 10 CFR part 430, Energy Conservation Program for Consumer Products: Energy Conservation Standards for Water Heaters." Subsections (1) and (2) refer to electric and gas and oil-fired water heaters respectively. (*emphasis added*)
5. **§3280.709(h)** states that, "A corrosion resistant water drip collection and drain pan must be installed under each water heater that will allow water leaking from the water heater to drain to the exterior of the manufactured home, or to a drain."

The AC requests also need to specify the appliance manufacturer and, at a minimum, the power supply/usage (electric, gas, etc.) and/or consumption (i.e. BTU rating, amperage, etc.) of the tankless water heater. In addition, the manufacturer must continue to comply with §§3280.203 and 3280.206(c) related to flame spread limitations for water heater spaces; floor covering requirements under the water heater in accordance with §§3280.205 and 3280.305(g)(2); and the fireblocking provisions as required by §3280.206 of the Standards respectively.

The DAPIA is responsible to review the AC request before submission to HUD for all of the above criteria and by way of a letter in support of the request, ensure that the design conforms to the standards in all other respects in accordance with 24 CFR §3282.14(b)(9).

Please share this information with your client manufacturers and continue to ensure conformance to the Department's requirements. If you have any questions regarding the matter addressed in this memorandum, please contact Eric Bers of this office at (202) 402-2123.