

PLUMBING AND MECHANICAL  
INTERPRETATION MANUAL



CODE: 2003 IRC

DATE:

CODE REF: Section P2801.5

11/5/2003

SUBJECT: Water Heater Drain Pan and T& P For Tankless Water  
Heater (page 1 of 2)

**Question 1)** Is a drain pan required on all “ tankless” water heaters?

**Question 2)** Is a T&P required for ”tankless” water heaters?

**Answer 1)** Section P2801.5 states the following:

P2801.5 Required pan. Where water heaters or hot water storage tanks are installed in locations where leakage of the tanks or connections will cause damage, the tank or water heater shall be installed in a galvanized steel pan having a minimum thickness of 24 gage (0.016 inch) (0.4 mm) or other pans listed for such use.

This section of the residential code is a reference to the installation of tank type water heaters It does not address “tankless” water heating equipment. If Section P2801.5 were applied across the board, then a small tankless water heater for point of use fixtures would require a drain pan and drain line to an approved location.

Section M2005.1 states the following:

M2005.1 General. Water heaters shall be installed in accordance with the manufacturer's installation instructions and the requirements of this code. Water heaters installed in an attic shall conform to the requirements of §RM1305.1

Note the opening statement “shall be installed in accordance with manufacturer's installation instructions”. Therefore, if the installation instructions do not require a drain pan, the pan will not be required by the City of Dallas. Some may point out that Section P2801.5 makes mention of the “connections”. There is no greater danger from the connections to a “tankless” water heater than any other part of the potable water piping system within the building. Thus the drain pan is not required for the connections on “tankless” water heating equipment.

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**Answer 2)** Section P2803.1 requires a “relief valve” on appliances and equipment used for heating water or storing hot water. This section refers to relief valves and not to T&P valves. Section 2803.4 requires the “Temperature Relief Valve” to be installed in the top 6” of the tank. On “tankless” water heaters, this is not possible. Therefore, a “Temperature Relief Valve” or a “T&P valve” is not required, if not required by manufacturer’s installation instructions.

However, it is required that a “Pressure Relief Valve” be installed on tankless water heater systems, whether it is required by the manufacturer’s installation instructions or not. This relief valve should be equal to a Watts Series 53L/3L or BRVS/BRVT.

The setting for this relief valve shall be set to open at least 25 psi above the system pressure but not over 150 psi. The relief valve should be located as close as possible to the water-heating device, and may be installed on either the cold or hot water piping system (See Attachment).

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