

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Water Heater Discharge

Code: 2012 NC Plumbing Code
Section: 504.6

Date: August 28, 2014

Question:

If you have a water heater installed in a closet on the first floor above a crawl space, is the discharge piping required to drain to the outside and have a pan?

Answer:

The discharge of the water heater relief valve must be taken care of in a manner that does not cause structural damage as per section 504.6 of the 2012 NC plumbing code. Therefore if the floor over the crawl space has wood joists, flooring or subflooring, the water heater relief valve discharge should discharge through a visible air gap in the space the water heater is in and according to all of the requirements of section 504.6.

If the water heater is on a first floor above a crawl space, a water heater pan is not required by code since the water heater is not over an occupied space. Per section 504.6, item 5, the water heater relief valve is allowed to discharge into a water heater pan. If the water heater relief valve discharges into a water heater pan, although not required by code; the installation of the water heater pan must comply with the plumbing code requirements of section 504.7 for a water heater pan.

Keywords: