MECKLENBURG COUNTY
Land Use and Environmental Services Agency
Code Enforcement

<table>
<thead>
<tr>
<th>CODE INTERPRETATION</th>
<th>Mechanical/Plumbing</th>
</tr>
</thead>
</table>

Code Chapter Reference: 607.3
Subject: Thermal Expansion Control
Effective Date: July 1, 1996
Prepared/Revision Date: April 2009

CODE:
607.3 Thermal expansion control. A means of controlling increased pressure caused by thermal expansion shall be provided where required in accordance with Sections 607.3.1 and 607.3.2.
607.3.1 Pressure-reducing valve. For water service system sizes up to and including 2 inches (51 mm), a device for controlling pressure shall be installed where, because of thermal expansion, the pressure on the downstream side of a pressure-reducing valve exceeds the pressure-reducing valve setting.
607.3.2 Backflow prevention device or check valve. Where a backflow prevention device, check valve or other device is installed on a water supply system utilizing storage water heating equipment such that thermal expansion causes an increase in pressure, a device for controlling pressure shall be installed.

INTERPRETATION:
Thermal expansion devices (tanks or valves) shall be installed at each water heater whenever the building service is protected by a backflow device. The owner or his agent (contractor) may elect to provide a single tank for each structure by having an engineer registered in the State of North Carolina calculate the total thermal expansion load (total accumulated amount of water displaced) of all the water heating devices and provide a sealed letter of certification. Drain allowances (for waste water discharged from the expansion device) shall be provided for thermal expansion valves. Thermal expansion tanks must be rated for 80 psi or higher.

T & P VALVES ARE NOT APPROVED FOR THERMAL EXPANSION CONTROL.