



Clark County Department of Building & Fire Prevention

Building Division – Inspection Services

Field Inspection Guideline

| | | | | |
|------------------------|----------------------------------|--------------------------------|---------------------|--------------------|
| SUBJECT: | Thermal Expansion Control | FIG-P-013 | | |
| Effective Date: | January 15, 2004 | Revised: April 11, 2007 | Approved By: | GJF |
| Code Chapter: | 2006 UPC Section 608.3 | | | Page 1 of 1 |

Interpretation:

Intermittent operation of thermal expansion shall be met by providing the water heater with, and in addition to, the combination temperature relief valve, a listed pressure relief valve or a listed expansion tank for the purpose of relieving pressure greater than that of the building supply pressure.

Field Application:

Valves installed in a water supply system that do not provide for the bypass of pressure (pressure reducing valves, solenoid valves, check valves, etc.) create a closed loop system.

Pressure reducing valves shall be installed in addition to combination temperature and pressure relief valve and piped separately to the exterior of the building. Installer's may choose, in-lieu of installing a pressure relief valve, to install a listed expansion tank for the same purpose of relieving excess pressure due to a closed loop system. The expansion tank does not need to have a drain line taken to the exterior of the building because the expanded water will discharge into the bladder within the expansion tank. Either of these applications shall be installed on the cold water supply side of the water heater piping.

If in doubt when a valve is listed for thermal bypass, ask for the manufacturer's installation instructions. On valves rated for thermal bypass, the letters B/P should be stamped in the casting for easy identification.