

December 2, 2009 – C. Patrick Walker, PE – Technical Services Manager

page 1 of 2

PLUMBING TEST REQUIREMENTS – NEW MANUFACTURED HOMES

Note: **PART 3285—FEDERAL MODEL MANUFACTURED HOME INSTALLATION STANDARDS**— Only applies to New Manufactured Homes

WATER SUPPLY - TEST REQUIREMENTS

§ 3285.603 Water supply.

(e) *Testing procedures.*

(1) The water system must be inspected and tested for leaks after completion at the site. The installation instructions must provide testing requirements that are consistent with § 3280.612 of this chapter.

(2) The water heater must be disconnected when using an air-only test.

PART 3280 MANUFACTURED HOME CONSTRUCTION AND SAFETY STANDARDS

Sec. 3280.612 Tests and inspection.

(a) Water system. All water piping in the water distribution system shall be subjected to a pressure test. The test shall be made by subjecting the system to air or water at 100 psi for 15 minutes without loss of pressure.

DRAINAGE, WASTE, VENT – TEST REQUIREMENTS

§ 3285.604 Drainage system.

(d) *Testing procedures.* The drainage system must be inspected and tested for leaks after completion at the site. The installation instructions must provide testing requirements that are consistent with § 3280.612 of this chapter.

PART 3280 MANUFACTURED HOME CONSTRUCTION AND SAFETY STANDARDS

Sec. 3280.612 Tests and inspection.

(b) Drainage and vent system and plumbing fixtures. The waste and vent system shall be tested by one of the three following alternate methods for evidence or indication of leakage:

(1) Water test. Before plumbing fixtures are connected, all of the openings into the piping shall be plugged and the entire piping system subjected to a static water test for 15 minutes by filling it with water to the top of the highest vent opening. There shall be no evidence of leakage.

(2) Air test. After all fixtures have been installed, the traps filled with water, and the remaining openings securely plugged, the entire system shall be subjected to a 2-inch (manometer) water column air pressure test. If the system loses pressure, leaks may be located with smoke pumped into the system, or with soap suds spread on the exterior of the piping (Bubble test).

(3) Flood level test. The manufactured home shall be in a level position, all fixtures shall be connected, and the entire system shall be filled with water to the rim of the water closet bowl. (Tub and shower drains shall be plugged). After all trapped air has been released, the test shall be sustained for not less than 15 minutes without evidence of leaks. Then the system shall be unplugged and emptied. The waste piping above the level of the water closet bowl shall then be tested and show no indication of leakage when the high fixtures are filled with water and emptied simultaneously to obtain the maximum possible flow in the drain piping.

(c) Fixture test. The plumbing fixtures and connections shall be subjected to a flow test by filling them with water and checking for leaks and retarded flow while they are being emptied.

(d) Shower compartments. Shower compartments and receptors shall be tested for leaks prior to being covered by finish material. Each pan shall be filled with water to the top of the dam for not less than 15 minutes without evidence of leakage.

WATER SUPPLY - TEST REQUIREMENTS

State of North Carolina Regulations for Manufactured Homes – 2004 Edition w/ Revisions

3.13.3.7.2 Water Distribution System Testing

As required by Federal Standards, the factory installed water distribution system has been tested prior to leaving the manufacturing facility. The *SITE-INSTALLED PORTION* of the water distribution system shall be tested at the site. All homes, whether NEW or USED, shall have the *SITE-INSTALLED PORTION* of the water distribution system tested at the site by the method specified in **Section 3.13.3.7.2.1**.

3.13.3.7.2.1 Pressure Test for Water Distribution System

Water distribution system tests shall be carried out as follows:

Upon completion on site of the water distribution system, the *SITE-INSTALLED PORTION* of the system shall be tested under a water pressure of not less than 100 psi or, for piping systems *other than plastic*, by an air test of not less than 100 psi. While under the required pressure, the system shall be visually inspected for leaks and proper use and installation of materials, joints, and connections in accordance with the provisions of this Code or, for situations not covered in this Code, in accordance with the **North Carolina Plumbing Code**, current edition. The water utilized for tests shall be obtained from a potable source of supply. Any occurrences of leaks or improper use or installation of materials, joints, and connections shall be corrected prior to issuing a Certificate of Occupancy for the home. Note that, for well systems, the working pressure test must be performed after electrical power has been supplied to the site. As an alternate, a generator may be utilized.

DRAINAGE, WASTE, VENT – TEST REQUIREMENTS

State of North Carolina Regulations for Manufactured Homes – 2004 Edition w/ Revisions

3.13.3.7.1 DWV System Testing

As required by Federal Standards, the factory installed portion of the drainage, waste, and vent (DWV) system has been tested at the manufacturing facility by one of the following methods: a water test, an air test, or a flood level test. The *SITE-INSTALLED PORTION* of the DWV system for all homes shall also be tested at the site. All homes, whether NEW or USED, shall have the *SITE-INSTALLED PORTION* of the DWV system tested at the site in accordance with **Section 3.13.3.7.1.1**.

3.13.3.7.1.1 Test for Site-Installed Portion of DWV System

The *SITE-INSTALLED PORTION* of the DWV system shall be tested by EITHER

a. A water test in which the *SITE-INSTALLED PORTION* is subject to a head of water not less than 3 feet above the highest site-completed fitting. The 3 foot head of water shall be kept in the system for at least 15 minutes before inspection starts.

OR

b. An air test in which the *SITE-INSTALLED PORTION* of the DWV system shall be subjected to an air test by a method suitable to the local code official. The air test shall be made by forcing air into the system until there is a uniform gauge pressure of 5 pounds per square inch. This pressure shall be held for a test period of at least 15 minutes.

3.13.3.7.1.2 Fixture Test

As required by Federal Standards, factory installed plumbing fixtures and connections have been tested prior to leaving the manufacturing facility. No additional testing of fixtures is required at the site unless there is evidence of physical damage.