

# Georgia State Amendments to the International Plumbing Code

# (2006 Edition)



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**Revised January 1, 2009** 

# GEORGIA STATE MINIMUM STANDARD PLUMBING CODE (INTERNATIONAL PLUMBING CODE WITH GEORGIA STATE AMENDMENTS)

The INTERNATIONAL PLUMBING CODE, 2006 Edition, published by the International Code Council, when used in conjunction with these Georgia State Amendments and all other Georgia State Amendments to the INTERNATIONAL PLUMBING CODE, 2006 Edition, shall constitute the official *Georgia State Minimum Standard Plumbing Code*.

# GEORGIA STATE AMENDMENTS

## **CODE REFERENCE:**

- (a) Replace all references to the ICC *Electrical Code* with references to the *Georgia State Minimum Standard Electrical Code* (*National Electrical Code with Georgia State Amendments*).
- (b) Replace all references to the International Energy Conservation Code (IECC) with references to the Georgia State Minimum Standard Energy Code (IECC with Georgia State Supplements and Amendments). The Georgia State Minimum Standard Energy Code shall be used for efficiency and coefficient of performance ratings of plumbing equipment.

# GEORGIA STATE MINIMUM REQUIREMENTS FOR BOILERS/WATER HEATERS AND PRESSURE VESSELS

The State's minimum requirements for boilers/water heaters and pressure vessels over 200,000 BTU/h (58.61 kW), 210 degrees Fahrenheit or 120 gallons capacity shall be established by O.C.G.A. Title 34, Chapter 11 and the Rules and Regulations of the Georgia Department of Labor.

\*Revise the International Plumbing Code, 2006 Edition, as follows:

# CHAPTER 3 GENERAL REGULATIONS

# SECTION 301 GENERAL

\*Revise Section 301.3 'Connections to the sanitary drainage system' to add exception as follows:

#### **301.3** Connections to the sanitary drainage system.

**Exception:** Bathtubs, showers, lavatories, clothes washers and laundry trays shall not be required to discharge to the sanitary drainage system where such fixtures discharge to an approved gray water system for flushing of water closets and urinals or for subsurface irrigation. Gray water may also be used for other purposes when designed by an engineer licensed in the State of Georgia and the system is approved by the authority having jurisdiction.

(Effective January 1, 2009)

# CHAPTER 4 FIXTURES, FAUCETS AND FIXTURE FITTINGS

## SECTION 419 URINALS

\*Revise Section 419.2 'Substitution for water closets' to read as follows:

**419.2 Substitution for water closets.** In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets in assembly and educational occupancies. Urinals substituted for water closets in assembly occupancies shall be of the waterless type. Urinals shall not be substituted for more than 50 percent of the required water closets in all other occupancies.

(Effective January 1, 2009)

### CHAPTER 5 WATER HEATERS

#### **SECTION 506**

# MINIMUM CAPACITIES FOR RESIDENTIAL WATER HEATERS

\*Revise Section 506.1 'General' of the Georgia Amendment revised January 1, 2007 to read as follows:

**506.1 General.** Water heaters installed in residential occupancies shall be sized in accordance with Table 506. The use of a more energy efficient water heater with a smaller storage capacity is allowed as per the requirements of the note located at the bottom of Table 506. (Effective January 1, 2009)

\*Replace Table 506 'Minimum capacities for residential water heaters' of the Georgia Amendments revised January 1, 2007 with the following:

# TABLE 506MINIMUM CAPACITIES FOR RESIDENTIAL WATER HEATERS1(SEE NOTE FOR MANUFACTURER'S SPECIFICATIONS)

Fuel		Gas	Elec.	Oil									
# of Bedrooms		1			2			3					
$\begin{array}{c} 1 \text{ to} \\ 1 \frac{1}{2} \\ \text{Baths} \end{array}$	Storage (gal)	20	20	30	30	30	30	30	40	30			
# of Bedrooms		2			3			4			5		
$\begin{array}{c} 2 \text{ to} \\ 2 \frac{1}{2} \\ \text{Baths} \end{array}$	Storage (gal)	30	40	30	40	50	30	40	50	50	50	66	30
# of Bedrooms		3			4			5			6		
$\begin{array}{c} 3 \text{ to} \\ 3 \frac{1}{2} \\ \text{Baths} \end{array}$	Storage (gal)	40	50	30	50	66	30	50	66	30	50	80	40

1 gal=3.7854 L

 $1 \text{ gph}{=}1.05 \text{ mL/s}$ 

NOTE:

1. New Federal Standards have required that water heater efficiency be increased. Some new heaters have smaller storage capacity but supply the same amount of hot water as larger units. When a unit with smaller storage capacity is used, then the manufacturer must confirm that the smaller unit will meet the ability of the larger heater to supply similar amounts of hot water in an allotted period of time.

(Effective January 1, 2009)

# APPENDIX C GRAY WATER RECYCLING SYSTEMS

\*Delete Appendix C and adopt new Appendix C 'Gray Water Recycling Systems' as part of the mandatory State Minimum Standard Plumbing Code as follows:

# SECTION C101 GENERAL

**C101.1 Scope.** The provisions of this appendix shall govern the materials, design, construction and installation of gray water systems for flushing of water closets and urinals. Gray water may also be used for other purposes when designed by an engineer licensed in the state of Georgia and the system is approved by the authority having jurisdiction.

**C101.2 Health and Safety.** Humans shall not contact gray water, except as required to maintain the gray water treatment and distribution system. Nothing contained in this appendix shall be construed to prevent the local government from mandating compliance with stricter requirements than those contained herein, where such requirements are essential in maintaining safe and sanitary conditions or from prohibiting gray water systems.

C101.3 Definition. The following terms shall have the meaning shown herein.

**CONDENSATE.** Condensed water collected from the surfaces of an air conditioning unit's evaporator coils or a dehumidifier unit's evaporator coils.

**GRAY WATER.** Waste discharged from lavatories, bathtubs, showers, clothes washers and laundry trays.

C101.4 Permits. Check with the local authority having jurisdiction for permit requirements.

**C101.5 Installation.** In addition to the provisions of Section C101, systems for flushing of water closets and urinals shall comply with Section C102. Except as provided for in Appendix C, all systems shall comply with the provisions of the *International Plumbing Code*.

**C101.6 Materials.** Above-ground drain, waste and vent piping for gray water systems shall conform to one of the standards listed in Table 702.1. Gray water underground building drainage and vent pipe shall conform to one of the standards listed in Table 702.2.

**C101.7 Tests.** Drain, waste and vent piping for gray water systems shall be tested in accordance with Section 312.

C101.8 Inspections. Check with the local authority having jurisdiction for inspection requirements.

**C101.9 Potable water connections.** Only connections in accordance with Section C102.3 shall be made between a gray water recycling system and a potable water system.

**C101.10 Waste water connections.** Gray water recycling systems shall receive only the waste discharge of bathtubs, showers, lavatories, clothes washers or laundry trays. Although not considered gray water, condensate may be discharged to a gray water system.

**C101.11 Collection reservoir.** Gray water shall be collected in an approved reservoir constructed of durable, nonabsorbent and corrosion-resistant materials. The reservoir shall be a closed vessel. Access openings shall be provided to allow inspection and cleaning of the reservoir interior.

**C101.11.1 Collection reservoir bypass.** A full open valve shall be installed prior to the collection reservoir to allow gray water to discharge directly to the sanitary drainage system during maintenance of the gray water system.

C101.12 Filtration. Gray water shall pass through an approved filter system prior to distribution.

**C101.13 Overflow.** The collection reservoir shall be equipped with an overflow pipe having the same or larger diameter as the influent pipe for the gray water. The overflow pipe shall be indirectly connected to the sanitary drainage system.

**C101.14 Drain.** A method for draining the collection reservoir shall be provided and shall be indirectly connected to the sanitary drainage.

**C101.15 Vent required.** The reservoir shall be provided with venting to allow for the induction and release of air to allow for the proper operation of the reservoir.

# SECTION C102 SYSTEMS FOR FLUSHING WATER CLOSETS AND URINALS

**C102.1 Collection reservoir.** The holding capacity of the reservoir shall supplement the daily flushing requirements of the fixtures supplied with gray water.

**C102.2 Disinfection.** Gray water shall be disinfected by an approved method that employs one or more disinfectants, such as chlorine, iodine, ozone, UV, or other approved disinfectants.

**C102.3 Makeup water.** Potable water shall be supplied as a source of makeup water for the gray water system. The potable water supply shall be protected against backflow by the installation of an air gap device or in accordance with Section 608. There shall be a full-open valve and a water level control valve located on the makeup water supply line to the collection reservoir.

**C102.4 Coloring.** The gray water shall be dyed with a food grade vegetable dye before such water is supplied to the fixtures.

**C102.5 Materials.** Distribution piping shall conform to one of the standards listed in Table 605.4.

**C102.6 Identification.** Distribution piping and reservoirs shall be identified as containing non-potable water. Piping shall be purple and identified in accordance with Section 608.8.

# SECTION C103 SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS

**C103.1 Scope.** Gray water may be used for subsurface irrigation of landscape and shall be permitted by the local county health department in accordance with Georgia Department of Human Resources regulations as a separate onsite sewage management system. Permits and inspections are required by the local county health department. (Effective January 1, 2009)



# APPENDIX I RAIN WATER RECYCLING SYSTEMS

\*Adopt new Appendix I 'Rain Water Recycling Systems' as part of the mandatory State Minimum Standard Plumbing Code as follows:

# SECTION I101 GENERAL

**I101.1 Scope.** The provisions of this appendix shall govern the materials, design, construction and installation of rain water systems for flushing of water closets, flushing of urinals, and cooling tower make up water. Nothing in this appendix shall be construed to restrict the use of rain water for outdoor irrigation.

**I101.2 Health and Safety.** Nothing contained in this appendix shall be construed to prevent the local government from mandating compliance with stricter requirements than those contained herein, where such requirements are essential in maintaining safe and sanitary conditions or from prohibiting rain water systems.

I101.3 Definition. The following terms shall have the meaning shown herein.

**CONDENSATE.** Condensed water collected from the surfaces of an air conditioning unit's evaporator coils or a dehumidifier unit's evaporator coils.

**RAIN WATER.** Water collected from runoff of roofs or other structures after a rain event. Rain water may also include condensate.

I101.4 Permits. Check with the local authority having jurisdiction for permit requirements.

**I101.5 Installation.** In addition to the provisions of Section I101, systems for flushing of water closets, flushing of urinals, and cooling tower make up water shall comply with Section I102. Except as provided for in Appendix I, all systems shall comply with the provisions of the *International Plumbing Code*.

**I101.6 Materials.** Above-ground drain, waste and vent piping for rain water systems shall conform to one of the standards listed in Table 702.1. Rain water underground building drainage and vent pipe shall conform to one of the standards listed in Table 702.2.

**I101.7 Tests.** Drain, waste and vent piping for rain water systems shall be tested in accordance with Section 312.

**I101.8 Inspections.** Check with the local authority having jurisdiction for inspection requirements.

**I101.9 Potable water connections.** Only connections in accordance with Section I102.3 shall be made between a rain water recycling system and a potable water system.

**I101.10 Collection reservoir.** Rain water shall be collected in an approved reservoir constructed of durable, nonabsorbent and corrosion-resistant materials. The reservoir shall be a closed vessel. Access openings shall be provided to allow inspection and cleaning of the reservoir interior.

**I101.10.1 Collection reservoir bypass.** A full open valve shall be installed prior to the collection reservoir to allow rain water to discharge directly to the normal storm water drainage system during maintenance of the rain water system.

I101.11 Filtration. Rain water shall pass through an approved filter system prior to distribution.

**I101.12 Overflow.** The overflow pipe discharge shall indirectly flow to the normal storm water drainage system and shall be sized equal to or larger than the influent pipe.

**I101.13 Drain.** A method for draining the collection reservoir shall be provided and shall not be connected to the sanitary drainage.

**I101.14 Venting required.** The reservoir shall be provided with venting to allow for the induction and release of air to allow for the proper operation of the reservoir.

# SECTION 1102 SYSTEMS FOR FLUSHING WATER CLOSETS AND URINALS

**I102.1 Collection reservoir.** The holding capacity of the reservoir shall supplement the daily flushing requirements of the fixtures supplied with rain water.

**I102.2 Disinfection.** Rain water shall be disinfected by an approved method that employs one or more disinfectants, such as chlorine, iodine, ozone, UV, or other approved disinfectants.

**I102.3 Makeup water.** Potable water shall be supplied as a source of makeup water for the rain water system. The potable water supply shall be protected against backflow by the installation of an air gap device or in accordance with Section 608. There shall be a full-open valve and a water level control valve located on the makeup water supply line to the collection reservoir.

**I102.4 Materials.** Distribution piping shall conform to one of the standards listed in Table 605.4.

**I102.5 Identification.** Distribution plumbing fixtures and reservoirs shall be identified as containing non-potable water. Piping shall be purple and identified in accordance with Section 608.8.

(Effective January 1, 2009)

# End of Amendments.