

# Georgia State Amendments to the Standard Mechanical Code

(2000 Edition)



Department of Community Affairs Office of Coordinated Planning 60 Executive Park South, N. E. Atlanta, Georgia 30329-2231 (404) 679-3118 www.dca.state.ga.us

**Revised January 1, 2001** 

# GEORGIA STATE MINIMUM STANDARD MECHANICAL CODE (INTERNATIONAL MECHANICAL CODE)

The STANDARD MECHANICAL CODE (International Mechanical Code), 2000 Edition, as published by the Southern Building Code Congress International, Inc., when used in conjunction with these Georgia Amendments, shall constitute the official *Georgia State Minimum Standard Mechanical Code* (International Mechanical Code).

#### Appendices

Appendices are not enforceable unless they are specifically referenced in the body of the code or adopted for enforcement in the ordinance of the authority having jurisdiction.

#### GEORGIA STATE AMENDMENTS

#### **CODE REFERENCE:**

- (a) Change all references from the ICC Electrical, International Building, Fuel Gas, Mechanical, Plumbing or Fire Prevention Codes to the Georgia State Minimum Standard Electrical, Building, Gas, Mechanical, Plumbing or Fire Prevention Codes, respectively. The International Codes should be used when referenced issues are not addressed by the Georgia State Minimum Standard Codes.
- (b) Change all references from the International Energy Conservation Code to the Georgia State Energy Code for Buildings. The Georgia State Energy Code for Buildings shall be used for efficiency and coefficient of performance rating of mechanical equipment.

\* Revise the Standard Mechanical Code (International Mechanical Code), 2000 Edition, as follows:

(a) The State's minimum requirements for Boilers/Water Heaters and Pressure Vessels over 200,000 BTU (58.56 kW), 210 degrees Fahrenheit or 120-gallon capacity shall be established by O.C.G.A. Title 34, Chapter 11, and the Rules and Regulations of the Georgia Department of Labor. (Effective January 1, 2001)

#### CHAPTER 1 ADMINISTRATION

\* Delete Chapter 1 without substitution. Chapter 1 to remain in Code as a guide for local governments in development of their own *Administrative Procedures*. (Effective January 1, 2001)

# CHAPTER 2 DEFINITIONS

# SECTION 202 GENERAL DEFINITIONS

\* Revise Section 202 to add a new definition for ABSORPTION SYSTEM as follows:

**ABSORBTION SYSTEM.** A refrigerating System in which refrigerant is pressurized by pumping a chemical solution of refrigerant in absorbent, and then separated by the addition of heat in a generator, condensed (to reject heat), expanded, evaporated (to provide refrigeration), and reabsorbed in an absorber to repeat the cycle; the system may be single or multiple effect, the latter using multiple stages or internally cascaded use of heat to improve efficiency. (Effective January 1, 2001)

\* Revise Section 202 to add a new definition for PLENUM as follows:

**PLENUM.** Air compartment or chamber to which one or more ducts are connected and which forms part of an air distribution system. (Effective January 1, 2001)

# CHAPTER 3 GENERAL REGULATIONS

# SECTION 301 GENERAL

\* Add Section 301.17 to read as follows:

**301.17 Related fire codes.** Any reference to NFPA Standards in any chapter of this code shall be the latest edition as adopted and amended by the Georgia State Fire Safety Commissioner. (Effective January 1, 2001)

\* Revise Section 301.2 to read as follows:

**302.1 Structural safety.** Change the last sentence of the paragraph to read in accordance with the "Georgia State Energy Code for Buildings". (Effective January 1, 2001)

#### SECTION 303 EQUIPMENT AND APPLIANCE LOCATION

\* Revise Section 303.3 to read as follows:

**303.3 Prohibited location.** Exception 4. Refer to the Georgia State Minimum Standard Gas Code (International Fuel Gas Code), 2000 Edition, for gas-fired appliances. (Effective January 1, 2001)

\* Delete Section 303.5 and substitute the following:

**303.5 Indoor locations.** Fuel-fired furnaces and boilers installed in closets and alcoves shall be listed for such installation. (Effective January 1, 2001)

#### SECTION 304 INSTALLATION

\* Revise Section 304.8 to read as follows:

**304.8 Clearances from grade.** Equipment and appliances installed at grade level shall be supported on a level concrete slab or other approved material extending above adjoining grade "a minimum of 2 inches (76 mm)" or shall be suspended a minimum of 6" (152mm) above adjoining grade. (Effective January 1, 2001)

\* Revise Section 304.9 to read as follows:

**304.9 Guards.** Guards shall be provided where appliances, equipment, fans or other components that require service are located within "6 feet (1829 mm)" of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762mm) above the floor, roof or grade below. And delete the word "International" in the last sentence. (Effective January 1, 2001)

# SECTION 306 ACCESS AND SERVICE SPACE

\* Revise Section 306.3 to read as follows:

**306.3 Appliances in attics.** In the second sentence of the first paragraph delete the following: "and not more than 20 feet...to appliances." (Effective January 1, 2001)

\* Revise Section 306.6 to read as follows:

**306.6 Sloped roofs.** Change the number of units in first sentence of the paragraph to read: "4 units vertical (25%)" in lieu of 3 units vertical (33%) in 12 horizontal units or greater. (Effective January 1, 2001)

#### SECTION 309 TEMPERATURE CONTROL

\* Delete Section **309.1 Space-heating systems** without substitution and renumber the remaining code sections. (Effective January 1, 2001)

## SECTION 312 HEATING AND COOLING LOAD CALCULATIONS

\* Revise Section 312.1 to read as follows:

**312.1 Load calculations.** Revise the last sentence of the section paragraph to read as follows: or an approved equivalent using the design parameters specified in Chapter 3 of the "Georgia State Energy Code for Buildings." (Effective January 1, 2001)

# CHAPTER 4 VENTILATION

# SECTION 403 MECHANICAL VENTILATION

\* Add Section 403.3.5 to read to read as follows:

**403.3.5 Intermittent Occupancy.** Intermittent Occupancy shall be allowed in accordance with ASHRAE Standard 62 –1999. (Effective January 1, 2001)

# CHAPTER 5 EXHAUST SYSTEMS

# SECTION 505 DOMESTIC KITCHEN EXHAUST EQUIPMENT

\* Add Section 505.2 to read as follows:

**505.2 Commercial Installations of Domestic Systems.** Commercial installations of domestic systems shall comply with the current NFPA standards as adopted and amended by the Georgia State Fire Safety Commissioner. (Effective January 1, 2001)

\* Add Section 505.3 to read as follows:

**505.3 Exhaust Ducts.** Exhaust ducts for domestic range hoods shall be vented to the outside and shall be constructed of Type B label vent or smooth wall duct constructed of minimum 0.0157 inch (0.4mm) galvanized steel. (Effective January 1, 2001)

### SECTION 506 COMMERCIAL KITCHEN GREASE DUCTS AND EXHAUST EQUIPMENT

\* Delete Section 506.1 and substitute the following to read:

**506.1 General.** The State's minimum requirements for exhausting commercial cooking equipment shall be established by the Life Safety Code and NFPA 96. Areas not specifically addressed by the Life Safety Code and NFPA 96 and which are addressed by the State Minimum Standard Mechanical Code (International Mechanical Code), the Mechanical Code shall be used as a supplement. (Effective January 1, 2001)

#### SECTION 507 COMMERCIAL KITCHEN HOODS

\* Delete Section 507.1 and substitute the following to read:

**507.1 General.** The State's minimum requirements for exhausting commercial cooking equipment shall be established by the Life Safety Code and NFPA 96. Areas not specifically addressed by the Life Safety Code and NFPA 96 and which are addressed by the Georgia State Minimum Standard Mechanical Code (International Mechanical Code), the Mechanical Code shall be used as a supplement. (Effective January 1, 2001)

\* Delete Section **507.2.2 Domestic Cooking Appliances Used for Commercial Purposes** without substitution and renumber the remaining sections. (Effective January 1, 2001)

#### SECTION 508 COMMERCIAL KITCHEN MAKEUP AIR

\* Revise to add new Section 508.1 to read as follows and renumber the remaining sections:

**508.1 General.** The State's minimum requirements for commercial kitchen makeup air shall be established by the Life Safety Code and NFPA 96. Areas not specifically addressed by the Life Safety Code and NFPA 96 and which are addressed by the Georgia State Minimum Standard Mechanical Code (International Mechanical Code), the Mechanical Code shall be used as a supplement. (Effective January 1, 2001)

# CHAPTER 6 DUCT SYSTEMS

# SECTION 602 PLENUMS

\* Revise Section 602.1 to read as follows:

**602.1 General.** Delete the first sentence: "A plenum is an enclosed portion of the building structure that is designed to allow air movement, and thereby serve as part of an air distribution system". (Effective January 1, 2001)

# SECTION 603 DUCT CONSTRUCTION AND INSTALLATION

\* Revise Section 603.3 to read as follows:

#### 603.3. Metallic ducts.

**Exception:** Ducts installed within "residential" units shall have a minimum thickness as specified in Table 606.3. (Effective January 1, 2001)

\* Revise Table 603.3 title to read as follows:

#### Table 603.3 DUCT CONSTRUCTION MINIMUM SHEET METAL THICKNESS FOR "RESIDENTIAL" UNITS (Effective January 1, 2001)

#### SECTION 606 SMOKE DETECTION SYSTEMS CONTROL

\* Revise Section 606.2.1 to read as follows:

**606.2.1 Return Air Systems.** Revise the Section title to read "Supply" air in lieu of "Return" air systems. And, revise the first sentence to read as follows: Smoke detectors shall be installed in the "supply" air systems, with a design capacity greater than 2,000 cfm ( $0.9 \text{ m}^3$ /s). Also, delete the end of the sentence from "in the return air duct or plenum upstream of any filters, exhaust air connections, outdoor air connections, or decontamination equipment and appliances. (Effective January 1, 2001)

# CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

### SECTION 917 COOKING APPLIANCES

\* Delete Section 917.2 Prohibited location without substitution. (Effective January 1, 2001)

\* Delete Section 917.3 Domestic appliances without substitution. (Effective January 1, 2001)

## CHAPTER 10 BOILERS, WATER HEATERS AND PRESSURE VESSELS

# SECTION 1001 GENERAL

\* Revise Section 1001.1 to read as follows:

**1001.1 Scope.** Add a new sentence for the Georgia Department of Labor at the end of the first paragraph to read as follows: "The State's Minimum requirements for Boilers/Water Heaters and Pressure Vessels, over 200,000 BTU (58.56 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." (Effective January 1, 2001)

\* Revise Section 1007.1 to read as follows:

**1007.1 General.** Add a new sentence at the end of the section to read: "In lieu of the low water cut-off control, a flow switch or other mechanism as recommended by manufacturer shall be allowed for water tube boilers." (Effective January 1, 2001)

#### CHAPTER 11 REFRIGERATION

#### SECTION 1105 MACHINERY ROOM, GENERAL REQUIREMENTS

\* Revise Section 1105.3 to read as follows:

**1105.3 Refrigerant detector.** Refrigerant detectors in machinery rooms shall be provided as required in accordance with "ASHRAE Standard 15". (Effective January 1, 2001)

#### SECTION 1106 MACHINERY ROOM, SPECIAL REQUIREMENTS

\* Revise Section 1106.5 to read as follows:

**1106.5 Remote Controls.** Remote control of the mechanical equipment and appliances located in the machinery room shall be provided as required by "ASHRAE Standard 15". (Effective January 1, 2001)

\* Revise Section 1106.6 to read as follows:

**1106.6 Emergency signs and labels.** Refrigeration units and systems shall be provided with approved emergency signs, charts, and labels in accordance with "ASHRAE Standard 15". (Effective January 1, 2001)

# CHAPTER 12 HYDRONIC PIPING

#### SECTION 1204 PIPE INSULATION

\* Revise Section 1204.1 to read as follows:

**1204.1 Insulation characteristics.** Revise the first sentence of the paragraph to read: Pipe insulation installed in buildings shall conform to the requirements of the "Georgia State Energy Code for Buildings", shall be tested in the composite form in accordance with ASTM E 84 and shall have a maximum flame spread index of 25 and a smoke-developed index not exceeding 450. (Effective January 1, 2001)

\* Revise Section 1204.2 to read as follows:

**1204.2 Required thickness**. Hydronic piping shall be insulated to the thickness required by "the Georgia State Energy Code for Buildings." (Effective January 1, 2001)

#### SECTION 1206 PIPING INSTALLATION

\* Revise Section 1206.8 to read as follows:

**1206.8 Steam piping pitch.** Add a new sentence at end of the paragraph to read: "Branch piping for steam mains shall be taken off at the top of the pipe." (Effective January 1, 2001)

#### CHAPTER 13 FUEL OIL PIPING AND STORAGE

# SECTION 1301 GENERAL

\* Revise Section 1301.1 to read as follows:

**1301.1 Scope.** Add a new sentence at the end of the first paragraph to read: "The State minimum standard code requirements for Fuel Oil Piping Storage shall be as established by the Georgia State Minimum Standard Fire Codes and the rules and regulations of the Georgia State Fire Safety Commissioner. Any areas not addressed by the Georgia State Minimum Standard Fire Codes shall be regulated by this Chapter." (Effective January 1, 2001)

#### CHAPTER 14 SOLAR SYSTEMS

#### SECTION 1402 INSTALLATION

\* Add Section 1402.7 to read as follows:

**1402.7 Protection of drains.** Drains serving heat transfer fluids over  $140^{\circ}$  F (60°C) or which are toxic or corrosive shall be protected in accordance with the requirements of the State Minimum Standard Plumbing Code (International Plumbing Code). (Effective January 1, 2001)

\* Add Section 1402.8 to read as follows:

**1402.8 Warning label.** Drains in solar systems where high temperature, high pressure, or hazardous fluids are discharged shall have a warning label. For hazardous fluids, the label shall describe the hazardous properties of the fluid and emergency first aid procedures. Valves regulating such a discharge shall not be readily accessible to unauthorized personnel. (Effective January 1, 2001)

#### CHAPTER 15 REFERENCE STANDARDS

\* Revise Chapter 15 to add a new Reference Standard for "ASHRAE 62-1999". (Effective January 1, 2001)

#### End of amendments.



# Georgia State Amendments to the Standard Mechanical Code

(2000 Edition)



Georgia Department of Community Affairs Office of Coordinated Planning 60 Executive Park South, N.E. Atlanta, Georgia 30329-2231 (404) 679-3118 www.dca.state.ga.us

Revised January 1, 2004

#### GEORGIA STATE MINIMUM STANDARD MECHANICAL CODE (INTERNATIONAL MECHANICAL CODE)

The STANDARD MECHANICAL CODE (International Mechanical Code), 2000 Edition, as published by the Southern Building Code Congress International, Inc., when used in conjunction with these Georgia Amendments, shall constitute the official *Georgia State Minimum Standard Mechanical Code (International Mechanical Code)*.

# THESE AMENDMENTS ARE TO BE USED <u>IN ADDITION</u> TO THOSE AMENDMENTS ADOPTED EFFECTIVE JANUARY 1, 2001. WHEN USED TOGETHER, THEY CONSTITUTE THE OFFICIAL GEORGIA STATE MINIMUM STANDARD MECHANICAL CODE.

# GEORGIA STATE AMENDMENTS

#### **CODE REFERENCE:**

- (a) Change all references from the ICC Electrical Code to the Georgia State Minimum Standard National Electrical Code.
- (b) Change all references from the International Energy Conservation Code to the Georgia State Energy Code for Buildings. The Georgia State Energy Code for Buildings shall be used for efficiency and coefficient of performance rating of mechanical equipment.

#### **SCOPE:**

This code shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings. This code shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed herein. The installation of fuel gas distribution piping and equipment, fuel gas-fired appliances and fuel gas-fired appliance venting systems shall be regulated by the Georgia State Minimum Standard Gas Code (International Fuel Gas Code).

#### **Appendices:**

Appendices are not enforceable unless they are specifically referenced in the body of the code or adopted for enforcement in the ordinance of the authority having jurisdiction.

#### **REQUIREMENTS FOR BOILER/WATER HEATERS AND PRESSURE VESSELS:**

(a) The State's minimum requirements for Boilers/Water Heaters and Pressure Vessels over 200,000 BTU (58.56 kW), 210 degrees Fahrenheit or 120-gallon 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 Standard Mechanical Code (International Mechanical Code), 2000 Edition, as follows:* 

#### CHAPTER 2 DEFINITIONS

### SECTION 202 GENERAL DEFINITIONS

\*Delete the definition for ABSORBTION SYSTEM without substitution in the Georgia Amendments Revised January 1, 2001. (Effective January 1, 2004)

#### CHAPTER 3 GENERAL REGULATIONS

# SECTION 306 ACCESS AND SERVICE SPACE

\*Revise the second sentence of Section 306.4 to read as follows:

**306.4 Appliances under floors.** In the second sentence of the first paragraph, delete the following "and nor more than 20 feet ...to appliances." (Effective January 1, 2004)

#### CHAPTER 4 VENTILATION

#### SECTION 401 GENERAL

\*Revise the first sentence of Section 401.5.1 to read as follows:

**401.5.1 Intake openings.** Mechanical and gravity outside air intake openings shall be located a minimum of 10 feet (3048 mm) from any hazardous or noxious contaminant, such as vents, chimneys, plumbing vents, streets, alleys, parking lots and loading docks, except as otherwise specified in this code. (Effective January 1, 2004)

#### SECTION 405 SYSTEM CONTROLS

\*Add a new Section 405.2 to read as follows:

**405.2 CO2 Sensors**. Carbon dioxide sensors may be utilized for control of ventilation systems, as outlined in ASHRAE Standard 62-1999. (Effective January 1, 2004)

# CHAPTER 11 REFRIGERATION

# SECTION 1106 MACHINERY ROOM, SPECIAL REQUIREMENTS

\*Add a new Section 1106.7 to read as follows

**1106.7 Self Contained Breathing Apparatus.** The mandatory requirement for Self Contained Breathing Apparatus (SCBA) units located at each mechanical room, as noted in reference standard ASHRAE Standard 15-1994, is deleted. (Effective January 1, 2004)

End of amendments.