2012
GREEN PLUMBING & MECHANICAL CODE SUPPLEMENT
FOR USE WITH ALL CODES
REVISION MARKINGS

Code changes from the 2010 edition are marked in the margins as follows:

An arrow denotes a deletion.

A vertical denotes a change.

Information on referenced publications can be found in Chapter 11.

All pressures used in this supplement are gauge pressures unless otherwise indicated.
With the publication of the 2012 (second edition) Green Plumbing and Mechanical Code Supplement (GPMCS) by the International Association of Plumbing and Mechanical Officials (IAPMO), another significant milestone has been reached. The GPMCS, the first and best of its kind, has updated from the 2010 edition to keep pace with the rapid advancement of sustainable construction practices, and expanded to address additional opportunities to save water and energy in the areas of lawn irrigation, swimming pools, and car washes.

The GPMCS is a separate document from the Uniform Plumbing and Mechanical Codes and establishes requirements for green building and water efficiency applicable to plumbing and mechanical systems. The GPMCS serves as an adjunct to the Uniform Codes or any of the plumbing and mechanical codes used in the U.S.

The GPMCS is designed to facilitate safe and reliable sustainable plumbing and mechanical construction practices. The supplement is not a “greener” version of the Uniform Codes, but rather serves as a repository for provisions that may be integrated into the Uniform Codes. The GPMCS is a logical transitional home for green requirements until they are fully accepted by industry and are ready to be included into the code.

The supplement serves as a resource for progressive jurisdictions that are implementing green building and water efficiency programs or enforcing existing green ordinances. The supplement also serves as a resource for plumbers, contractors, engineers, and manufacturers in designing and installing green plumbing and mechanical systems.

The Green Plumbing and Mechanical Code Supplement is developed through a consensus process by the Green Technical Committee (GTC) which is comprised of a diverse group of experts in green plumbing and mechanical fields including water and energy conservation authorities, plumbers, manufacturers, contractors, engineers, and code authorities.

The public at large is encouraged and invited to participate in the supplement’s development process. The GTC meetings are open to the public and public input is solicited through a peer review process. This supplement is updated periodically. Information regarding the Supplement and its development is available at IAPMO’s website at www.iapmogreen.org.

The Supplement has broad industry support. The following organizations participated in the development of the 2012 Green Plumbing and Mechanical Code Supplement and support its scope and purpose:

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CHAPTER 1
ADMINISTRATION

101.0 Title, Scope, and General.

101.1 Title. This document shall be known as the “IAPMO Green Plumbing and Mechanical Code Supplement,” shall be cited as such, and will be referred to herein as “this supplement.”

101.2 Purpose. The purpose of this supplement is to provide a comprehensive set of technically sound provisions that encourage sustainable practices and works towards enhancing the design and construction of plumbing and mechanical systems that result in a positive long-term environmental impact. This supplement is not intended to circumvent the health, safety and general welfare requirements of the codes referenced in Section 101.6.

101.3 Plans Required. The Authority Having Jurisdiction shall be permitted to require the submission of plans, specifications, drawings, and such other information as the Authority Having Jurisdiction may deem necessary, prior to the commencement of, and at any time during the progress of, any work regulated by this supplement. The issuance of a permit upon plans and specifications shall not prevent the Authority Having Jurisdiction from thereafter requiring the correction of errors in said plans and specifications or from preventing construction operations being carried on thereunder when in violation of this supplement or of any other pertinent ordinance or from revoking any certificate of approval when issued in error.

101.4 Scope. The provisions of this supplement applies to the erection, installation, alteration, repair, relocation, replacement, addition to, use, or maintenance of plumbing and mechanical systems covered by the scope of this supplement within this jurisdiction.

101.4.1 Repairs and Alterations. In existing buildings or premises in which plumbing and mechanical installations that were designed and installed in accordance with this supplement are to be altered, repaired, or renovated, deviations from the provisions of this supplement are permitted, provided such deviations are found to be necessary and are first approved by the Authority Having Jurisdiction.

101.4.2 Existing Construction. No provision of this supplement shall be deemed to require a change in any portion of a plumbing or mechanical system or any other work regulated by this supplement in or on an existing building or lot when such work was installed and is maintained in accordance with law in effect prior to the effective date of this supplement, except when any such plumbing or mechanical system is determined by the Authority Having Jurisdiction to be in fact dangerous, unsafe, insanitary, a nuisance or a menace to life, health, or property.

101.5 Appendices. The provisions in the appendices are intended to augment the requirements of this supplement and shall not be considered part of this supplement unless formally adopted as such.

101.6 Referenced Codes and Standards. The codes and standards referenced elsewhere in this supplement shall be considered part of the requirements of this supplement to the prescribed extent of each such reference.

101.6.1 Building. The provisions of the building code shall apply to the construction, alteration, movement, enlargement, replacement, repair, use and occupancy, location, maintenance, removal and demolition of every structure or any appurtenances connected or attached to such buildings or structures.

101.6.2 Electrical. The provisions of the electrical code shall apply to the installation of electrical systems, including but not limited to, alterations, repair, replacement, equipment, appliances, fixtures, fittings, and appurtenances thereto.

101.6.3 Mechanical. The provisions of the mechanical code shall apply to the installation, alterations, repair and replacement of mechanical systems, including equipment, appliances, including ventilating, heating, cooling, air-conditioning and refrigeration systems. Where a mechanical code is not adopted or where the content of the mechanical code adopted by the jurisdiction is not applicable, then mechanical code shall mean the Uniform Mechanical Code (UMC) promulgated by the International Association of Plumbing and Mechanical Officials (IAPMO).

101.6.4 Plumbing. The provisions of the plumbing code shall apply to the installation, alteration, repair and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances. Where a plumbing code is not adopted or where the content of the plumbing code adopted by the jurisdiction is not applicable, then plumbing code shall mean the Uniform Plumbing Code (UPC) promulgated by the International Association of Plumbing and Mechanical Officials (IAPMO).

101.6.5 Solar. Solar energy systems shall be installed in accordance with the Uniform Solar Energy Code (USEC) promulgated by the International Association of Plumbing and Mechanical Officials (IAPMO).

101.6.6 Swimming Pool. The provisions of the swimming pool code shall apply to the erection, installation, alteration, repair, relocation, replacement, addition to, use and maintenance of swimming pools, spas, or hot tub systems. Where a swimming pool code is not adopted or where the content of the swimming pool code adopted by the jurisdiction is not applicable, then swimming pool code shall mean the Uniform Swimming Pool, Spa & Hot Tub Code (USPSHTC) promulgated by the International Association of Plumbing and Mechanical Officials (IAPMO).
101.7 Conflicts. Where, in any specific case, different sections of this supplement or referenced standards specify different materials, methods of construction, or other requirements, the most restrictive shall govern as determined by the Authority Having Jurisdiction. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. [UMC:101.3.1]

102.0 Alternate Materials, Designs, and Methods of Construction Equivalency.

102.1 General. Nothing in this supplement is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this supplement. Technical documentation shall be submitted to the Authority Having Jurisdiction to demonstrate equivalency. The Authority Having Jurisdiction shall have the authority to approve or disapprove the system, method, or device for the intended purpose.

However, the exercise of this discretionary approval by the Authority Having Jurisdiction shall have no effect beyond the jurisdictional boundaries of said Authority Having Jurisdiction. Any alternate material or method of construction so approved shall not be considered as conforming to the requirements, intent or both of this supplement for any purpose other than that granted by the Authority Having Jurisdiction when the submitted data does not prove equivalency. [UPC:102.1]

104.0 Permit Issuance.

104.1 Issuance. The application, plans, and specifications and other data filed by an applicant for a permit shall be reviewed by the Authority Having Jurisdiction. Such plans shall be permitted to be reviewed by other departments of this jurisdiction to verify compliance with applicable laws under their jurisdiction. Where the Authority Having Jurisdiction finds that the work described in an application for permit and the plans, specifications, and other data filed therewith are in accordance with the requirements of the supplement and other pertinent laws and ordinances, and that the applicable fees have been paid, the Authority Having Jurisdiction shall issue a permit therefore to the applicant.

Where the Authority Having Jurisdiction issues the permit where plans are required, the Authority Having Jurisdiction shall endorse in writing or stamp the plans and specifications “APPROVED.” Such approved plans and specifications shall not be changed, modified, or altered without authorization from the Authority Having Jurisdiction, and the work shall be done in accordance with approved plans. [UPC:104.1]

104.2 Permit Fees. The fees shall be determined and adopted by the Authority Having Jurisdiction.

105.0 Inspections.

105.1 General. Plumbing and mechanical systems for which a permit is required by this supplement or the applicable code shall be inspected by the Authority Having Jurisdiction. No portion of any plumbing or mechanical system shall be concealed until inspected and approved. Neither the Authority Having Jurisdiction nor the jurisdiction shall be liable for expense entailed in the removal or replacement of material required to permit inspection. When the installation of a plumbing or mechanical system is complete, an additional and final inspection shall be made.

106.0 Connection Approval.

106.1 Connections. No person shall make connection to any plumbing system regulated by this supplement for which a permit is required unless approved by the Authority Having Jurisdiction.

106.2 Energy Connections. No person shall make connections from a source of energy or fuel to any system or equipment regulated by this supplement and for which a permit is required until approved by the Authority Having Jurisdiction.

106.3 Temporary Connections. The Authority Having Jurisdiction shall be permitted to authorize temporary connection of the plumbing or mechanical equipment to the source of energy or fuel for the purpose of testing the equipment.

107.0 Maintenance.

107.1 General. Plumbing and mechanical systems, materials, and appurtenances, both existing and new, and parts thereof shall be maintained in proper operating condition in
accordance with the original design and in a safe and hazard-free condition. Devices or safeguards that are required by this supplement shall be maintained in conformance with the supplement edition under which installed. The owner or the owner’s designated agent shall be responsible for maintenance of plumbing and mechanical systems and equipment. To determine compliance with this subsection, the Authority Having Jurisdiction shall be permitted to cause a plumbing or mechanical system or equipment to be reinspected.

107.2 Information Required. Information, such as manufacturer’s instructions, owner’s manuals or other information shall be provided for all products and systems that require regular maintenance to achieve the effective use of energy and water. A maintenance schedule that includes clear instructions of the maintenance action and makes reference to the owner’s manual shall be required and made available.