## SIGNIFICANT CHANGES TO THE

# INTERNATIONAL PLUMBING CODE, INTERNATIONAL MECHANICAL CODE, AND INTERNATIONAL FUEL GAS CODE

## 2009 EDITION

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**Significant Changes to the International Plumbing Code, International Mechanical Code, and International Fuel Gas Code 2009 Edition**
**International Code Council**

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# Preface

The purpose of *Significant Changes to the International Plumbing Code, International Mechanical Code, and International Fuel Gas Code 2009 Edition* is to familiarize plumbing and mechanical officials, building officials, fire officials, plans examiners, inspectors, design professionals, contractors, and others in the construction industry with many of the important changes in the 2009 IPC/IMC/IFGC. This publication is designed to assist those code users in identifying the specific code changes that have occurred and, more important, in understanding the reasons behind the changes. It is also a valuable resource for jurisdictions in the code-adoption process.

Only a portion of the total number of code changes to the IPC/IMC/IFGC are discussed in this book. The changes selected were identified for a number of reasons, including their frequency of application, special significance, or change in application. However, the importance of those changes not included is not to be diminished. Further information on all code changes can be found in the *Code Changes Resource Collection,* published by the ICC, which provides the published documentation for each successful code change contained in the 2009 IPC and 2009 IMC.

Throughout this significant changes book, each change is accompanied by a photograph, an application example, or an illustration to assist and enhance the reader's understanding of the specific change. A summary and discussion of the significance of the changes are also provided. Each code change is identified by type, be it an addition, modification, clarification, or deletion.

The code change itself is presented in a format similar to the style utilized for code-change proposals. Deleted code language is shown with a strike-through, whereas new code text is indicated by underlining. As a result, the actual 2009 code language is provided, as well as a comparison with the 2006 language, so the user can easily determine changes to the specific code text.

The plumbing code changes focus on specific details in their own context. A Reader's Note explanation is added occasionally to provide

greater clarification and operational insights to the reader. These elements point out organization issues and serve as a reminder to the reader to place identified code changes together.

As with any code-change text, *Significant Changes to the International Plumbing Code, International Mechanical Code, and International Fuel Gas Code 2009 Edition* is best used as a study companion to the 2009 IPC, 2009 IMC, and 2009 IFGC. Because only a limited discussion of each change is provided, the code itself should always be referenced in order to gain a more comprehensive understanding of the code change and its application.

The commentary and opinions set forth in this text are those of the authors and do not necessarily represent the official position of the ICC. In addition, they may not represent the views of any enforcing agency, as such agencies have the sole authority to render interpretations of the code. In many cases, the explanatory material is derived from the reasoning expressed by the code-change proponent.

Comments concerning this publication are encouraged and may be directed to the ICC at significantchanges@iccsafe.org.

## About the International Plumbing, International Mechanical, and International Fuel Gas Codes

Code officials, design professionals, and others involved in the building construction industry recognize the need for a modern, up-to-date building code addressing the design and installation of building systems, including plumbing, mechanical, and fuel gas systems, through requirements emphasizing performance. The 2009 editions of the *International Plumbing Code*® (IPC), *International Mechanical Code*® (IMC), and *International Fuel Gas Code*® (IFGC) are intended to meet these needs through model code regulations that safeguard public health and safety in all communities, large and small. The IPC/IMC/IFGC are kept up-to-date through the open code-development process of the International Code Council (ICC). The provisions of the 2006 editions, along with those code changes approved through 2008, make up the 2009 editions.

The ICC, publisher of the I-Codes, was established in 1994 as a nonprofit organization dedicated to developing, maintaining, and supporting a single set of comprehensive and coordinated national model building construction codes. Its mission is to provide the highest quality codes, standards, products, and services for all concerned with the safety and performance of the built environment.

The IPC, IMC, and IFGC are three of the 13 International Codes® published by the ICC. These comprehensive codes establish minimum regulations for plumbing, mechanical, and fuel gas systems by means of prescriptive and performance-related provisions and are founded on broad-based principles that make possible the use of new materials and new system designs. The IPC, IMC, and IFGC are available for adoption and use by jurisdictions internationally. Their use within

a governmental jurisdiction is intended to be accomplished through adoption by reference, in accordance with proceedings establishing the jurisdiction's laws.

## Acknowledgments

Robert G. Konyndyk, author of the IPC section, thanks the staff members of the ICC for their assistance in the preparation of the text. Assembling the text with its code insights would have been impossible without permission and research help from the ICC.

Bob also thanks staff members at Cengage Learning for their true development force behind this book. He extends his gratitude to Ed Francis, Product Development Editor, for his professional guidance. Bob believes that the behind-the-scenes book development is an important supplement to the authors' efforts.

Bob is grateful to his wife, Charmaine, for her support and encouragement to move forward in the contracting field and experience the many technical facets of the plumbing profession.

Jay Woodward, author of the IMC section, extends his gratitude and thanks to Bob Guenther, Larry Simpson, Peter Kulczyk, Scott Stookey, and Steve Van Note of the ICC staff. Without their assistance it would have been impossible to meet the publication deadlines and provide the analysis and figures for the code changes.

In addition, several outside experts and members of the HVAC profession, including ASHRAE staff, Guy McMann, Gerry Spanger of Airtec, and others, have provided assistance in the understanding of the code requirements or figures for this book.

ICC is also thankful for the efforts of Fred Grable, ICC Staff Engineer, for the technical review of the initial draft of the plumbing section.

## About the Authors

Robert G. Konyndyk

Chief, Plumbing Division

Department of Labor, Bureau of Construction Codes

Robert G. Konyndyk is Chief of the Plumbing Division within the Bureau of Construction Codes, Department of Labor and Economic Growth, State of Michigan. Mr. Konyndyk plans, organizes, directs, and controls a statewide license program that encompasses over 15,000 professionals. In addition, Mr. Konyndyk manages state field inspectors and oversees plumbing code development and administration and product acceptance.

He has served on numerous plumbing code committees and in associations such as the American Society for Testing and Materials International (ASTM), ICC, National Sanitation Foundation International

(NSF), and International Code Council, Evaluation Services PMG program. Mr. Konyndyk feels his greatest accomplishment was being one of three representatives chosen to initially develop the International Plumbing Code (first draft, Joint Model Plumbing Code) in 1994, as the Building Officials and Code Administrators International representative. He enjoys teaching code as a state administrator and has traveled as an instructor to several states for different code groups. His goal has been to contribute toward greater uniformity and stability in national code issues.

Jay Woodward
Senior Staff Architect
International Code Council

Jay is a Senior Staff Architect with ICC's Business and Product Development department and works out of the Lenexa, Kansas Distribution Center. His current responsibilities include serving as the Secretariat for the ICC A117.1 standard committee and the development of new ICC publications.

With more than 25 years of experience in building design, construction, code enforcement, and instruction, Jay's experience provides him with the ability to address issues of code application and design for code enforcement personnel as well as architects and designers. Jay has previously served as the Secretariat for ICC's Energy Conservation Code and the *International Building Code's* Fire Safety Code Development committee.

Scott A. Stookey
Senior Technical Staff
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Scott Stookey is a Senior Technical Staff member with the International Code Council. He is responsible for the production of various ICC texts including the *Significant Changes to the 2009 IFC, IFC Study Companion, High-Piled Combustible Storage Application Guide,* and the *Flammable Finishes Application Guide.* Mr. Stookey developed the current versions of the ICC seminars for fire protection systems, hazardous materials, flammable and combustible liquids, fundamentals of the IFC, application of flammable finishes, and high-piled combustible storage.

Previously, Scott was the Fire Protection Engineer for the Phoenix (AZ) Fire Department's Special Hazard Unit and was an Engineering Associate with the Austin (TX) Fire Department Hazardous Materials Engineering section. He is a graduate of the Fire Protection and Safety Engineering Technology program at Oklahoma State University. Mr. Stookey was formerly the Chairman of the NFPA 30A technical committee for motor vehicle fueling and repair garages and was also a member of the NFPA 58 technical committee for liquefied petroleum gases.

Scott is a member of the Underwriters Laboratories Fire Council and the Building and Fire Code Board of Appeals for the City of Austin, Texas.

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