

pocketINTERPS 2012 IFC[®]



pocketINTERPS: 2012 IFC

ISBN 978-1-60983-451-7

Cover Design:	Duane Acoba
Publications Manager:	Mary Lou Luif
Project Editor:	Daniel Mutz
Manager of Development:	Doug Thornburg
Typesetting:	Sue Brockman

COPYRIGHT © 2013

ALL RIGHTS RESERVED. This publication is a copyrighted work owned by the International Code Council, Inc. Without advance written permission from the copyright owner, no part of this book may be reproduced, distributed or transmitted in any form or by any means, including, without limitation, electronic, optical or mechanical means (by way of example, and not limitation, photocopying or recording by or in an information storage retrieval system). For information on permission to copy material exceeding fair use, please contact: Publications, 4051 West Flossmoor Road, Country Club Hills, IL 60478. Phone 1-888-ICC-SAFE (422-7233).

The information contained in this document is believed to be accurate; however, it is being provided for informational purposes only and is intended for use only as a guide. Publication of this document by the ICC should not be construed as the ICC engaging in or rendering engineering, legal or other professional services. Use of the information contained in this workbook should not be considered by the user to be a substitute for the advice of a registered professional engineer, attorney or other professional. If such advice is required, it should be sought through the services of a registered professional engineer, licensed attorney or other professional.

Trademarks: “International Code Council,” the International Code Council logo and the “International Fire Code” are trademarks of International Code Council, Inc.

First Printing: March 2013

PRINTED IN THE U.S.A.

Table of Contents

Preface	ix
About the International Code Council	xi
Chapter 1 Administration	1
Section 101	
Scope and General Requirements	1
Section 102	
Applicability.....	3
Section 104	
General Authority and Responsibilities.....	6
Section 105	
Permits	8
Section 110	
Unsafe Buildings.....	12
Chapter 2 Definitions	15
Section 202	
Definitions.....	15
Chapter 3 General Requirements	29
Section 302	
Definitions.....	29
Section 308	
Open Flames	29
Section 311	
Vacant Premises.....	33
Section 314	
Indoor Displays.....	34
Section 315	
General Storage	35
Section 316	
Hazards to Fire Fighters	37
Chapter 4 Emergency Planning and Preparedness	39
Section 404	
Fire Safety and Evacuation Plans	39
Section 405	
Emergency Evacuation Drills.....	40
Section 407	
Hazard Communication	40
Chapter 5 Fire Service Features	43
Section 503	
Fire Apparatus Access Roads	43
Section 506	
Key Boxes	44
Section 507	
Fire Protection Water Supplies	46
Section 508	
Fire Command Center	50

Chapter 6 Building Services and Systems . 53

Section 603	
Fuel-fired Appliances	53
Section 604	
Emergency and Standby Power Systems	58
Section 605	
Electrical Equipment, Wiring and Hazards	59
Section 607	
Elevator Recall and Maintenance	62
Section 608	
Stationary Storage Battery Systems.....	63
Section 609	
Commercial Kitchen Hoods	65

Chapter 8 Interior Finish, Decorative Materials and Furnishings 71

Section 803	
Interior Wall and Ceiling Finish and Trim in Existing Buildings.....	71
Section 804	
Interior Wall and Ceiling Trim and Interior Floor Finish In New and Existing Buildings	72

Chapter 9 Fire Protection Systems..... 75

Section 901	
General.....	75
Section 902 (202)	
Definitions.....	80
Section 903	
Automatic Sprinkler Systems.....	81
Section 904	
Alternative Automatic Fire-extinguishing Systems	108
Section 905	
Standpipe Systems.....	112
Section 906	
Portable Fire Extinguishers	119
Section 907	
Fire Alarm and Detection Systems	123
Section 910	
Smoke and Heat Vents.....	144
Section 911	
Explosion Control	151
Section 912	
Fire Department Connections.....	153
Section 913	
Fire Pumps	154

Chapter 10 Means of Egress	157
Section 1004	
Occupant Load	157
Section 1005	
Means of Egress Sizing.....	164
Section 1008	
Doors, Gates and Turnstiles	167
Section 1009	
Stairways	177
Section 1011	
Exit Signs.....	180
Section 1014	
Exit Access	181
Section 1015	
Exit and Exit Access Doorways	186
Section 1016	
Exit Access Travel Distance	191
Section 1021	
Number of Exits and Exit Configuration.....	194
Chapter 11 Construction Requirements for Existing Buildings.....	199
Section 1103	
Fire Safety Requirements for Existing Buildings .	199
Chapter 21 Dry Cleaning.....	211
Section 2108	
Fire Protection	211
Chapter 23 Motor Fuel-dispensing Facilities and Repair Garages	213
Section 2301	
General.....	213
Section 2306	
Flammable and Combustible Liquid Motor Fuel-dispensing	215
Section 2311	
Repair Garages	217
Chapter 24 Flammable Finishes	219
Section 2401	
General.....	219
Section 2404	
Spray Finishing.....	220
Chapter 31 Tents and Other Membrane Structures	229
Section 3104	
Temporary and Permanent Tents and Membrane Structures	229

Chapter 32 High-piled Combustible Storage	231
Section 3202	
Definitions	231
Section 3203	
Commodity Classification	236
Section 3205	
Housekeeping and Maintenance	248
Section 3206	
General Fire Protection and Life Safety Features	250
Chapter 50 Hazardous Materials	261
Section 5001	
General	261
Section 5003	
General Requirements	272
Section 5004	
Storage	291
Section 5005	
Use, Dispensing and Handling	300
Chapter 51 Aerosols	309
Section 5101	
General	309
Section 5102 (202)	
Definitions	309
Section 5104	
Inside Storage of Aerosol Products	310
Chapter 53 Compressed Gases	315
Section 5303	
General Requirements	315
Section 5307	
Compressed Gases Not Otherwise Regulated....	317
Chapter 55 Cryogenic Fluids	321
Section 5503	
General Requirements	321
Chapter 57 Flammable and Combustible Liquids	325
Section 5701	
General	325
Section 5704	
Storage	327
Section 5706	
Special Operations	343
Chapter 58 Flammable Gases and Flammable Cryogenic Fluids	347
Section 5801	
General	347

Chapter 60 Highly Toxic and Toxic Materials	351
Section 6002 (202)	
Definitions	351
Section 6004	
Highly Toxic and Toxic Compressed Gases.....	356
Chapter 61 Liquefied Petroleum Gases	363
Section 6103	
Installation of Equipment	363
Section 6108	
Fire Protection	364
Section 6109	
Storage of Portable LP-gas Containers Awaiting Use or Resale	366
Chapter 63 Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids.....	369
Section 6304	
Storage	369
Section 6306	
Liquid Oxygen in Home Health Care	369
Appendix B	
Fire-flow Requirements for Buildings	371
Section B104	
Fire-flow Calculation Area.....	371
Section B105	
Fire-flow Requirements for Buildings.....	374

Preface

The pocketINTERPS: 2012 IFC provides answers to commonly asked questions that arise in the application of the 2012 *International Fire Code*[®] (IFC[®]) provisions during the design, plan review, construction and inspection of buildings. Many of the answers include helpful illustrations to provide a better understanding of the intent and meaning of the code text. This document is an essential resource for anyone involved in the use of the IFC, including inspectors, code officials, plans examiners, architects, engineers, designers, contractors, educators and students.

Excerpts of the applicable code text are reprinted for easy reference followed by questions and answers pertaining to the particular section. This organization and presentation of the material allows for quick reference to questions and answers on specific code sections. The questions and answers found in this publication represent inquiries about code issues gathered over a period of several years and updated to the 2012 edition of the IFC. Subjects are grouped by chapter and each answer is assigned a reference number in brackets for ease of use. For example [5-12] represents the twelfth question and answer regarding Chapter 5 provisions.

This publication is best used as a companion to the IFC. The code should always be referenced in order to gain a more comprehensive understanding of the provisions and their application. This text will not qualify the user as an expert in the referenced code provisions. However, when used in connection with careful review of the

code, it will enhance understanding and the ability to apply those provisions effectively.

ICC staff compiled and updated the questions and answers in this text based on recent requests received for code opinions and the archives of ICC staff opinions.

The applications and illustrations published herein represent opinions of the authors and are not binding on the authority having jurisdiction. The authority having jurisdiction has the ultimate responsibility for rendering interpretations of the code.

ABOUT THE INTERNATIONAL CODE COUNCIL

The International Code Council (ICC), a membership association dedicated to building safety, fire prevention and energy efficiency, develops the codes and standards used to construct residential and commercial buildings, including homes and schools. The mission of ICC is to provide the highest quality codes, standards, products and services for all concerned with the safety and performance of the built environment. Most United States cities, counties and states choose the International Codes, building safety codes developed by the International Code Council.

The International Codes also serve as the basis for construction of federal properties around the world, and as a reference for many nations outside the United States. The International Code Council is also dedicated to innovation and sustainability. ICC Evaluation Service, a subsidiary of ICC, issues Evaluation Reports and Listings for innovative building products as well as environmental documents such as ICC-ES VAR Environmental Reports and ICC-ES Environmental Product Declarations (EPDs).

ICC Headquarters:

500 New Jersey Avenue, NW
6th Floor
Washington, DC 20001

District Offices:

Birmingham, AL • Chicago, IL • Los Angeles, CA

Telephone: 1-888-422-7233 (ICC-SAFE)

www.iccsafe.org