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September 23, 2013

Dear *Guide* Purchaser,

Enclosed is Addendum 4 to ANSI GPTC Z380.1, *Guide for Gas Transmission and Distribution Piping Systems*, 2012 Edition. Addenda are formatted to enable the replacement of pages in your *Guide* with the updated enclosed pages. Please follow the enclosed page replacement instructions.

On behalf of the Gas Piping Technology Committee and the American Gas Association, thank you for your purchase and interest in the *Guide*.

Sincerely

Secretary
GPTC/Z380

This is a preview of "AGA Z3801124". [Click here to purchase the full version from the ANSI store.](#)

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GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS

2012 EDITON

ADDENDUM 4, July 2013

The changes in this addendum are marked by wide vertical lines inserted to the left of modified text, overwriting the left border of most tables, or a block symbol (■) where needed. No Federal Regulations were updated by amendments. Six GPTC transactions affected twelve sections of the Guide.

Editorial updates include application of the Editorial Guidelines, updating reference titles, adjustments to page numbering, and adjustment of text on pages. While only significant editorial updates are marked, all affected pages carry the current addendum footnote. Editorial updates as indicated "EU" affected ten sections of the Guide (plus other sections impacted by page adjustments, etc.).

The following table shows the affected sections, the pages to be removed, and their replacement pages.

Amdt. or Docket Number: FS Amendment
 TR Number: New or Updated GM
 GMUR: GM Under Review
 EU: Editorial Update
 ER: Editorial Refinement

Guide Section	Reason For Change	Pages to be Removed	Replacement Pages
Title Page	EU	i/ii	i/ii
Preface	TR12-36	xiii/xiv	xiii/xiv
Forward	EU		
Membership List	EU	lix/lx thru lxvii/lxviii	lix/lx thru lxvii/lxviii
Subpart B 192.65	TR10-34	49/50	49/50
Subpart E 192.235	TR11-40	117/118 thru 121/122	117/118 thru 121/122
Subpart I 192.487	TR07-06	207/208, 209/210	207/208, 209/210
192.490	TR04-46		
Subpart L 192.603	EU	233/234	233/234
192.605	TR12-17	237/238	237/238
192.613	EU	247/248, 249/250	247/248, 249/250
192.615	EU, TR12-17	263/264, 265/266	263/264, 265/266
Subpart O 192.921	TR04-46	379/380	379/380
192.925	EU	397/398	397/398
192.929	TR04-46	421/422	420(a)/420(b) thru 421/422
192.935	EU	433/434	433/434
GMA G-192-1	TR04-46, TR12-17	497/498, 499/500, 503/504, 505/506, 507/508, 508(a)/508(b), 511/512	497/498, 499/500, 503/504, 505/506, 507/508, 508(a)/508(b), 511/512
GMA G-192-9	TR10-34	585/586	585/586
GMA G-192-17	EU, TR10-34	661/662	661/662
GMA G-192-18	EU	669/670	669/670

Guide for Gas Transmission and Distribution Piping Systems

2012 Edition

Addendum 4, July 2013

An American National Standard

Author:
Gas Piping Technology Committee (GPTC) Z380
Accredited by ANSI

Secretariat:
American Gas Association

Approved by
American National Standards Institute (ANSI)
August 26, 2013

ANSI/GPTC Z380.1-2012 Addendum No. 4-2013
Catalog Number: Z3801124

PLEASE NOTE

Addenda to this Guide will also be issued periodically to enable users to keep the Guide up-to-date by replacing the pages that have been revised with the new pages. It is advisable, however, that pages which have been revised be retained so that the chronological development of the Federal Regulations and the Guide is maintained.

CAUTION

As part of document purchase, GPTC (using AGA as Secretariat) will try to keep purchasers informed on the current Federal Regulations as released by the Department of Transportation (DOT). This is done by periodically issuing addenda to update both the Federal Regulations and the guide material. It is the responsibility of the purchaser to obtain a copy of any addenda. Addenda are posted on the Committee's webpage at www.aga.org/gptc. The GPTC assumes no responsibility in the event the purchaser does not obtain addenda. The purchaser is reminded that the changes to the Regulations can be found on the Federal Register's web site.

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PREFACE

The guide material presented in the Gas Piping Technology Committee's (GPTC) Guide for Gas Transmission and Distribution Piping Systems (Guide) contains information and some "how to" methods to assist the operator in complying with the Code of Federal Regulations (CFR), Title 49 as follows:

- Part 191 -- Transportation of Natural and Other Gas by Pipeline: Annual Reports, Incident Reports, and Safety-Related Condition Reports
- Part 192 -- Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards

Parts 191 and 192 are typically referred to hereinafter as the "Regulations."

The recommendations contained in the Guide are based on sound engineering principles developed by a committee balanced in accordance with accepted committee procedures and must be applied by the use of sound and competent judgment. The guide material is advisory in nature and contains guidance and information for consideration in complying with the Regulations. As such, it is not intended for public authorities or others to adopt the Guide in mandatory language, in whole or in part, in laws, regulations, administrative orders, ordinances, or similar instruments as the sole means of compliance.

The operator is cautioned that the guide material may not be adequate under all conditions encountered, and should not restrict the operator from using other methods of complying with the Regulations. Following the Guide does not ensure that an operator is automatically in compliance with the requirements of Parts 191 and 192. Operators of intrastate facilities are also cautioned that some states have additional or more stringent requirements than Parts 191 and 192. Operators of both intrastate and interstate facilities may be subject to state-specific damage prevention requirements.

HISTORY

The Natural Gas Pipeline Safety Act became effective on August 12, 1968. It required the Secretary of Transportation to adopt interim rules within three months which were to consist of the existing state standards, where such standards existed, or the standards common to a majority of states where no state standard existed, and to establish minimum federal standards within twenty-four months. The safety standard for gas pipelines and mains, in the majority of the states, was the American National Standard Code for Pressure Piping, Gas Transmission and Distribution Piping Systems, B31.8. Thus, the interim minimum safety standards were essentially B31.8 Code requirements.

Between August 12, 1968 and August 12, 1970, the Office of Pipeline Safety (OPS) of the United States Department of Transportation (DOT) developed safety standards which would be applicable to gas facilities, with the exception of rural gas gathering systems. As a result, Title 49 Part 192 of the Code of Federal Regulations (CFR) "Transportation of Natural and Other Gas by Pipelines: Minimum Federal Safety Standards" became effective November 12, 1970.

Since the sponsoring organization of the ANSI B31.8 Committee was The American Society of Mechanical Engineers (ASME), the ASME initiated discussions with the DOT/OPS, in an effort to establish the future role of the B31.8 Code Committee with respect to pipeline safety. As a result of those discussions, the ASME decided to form the ASME Gas Piping Standards Committee. The title of the Committee was changed to the Gas Piping Technology Committee (GPTC) on September 20, 1982.

The first edition of the "Guide for Gas Transmission and Distribution Piping Systems" was published on December 15, 1970. It was essentially a compilation of the Federal Safety Standards and the then current ANSI B31.8 Code material that was relevant to the Part 192 requirements. Subsequent editions and addenda to the "Guide" had "how to" Guide Material directly following each of the standards of 49 CFR Part 192, and numerous guide appendices. Part 191 was subsequently added to the 1995 edition of the Guide.

On October 18, 1989, the GPTC voted to transfer its affiliation from ASME to the American Gas Association (AGA). The transfer of copyright for the Guide from ASME to AGA was effective on April 10, 1990 and the AGA was designated the committee Secretariat. The first edition of the Guide published by AGA, as the new copyright holder/Secretariat, was in November 1990 and was designated the 1990-91 edition. The GPTC sought ANSI approval of their procedures and was approved as an Accredited Standards Committee GPTC Z380 on January 30, 1992. The 1990-91 edition of the Guide was approved as ANSI/GPTC Z380.1 on December 2, 1992.

FOREWORD

The primary purpose of the GPTC Guide for Gas Transmission and Distribution Piping Systems (Guide) is to provide assistance to the operator in complying with the intent of the Code of Federal Regulations (CFR) in the performance requirements contained in the Transportation of Natural and Other Gas by Pipelines, Title 49 Subchapter D-Pipeline Safety: Part 191 - Annual Reports, Incident Reports, and Safety-Related Condition Reports; and Part 192 - Minimum Federal Safety Standards (all being typically referred to hereinafter as the "Regulations").

The Guide includes the Minimum Federal Safety Standards together with the design recommendations, material reference, and recommended practices of the GPTC. The function of the GPTC's guide material is to provide "how to" supplementary recommendations related to the Minimum Federal Safety Standards. The Committee continuously works to pinpoint areas where more Guide type material could be utilized in support of the Minimum Federal Safety Standards and related Regulations.

The Guide includes the Federal Regulations plus the GPTC's guide material for both Parts 191 and 192. The Guide is published in loose-leaf and electronic formats. As changes occur to the Regulations and related guide material, replacement or additional sheets will be mailed to Guide purchasers. The subscription service, which is included with the purchase of the Guide, includes changes to the Regulations as issued by DOT/OPS and changes made to the guide material by GPTC. A new edition, incorporating all changes that have been published, is usually issued every three years.

The historical reconstruction of the Regulations is available in AGA X69804, "Historical Collection of Natural Gas Pipeline Safety Regulations." It includes the original version of Parts 191 and 192 and all their amendments through Amdts. 191-15 and 192-93 (published September 15, 2003). The Federal Register preamble to the amendments is included as well. This collection of all earlier amendments has been established as a readily accessible reference to supplement the Guide or to aid research activity. However, considering the electronic availability of amendments starting in 2004, refer to the Federal Register web site for later amendments.

The format of the Guide includes the title of each numbered section of the Regulations and is followed by the effective date of the latest amendment activity or effective date of the original version if no amendment has been issued. The Regulation is followed by a list of amendment or control numbers for the respective section and the applicable guide material as developed by the Committee.

The GPTC has an established procedure for reviewing requests for interpretations and suggestions for additions and revisions to the Guide. Written requests should be sent to: Secretary, Gas Piping Technology Committee, American Gas Association, 400 N. Capitol Street, NW, Washington, D.C. 20001.

Requests for interpretations, proposed additions, and revisions to the Regulations should be directed to the Associate Administrator for Pipeline Safety, Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building, 2nd Floor, 1200 New Jersey Avenue, SE, Washington, D.C. 20590-0001.

GAS PIPING TECHNOLOGY COMMITTEE MEMBERSHIP LIST

	Main Body	DIVISIONS			TASK GROUPS					SECTIONS			
		Distribution	Manufacturers	Transmission	Design	DP/ER	IMP/Corrosion	O&M/OQ	Plastic Pipe	Editorial	Executive	Liaison	Regulations
Abbreviations: Chairperson: Chair First Vice Chairperson: 1 st V Chair Second Vice Chairperson: 2 nd V Chair Secretary: Sec Damage Prevention - Emergency Response: DP/ER Operations and Maintenance - Operator Qualification: O&M/OQ													
Abraham, Richard A. Marathon Pipe Line LLC, Findlay, OH	X	X				X				X			
Ambrogio, Edward Iroquois Pipeline Operating Co., Shelton, CT				X	X								
Armstrong, Glen F. EN Engineering, Warrenville, IL	X	X				X	X		X				
Bateman, Stephen C. City of Long Beach – Gas & Oil Dept., Long Beach, CA		X			X			X		X			
Becken, Robert C. Energy Experts International, Pleasant Hill, CA	X			X	X			X					
Benedict, Andrew G. Opvantek, Inc., Newtown, PA		X						X					
Bennett, Frank M. PPL Interstate Energy Company, Pottstown, PA				X		X	Sec						
Berg, Lawrence M. Pacific Gas & Electric, Walnut Creek, CA		X				X		X					
Boros, Stephen Plastics Pipe Institute, Irving, TX			X						X				

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Abbreviations: Chairperson: Chair First Vice Chairperson: 1 st V Chair Second Vice Chairperson: 2 nd V Chair Secretary: Sec Damage Prevention - Emergency Response: DP/ER Operations and Maintenance - Operator Qualification: O&M/OQ	Main Body	DIVISIONS			TASK GROUPS					SECTIONS			
		Distribution	Manufacturers	Transmission	Design	DP/ER	IMP/Corrosion	O&M/OQ	Plastic Pipe	Editorial	Executive	Liaison	Regulations
Bryce, Wayne Jana Laboratories, Aurora, ON		X			X		X		X				
Bull, David E. ViaData LP, Noblesville, IN	X	X				Chair		X			X		X
Butler, John EQT Corp., Charleston, WV	X			X	X			X		X			
Cabot, Paul W. American Gas Association, Washington, DC	Sec										Sec		
Cadorin, Robert J. TransCanada Corp., Troy, MI	X			Sec				X					
Cardin, Jeanne L. Southwest Gas Corp., Las Vegas, NV				X			X						
Cary, Willard S. Energy Experts International, Neptune, NJ	X	X				X		X					
Casteel, Heath Performance Pipe, Plano, TX			X		X				X				
Chin, John S. TransCanada Corp., Troy, MI	X			X	X	X	X				X		
Clarke, Allan M. Spectra Energy Corp., Houston, TX	X			X	Chair		X				X		X
Cody, Leo T. Liberty Utilities, Salem, NH		X				X		X					

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Craig, Jim M. McElroy Manufacturing, Inc., Tulsa, OK			X					X	X				
Del Buono, Amerigo J. Steel Forgings, Inc., League City, TX	X		X										
Dolezal, Denise L. Metropolitan Utilities District, Omaha, NE		X			X			X					
Emeaba, Kalu Kelly NTSB, Washington, DC		X				X	X						
Erickson, John P. American Public Gas Association, Washington, DC		X				X		X					
Fassett, Robert P. Kleinfelder, Inc., Santa Rosa, CA				X	X		X						
Faulkenberry, Michael J. Avista Corp., Spokane, WA		X			X			X					
Fisher, Jennifer AGL Resources, Inc., Atlanta, GA		X					X						
Fleet, F. Roy F. Roy Fleet, Inc., Westmont, IL	X			X		X				X			
Foley, Chris RCP Inc., Houston, TX		X			X			X					

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Fortier, Andy M. NW Natural, Portland, OR		X			X								
Friend, Mary S. PHMSA-OPS, Oklahoma City, OK	X			X		X		X					
Goble, Gregory H. R. W. Lyall & Co., Corona, CA			X		X				X				X
Goetz, John Meade, McCook, IL		X						X					
Graeser, Ralph A. PA Public Utility Comm., Clairton, PA	X	X				Sec	X						
Groeber, Steven A. Retired - Philadelphia Gas Works, Cinnaminson, NJ	X	X				X		X		X			
Groot, John M. Southern California Gas, Los Angeles, CA		X			X			X					
Hamaty, George Columbia Gas Transmission, Charleston, WV				X			X						
Harper, John OK Corp. Comm./NAPSR, Oklahoma City, OK		X					X						
Hart, Thomas L. NSTAR Electric & Gas Corp., Westwood, MA		X				X		X					
Heintz, James R. UGI Utilities, Inc., Reading, PA		X			X	X	X						

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Hotinger, James M. VA State Corp. Comm./NAPSR, Richmond, VA		X				X	X						
Hurbanek, Stephen F. System One Services, New Bern, NC		X				X							X
Huriaux, Richard D. Consulting Engineer, Baltimore, MD	X		X		X				X				
Kincaid, Donald CenterPoint Energy-Midstream, Shreveport, LA				X			X						
Knapp, Randy Plastics Pipe Institute, Irving, TX	X		X						X				
Kottwitz, John D. MO Public Service Comm., Jefferson City, MO	X	X				X		X		X			
Koym, Brent L. CenterPoint Energy, Houston, TX		X			X		X						
Krummert, Lawrence M. Columbia Gas of PA, Inc., Cannonsburg, PA		X				X		X					
Lee, Douglas M. Arrow Midstream Holdings, LLC, Bismarck, ND				X	X			X					

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Lewis, Raymond D. Rosen USA, Houston, TX				X			X						
Loker, Jon O. Pipeline Safety Consultant, Saint Albans, WV	X			X						Chair	X		
Lomax, George S. Heath Consultants Inc., Montoursville, PA	X		X			X		X					
Lueders, John D. DTE Gas Company, Grand Rapids, MI	X	Chair			Sec			X			X		X
Mackay-Smith, Seth UMAC Inc., Malvern, PA	X		X		X	X							
Mackin, John Equitable Gas, Pittsburgh, PA		X				X		X					
McClenahan, Jeffrey D. Public Service Electric & Gas, Newark, NJ		X						X					
McKay, Erin Alyeska Pipeline Service Company, Anchorage, AK				X		X		X					

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McKenzie, James E. Atmos Energy Corp., Jackson, MS	X	X			X		X						
McLaren, Theron (Chris) PHMSA, Washington, DC		X						X					
Miller, D. Lane PHMSA-OPS, Oklahoma City, OK	X	Sec					X		X	Sec			
Naper, Robert C. Energy Experts International, Canton, MA		X				X							
Oleksa, Paul E. Oleksa & Assoc., Akron, OH	X	X			X		X			X			
Opert, Joseph Baltimore Gas & Electric Co., Baltimore, MD		X						X					
Palermo, Eugene F. Palermo Plastics Pipe Consulting, Friendsville, TN	X		Chair		X				X		X		
Peters, Kenneth C. El Paso Corporation, Birmingham, AL	X			Chair		X		X			X		
Peterson, Barry A. Performance Pipe, Concord, CA			X						X				
Pioli, Christopher A. Jacobs Consultancy, Ventura, CA		X				X	X						