ASME B31.11-2002
(Revision of ASME B31.11-1989)

SLURRY TRANSPORTATION PIPING SYSTEMS

ASME CODE FOR PRESSURE PIPING, B31
AN AMERICAN NATIONAL STANDARD





AN AMERICAN NATIONAL STANDARD

SLURRY TRANSPORTATION PIPING SYSTEMS

ASME B31.11-2002

(Revision of ASME B31.11-1989)

ASME CODE FOR PRESSURE PIPING, B31



Date of Issuance: May 30, 2003

Mandatory Date: November 28, 2003

The next edition of this Standard is scheduled for publication in 2007. There will be no addenda issued to this edition.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this Standard. Interpretations are published on the ASME Web site under the Committee Pages at http://www.asme.org/codes/ as they are issued.

Periodically certain actions of the ASME B31 Committee will be published as Cases. While these Cases do not constitute formal revisions of the Code, they may be used in specifications, or otherwise, as representing considered opinions of the Committee. The Cases are not part of the Code and are published separately.

The user of the Code will note that metric equivalents of U.S. Customary units appear in many places in this Code. The values stated in U.S. Customary units are to be regarded as the standard, unless otherwise agreed between the contracting parties.

ASME is the registered trademark of The American Society of Mechanical Engineers.

This code or standard was developed under procedures accredited as meeting the criteria for American National Standards. The Standards Committee that approved the code or standard was balanced to assure that individuals from competent and concerned interests have had an opportunity to participate. The proposed code or standard was made available for public review and comment that provides an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

ASME does not "approve," "rate," or "endorse" any item, construction, proprietary device, or activity.

ASME does not take any position with respect to the validity of any patent rights asserted in connection with any items mentioned in this document, and does not undertake to insure anyone utilizing a standard against liability for infringement of any applicable letters patent, nor assumes any such liability. Users of a code or standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Participation by federal agency representative(s) or person(s) affiliated with industry is not to be interpreted as government or industry endorsement of this code or standard.

ASME accepts responsibility for only those interpretations of this document issued in accordance with the established ASME procedures and policies, which precludes the issuance of interpretations by individuals.

No part of this document may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.

The American Society of Mechanical Engineers Three Park Avenue, New York, NY 10016-5990

Copyright © 2003 by THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS All rights reserved Printed in U.S.A.



CONTENTS

Foreword			7			
Committee Pe	ersonnel		V			
Introduction			vii			
Summary of C	Changes		,			
Chapter I	Scope and Definitions					
	1100	General Statements	1			
Chapter II	Design		5			
	Part 1		5			
	1101	Design Conditions	5			
	1102	Design Criteria	6			
	Part 2	Pressure Design of Piping Components	ç			
	1103	Criteria for Pressure Design of Piping Components	ç			
	1104	Pressure Design of Components	ç			
	Part 3	Design Applications of Piping Components Selection and				
		Limitations	20			
	1105	Pipe	20			
	1106	Fittings, Elbows, Bends, and Intersections	20			
	1107	Valves	21			
	1108	Flanges, Blanks, Flange Facings, Gaskets, and Bolting	22			
	1109	Used Piping Components and Equipment	23			
	Part 4	Selection and Limitation of Piping Joints	23			
	1111	Welded Joints	23			
	1112	Flanged Joints	23			
	1114	Threaded Joints	23			
	1118	Sleeve, Coupled, and Other Proprietary Joints	23			
	Part 5	Expansion, Flexibility, Structural Attachments, Supports,				
		and Restraints	23			
	1119	Expansion and Flexibility	23			
	1120	Loads on Equipment	28			
	1121	Design of Pipe Supporting Elements	28			
	Part 6	Other Specific Piping	28			
	1122	Design Requirements	28			
a.						
Chapter III		Materials 2				
	1123	Materials — General Requirements	29			
	1125	Materials Applied to Miscellaneous Parts	29			
Chantar IV	Dimensional Requirements					
Chapter IV		·				
	1126	Dimensional Requirements for Standard and Nonstandard	20			
		Piping Components	32			
Chapter V	Construction, Welding, and Assembly					
Chapter v	1134	Construction	34 34			
	1134	Assembly of Piping Components	43			
	1100	resocutory of riping components	T			
Chapter VI	Inspection and Testing					
p	1136	Inspection	45			
	1137	Testing	46			
	110,		- (



Chapter VII	Operation and Maintenace Procedures 49				
•	1150 Operation and Maintenance Procedures Affecting the				
	1151	Pipeline Operation and Maintenance	49 49		
	1152 Pump Station, Terminal, and Storage Operation and				
	1153	Maintenance	53 54		
	1153		54 54		
		Emergency Plan			
	1155	Records.	54		
	1156	Qualifying a Piping System for a Higher Operating	E 4		
	1157	Pressure	54 55		
Chapter VIII	Corrosion and Erosion Control				
	1160	General	56		
	1161	External Corrosion — Buried or Submerged Pipelines	56		
	1162	External Corrosion — Piping Exposed to Atmosphere	59		
	1163	Internal Erosion–Corrosion Control	59		
	1166	Records	60		
Mandatory Appe	andicas				
I		nced Standards	61		
II		ttal of Technical Inquiries to the B31 Pressure Piping	01		
11		imittee	63		
Index			65		
Figures					
1104.3.1(b)(3)		rced Extruded Outlets	13		
1104.3.1(c)(1)	Welding Details for Opening With Complete Encirclement Types of Reinforcement				
1104.3.1(c)(2)	Welding Details for Openings With Localized Type Reinforcement				
1104.3.1(c)(3)	Welding Details for Openings Without Reinforcement Other Than That in Header and Branch Walls				
1104.3.1(d)(2)		rcement of Branch Connections	18		
1119.6.4(c)		lity Factor, <i>k</i> , and Stress Intensification Factor, <i>i</i>	25		
1134.8.6(a)-(1)	Acceptable Butt Welded Joint Design for Equal Wall				
1134.8.6(a)-(2)	Acceptable Butt Welded Joint Design for Unequal Wall				
1124 0 (/L)		knesses.	39 41		
1134.8.6(b)	Recommended Attachment Details of Flanges				
1151.6.2(a)(7)		eters Used in Analysis of the Strength of Corroded as	51		
Tables					
1102.3.1(a)		tion of Examples of Allowable Stresses for Reference	0		
1100 / 0		in Piping Systems Within the Scope of This Code	8		
1102.4.3		oint Factor, E	10		
1104.3.1(c)	_	Criteria for Welded Branch Connections	17		
1106.2.1(b)	Minimum Radius of Field Cold Bends				
1123.1	Material and Dimensional Standard				
1126.1	Dimen	sional Standards	33		
1134.6(a)	Minimum Cover for Buried Pipelines				
1137.6.5	Minimum Number of Test Welds 4				
1137.6.6	Minimum Number of Tensile Tests 4				





The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation